

ICCT 2017

The 7th International Conference on Convergence Technology in 2017

Vol.7 No.1

● Date : **July 5 – July 8, 2017**

● Place : **Chateraise Gateaux Kingdom Sapporo Hotel, Hokkaido, Japan**

Co-organized by :

- Korea Convergence Society
- Korea Institute of Science and Technology Information
- The Korean Association for Comparative Government
- The Society of Digital Policy & Management
- Konyang Univ. Well-Dying LAB
- The Society of Convergence for Small and Medium Business
- The Korea Consulting Society

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- Prof. Sang-Ho Lee (Kyungsung University, Korea)
- Prof. Won-Shik Na (Namseoul University, Korea)
- Prof. Yong-Ho Kim (Gwangju University, Korea)
- Prof. Dae Ho Kim (Mokwon University, Korea)
- Prof. Youngseok Lee (Kangnam University, Korea)
- Dr. Dang-Hai Hoang (Posts and Telecommunications Institute of Technology, Vietnam)

Opening Address



Hello everyone,

You are invited on the 7th International Conference on Convergence Technology in 2017 and taken part in the conference. Welcome to ICCT2017. I am extremely grateful for your attending the conference this year. I am Jong Yun LEE, who is a professor of Chungbuk National University in SouthKorea, the president of the Korea Convergence Society.

On the behalf of the organizing committee, it is my great pleasure to say a brief greeting of thanks at the opening ceremony. The ICCT2017 opens in the neighboring Asia areas annually. This year it is held on the island of Hokkaido, Japan, from July 5th to July 8th. Actually, our conference aims to be the premier forum for the presentation of research works in convergence areas. I hope these four-days' events cover recent findings from leading industrial, experimental, and academic experts in all the convergence fields. It will bring together our leading scientist, engineers, technician, biomedical doctors, and social scientist to discuss and present the latest important research and development in the convergence technology.

In these days, the convergence technology is essential because we live in the information age and the amount of data are continued to grow day by day. In case of cardiovascular disease study, for example, there are many convergence and interdisciplinary technologies such as cardiology, statistics analysis, mathematics, computer science, and bioengineering. Therefore, in order to solve a problem in the areas of biomedical analysis and information system, it is necessary to collaborate medical doctors, statisticians, software engineers, and bioengineers. In my opinion, therefore, our society can be improved with the collaboration of our neighboring disciplines year by year. It is the goal of our society. I hope so.

Lastly, I am deeply thankful for program committee chairs' and members' efforts and helps as well as each workshop chairs to the conference. In addition, I would like to deeply thankful for the assistance of all the research institutes and company's sponsors. In the end, I am deeply grateful for your attending the conference again. Wishes everyone enjoys your time with ICCT2017 in Hokkaido island, Japan. I am looking forward to seeing you in the next year's conference. Thank you so much.

General Co-chair of ICCT2017,
Jong Yun LEE, PhD.

Welcoming Address



Greetings, this is Sanghun Lee the head of Organizing Committee in ICCT.

I am pleased to the 7th International Conference on Convergence Technology held successfully in Hokkaido. I would like to express my gratitude to all of you who participate in the ICCT 2017 despite your busy schedules. I wish to extend a warm welcome to everyone of you.

The ICCT are grown every year. The excellent research being discussed in various fields in each year. This conference will be a major gathering about researching convergence technology for development in various sectors. It is my sincere hope that this conference will serve as an important opportunity for converging research field each other.

I would like to appreciate the president and all the other staff members who have devoted their energies to get this conference to be run organically and efficiently, while maintaining variety and consistency, on the basis of the more evolved and organized system than last year. Above all, I want to thank again from my heart all the members contributed to the current ICCT status and those concerned in sponsors.

I hope all of you have beneficial and precious time in ICCT and have a rest time in Hokkaido.

Thank you.

Head of Program Chairs ICCT 2017
Sanghun Lee

Welcoming Address



As a General Co-Chair of the 2017 International Conference on Convergence Technology, it is my great honor to welcome you and wish you both, professional success at the conference, and a great time in the beautiful Hokkaido, Japan.

In the new global economy, where information technologies and services will be pervasive and touching all aspects of our life and economy, many challenges and opportunities for innovative applied research will need to be developed. I am confident that this conference will address the research challenges brought by the convergence of many different technologies and will provide a great forum for convergence researchers and practitioners to present their results, exchange new ideas, and find new directions in applied research.

I would like to thank an international team of reviewers, who did a superb job in reviewing and selecting high-quality papers, which will be presented at the conference.

On behalf of the organization committees, we extend our invitation to our colleagues to join us in developing and presenting the latest and greatest convergence technologies at ICCT conferences.

Thanks you.

Salim Hariri, UA SITE Director,
NSF I/UCRC Center for Cloud and Autonomic Computing, The University of Arizona

Program for the 7th ICCT 2017

• Wednesday July 5, 2017

Time	Content				
11:00~13:00	Registration(Lobby)				
Oral Presentation / Poster Session					
	Conference Room 1 (ROSARIO)	Conference Room 2 (SYRAH)	Conference Room 3 (NIAGARA)	Conference Room 4 (CONCORD)	Conference Room 5 (DELAWARE)
13:00~14:00	Session 1-A	Session 2-A	Session 3-A	Session 4-A	Session 5-A
14:00~14:10	Coffee Break				
14:10~15:50	Session 1-B	Session 2-B	Session 3-B	Session 4-B	Session 5-B
15:50~16:00	Coffee Break				
16:00~17:20	Session 1-C	Session 2-C	Session 3-C	Session 4-C	Session 5-C
17:20~20:00	Organization Committee Meeting				

• Thursday July 6, 2017

Time	Content				
08:00~09:00	Registration(Lobby)				
Oral Presentation / Poster Session					
	Conference Room 1 (ROSARIO)	Conference Room 2 (SYRAH)	Conference Room 3 (NIAGARA)	Conference Room 4 (CONCORD)	Conference Room 5 (DELAWARE)
09:00~10:20	Session 1-A WELL-DYING WORKSHOP	Session 2-A	Session 3-A	Session 4-A WELL-DYING WORKSHOP	Session 5-A
10:20~10:30	Coffee Break				
10:30~12:00	Session 1-B	Session 2-B	Session 3-B	Session 4-B	Session 5-B
12:00~13:00	Lunch Time				
13:00~14:20	Session 1-C	Session 2-C	Session 3-C	Session 4-C	Session 5-C
14:20~14:30	Coffee Break				
14:30~15:50	Session 1-D	Session 2-D	Session 3-D	Session 4-D	Session 5-D
15:50~16:00	Coffee Break				
16:00~17:20	Session 1-E	Session 2-E	Session 3-E	Session 4-E	Session 5-E
17:20~17:30	Coffee Break				
17:30~19:30	Banquet and Plenary Session				

• Friday July 7, 2017

Time	Content				
08:00~09:00	Registration(Lobby)				
Oral Presentation / Poster Session					
	Conference Room 1 (ROSARIO)	Conference Room 2 (SYRAH)	Conference Room 3 (NIAGARA)	Conference Room 4 (CONCORD)	Conference Room 5 (DELAWARE)
09:00~10:20	Session 1-A	Session 2-A	Session 3-A	Session 4-A	Session 5-A
10:20~10:30	Coffee Break				
10:30~12:00	Session 1-B	Session 2-B	Session 3-B	Session 4-B	Session 5-B
12:00~13:00	Lunch Time				
13:00~14:20	Session 1-C	Session 2-C	Session 3-C	Session 4-C	Session 5-C
14:20~14:30	Coffee Break				
14:30~15:50	Session 1-D	Session 2-D	Session 3-D	Session 4-D	Session 5-D
15:50~16:00	Coffee Break				
16:00~17:20	Session 1-E	Session 2-E	Session 3-E	Session 4-E	Session 5-E

• Saturday July 8, 2017

Time	Content
07:30~08:00	Registration(Lobby)
Special Session	
Conference Room 1 Cabernet	
08:00~10:00	Seminar 1 Title: "Research ethics and Cooperation workshop for Industry and Academic" Speaker : Ki-Bong Kim (Daejeon health institute of technology)
10:00~11:00	Closing Ceremony

ICCT 2017

PLENARY AND BANQUET TIMETABLE

July 6, 2017

Chardonnay Room(3rd Floor), Chateraise Gateaux Kingdom Sapporo Hotel, Japan

1st Session	Moderator (Prof. Kyung-hee Kang, Konyang University, Korea)
17:30-17:35	Opening Address - Prof. Jong Yun LEE (Chungbuk National University, General Co-Chair of ICCT 2017)
17:35-17:40	Welcoming Address - Prof. Sang-Hun Lee (Kwang Woon University, Program Chair of ICCT 2017)
17:40-18:00	Awards Ceremony <ul style="list-style-type: none"> • Appreciation Award <ul style="list-style-type: none"> - SEOKHO LEE (MetaBiz, Korea) - Salim Hariri (The University of Arizona, USA) - Kyung-Sil Kim (The Society of Digital Policy & Management, Korea) • Convergence Award for Research Achievements <ul style="list-style-type: none"> - Koo Rack Park(Kongju Nat'l Univ., Korea) - Joon Hyuk Seo(Hansung Univ., Korea) - Hong-Ryang Jung(Hanseu Univ., Korea) - Hyung-Jin Mun(Sungkyul Univ., Korea) - Myeong-Hee Shin(Hannam Univ., Korea) • Convergence Award for Scholarly Achievements <ul style="list-style-type: none"> - Yong-Ho Kim(Gwangju Univ., Korea) - Weon-Hee Moon(Pai Chai Univ., Korea) - Seung Yeob Yu(Namseoul Univ., Korea) - Jeong-Sook Park(Nambu Univ., Korea) - Seong Taek Park(Chungbuk Nat'l Univ., Korea) • Convergence Award for Best Paper Achievements <ul style="list-style-type: none"> - Jae-Pyo Park(Soongsil Univ., Korea) - Sang-Ho Lee(Kyungsung Univ., Korea) - JeMyung Shim(Kangwon Nat'l Univ., Korea) - Misoon Jeon(Baekseok Univ., Korea) - Mi Sug Cho(Hanseu Univ., Korea) - Ga-neum Han(Hansung Univ., Korea) - Jeong Il Choi(Sungkyul Univ., Korea) - Mi Joon Lee(Kangbuk Samsung Hospital, Korea)
18:00-18:10	Introductions of KCS and Sponsor Organizations - Prof. Ki-Bong Kim(Senior Vice Present of Korea Convergence Society)
2nd Session	Moderator (Prof. Kyung-hee Kang, Konyang University, Korea)
18:10-19:10	Dinner
19:10-19:30	Prize Lottery

Oral Presentation / Poster Session

:: Wednesday July 5, 2017 ::

13:00 ~ 17:20

Session 1-A	Chair Il-Young Cho(Jeonju Univ.)
■ 13:00~14:00	Conference Room I (ROSARIO)
Session 2-A	Chair Dong-Il Kim(Pusan National Univ.)
■ 13:00~14:00	Conference Room II (SYRAH)
Session 3-A	Chair Jung Soo Han(Baekseok Univ.)
■ 13:00~14:00	Conference Room III (NIAGARA)
Session 4-A	Chair Kwang-Hwan Kim(Konyang Univ.)
■ 13:00~14:00	Conference Room IV (CONCORD)
Session 5-A	Chair Cheong Hwan Lim(Hanseu Univ.)
■ 13:00~14:00	Conference Room V (DELAWARE)
Session 1-B	Chair Wonshik Na(Namseoul Univ.)
■ 14:10~15:50	Conference Room I (ROSARIO)
Session 2-B	Chair Kyungyong Chung(Kyonggi Univ.)
■ 14:10~15:50	Conference Room II (SYRAH)
Session 3-B	Chair Kyung-hee Kang(Konyang Univ.)
■ 14:10~15:50	Conference Room III (NIAGARA)
Session 4-B	Chair Hyung-Jin Mun(Sungkyul Univ.)
■ 14:10~15:50	Conference Room IV (CONCORD)
Session 5-B	Chair Jeong-Sook Park(Nambu Univ.)
■ 14:10~15:50	Conference Room V (DELAWARE)
Session 1-C	Chair SangHun Lee(Kwangwoon Univ.)
■ 16:00~17:20	Conference Room I (ROSARIO)
Session 2-C	Chair Terence G. Langdon (Univ. of Southern California)
■ 16:00~17:20	Conference Room II (SYRAH)
Session 3-C	Chair Jin-Bong Kim(Hanseu Univ.)
■ 16:00~17:20	Conference Room III (NIAGARA)
Session 4-C	Chair Liu Min (Yangtze Normal Univ.)
■ 16:00~17:20	Conference Room IV (CONCORD)
Session 5-C	Chair Gyoo-Soo Chae(Baekseok Univ., Korea)
■ 16:00~17:20	Conference Room V (DELAWARE)

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Oral Presentation / Poster Session

:: Thursday July 6, 2017 ::

09:00 ~ 17:20

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■ 09:00~10:20	Conference Room I (ROSARIO)
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■ 09:00~10:20	Conference Room V (DELAWARE)
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Oral Presentation / Poster Session

Wednesday July 5, 2017

Session 1-A

01. BT-01_The Effect of Self-esteem, Communication ability and Psychological control of Parents on Depression in University Students

Se-Jin Ju(Namseoul Univ., Korea), Gyun-Young Kang(Kyungdong Univ., Korea)

This study is a descriptive study to investigate the effect of self-esteem, communication ability, and psychological control of parents on depression in university students. The subjects of the study were 227 undergraduate students in 2 universities in Korea. Study results showed that depression, self-esteem($r = -.537$, $p < .000$), and communication ability($r = -.161$, $p < .013$) showed negative(-) correlation, and depression and psychological control of parents($r = .278$, $p < .000$) showed positive(+) correlation. In addition, among the subscales of self-esteem($\beta = -.508$, $p < .000$) and psychological control of parents, mother's erratic emotional behavior($\beta = -.317$, $p < .004$), father's love withdrawal($\beta = .157$, $p < .011$) and father's erratic emotional behavior($\beta = .233$, $p < .040$) were identified as predictors of depression in university students. Therefore, in order to prevent depression in university students, various approaches to increase self-esteem and development of educational programs for parents are required.

02. BT-04_The Knowledge Degree of Nursing Students on Personal Information Protection

Yang-sin Kim(Daejeon Institute of Science and Technology Univ., Korea), Jae-Woo Oh(Konyang Univ., Korea), Jung-Hee Kim(Shinsung Univ., Korea)

This study was attempted to arouse interest in personal information protection and to provide the basic data for developing implementation strategies by grasping the knowledge degree of personal information protection of nursing students who would be future nurses. This study was conducted for 73 students in the 3rd grade of a nursing department located in C city. The data collection was done from Apr 15, 2017 to Apr 30, 2017. The collected data was analyzed using SPSS Program. As a result, The knowledge score of nursing students on patient personal information protection was $1.90 \pm .167$ out of 10 points. Difference in knowledge on personal information protection according to the general characteristics of nursing students was no statistically significant difference. As a result, it is thought that the opportunity to acquire the knowledge through the relevant education for patient personal information protection must be provided to nursing students and that in a school before clinical practice, the education through the systematic education program for patient personal information protection must be provided to them.

03. BT-05_Difference in Attitude on Autopsy of Nursing Students According to Presence or Absence of Anatomy Practice

So-Ja Jeon(Chungbuk Health & Science Univ., Korea), Jae-Woo Oh(Konyang Univ., Korea)

This study aims to provide basic data in building up the positive attitude on autopsy of nursing students by grasping the attitude on autopsy of nursing students and examining whether there is difference in it according to presence and absence of anatomy practice experience or no. This study was conducted for 102 students in the 1st, 2nd, and 3rd grade of a nursing department located in C city. The data collection was done from Apr 15, 2017 to Apr 30, 2017. The collected data was analyzed using SPSS Program. As a result, the degree of attitude on autopsy of nursing students was average rating 2.88 out of 5 points, and the difference in attitude on autopsy according to presence or absence of anatomy practice. It is considered that it is necessary to prepare the fundamental measures to make nursing students have a positive attitude on autopsy through anatomy practice of them and that furthermore, the positive change in attitude on autopsy of nursing students who would work as nurses will have a positive effect on the decision on autopsy of a deceased family at clinical field.

04. BT-06_Study on Teaching Efficacy of Nurses Perceived, and Clinical Practice Stress and Clinical Practice Satisfaction

Su-jeong Han(Konyang Univ., Korea), Jae-Woo Oh(Konyang Univ., Korea)

This study was attempted to suggest the basic data for improving clinical practice education by grasping the relationship between the teaching efficacy of nurses perceived and the clinical practice stress and clinical practice satisfaction of nursing students. This study were 92 nursing students in the 4th grade who had an experience of clinical practice among those who were in nursing department located in M city. The data collection was done from Apr 15, 2017 to Apr 30, 2017. The collected data was analyzed using SPSS Program. AS a result, he teaching efficacy of nurses perceived by nursing students showed the largest influence on clinical practice satisfaction, in which explanatory power was 84%, to reduce clinical practice stress of nursing students, and to improve the satisfaction of clinical practice, when the practice instructor who has an experience of clinical practice education takes part in clinical practice guidance of nursing students continuously, it is thought that the participation will contribute to the clinical practice of nursing students, and that the measures which make many clinical nurses participate in clinical practice with the activation of education are necessary.

05. BT-07_A Study on the Perceived Nurse Teaching Efficacy of Nursing Students

So-Ja Jeon(Chungbuk Health & Science Univ., Korea), Bo-Yun Huh(Konyang Univ., Korea),
Mi- Kyung Jeon(Munkyoung College, Korea)

This study was attempted to provide the basic data for improving the clinical practice education by identifying the degree of the teaching efficacy of nurses perceived by nursing students. This study were 92 nursing students in the 4th grade who had an experience of clinical practice among those who were in nursing department located in M city. The data collection was done from Apr 15, 2017 to Apr 30, 2017. The collected data was analyzed using SPSS Program. AS a Result, The teaching efficacy of nurses perceived by study subjects was average rating 3.81 ± 0.62 out of 5. Of the total 21 questions, '2, a nurse has much experience and knowledge related with major field' was 4.04 ± 0.82 , which was highest, '20, a nurse positively instructs the course of students' was 3.63 ± 0.87 , which was lowest. In conclusion, through the development of a teaching program on a teacher role and teaching method, it is necessary to improve the teaching efficacy of nurses, and it is thought that to provide this teaching development program can provide a high quality clinical practice environment and an opportunity to possess the knowledge and character as a prospective nurse for nursing students as well as improve the teaching efficacy of the nurses who conduct the clinical practice instruction.

06. BT-08_Effects of Cultural Competency Enhancement Program for Nursing Students in Korea

Jung-Hyun Choi(Namseoul Univ., Korea), Mi Yu(Gyeongsang Nat'l Univ., Korea)

This study applied the cultural competency enhancement programs for nursing students and proved the effects on cultural competency and multicultural acceptability. As a result, it has been identified that the level of cultural competency and multicultural acceptability in the experimental group, which applied the cultural competency enhancement program for nursing students, increased.

07. BT-09_Factors Influencing Satisfaction with Life in Korean College Students

Kyung-Sook Kim(Namseoul Univ., Korea), Jung Hyun Choi(Namseoul Univ., Korea), Sejin Ju(Namseoul Univ., Korea), Hee Jeong Kim(Namseoul Univ., Korea), Miok Kim(Dankook Univ., Korea), Mi Yu(Gyeongsang Nat'l Univ., Korea)

The purpose of this study was to determine satisfaction with life related factors in Korean college students. A purposive sample of 194 students was recruited for the cross-sectional survey design. Data were analyzed using descriptive statistics and stepwise multiple regression. Satisfaction with life was significantly related to family support, depression and resilience ($R^2=.243$, $p<.001$). Based on the findings of this study, mental health promotion program for decreasing depression and enhancing resilience are recommended to improve satisfaction with life in college students.

08. BT-10_The Effect of Perceived Meaning of Life and Social Support of Nursing Students on Career Decision-making, Academic Self-efficacy

Jinhwan Oh(Suwon Science College, Korea), Geumsook Oh(Chungbuk Health Science Univ., Korea)

This study is conducted in order to acknowledge nursing student's self-efficacy in relation to perceived meaning of life and social support, compare variable's correlation and factors affecting nursing student's self-efficacy thus providing fundamental data for nursing intervention to promote nursing student's self-efficacy. Our subject was 319 1st and 2nd grade nursing students. Data is collected through survey answered from April 3rd to 7th, 2017. All the factors relevant to nursing student's self-efficacy includes; meaning of life and social support, career decision-making self-efficacy, academic self-efficacy. Related variables showed pure correlation. Resulting from multiple regression analysis, Influential factor of nursing student's career decision-making self-efficacy included; meaning of life, academic self-efficacy, social support, and incentives to admission(recommendation) as in order, and these factors had 40.4% explanation power. Also, influential factor of nursing student's academic self-efficacy included; career decision-making self-efficacy, sex(male), social support, regular activity(no), regular diet(no), and meaning of life as in order, these factors had 39.9% explanation power. Thus further plan to promote self-efficacy of students in nursing major should consider meaning of life and social support variables.

09. BT-11_Stress coping strategies, college adjustment and department satisfaction in first year nursing college students

Yoon Hee Cho(Dankook Univ., Korea)

The purpose of this study was to describe stress coping strategies, college adjustment, and department satisfaction and examine correlations among variables under study in the freshmen of nursing college. This cross sectional study was conducted with 148 first year nursing college students in May 2014. Data were analyzed using descriptive statistical analysis and Pearson's correlation. For mean scores of 3 stress coping strategies, social support seeking strategy was 2.24 ± 0.40 , problem solving strategy was 2.18 ± 0.40 , and avoidance strategy was 1.72 ± 0.32 . The problem solving strategy had significantly positive correlations with college adjustment ($r=.401$, $p<.001$) and department satisfaction ($r=.383$, $p<.001$). In conclusion, education and skill training for effective stress coping strategies are required to improve college adjustment and department satisfaction in first year nursing college students.

10. BT-12_A Study on the Teaching Efficacy and Perception of Nurses at Small and Medium-sized Hospitals in Clinical Practice Education

Bo-Yun Huh(Konyang Univ., Korea), Mi-Ran Kim(Konyang Univ., Korea)

The purpose of this descriptive research study was to investigate the effect of teaching efficacy on clinical practice education of small and medium-sized hospital nurses and to provide basic data for improvement of clinical practice education. Finally, factors affecting teaching efficacy included the hospital atmosphere, relationship with the clinical leaders, and job satisfaction.

11. BT-13_The Effects of A Play-Based Self-Expression Training Program on the Empowerment of Multicultural Children

Minkyong, Kim(Namseoul Univ., Korea)

The purpose of this study was to identify the effects of play-based self-expression training on the empowerment of Multicultural children. SPSS version 20.0 for Windows was used for data analysis to verify the effects of the training program. Among nonparametric statistical methods, the Mann-Whitney U Test and the Wilcoxon Singed-Rank Test were conducted. The results of this study are summarized as follows. A play-based self-expression training program is effective in improving the empowerment of Multicultural children. Statistically significant differences were shown in all three lower-level elements of empowerment: personal ability, group consciousness, self-decision. This study has a significance in terms that it proved the effects of a play-based self-expression training program on the empowerment of Multicultural children, and the effects were confirmed by an experimental study.

Session 2-A

01. CT-22_Optimal SMART Learning Environments for Elementary English Classrooms

Keun Huh(Hannam Univ., Korea)

The present study aims to explore SMART learning environments for elementary English classrooms. To this end, the study examined three factors related to the learning circumstance: teachers; learners; and technology. Discussions are made with several suggestions to create, support, and propel SMART learning environments at elementary levels.

02. CT-24_Study on the Materials Characteristics of Microstructure and Component Analysis of Bronze Artifacts Excavated from the Jeonju and Wanju Innovation City

Seung Jun Oh(Korean Institute for Archaeology & Environment,Korea), Koang Chul Wi(Hanseu Univ., Korea)

The current study analyzed microstructure and chemical components of five bronze artifacts excavated in Jeonju and Wanju Innovative City ruins.

03. IT-01_Zone Virtualization for 5G Wireless D2D Networking Services

Yandag Enkhbayar(Jeonbuk Nat'l Univ., Korea), Chongdeuk Lee(Jeonbuk Nat'l Univ., Korea)

A zone virtualization mechanism is an important technology that improves the communication speed for D2D (device to device) in the 5G wireless network. This paper proposes a new zone virtualization scheme to provide giga-bit communication services as minimizing the traffic congestion in the 5G core network. The proposed scheme solves efficiently the traffic congestions caused by the increased UEs (user equipment) in zones of 5G core networks. The simulation result shows that the proposed scheme has better performance than non-virtualization scheme.

04. IT-02_Bigdata Platform of Calfscur Forecasting System

Dong-oun Choi(Wonkang Univ., Korea), Yun-Jeong Kang(Wonkang Univ., Korea),
Min-Kwon Oh(Korea Information Co., Korea), Jeong-Kuk Kim(Wonkang Univ., Korea)

In this paper, we designed a calfscur Big data consulting module based of IoT. Calfscur, which has the highest mortality rate in calf disease, has been studied and designed so that livestock farmers, veterinarians, and livestock-related organizations can use them immediately in the field. Based on the IOT, we designed a database of newborn calf information management DB, designed diary-induced pathogen quantification data DB of healthy individuals and calfscur individuals, developed a disease consulting algorithm of data mining technique that can discriminate calfscur early. The purpose of this study is to establish and standardize the comprehensive management manual of calfscur, which is the major productivity deterioration of domestic livestock farmers.

05. IT-03_A Case Analysis of Customer Reputation and Service Quality Based on Social Big Data

Sung-Hwan Bae(Soongsil Univ., Korea), Sang-Kil Park(Soongsil Univ., Korea), Jae-Pyo Park(Soongsil Univ., Korea),
Min-Kyung Jee(Soongsil Univ., Korea)

This study aimed to determine the basic materials for the assessment of the current status through the analysis of manufacturer service quality using the social big data. We tried to identify the factors that determine the manufacturer service quality, and understand how each factor affect the user satisfaction, to draw the correlation between the factors

that determine the service quality and the user satisfaction. It is expected that the analysis methods and the findings of this study will serve as a practical guide and reference that could be directly applied not only to the automobile manufacturers, but also in other businesses.

06. IT-04_Automatic Weak Code Detection Method for Vulnerability Analysis of Open-Source Software

Sang-Kil Park(Soongsil Univ., Korea), Sung-Hwan Bae(Soongsil Univ., Korea), Jae-Pyo Park(Soongsil Univ., Korea), Seung-Hyun Oh(Soongsil Univ., Korea)

In this paper, we checked whether or not there are vulnerabilities in open-source software. To analyze the results, we suggested a technique of extracting the targets and their relevant areas of potentially weak source codes in terms of analyzing the vulnerabilities by means of symbolic execution.

07. IT-06_A Smart Fuzzing Method in Vulnerability Analysis Platform

Yong-Sun Ko(Soongsil Univ., Korea), Kwang-Jik Kim(Soongsil Univ., Korea), Jae-Pyo Park(Soongsil Univ., Korea), Kyeong-Jin Yeo(Soongsil Univ., Korea)

In this paper, it suggests the smart fuzzing method interworked white box test and black box test in order to analyze the effective vulnerability of open source. It is expected that the suggested smart fuzzing method detects the vulnerability with automated measure, more exactly and effectively, and overcomes the limit which existing fuzzing system has.

08. IT-07_A Hybrid Vulnerability Analysis Method using Static and Dynamic Analysis

Jong-Chul Park(Soongsil Univ., Korea), Sang-Ann Nam(Soongsil Univ., Korea), Jae-Pyo Park(Soongsil Univ., Korea), Yeun-Soo Choo(Soongsil Univ., Korea)

A hybrid vulnerability detection method using static and dynamic analysis is proposed that develops and manages safe applications and can resolve problems such as missed detections, incorrect detections, and over detection in existing vulnerability analysis tools.

09. IT-10_Development of Safety Management System using IoT Technology

Young-Sang Kim(Cheju Halla Univ., Korea), Hyu-Chan Kim(Cheju Halla Univ., Korea)

In this paper, we suggest the smart Safety Management software System based on IoT Environments to prevent unexpected safety accidents when Haenyeo go deep into the sea to harvest abalone, octopus, and other seafood.

10. IT-11_High Speed Data Transfer Method for Scientific Large-Scaled Data based on KREONET

Jong-Seon Park(KISTI, Korea), Seung-Hae Kim(KISTI, Korea), Min-Ki Noh(KISTI, Korea), Bu-Seung Cho(KISTI, Korea)

In science field, efficiency of data transfer is very important and critical issue. Science DMZ is network architecture for scientific data with complicated components to ensure efficiency and availability through dedicated network path, data transfer node, minimum security policy and performance monitoring system. In this paper, we deploy science DMZ based on KREONET and propose method to maximize performance of science data. Experiment result showed around 388% improvement than that of existing method.

Session 3-A

01. W-00_10_A Design of Outside Expert-linkage System for Analysis of National R&D Data

Wooseung Jo(KISTI, Korea), Minwoo Park(KISTI, Korea), Jeong-Oh Kim(KISTI, Korea), Tae-hyun Kim(KISTI, Korea), Jung Ho Seok(KISTI, Korea)

As the amount of science & technology data explosively increases, and sophisticated technologies appear, it's been hard for users to collect and analyze data. To cope with this problem, there has been a necessity for a system which links them with experts in science and technology. This study proposes the design of a system which links national science and technology information with an analyst community to have the experts explore and analyze data on behalf of users.

02. W-00_12_A Framework for Author Identification using National R&D Information

Hanjo Jeong(KISTI, Korea), Minwoo Park(KISTI, Korea), Young Joon Yoon(KISTI, Korea)

NTIS (National Science & Technology Information Service) provides national R&D participant-information service. The participant-information service includes the information about the researchers who participate in national R&D project, which is collected from representative organizations of each department. This paper presents a framework to find the real authors for the R&D outputs, especially for the research papers. The framework consists of a method for calculating the similarity between author profiles and a research paper using Jaccard similarity, and a learning method to adjust the weights of the similarity metrics using Pearson correlation coefficient.

03. W-00_20_Analysis of Research Network Structure of Convergence Technology in Gerontechnology

Inje Kang(Korea Univ. of Science and Technology, Korea), Byeong-Hee Lee(KISTI, Korea), Richa Kumari(Korea Univ. of Science and Technology, Korea), Ki-Seok(KISTI, Korea)

Gerontechnology has been recently introduced in order to provide products or services for the aged and aging adults to improve their daily life. One of the aspect of gerontechnology is that it encourages researchers to perform convergence research for S&T to overcome difficulties that existing domains had when coping with population aging. However, yet, in Korea, there are very few studies on how to manage or facilitate convergence research in GT. Thus, this study conducted network analysis to analyze the structure of technology convergence in GT.

04. W-00_22_A Study to Build Bilingual Word Embedding for Resource-poor Languages

JeongOh Kim(KISTI, Korea), KyungTae Lim(KISTI, Korea)

In this paper, we describe a simple and accurate method to build a bilingual word embedding for Korean using pre-trained word embeddings. To train bilingual word embedding effectively, we suggest two main ideas: First, to map both source and target word embeddings in a vector space model, we applied vecamp which map two different pre-trained word embedding a single vector space model. Second, we show simple way to make a bilingual dictionary that is used in training and testing.

05. W-00_23_A Study of National R&D Data Use Patterns by User Type

Nam-Gyu Kang(KISTI, Korea), Kwang-Nam Choi(KISTI, Korea), Kyung-Tae Lim(KISTI, Korea),
Oh-Seok Kwon(Chungnam National Univ., Korea)

The National Science & Technology Information Service (NTIS) is a service developed to manage national R&D data and support researchers' R&D activities. According to analysis on the use of the service for the past decade, there is no doubt that the NTIS is a very useful service. However, there is a necessity to examine how conveniently it is used by various users such as ministry & project management agencies, researchers and businesses. This study attempted to analyze the composition of the NTIS in which several services are linked via the main portal and investigate national R&D data use patterns through log analysis by the user type.

06. W-00_24_Linking Data and Software Models to Improve Experimental Data Usability

Eunji Yu(KISTI, Korea), Kiseok Choi(KISTI, Korea), Wonkyun Joo(KISTI, Korea), MyungSeok Yang(KISTI, Korea),
Sung-Hee Lee(KISTI, Korea)

The promotion of open science has been accelerated further as open science projects was discussed as a key agenda in the summit meeting of OECD science and technology ministers. This paper seeks to provide the current status of experimental data generated from large research facility equipment adopted by the national R&D budget and increase the experimental data usability in linkage with an environment that can simulate experimental data.

07. W-00_25_A Study of Algorithm for Quality Inspection on the Summary of National R&D Program Information

Sanggi Lee(KISTI, Korea), EunGyeong Kim(KISTI, Korea), KangRyul Shon(KISTI, Korea), Chulsu Lim(KISTI, Korea)

Korean government has established and operated the National Science & Technology Information Service (NTIS) since 2006 with a goal of improving the efficiency of national R&D programs and jointly utilizing national R&D data. To provide high-quality data, it has further strengthened data quality control. Among the NTIS data, project information summary is very important data which are used in searching similar or redundant national R&D projects so that data should be entered dutifully. Occasionally, unnecessary data or same sentences would be repeatedly entered in the project information summary. To solve this problem, this study has developed a fidelity test algorithm for project information summary and used it in a quality test on the project information summary. Then, it revealed outstanding performances.

08. W-00_29_A Case Study of e-Journal License Agreements for Acquisition Librarians

Suhyeon Yoo(KISTI, Korea), Eunkyong Nam(KISTI, Korea), Hwanmin Kim(KISTI, Korea)

This study identifies issues that should be carefully reviewed while making e-journal contracts to effectively respond to e-journal license agreements. To this end, this study analyzes several cases of e-journal license agreements and derives major issues. This study is expected to contribute to the prevention of disputes arising from contracts so that e-journal acquisition librarians can effectively draft and sign up for license agreements.

09. W-01_01_A study on the effect of organizational psychological factors on the innovation activities of middle managers

Tea-Suk Jeoung(Hansung Univ., Korea), Jung-Wan Hong(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of organizational psychological factors on the psychological factors of the innovation activities of middle managers working in Korean companies. In order to achieve this, organizational factors such as job security, organizational loyalty, and organizational commitment are classified as middle managers' Activities) and examine whether they affect the innovation activities of middle managers according to management consulting experience in enterprises.

10. W-01_03_An Empirical Study on the Effects of the Research and Development Capability of Bio Firms on Business Management Performance

Hwan-Jo Jung(Hansung Univ., Korea), Yeon-Woo You(Hansung Univ., Korea)

This study analyzed the effect of the R&D activity taken by Bio firms on business performance in the way of comparing the firms in the metropolitan area and in the non-metropolitan area. For the analysis, data had been collected from 278 Bio firms. As a result, the R&D activity of the Bio firms influenced their business performance, and there was the difference between the Bio firms in the metropolitan area and in the non-metropolitan area. This study tries to make a policy suggestion for effective support in consideration of the Bio firms' R&C activity factors for their sustainable growth and special conditions, and thereby contribute to developing the Bio firms development.

Session 4-A

01. W-01_28_A Study on the Main Factors of Social Entrepreneurship on the Sustainability of Social Enterprise

Seung-Bae Yoon(Hansung Univ., Korea), Yun-Jung Hwang(Korea Open Cyber Univ., Korea),
Kwang-Hyun Ro(Hansung Univ., Korea)

We will examine the relationship between social entrepreneurship and sustainability of social enterprises. Social enterprise sustainability is classified into macro environmental factors and micro environmental factors. The purpose of this study is to investigate the relationship between social entrepreneurship social value orientation, proactiveness, risk taking, ethics and Micro-Sustainability Factors of Social Enterprise, the achievement of social purpose, economic infrastructure formation, environmental conditions. To do this, we analyzed in depth the cases of 10 social enterprises and conducted a written survey of 200 companies. Social entrepreneurship has been shown differently according to the scope and purpose of establishment and background of establishment rather than being manifested uniformly among social enterprises, and the social entrepreneurship that affects the birth of social enterprise has also affected the sustainability of social enterprise as it is.

02. W-01_29_The Effects of Quality of Consulting on Consulting Results Utilization

Mi-Young Cho(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

This study was carried out to verify application motive for consulting upon the path between quality perception and use of results in the government-supported convergence consulting service on SMEs. A survey was conducted on SMEs which went through government-supported consulting. This study implies that it is necessary to reinforce consultant's competence, government support system and voluntary application for consulting.

03. W-01_30_A Study on Consulting Methodology in the 4th Revolution era

Jae-han Ryu(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The results of this study are as follows: First, characteristics of the 4th Industrial Revolution era are Hyper-connected, Hyper-Intelligent Second, Firm will adopt management fashions to create management performance Third, the consultant is as agent of management fashions, it is necessary to develop a tool of consulting methodology so that firm can effectively accept the new technology convergence of the 4th industry and generate performance.

04. W-01_31_Effects of Consulting Quality Perception on Utilization and Reuse

Sang-moon Kim(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

This study is conducted to analyze the effect of consulting quality perception on the path of consulting result utilization and reuse. The questionnaire survey is conducted on SMEs that experienced consulting and policy finance support by a public institution, and analyze the structural equation model. The results of the study are as follows. First, the perception of consultant capability quality has a positive (+) effect on the consulting results utilization. Second, the perception of consultant attitude quality has a positive (+) effect on the consulting results utilization. Third, the consulting results utilization show a positive (+) effect on consulting reuse. In conclusion, the results of this study show that the higher the perception of consulting quality, the higher the utilization and reuse of consulting results. Thus, it is necessary to enhance the perception of consulting quality in order to strengthen the competitiveness of consulting business by public institution.

05. W-01_33_A Study on Dyeing Methods for Covering Gray Hair

Eun-Jeong Park(Hansung Univ., Korea), Kwang-Hyun Ro(Hansung Univ., Korea)

Most hair dyes for covering prematurely graying hair use dark colors. This study explains why bright colored hair dyes are not distributed through experimentation, and analyzes ways to express bright hair colors on gray hair.

06. W-01_34_A Study on the Influence of Client Participation in Consulting Process on the Consulting Satisfaction

Hye-Ran Yoon(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the mediating effects of consultants' competence between the influence of client participation in consulting process on consulting satisfaction of the client. As a result of the study, client participation in consulting process had a significant effect on consulting satisfaction, and it was confirmed that consultant's competence mediated the influence between client participation in consulting process and consulting satisfaction. In this study, we will examine the factors affecting consulting satisfaction improvement of client company in consulting project through government support and suggest policy implications.

07. W-01_36_A Study on Digital Game Model for Art Education

Hyun-Ki, Lee(Hansung Univ., Korea), Kwang-Hyun, Ro(Hansung Univ., Korea)

In the present era, people enjoys cultural life through various entertainment media. Especially, photographs and videos deeply penetrated our real life and became a medium of communication. As the demand for edutainment to show the effect of learning through the entertainment medium has appeared, educational games aiming at educational effects utilizing games are also being released and studied. The purpose of this study is to clarify the implications of how games can be used in arts education in the future by analyzing the educational games such as 'Little Big Planet 3' and 'Splatoon'. If actual art education is included in games, children who experience this will have the educational effect of learning while enjoying it. If the game is designed to reflect the learning of each area of art education in the future, the art education of the window can be implemented more specifically.

08. W-01_38_Development of virtual reality-based educational content business model using clue exposure method

Joung-Hun Hong(Hansung Univ., Korea), Do-Seong Na(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

This paper summarizes educational effects of experiential educational contents based on virtual reality. And this study suggests commercialization through virtual reality education contents production using cue exposure method which is widely used in psychiatric and psychotherapy fields. Specifically, the contents of nicotine addiction and obesity prevention were applied.

Session 5-A

01. W-03_01_Constancy Evaluation of Digital Radiography for Quality Assessment Standardization

Sung-Hun Jeung(Hanseu Univ., Korea), Chung-Hwan Lim(Hanseu Univ., Korea)

Recognizing the importance of image quality control through image evaluation by evaluating the consistency test of the detector of Digital Radiography and the image evaluation factors Contrast, SNR, Noise, Signal, MTF, NPS and DQE, the purpose of this study is to improve the inspection cycle of inspection safety management and to standardize the image management standard of the diagnostic radiation generator.

02. W-03_02_Acoustic Characteristics and Quantitative Analysis for Safety Management of Noise Generated during Magnetic Resonance Scan

Hyun-Og Song(Hanseu Univ., Korea), Cheong-Hwan Lim(Hanseu Univ., Korea), Hyun-Suk Lee(Hanseu Univ., Korea)

Current medical equipment is developing and evolving to acquire better images for improvement in diagnosis. Also for MRI equipment, software and hardware is developing for better images. One of the ways is developing equipment with stronger magnetic field. High magnetic equipment has the advantage of being able to acquire good images but also have the disadvantages of noise and claustrophobic nature. Efforts to reduce noise during MRI testing have been shown in many studies. Until now, the methods of noise reduction in MRI equipment have been very ineffective, and the mechanical noise reduction method that is being studied in the future has developed so rapidly that it takes a lot of time to become popular. Therefore, we want to analyze the characteristics of noise that can be used as basic data for noise protection facility which can be easily generalized in shorter time. The purpose of this study was to compare the noise level of MRI equipment installed in a medical institution to show the noise reduction during MRI.

03. W-03_03_The Stress Effect of a Defect in the Bellows according to Rotation and Deflection

Jinbong Kim(Hanseu Univ., Korea), Jungyeum Kim(Hanseu Univ., Korea), Jihwan Yoon(Hanseu Univ., Korea)

Test of bellows to understand their mechanical behaviour, and to verify a design purpose finite element program is needed for practical use. In this paper, the finite element program is applied to analysis the stress behaviour around a micro defect in the convolution of bellows. The influence of the lateral deflection opposite to a defect on the stiffness of the bellows with variation of rotation is investigated. The von Mises stress around a micro defect of the bellows is analyzed. The results show that the von_Mises stress in the bellows with defect is affected by not only the defect but also the non-symmetrical deformation.

04. W-03_05_Effects of Intensity of Warm up on iEMG Response and during Bench

Ki-Hong Kim(Dankook Univ., Korea), Hwan-Jong Jeong(Dankook Univ., Korea), Sung-Sik Ko(Korea Nat'l Univ. of Transportation, Korea), Chun-Ho Yang(Hanseu Univ., Korea)

The purpose of this study was to investigate the effect of warm up condition on iEMG of agonist muscle during 75% 1RM bench press. Subject of 8 male people in Chungnam who were in their 20s and healthy were selected. Participants performed a 75% 1RM bench press after the warm-up according to the four type of warm-up. The EMG of Pectoralis major, Anterior deltoid, triceps brachii lateral head were measured at the bench press. Bench press are randomly distributed at intervals of 1week. It was used mixed design two-way ANOVA . Significant level was $\alpha = .05$. The most effective 10RM exercise sequence for weight training is to perform 10 times at 50% 10RM in the first set,

10 times at 75% 10RM in the second set, and 10 times at 10RM in the third set¹. The bench presses were divided into groups that were groups of without warm up, groups of bench press after stretching, and groups that had bench press after resistance warm up exercise. Bench press showed the highest performance after resistive warm up exercise². In this way, studies on exercise intensity, stretching method, aerobic warm up exercise, etc. In warm up for weight training seem to have been carried out in various aspects. However, there are few studies on the difference of strength and set number of warm ups for weight training. In this study, we propose the appropriate number of preliminary exercise sets before weight training by examining the effect of 75% 1RM bench press exercise on EMG response.

05. W-03_06_Elite Taekwondo Athletes' Injuries and Their Coping Strategies

Jong-Sik Lim(Kunsan Univ., Korea), Chun-Ho Yang(Hanseu Univ., Korea)

This study examined the athlete injuries and their coping strategies, targeting 185 athletes registered with the Korean Taekwondo Association. To meet this research purpose, questionnaires were used, and descriptive statistical analysis and χ^2 (Chi-square analysis) were performed to process the collected data. The following conclusions were obtained through these methods. As a result of the study, elite Taekwondo athletes' injuries were found to be brought about and repeated by many causes regardless of demographic characteristics. To prevent and minimize their injuries, careful attention from athletes themselves than anyone else is needed, and further more from coaches, hands-on staff, and educators. In addition, injury prevention programs for the athletes should be introduced to minimize athletic injuries and accurate treatment should be performed through a thorough education on of athletic injury prevention.

06. W-03_07_Relationship between Amusement Factors and Satisfaction with Classes of the University Students Participating in Water Sports

Kyung-Seok Han(Hanseu Univ., Korea), Chun-Ho Yang(Hanseu Univ., Korea)

The purpose of this study was to explore the relationship between amusement factors and satisfaction with classes of the students participating in water sports and, for this purpose, a questionnaire survey was conducted on 273 university students participating in water sports courses. The results of this study are as follows: First, among the sub-variables of amusement factors of university students participating in water sports, psychological and physical health, burden of theoretical classes and experience of sense of achievement had positive effect on psychological satisfaction. Second, among sub-variables of amusement factors, psychological and physical health had positive effect on both satisfaction with environment and satisfaction with society. Third, among sub-variables of amusement factors, experience of sense of achievement, psychological and physical health and burden of theoretical classes had positive effect on satisfaction with body. Lastly, among sub-variables of amusement factors, satisfaction with sense of achievement and psychological and physical health had positive effect on satisfaction with education.

07. W-03_08_The Relationship between Yacht School Participants' Sport Commitment and Exercise Adherence

Kyung-Seok Han(Hanseu Univ., Korea), Chun-Ho Yang(Hanseu Univ., Korea)

In order to specify the relationship between yacht school participants' sport commitment and exercise adherence, this study performed a survey targeting 268 yacht school participants. As a result, cognitive commitment and behavioral commitment (sub-variables of sport commitment) turned out to have positive (+) effects on tendency, possibility, and enhancement (sub-variables of exercise adherence). Thus, it could be found that yacht school participants' sport commitment would positively influence exercise adherence.

08. W-03_09_Relationship between Social Support and Attitude of Career Decision Making of College Taekwondo Athletes

Yeong-Gwon Jo(Gwangju Univ. of Education, Korea), Kwang-Sun Moon(Kyunghee Univ., Korea),
Chun-Ho Yang(Hanseu Univ., Korea)

The objective of this study was to identify the relationship between the social support and the attitude of career decision-making of college Taekwondo athletes. To accomplish this objective, we conducted a survey on 171 college Taekwondo athletes and drew following conclusions. First, a correlation analysis was conducted between the social support and the attitude of career decision-making of college Taekwondo athletes and results showed that their sub-factors had a significant and positive correlation. Secondly, emotional support and information support, which are sub-variables of social support, had a positive effect on career maturity. Thirdly, emotional support and material support, which are sub-variables of social support, had a positive effect on career preparation behavior. Fourthly, emotional support, one of social support sub-variables, had a positive effect on career decision level.

09. W-03_10_Effects of Taekwondo Athletes' Winning Attitude on Exercise Immersion and Exercise Passion
Bong-Seok Kim(Jeonju Univ., Korea), Min-Young Kang(Yongin Univ., Korea), Chun-Ho Yang(Hanseu Univ., Korea)

The objective of this study was to identify the effects of winning attitude of Taekwondo athletes on exercise immersion and exercise passion. In order to achieve the objective, a survey was conducted to 223 Taekwondo athletes playing for college and business teams and following conclusions were withdrawn. First, the winning attitude of Taekwondo athletes positively affected exercise immersion. In detail, fighting spirit had a positive effect on cognitive immersion and behavioral immersion. Secondly, the winning attitude of Taekwondo athletes positively affected exercise passion. In detail, fighting spirit had a positive effect on harmonious passion and compulsive passion. In conclusion, the results of the study showed that the winning attitude of Taekwondo athletes significantly and positively influenced exercise immersion and exercise passion. Especially, fighting spirit affected all sub-factors of exercise immersion and exercise passion. Consequently, it would be desirable to increase strong mental power, willpower to achieve one's goal, and fighting spirit, which helps an athlete to demonstrate ambition and spirit in order to promote the exercise immersion and exercise passion of Taekwondo athletes.

10. W-03_11_Correlation between Leisure Identity and Psychological Well-being in College Students who participate in General Physical Education

Ju-Young Kim(Chonnam Nat'l Univ., Korea), Kyung-Seok Han(Hanseu Univ., Korea),
Chun-Ho Yang(Hanseu Univ., Korea)

This study was conducted to investigate the correlation between leisure identity and psychological well-being in college students who participate in general physical education. To achieve this purpose, a survey was conducted with 444 college students who were participating in classes of the general physical education at four-year colleges. In the statistical processing of the survey, the following conclusions were obtained by correlation analysis and multiple regression analysis. In conclusion, since leisure identity has a positive impact on the psychological well-being of the college students who participate in general physical education, it is judged that it is important to increase their psychological well-being by allowing them to feel identification, esteem and emotional attachment to general physical education.

11. W-03_12_Subjectivity for Clinical Practice of nursing students

Sunyoung Jang(Hanseu Univ., Korea)

This study aims to figure out subjectivity of clinical practice recognized by nursing students and describe characteristics by type. This study applied Q methodology. 50 students of the Department of Nursing of A University (students of the 3rd and 4th year), who had carried out clinical practice, were invited to classify 50 sentences of statements about clinical practice. The collected data was analyzed based on QUANL PC Program. According to the research result, the recognition of nursing students was classified into 6 types of 3 factors. The subjectivity types of clinical practices are classified into "burden type", "positive type", "proactive participation type", "evasive type", "resigning future-oriented type" and "receptive type". This study provided basic materials for program development of previous education for nursing students starting clinical practices.

Session 1-B

01. BT-14_Relationship among empathy ability, creativity confluence competency and problem solving ability in nursing students

Sunsook Sim(Kyungdong Univ., Korea), Miran Bang(Kyungdong Univ., Korea)

In the study, empathy ability, creativity confluence competency and problem solving ability in the nursing students was at a level of more than 3.0 out of 5. And it was shown that there was significant positive correlation among these 3 variables. It is thought that practical education and training enabling the enhancement of empathy ability, creativity confluence competency and problem solving ability in the nursing students should be developed and applied on the basis of these results.

02. BT-15_Effect of Educational Performance for Preventing Dry Eye Syndrome in Smartphone Addicts

Seong-Ran Lee(Kongju Nat'l Univ., Korea)

This study is to identify the effect of educational performance for preventing dry eye syndrome in smartphone addicts. For wrist acupressure, the mean of subjects(59.48 ± 0.63) which have performed eye acupressure after education was higher than subjects(26.15 ± 0.71) before education($t = -2.85$, $p = .000$). Therefore, this results of eye condition through education will contribute for preventing eye dry syndrome addicts in all ages.

03. BT-16_Experimental Analysis of Information System Development for Improving Recognition Function in Dementia Patients

Seong-Ran Lee(Kongju Nat'l Univ., Korea)

This study is to perform experimental analysis of information system development for improving recognition function in dementia patients. The pairwise t-test was done to compare the before and after applying of recognition function by information system. The present research showed that recognition function rate of information system could be increased to 45.3–62.8% by the intervention. The study presents a new informaiton system in an effort to reduce inefficiency and improve reliability of information. By the adoption of this information system, dementia patients can be effectively connected with any kinds of information systems.

04. BT-17_Effect of the Calling, Moral Sensitivity and Recognition of Good Death of Nurses on Terminal Care Performance

Jung-Hee Kim(Shinsung Univ., Korea), Yang-sin Kim(Daejeon Institute of Science and Technology Univ., Korea), So-Ja Jeon(Chungbuk Health & Science Univ., Korea)

Purpose: This study was attempted to grasp the effect of the calling, moral sensitivity and the recognition of good death of nurses on terminal care performance. Methods: Data was collected from Apr 1, 2017 to Apr 30, 2017 and the survey was conducted for 163 nurses who had more than 1 year hospital experience and who worked at 4 general hospitals located at D and Y cities. Result: There was a positive correlation between terminal care performance and calling($r = .394$, $p < .001$), moral sensitivity($r = .238$, $p < .005$), and the recognition of good death($r = .202$, $p < .01$). As a result of regression analysis, the working department of nurses had the explanatory power of 19.1%($\beta = .361$, $p < .001$) for terminal care performance, followed by calling of 9.3%($\beta = .300$, $p < .001$), and the recognition of good death of 2.2%($\beta = .149$, $p < .001$). These variables explained a total of 30.6% of terminal care performance. Conclusion: It is necessary

to expand the opportunity for nurses to experience terminal care directly and indirectly and is required to develop various education programs and make execution strategies for establishing the sense of duty and the recognition of good death.

05. BT-18_Awareness and Practice of Infection Control Related to Clinical Practice by Students in Health-Related Departments

Hyun-jeong Kim(Baekseok Univ., Korea), Su-min Hong(Baekseok Univ., Korea),
Hyun-kyung Ji(Baekseok Univ., Korea)

The present study was conducted to investigate the awareness and practice of infection control related to clinical practice by performing a structured survey with 236 students in health-related departments. Statistical analysis of the acquired data using SPSS 18.0 showed that the degree of awareness of the standard precautions for infection control among the subjects was 4.56 ± 0.49 points and the degree of practice was 4.47 ± 0.5 points, out of 5 points. The degree of awareness was lower than that of practice among the students of the department of emergency medical technology, while the degree of practice was lower than that of awareness among the students in the department of dental hygiene. Both the degree of awareness and the degree of practice were highest in the students in the department of nursing, among the three departments. These results indicated that it is necessary to develop educational programs for each department to improve the awareness and practice of infection control.

06. BT-20_A Study on the Knowledge about Cervical Cancer among Nursing students

Miok Kim(Dankook Univ., Korea), Heeseoung Song(Dankook Univ., Korea)

This study aimed to determine knowledge status concerning cervical cancer of 113 nursing students. As a result of this study, knowledge of cervical cancer was scored $.66 \pm .15$ (range of score 0–1). In order to increase the vaccination rate of HPV among nursing college students and to prevent cervical cancer, an effective management program is required to lead to preventive practice with accurate information on vaccination.

07. BT-21_Knowledge and Attitude about Cardiopulmonary Resuscitation (CPR)

Hyun-a Nam(Howon Univ., Korea), Miok Kim(Dankook Univ., Korea)

The purpose of this study was to identify the degree of knowledge of CPR in 135 nursing college students. The knowledge level of CPR was 44.24 ± 11.47 points in the range of 0~100 points. The degree of attitude toward CPR was 15.43 ± 1.91 in the range of 5–20. Airway maintenance and artificial respiration were the highest with 64.19 ± 26.27 points, Judgment of Emergency condition 56.74 ± 19.88 points, General knowledge 51.70 ± 20.93 points and Chest compression 51.48 ± 32.86 points. CPR should be considered as essential knowledge required to save lives and education and training will be needed to acquire appropriate knowledge and attitudes about adult CPR as well as adults.

08. BT-22_A Study on Acculturative Stress, Resilience, Social Support and Mental Health of Chinese Students in Korea

Minkyong, Kim(Namseoul Univ., Korea)

we examined how acculturative stress link to mental health and explore the role of social support and resilience in mediating this association among Chinese students in Korea. Using a convenience sampling, 169 Chinese students

(61.5% female and 38.5% male) completed a self-administered survey questionnaire between March and July in 2015. Preliminary analyses were conducted in SPSS 20. Subsequently the data were exported to AMOS for the analysis. These analyses revealed that the association between acculturative stress and mental health was fully mediated by social support and resilience. It is important to note that the effect of social support, directly affects resilience among Chinese students, and subsequently indirectly affects mental health.

09. BT-23_Emootional intelligence, Communication competence, Self-leadership and Empowerment of Nursing students

Joo-Young Lee(Seoul Women's College of Nursing, Korea), Do-Young Lee(Ansan Univ., Korea)

The objective of this study is to examine the relationship among emotional intelligence, communication competence, self-leadership and empowerment of nursing students. This study conducted descriptive correlational study using self-report questionnaire for nursing students. Emotional intelligence, communication ability, self-leadership and empowerment of nursing students were highly correlated. This study expects that various curricula and programs will be developed to enhance the capacity of nursing students.

10. BT-24_Emoional Intelligence and Interpersonal Relationship according to Birth Characteristics of Nursing Students

Do-Young Lee(Ansan Univ., Korea), Myung-Hae Kim(Ansan Univ., Korea)

The objective of this study is to analyze the relationship between emotional intelligence and interpersonal relationship according to the birth characteristics of nursing students. This study was a descriptive correlation study using structured self-questionnaires for nursing students. Data were collected from March 2, to April 30, 2017 from the 117 participants included in the study. The data were analyzed using SPSS / Win 20.0. There was a high correlation between emotional intelligence and interpersonal relationship, and the number of siblings was related to emotional intelligence and interpersonal relationship, respectively. This study needs to develop a program to improve emotional intelligence and interpersonal relationship to increase adaptability of nursing students.

11. BT-26_The Lived Experience of Clinical Nurse Specialist : A Phenomenological Study

Hwa jin Lee(KyuungDong Univ., Korea)

Background/Objectives: Details of nursing services which are provided by CNS in Korea are ambiguous. Therefore, it is necessary to conduct the research based on the experiences of those who actually work.

Methods/Statistical analysis: This research is a qualitative study using Colazzi 's approach to identify clinical nurse specialist's experiences in depth and describe the meanings. Study participants were six clinical nurse specialists who agreed to participate in the research at A University Hospital in Korea.

Findings: Extracted data which were acquired from original raw data by 6 research participants could be structured into 20 meanings, 6 topics and 2 categories. Study results showed that the participants felt the fear of work, burden about patient's condition, alienation due to the lack of belonging and the pressure about self-development. However, in the aspects of duties and relationships, they determine to become the top. There are very few follow-up studies after clinical nurse specialist area was recognized legally, and therefore, it is difficult to collect diverse data about personal satisfaction, problems and alternatives for various duties and roles. Result of this study will be helpful to identify the experiences of clinical nurse specialists in depth experiences.

Improvements/Applications: Results of this study can be used as basic data to understand the experiences of clinical nurse specialists. The researcher suggests the study of role and job development through the participation observation of clinical nurse specialist's roles and related execution behaviors.

12. BT-27_Relationship between Post traumatic Growth and Ego resilience of Nurses in the Emergency Department

Ji-Hyun Park(Yeungnam Univ., Korea), Hee Jung Son(Yeungnam Univ., Korea)

The purpose of this study was to describe post traumatic growth according to the ego resilience of the nurses in the emergency department. The results showed that the nurse with high ego resilience had high post traumatic growth.

13. BT-31_Influence of patient-related stressor and the relationship with supervisor on burnout in hospital nurses

Jin-Hwa Park(Daegu Catholic Univ., Korea)

This study examined the influence of customer related social stressor and leader-member exchange on burnout in hospital nurses. The results showed that age, working in wanted unit, relationship with the supervisor emerged as the statistically significant variables on burnout in hospital nurses.

Session 2-B

01. IT-15_College students' perception on flipped learning experiences

Keun Huh(Hannam Univ., Korea)

The study aims to explore college students' perception on flipped learning experiences. Thirty-five college students participated in the study over a semester. A survey was conducted with semi-structured questionnaire. Data revealed that most of students were satisfied with the flipped learning experience. The findings of the study suggest that flipped learning can derive many benefits for students to develop life-long learning skills.

02. IT-18_CCTV Abnormal Signal Detection and Hacking Defense Technology

SeungHan Lee(Soongsil Univ., Korea), Ilyong Kim(Soongsil Univ., Korea), JunWoo Lim(Soongsil Univ., Korea),
Jae-Pyo Park(Soongsil Univ., Korea)

Recently, with the growing interest toward safety and security, increasing number of private businesses install CCTV and run IVMS. However, CCTVs are mostly exposed to outside, and UTP cable connecting CCTV to network is easily accessible by anyone. In this environment, there is a strong suspicion that malicious users like hacker could disconnect the UTP and hack or even try to attack through forged device. Therefore, this study proposes a technology monitoring network including IVMS and blocking off illegal device. The proposed technology monitors network on real-time basis with simple installation in appliance form without composing changing the existing environment or network, and blocks off the system in case of abnormality to provide protection on IVMS and the network.

03. IT-21_Safety Management Model based on Predictive Association Rules for Industrial Internet of Things

Sol-Bee Lee(Hallym Univ., Korea), Jung-Hyok Kwon(Hallym Univ., Korea), Hwi-Ho Lee(Hallym Univ., Korea),
Ho-Young Kim(Hallym Univ., Korea), Eui-Jik Kim(Hallym Univ., Korea)

This paper presents a safety management model based on the predictive association rules to prevent accidents on the construction industry. The proposed safety management model is designed to analyze the relationship between various accident types and causes accurately. To verify the effectiveness of the safety management model, we conduct the experimental implementation in following three steps: 1) preprocessing, 2) association rule creation, and 3) visualization. The results show that the proposed model can provide accurate analysis results for practical safety management.

04. IT-22_Load Balanced-Trickle Timer in Routing Protocol for Low Power and Lossy Network

Jung-Hyok Kwon(Hallym Univ., Korea), Minki Cha(Hallym Univ., Korea), Sol-Bee Lee(Hallym Univ., Korea),
Ho-Young Kim(Hallym Univ., Korea), Eui-Jik Kim(Hallym Univ., Korea)

This paper presents a load-balanced Trickle timer (abbreviated LB-Trickle) in the IPv6 routing protocol for low power and lossy network (RPL). LB-Trickle selectively allocates a listen-only period at the beginning of the new interval of Trickle timer, depending on whether the transmission occurs at the current interval or not. The use of LB-Trickle can distribute the transmission load by varying the selection range of transmission time for each node selectively. The simulation results show that the LB-Trickle has the better performance in terms of fairness compared to the existing Trickle timer.

05. IT-27_Prevention of false detection in indoor location based service using smartphone sensor

Hyeon-Woo Kim(Sungkyunkwan Univ., Korea), Sang-min Bae(Sungkyunkwan Univ., Korea),
Jeong-Hoon Rhee(Sungkyunkwan Univ., Korea), Jun-Dong Cho(Sungkyunkwan Univ., Korea)

A algorithm to reduce false alarm in a Bluetooth beacon based indoor location system is proposed, where beacon received signal and azimuth data obtained smartphone sensors are combined for location estimation. Azimuth data is used for determining validity of the beacon signal. It is shown, by experiments that performance were considerably enhanced.

06. IT-28_Smart Cooling Glove System based on IT technology

Ji-In Kim(Sillasystem co. Ltd., Korea), Nak-Jung Choi(Sillasystem co. Ltd., Korea),
Chang-Byung Park(Sillasystem co. Ltd., Korea), Seok-Joo Koh(Kyungpook Nat'l Univ., Korea)

This paper proposes the cooling glove system which consists of the cooling glove using Peltier element and collection of the body temperature and heart rate using sensor. This system is purposed to activate sports ability by improving sport ability and performance. It will contribute to create new technology which is convergence of sports and IT technology.

07. IT-29_Emoflex: Emotional Human-Interaction Robot with Flexible Display

Da-young Jeong(Sungkyunkwan Univ., Korea), Gwang-Rae Yeom(Sungkyunkwan Univ., Korea),
Seo-gwang Kim(Sungkyunkwan Univ., Korea), Jun-dong Cho(Sungkyunkwan Univ., Korea)

As interest in the interaction between human and robot increases, robots that express emotions are being developed. This study proposes an emotional robot 'Emoflex', with movement of flexible display. In the experiment, we analyzed the emotional significance of the display flexibility by using prototype in the interactive aspect.

08. IT-30_Construction of the Paper Verification System for Plagiarism Prevention

Teody C. San Andres(Bulacan State Univ., Philippines)

Work-Family Conflict can be defined as a form of inter-role conflict where the general demands of time devoted to, and strain created by the job interfere with performing family-related responsibilities while Family-Work Conflict is a form of inter-role conflict in which the general demands of, time devoted to, and strain created by the family interfere with performing work-related responsibilities. Job Satisfaction, on the other hand, refers to people's reactions and feelings towards aspects of their jobs. This study specifically investigated whether work-family conflict, family-work conflict and job satisfaction are related constructs. To achieve the purpose of the study, a total of 199 basic education teachers, all of which were married, were asked to respond to the Work-Family Conflict, Family-Work Conflict, and Generic Job Satisfaction Scales. Statistical analyses revealed that Work-Family Conflict is positively and significantly related with Family-Work Conflict and negatively and significantly correlated with Job Satisfaction while Family-Work Conflict is negatively and significantly correlated with Job Satisfaction. The researcher looked into the possible implications of these findings to the population at hand.

09. IT-31_Optimization approaches for QSPR Prediction by using Outlier Detection and Subset Selection

B. Firdaus Begam(Bharathiar Univ., India), **J. Satheesh Kumar**(Bharathiar Univ., India),
Gyoo-Soo Chae(Baekseok Univ., Korea)

In this study, QSPR(Quantitative Structure Property Relationship) approach is presented to understand the property/activity of a molecule by identifying the relationship with its chemical structure. We investigate a comparative analysis of existing models based on Polynomial Regression (PR), Principal Component Regression (PCR) and Partial Least Square Regression (PLSR) with respect to fitted response and prediction. An optimized QSPR model (FDROL) with fuzzy minimum redundancy maximum relevance data reduction (FDR) and outlier detection (OL) was also proposed. The squared correlation coefficient (r^2) for preprocessed data were obtained as 1, 0.98392 and 0.9839 which were better predicted and fitted responses compare with existing methods. The optimized QSPR model with PR shows best fit to predict enthalpy of formation of hydrocarbons.

10. IT-32_Performance Enhancement of Blowfish Encryption using RK-Blowfish Technique

V. Joseph Raj(Bharathiar Univ., India), **B. S. Ross**(Bharathiar Univ., India)

In this study, we have modified the Blowfish algorithm by enhancing its performance in terms of speed, Throughput, Power consumption and Avalanche effect. We have proposed a way to enhance the performance of the Blowfish cryptography algorithm by introducing parallel processing technique and making modifications to the Fiestel (F) function of Blowfish by combining the Blowfish and the Runge-kutta (RK) Method. The F function of Blowfish has been modified with different formulae and the outcome of a series of RK-Blowfish algorithms were compared with the Blowfish algorithm. The enhanced performances of RK-Blowfish series of algorithms are reported. This work would be useful to most consumer electronic appliances involved in data storage, transmission and communication ensuring data security.

11. NT-01_Highly Increased Flow-Induced Voltage Generation on Plasmonically Carbonized Carbon Nanotubes

Wonsuk Jung(Chungnam Nat'l Univ., Korea)

We generate networks and carbonization between individualized single-walled carbon nanotubes(SWCNTs) by an optimized plasmonic heating process using a halogen lamp to improve electrical properties for flow-induced energy harvesting. These properties were characterized by Raman spectra, a field-emission-scanning probe, transmission electron microscopy, atomic force microscopy and thermographic camera. The electrical sheet resistance of carbonized SWCNTs was decreased to $2.71 \text{ k}\Omega/\square$, 2.5 times smaller than normal-SWCNTs. We demonstrated flow-induced voltage generation on SWCNTs at various ion concentrations of NaCl. The generated voltage and current were 9.5 and 23.5 times larger than for the normal-SWCNTs, respectively, based on the electron dragging mechanism.

Session 3-B

01. W-01_02_A Study on the Effect of Consultant Competence on Consulting Performance and the Effect of Consulting Performance on Consulting Utilization and Repurchase

Sung-cheon Kang(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The purpose of this study aims to analyze the impact of consultant's competence (knowledge, ability, attitude) on management consulting performance and analyze the effect of consulting performance on consulting utilization and repurchase. We conducted literature research on factors that measure management consulting performance, prior research on consulting performance influencers, and competencies that consultants should have to improve management consulting performance. The results of the study are as follows. First, the consultant's ability has a positive effect on consulting performance. Second, consulting performance has a positive effect on consulting utilization and repurchase. The results of this study suggest that enhancing the consultant's ability to improve consulting performance should be a priority.

02. W-01_04_A Study on the Effect of Consulting Service Satisfaction and Problem Solving Ability on the Effect of Consultant Selection Criteria on Consulting Service Repurchase Intention

Bong-cheol Lee(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of consulting satisfaction and consultant's problem-solving ability on the relationship between the factors of embeddedness such as academic achievement and consulting achievement, and the factors of signaling such as recommendation from others.

As a result of the questionnaire survey conducted by the managers in charge of related businesses who have consulted more than once, both the factors of embeddedness and the factors of signaling among the consultant selection criteria as in the preceding study have a significant effect on the repurchase intention of the consulting service. Respectively, Consulting service satisfaction was found to mediate the effect of consultant selection factors on consultant repurchase intention. In addition, the consultant's problem – solving ability has a significant moderating effect on the relationship between consulting service satisfaction and consulting service repurchase intention. The results of this study suggest that the factors of embedded and problem solving play a very important role in the consultant's winning a consulting project.

03. W-01_08_Implementation of Competency-based knowledge framework design using Moodle

DaeHyun Lee(Hansung Univ., Korea), Yen Woo You(Hansung Univ., Korea), Won Ho(Kongju Nat'l Univ., Korea)

In accordance with the paradigm shift of the 4th Industrial Revolution and Education 3.0, knowledge has evolved into a personalized knowledge delivery from the sharing and mutually transferring knowledge. As a world's most widely used open source LMS(Learning Management System), Moodle is a solution that enables this trend supporting well in learning management and many states of learning technology. The purpose of this study is to suggest a sample implementation of competency – based knowledge design method for future learning based on the knowledge framework for learning using Moodle 3.1 version.

04. W-01_09_The Impact of Managerial and Management Leadership on Teamwork and Organizational Commitment

Eun-joo Lee(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effects of managerial and managerial leadership on teamwork and organizational commitment. The results of the survey are as follows. First, managerial leadership (respect for employees, encouragement) has a positive effect on teamwork (cooperation, conflict resolution). Second, managerial leadership (clear strategy and execution, effort for employee satisfaction, fair greetings) has a positive effect on teamwork. Third, managerial leadership has a positive effect on organizational commitment (recommendation to our company, job satisfaction). Fourth, managerial leadership has a positive effect on organizational commitment. Fifth, teamwork has a positive effect on organizational commitment. The results of this study show that the leadership of managers and executives is important for enhancing teamwork and organizational commitment. And Manager leadership has an influence on teamwork and managerial leadership has an influence on organizational commitment, suggesting that both managers and managers play an important role as organizational leaders.

05. W-01_10_Professor competency and class contents impact on Satisfaction and Recommendation Intention - Focusing on vocational training -

Bo-kyoung Sung(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of teaching environment of vocational ability development project operated by the Ministry of Employment and Labor on satisfaction and recommendation intention of education and training. The study conducted empirical analysis of training institutes that are conducting actual reemployment training for the unemployed in the Ministry of Employment and Labor. The results of the study are as follows. First, the competence of the professors in the vocational training has an effect on the satisfaction of the education and training. Second, the content of education and training affects the satisfaction of education and training. Third, overall satisfaction of education and training influenced recommendation intention. Fourth, the capacity of instructors and the contents of education were found to influence the recommendation intention. The result of this study is meaningful in that it proposes a plan to improve efficiency in a series of processes such as planning, operation, evaluation, and feedback of training and training in order to verify the effectiveness of future vocational training.

06. W-01_11_A Study on Location Tracking System for Locating Remote Controller and Its Implementation Method

Sung-Hyun Seo(Hansung Univ., Korea), Kwang-Hyun Ro(Hansung Univ., Korea)

In this paper, the application contents for remote search are opened to register the unique product number assigned to the remote controller, generate the location notification request signal requesting the location information of the remote controller, and generate the location notification response signal responsive to the location notification request signal. A beacon broadcasts signals, and the captured spot or dynamic model detected from the captured beacon signal on the 2D framing or 3D framing is displayed.

07. W-01_13_A study on the effect of ERP introduction strategy and IT consulting service quality on the introduction performance

Tae-Yong Ha(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The results of this study are as follows. First, the effect of ERP introduction strategy and IT consulting service quality factors on the introduction performance was investigated after establishing models and hypotheses. The purpose of this study is to describe the background, purpose, method and composition of this study. Concept and components of ERP system as a main point. The necessity and effect of introduction and IT consulting service quality factor Theoretical review and preliminary study on five dimensions of tangibles, reliability, responsiveness, assurance, empathy The previous research on ERP system adoption strategy factors and introduction performance and the previous research on service quality measurement were examined and the relationship between introduction strategy factors and service quality was introduced. The first part of the conclusion is that companies adopting ERP system are able to introduce introduction approach (general approach, step approach), adoption type (external ERP package, self development, outsourcing ERP system development), ERP system introduction and BPR The results of this study are as follows. First, there is a significant difference in the degree of difference in the degree of the successful introduction of the ERP system according to the constituent factors of each variable (order of BPR, introduction of ERP, introduction of BPR and ERP, implementation of BPR after introduction of ERP) Appeared to be missing. Second, most of the tangibles, reliability, responsiveness, assurance, and empathy of IT consulting service quality have a positive effect on service quality within the significance level. It goes crazy.

08. W-01_15_Effects of Government support policy and Penalty risk on Unethical consulting intention and Consulting attitude

Hyeong-cheol Gil(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

An attempt was made in this research to investigate the effects that government support policy and penalty risk have on unethical consulting intention and consulting attitude when the consultant is consulting small and medium-sized enterprises under government supporting program. The results are summarized as follows: First, government support policy turned out to have a negative effect on unethical consulting intention. Second, the penalty risk did not exert significant effects on the intention to engage in unethical consulting practices. Third, unethical consulting intention consulting attitude turned out to have a negative effect on consulting attitude. So, it can be said that the result of this study suggests a need to increase institutional support instead of strengthening legislation for reducing unethical consulting intention. In addition, it has the meaningful of presenting effective and efficient direction to the government support consulting business for SMEs of the Small and Medium Business Administration.

09. W-01_19_A Study on intentions to use Korea Internet - only banks : Based on Technology Acceptance Model (TAM)

Tae-ho Yoon(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

With the new bank of the Bank of Korea, the financial environment is emerging as a blueprint for the future of information and communication technology. It is being followed by the establishment of a similar bank. However, the social science research team, which focuses on the users of the service, focuses on technological research and is therefore insufficient. Based on the most common technology acceptance models to describe and predict the process of embracing information system technology, this study has designed and analyzed the models that are used to describe the intent of the use of the information and thereby demonstrated the relationship between them. The analysis of total 232 datas has Demonstrated that perceived ease of use and perceived usefulness will influence the intention to use the Internet-only bank service, as well as Instant Connectivity and Context Dependence

will influence the Perceived Usefulness. This implies that the technology acceptance model has proved itself again within the study of the use of Internet-only bank services.

10. W-01_23_A Study on the effect of Technology Acceptance Model with On/Off -line Service Quality on Brand Performance and Relationship Performance in B2B environment

Sang-jun Lee(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

This study purposes to identify the effects of Technology Acceptance Model with On/Off Service Quality on Brand Performance and Relationship Performance in B2B environment. Theoretical framework is based on the partnership research in relationship marketing area, and the Technology Acceptance Model; TAM (Davis et al., 1989)[1]. The result of this study were followings in below. First, TAM model with On/Offline Service has a strong positive effect on Brand-Performance. Second, TAM model with On/Offline Service has a positive effect on Relationship Performance. Third, B2B Brand Performance has a positive effect on Relationship-Performance.

Session 4-B

01. W-01_39_A Study on the Effect of Technology Commercialization Competence on Technology Commercialization Performance : Focusing on mediating effects of mutual trust

Seon-Hoo Kim(Hansung Univ., Korea), Yeon-Woo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of technology commercialization capability of enterprise on the technical commercialization performance through the mediating effect of mutual trust between consulting enterprise and consultant to enhance technological commercialization capability of enterprise in technology commercialization process of small and medium-sized enterprises (SMEs) and to look for the direction of consulting. For this purpose, the empirical analysis of SMEs who had consulted in the process of technology commercialization process revealed that the technology commercialization competence had a positive effect on the technical commercialization performance. Mutual trust was found to have mediating effect between technology commercialization capability and technology commercialization performance.

02. W-01_43_A Study on the Awareness of the Korean Manufacturing Workers and related Consultant in Korea

Kie-seung Lee(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The study compared the policies and policies of the smart factory to the smart factory and looked at the prerequisites and stages of smart factory in the smart factory. And Some of the employees involved in the factory explored how to recognize the smart factory, and suggested presenting the implications and alternatives as a result.: First, it showed that the government's policies regarding the smart factory and support projects were low. Second, it was necessary for a survey of the perception that the smart factory is needed to secure manufacturing competitiveness. Third, The perception of the four (1) Standard 2) Safety and security, 3) Communications infrastructure maintenance 4) Complex system management) original priorities of the Smart Factory has proved negative. The results of this study are attributed to the lack of awareness of the need for improvements in policies and priorities, mainly in the manufacture of policies and priorities for the manufacturing of smart factory.

03. W-02_01_Evaluating absorption and scattering lines for environmentally friendly shielding development
Chang-Gyu Kim(Gimcheon Univ., Korea), Mi-Ran Kim(SunMoon Univ., Korea)

To minimize exposure dose during lateral spine X-Ray testing and obtain optimal image for diagnosis a water filter was made to measure and evaluate dose distribution. The influence of dose inequality phenomenon was confirmed since the exposure dose and spatial scattered dose by the scattered ray has increased as they got closer to the X-ray tube cathode and toward the direction of X-ray irradiation. Such results are expected to be presented as data for anticipating the exposure dose of patients and determining a test method during a breast cancer test in the future and also utilized widely as basic important data for reducing the medical exposure dose.

04. W-02_02_Study on the differences and inequality in health care services used in Korea across different regions

Bo-Woo Lee(Gimcheon Univ., Korea)

Individual variations which influenced unmet needs for health care in Korea showed that marital status, single-person household, occupation, education level, household income, rate of household in poverty, private insurance purchase rate, rate of receiving health examinations, rate of performing physical activities, hypertension, diabetes, and subjective health status were the main variations. It also showed that unemployment rate, portion of welfare budget, mortality, elderly population ratio, household equivalence income, regional deprivation scale, financial independence ratio were the main variations for regional variations.

05. W-02_12_Radiation Safety Behavior Model for Radiological Science Departments of Universities in South Korea

Pyongkon Cho(Daegu Catholic Univ., Korea), **Eunok Han**(Korea Academy of Nuclear Safety, Korea),

Yongmin Kim(Daegu Catholic Univ., Korea), **Hyonchol Jang**(Suseong Univ., Korea),

Yeoryeong Jeon(Daegu Catholic Univ., Korea)

When multiple linear regression analysis was conducted taking the radiation safety behaviors of the students in the radiological science departments as the dependent variables, it was found that these behaviors were affected by self-efficacy, knowledge of the materials, and attitudes towards the materials, in order of greatest to least influence.

06. W-02_13_Effects of Attention and Postural Body Schema on Somatosensory Individual Approach after Stroke
Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea), **Man-Seok Han**(Kangwon Nat'l Univ., Korea)

Objective: This study investigated effect of attention and postural body schema on somatosensory individual approach after the stroke. Methods: we have 10 subjects who has problem with hemiplegia after stroke patients, we divided into two group: the somatosensory individual approach group (SIG), and conservative group (CVG). To compare the groups, we used several assessment tools; Mini mental status examination Korean version (MMSE-K), star cancellation test (SCT), body visualization and space concepts (BVSC). Results: In SIG, there was significantly improved MMSE-K, SCT ($p<.05$). Also, there was significantly differences in AT and SCT between groups ($p<.05$). Conclusion: The somatosensory individual approach is influenced for improving of the attention and spatial orientation relative with postural body schema

07. W-02_14_The Effect of Manipulation on Different Chopstick Materials to Age and Gender of Elementary School Children

Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea), **Man-Seok Han**(Kangwon Nat'l Univ., Korea)

Objective: The purpose of this study was to investigate the effect of manipulation on different chopstick materials to age and gender of elementary school children. Methods: A total of 50 elementary school male and female students were used as chopsticks with 3 different materials to investigate their manipulative ability. To compare the groups, Chopsticks Manipulation Test (CMT) was used to assess hand manipulation. Results: There was no difference between chopsticks manipulation and material according to gender difference of elementary school children. There was a significant difference between chopsticks manipulation and material according to age difference of children ($p<.05$). Conclusion: Therefore, selection of the appropriate material for the age will be helpful for the operation ability of the lower grade children.

08. W-02_15_Effects of Cognition and Depression on Board Games Programs for Elderly with Mild Cognitive Impairment

Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea), Man-Seok Han(Kangwon Nat'l Univ., Korea)

Objective: This study was to investigate the effect of the board game program on the cognitive function and depression of the elderly with mild cognitive impairment. Methods: This study was a one-group pretest-posttest design, in which a board game program was administered to 3 elderly people with mild cognitive impairment for 4 weeks, 3 times a week for 40 minutes. The subjects were assessed using the Mini-Mental State Examination Version (MMSE-K), the Korean Version of the Montreal Cognitive Assessment (MoCA-K) and the Korean Geriatric Depression Scale (KGDS). Results: The board game program changed the attention though MMSE-K and MoCA-K, and the also depression changed through KGDS. Conclusion: The board game program is considered to be a useful approach to improve attention and reduce depression in the elderly with mild cognitive impairment.

Session 5-B

01. W-03_13_Performance evaluation of Gamma-ray Shielding Material Using Monte Carlo

Sang-Hyun Han(Seonam Univ., Korea), Cheong-Hwan Lim(Hanseu Univ., Korea),
Kyung-Ah Kim(Chungbuk Univ., Korea), Beom-Hui Han(Seonam Univ., Korea),
Sang-Ho Lee(Seonam Univ., Korea), Cheol-Ha Baek(Dongseo Univ., Korea)

In order to examine the shielding material which could replace the radiation defense apron used in department of nuclear medicine, this study conducted GEANT4 Gate simulation by each energy characteristics of radioisotope that is most popular and conducted the analysis on transmission value and shielding rate in accordance with the component of shielding material. As the result, the component with the highest shielding rate in Gate simulation experiment was tungsten, followed by lead, bismuth, antimony and barium sulfate.

02. W-03_15_Analysis of Internet Addiction Patterns based on Internal and External Compatibility in terms of Human Computer Interaction

JaeYong Lee(Hanseu Univ., Korea), Cheong-Hwan Lim(Hanseu Univ., Korea)

Internet addiction diagnostic tools focus on withdrawal and tolerance centered addiction. In this paper, we propose a methodological tool for analysis of Internet addiction patterns based on internal and external compatibility in order to provide a perspective for analyzing various dysfunctional problems.

03. W-03_16_The Development of an Occupation-Based Activity Program for the Elderly with Sight Loss and Mild Cognitive Impairments

Kyoung-Young Park(Jungwon Univ., Korea), So-Yeon Park(Hanseu Univ., Korea),
Won-Mee Jeong(Dong-nam Health Univ., Korea)

Dementia and visual impairment are the most common medical conditions that affect later life. In this study, a pilot study was conducted to develop an occupation-based activity program for the elderly who experience both sight loss and dementia (or mild cognitive impairment) through a literature review and the review of an expert committee, and to examine the applicability and effectiveness of the program.

04. W-03_19_Dose reduction of Bismuth shielding in the Dental CBCT Depending on Field of View

Hongryang Jung(Hanseu Univ., Korea), Taesung Kim(Hanseu Univ., Korea),
Beomhui Han(Seonam Univ., Korea), Kyoohyung Kim(Hanseu Univ., Korea), Jihoon Choi(Hanseu Univ., Korea)

CBCT (Cone beam computed tomography) has been developed and widely used by the new imaging technique. This study aims to check the dose reduction rate using Shielding Material (Bi) according to the changes of Field Of View (FOV). In case of the left eye in the P-mode, the difference between the case with and without shielding with a bismuth shield material is reduced by 43.7% from 9.059 Gy to 3.965 Gy, and it is reduced by about 47.5% from 10.213 Gy to 4.859 Gy in the case of the right eye. It is expected that dose reduction effect can be expected through a shielding material such as Bismuth depending on the FOV.

05. W-03_20_Evaluation of lead thick shielding of computed tomography using Monte Carlo Simulation
Ki-Jeong Kim(Hanseu Univ., Korea), Hong-Ryang Jung(Hanseu Univ., Korea), Kyoo-Hyung Kim(Hanseu Univ., Korea)

Computer tomography apparatus was computerized using Monte Carlo simulation code. In order to investigate the appropriate thickness of lead shielding at the time of computer tomography inspection, simulated estimation was made of the transmission spectrum accompanying the star change of lead thickness. Based on this, the shielding ratio was derived by integrating the absorption probability of the photon of the star's energy of lead thickness.

06. W-03_24_Correlation between Bone Mineral Density Using Multi Detector Computed Tomography and Fracture Risk Rate using Fracture Risk Assessment Tool

Tae Hui Lee(Wonju Medical Center, Korea), Tae-Hyung Kim(Kangwon Nat'l Univ., Korea),
Woon Young So(Kangwon Nat'l Univ., Korea), Seung Hun Jeong(Yousei Univ., Korea),
Dong Woo Kim(Wonju Medical Center, Korea), Cheong-Hwan Lim(Hanseu Univ., Korea)

To analyze the correlation of the fracture risk ratio using Fracture Risk Assessment Tool (FRAX) with the bone mineral density (BMD) value calculated by Multi Detector Computed Tomography (MDCT). It was confirmed that there was a significant difference from the correlation between the fracture risk and major osteoporosis using FRAX program. It was showed a significant difference, the risk of hip fracture and the bone density by gender ($p < .01$), the main osteoporosis Hip fracture risk ratio and bone density (male: $p < .01$, female: $p < .001$), which were significantly different from fracture risk and bone density (male: $p < .01$, female: $p < .001$), respectively. It was possible to estimate the correlation between bone mineral density of tester using MDCT and fracture risk rate using FRAX program. It could be use as basic data for management of osteoporosis conceivable.

07. W-03_27_Usefulness of twinkling artifacts of color doppler sonography in renal stone measurement.
Hye-Nam Lee(Kimsangyoung Internal Medicine Center, Korea), Mi-Soon Park(Korea Clinical Laboratory, Korea),
Cheong-Hwan Lim(Hanseu Univ., Korea)

We investigated the size of renal stones that are difficult to distinguish from grayscale images using color doppler twinkling artifacts useful for detecting renal stones. Measurements of stones use twinkling artifacts and can overestimate the actual size.

08. W-03_28_Evaluation of Air Gap Technique according to Grid Use in Chest PA Exam

Dong-Hee Hong(Far East Univ., Korea), Hong-Ryang Jung(Hanseu Univ., Korea),
Cheong-Hwan Lim(Hanseu Univ., Korea)

The phantom was used to obtain the chest PA images according to the use of grids and air gap, and the lungs, vertebrae. To evaluate the image quality of each image, the average and standard deviation of the ROI and background of the image are obtained using Image j, and the SNR and CNR are obtained from these values. The SNR value measured by using 12.5mAs for grid and 7.5mAs for air gap is The SNR of 21cm in Lung and 9cm in Rib and Spine were higher than those of Grid when using air gap.

09. W-03_29_A Study on Ultra Microstructure Characteristics of HPV in Women's Vaginal Cells

Mi-Soon Park(Korea Clinical Laboratory, Korea), Hye-Nam, Lee(Kimsangyoung Internal Medicine Center, Korea),
Byung-Soo Chang(Hanseu Univ., Korea)

Light microscopic observation of this study identified koilocyte and atypical multinuclear cell. Transmission electron microscope observation identified that koilocyte was forming halo like big empty bubble surrounding nucleus, and

nucleus was ververtic elongated. And, the center of nucleus was filled with material whose electronic density was low as if it is empty. But, virus was not identified in the nucleus of koilocyte forming halo surrounding it.

10. W-03_30_Correlations Analysis of the Entrance Surface Dose according to the BMI at Computed Tomography and Angiography in Cardiovascular Examination

Young-Hyun Seo(Dongshin Univ., Korea), Jae-Bok Han(Dongshin Univ., Korea), Nam-Gil Choi(Dongshin Univ., Korea), Jong-Nam Song(Dongshin Univ., Korea), Mun-Taek Jong(Dongshin Univ., Korea), Myo-Young Jung(Dongshin Univ., Korea)

The purpose of this study was to investigate the correlation between the entrance surface dose (ESD) and the patient's body mass index (BMI) in coronary angiography (CAG) of the cardiovascular center and coronary computed tomography angiography (CCTA) of the Department of Radiology, which are performed to examine cardiovascular lesions. In conclusion, although the dose of CAG tended to increase with the increase in the patient's BMI, the dose of CCTA tended to decrease inversely. Therefore, BMI may be used as the criterion for the selection of an appropriate examination considering the exposure dose.

11. W-03_31_Study of a AC Servo Motor Control Algorithm for Follow-Up of the Exercise Load Curves
Hong-Won Kim(Hanseu Univ., Korea), Dong-Gi Kwag(Hanseu Univ., Korea)

Currently, the fitness industry is an active ICT convergence area. The method of generating the exercise load in the muscle power apparatus is developing from the weighted method to the motor method. There is a need for an electric load control technology that can adapt to a user's real-time muscle force change and precisely follow a predefined force-position correspondence curve. In order to satisfy these conditions, the isokinetic-torque control algorithm using PI control was studied.

12. W-03_32_Fundamental Study on Vibration Damping of Barrel Using Dynamic Damper
Dong-Gi Kwag(Hanseu Univ., Korea)

Modern trams have greatly improved maneuverability, range and destructive power. However, such a change causes various problems in the aiming performance of the barrel during maneuvering and shooting. Among them, the increase of the aperture causes the vibration problem of the barrel during driving and the residual vibration problem of the barrel which continues after the shooting, which makes accurate aiming and shooting difficult regardless of the performance of the four-drive mechanism. Therefore, efforts should be made to compensate for the residual vibration of the barrel. In this study, basic studies were carried out to eliminate the residual vibration of the barrel within the required stabilization time and to improve the accuracy of the shot.

13. W-03_33_Study on the Stabilization of Focal plane Using Piezoelectric Actuator
Dong-Gi Kwag(Hanseu Univ., Korea)

The focal plane image stabilization system is one of the effective methods to improve the image quality of the satellite camera by removing the motion disturbance of the focal plane portion formed by the image. The purpose of this study is to introduce the focal plane stabilization technique and to determine the optimum driving conditions for the response and thrust of the focal plane image stabilizer actuator.

For this purpose, the response and thrust of the friction actuating type piezoelectric actuators according to various driving conditions were experimentally investigated.

Session 1-C

01. CT-01_The Influence of Brand Experience of Korean Buffet Restaurants on Brand Trust and Brand Loyalty

Sung-Ho In(Changshin Univ., Korea), Yong-Geun Na(Daekyeung Univ., Korea)

The purpose of this study was to analyze the effect of Korean buffet restaurant experiences on brand trust and brand loyalty of customers visiting it. Through this study result, the relationship among brand experience, brand trust and brand loyalty of Korean buffet restaurants are reaffirmed, and the importance of brand experience and market strategy implications to enhance the competitiveness of Korean buffet restaurants are provided. This is a result that contributes to the profitability of Korea buffet restaurants through customers' revisits and their recommendations to others. Also, the result shows that the most customers of Korean buffet restaurants are satisfied with the price and they are willing to revisit the brand. Therefore, Korean buffet restaurant brands should focus on creating brand experience that through which customers can feel a sense of cost-effective.

02. CT-02_A Study on Emotional Intelligence and LMX for Citizen Behavior Improvement of Catering Company Employees: Focusing on Korean-style buffet restaurant

Sung-Ho In(Changshin Univ., Korea), Eun-Ju Seok(Kyungmin Univ., Korea)

The purpose of this study was to analyze the effect of Korean buffet restaurant on Emotional Intelligence and LMX. Through this study result, First, emotional intelligence of organization members has a positive effect on LMX. Second, LMX had a positive (+) effect on organizational citizenship behavior. Third, emotional intelligence has a positive effect on organizational citizenship behavior. Fourth, the analysis of LMX mediated effects between emotional intelligence and organizational citizens' behavior showed that emotional intelligence has direct effects on organizational citizenship behavior and indirect effects through LMX.

03. CT-03_Analysis of Color Formation Effect of Lipstick Products Using Color Difference Meter

Lee, Hye-Jin(Woosong Univ., Korea), Kim, Hye-Kyun(Woosong Univ., Korea)

This study tried to prove the difference of color formation effect according to each type of the lip color (middle lip color, dark lip color, bright lip color) and the color formation effect of the domestic and overseas brand products in case of color cosmetics brands. As a result of measuring the colors of lip stick products in a precise and quantified manner through the color difference meter, first, as a result of measuring the colors of the lip stick products with color difference meter, we could prove that there is no difference in the color formation effect between the domestic and overseas brand lip stick products. Second, difference in the color formation effect according to each type of lip color was trivial, and we could prove that the color formation effect was greatly different according to the texture and concentration of the product. Based on these research results, we think it can be useful when developing basic data of make-up pattern for each brand and lip stick products.

04. CT-04_Effects of Psychosocial Consciousness and Media on Appearance Management Behaviors - focusing on male office workers in twenties and thirties -

Hye-kyun Kim(Woosong Univ., Korea), Kwang-il Ko(Woosong Univ., Korea)

The study, afterwards, selected two appearance-related psychosocial consciousness ideas such as narcissistic

consciousness and sociocultural consciousness as influence factors of each category, the survey shows the relation between information search and appearance management behavior. It shows respondents using the information media by customers are much more active. This means information media by customers give stronger motivation for hair and skin care compared to commercial information media. It can be construed that influence of information media by customers displays its power together with the commercial information media because information media by customers is considered to be reliable and circulated through big or small communities while the information from commercial media is exposed to the majority indiscriminately.

05. CT-05_R&D Management, Corporate Governance Practices, and Performance of Chinese Firms

Jaewook Yoo(Konkuk Univ., Korea)

The purpose of this study is to examine the relation of R&D intensity with performance of Chinese firms and the moderating effects of corporate governance systems on this relationship. Using a multiyear (2009–2014) sample of 343 Chinese firms, we found that R&D intensity is positively related to the performance of Chinese firms. We also found that both CEO stock ownership and the separation of board chair with CEO position strengthen this positive relation.

06. CT-06_The Effects of Combined Exercise on Blood Lipids and Melatonin in Developmental Disorder Students

**Chang–Min Son(II–gok Middle School, Korea), Bum–Il Min(Nambu Univ., Korea),
Hyun–Woong Moon(Sang–mu High School, Korea)**

The purpose of this study was to evaluate the effects of 36 weeks combined exercise such as tubing, shuttle run & walk, jump rope, harvard step test and to provide with a blood lipids(TC, HDL–C, LDL–C, TG) and melatonin changes from the exercise program among the developmental disorder students.

07. CT-07_Father's role identity, marital relationship, and paternal involvement in child rearing

Kyoung–Eun Kim(Namseoul Univ., Korea)

The purpose of this study is to examine the relationship between father's role identity, marital relationship and paternal involvement in child rearing in Korea. Participants were 151 fathers with a preschooler in Korean. Results indicate that father's role identity and marital relationship is associated with father's involvement in child rearing.

08. CT-09_A Study on the Adult Attachment and Psychosocial Maturity among College students

Heeseung Song(Dankook Univ., Korea), Miok Kim(Dankook Univ., Korea)

The purpose of this study aimed to understand the adult attachment and psychosocial maturity of 151 nursing students. The adult attachment level of the subjects was $2.64 \pm .41$ (range of score 1–5). The psychosocial maturity was at above middle level at $3.43 \pm .35$ (range of score 1–5). During the college years, psychosocial development needs to be promoted through the application of nursing education programs helping their stable attachment formation and the continuity of such stable attachment formation.

09. CT-14_Parents' Negative Parenting, Children's Peer Attachment, and Children's depression

KyoungEun Kim(Namseoul Univ., Korea), Junghyun Choi(Namseoul Univ., Korea)

This purpose of this study was to investigate the relationship among parents' negative parenting, children's peer attachment, and children's depression in Korea. The total study participants were 2,067 elementary students, composed 1066 males (51.6%) and 1001 females (48.4%). There were significant positive correlations between positive parenting and their children's depression. However, there were significant negative correlations between children's peer attachment (e.g. peer communication and trust) and depression.

10. CT-18_A Study on the Growth and Main Issues of the Online Video Advertising as a Key Advertising Media in New Advertising Environment

Min-Wook, Choi(Namseoul Univ., Korea)

This study analyzes the growth background and major issues of the rapidly growing online video advertising and tries to derive a plan for developing desirable online video advertising in the future.

11. CT-20_A Study on the Outlook on Marriage of University Students in Korea

Hye-gyeong Cha(Namseoul Univ., Korea), Miok Kim(Dankook Univ., Korea)

This is a descriptive correlational research to explore factors related to outlook on marriage of university students who will be the future leaders. Data were collected using questionnaires on outlook on marriage, self-esteem, and adult attachment types from university students in Korea from October 11 to November 17, 2015. Answer sheets of 251 respondents were gathered, and 236 of them were analyzed after excluding 14 incomplete ones. The collected data were analyzed using descriptive statistics, t-test, ANOVA, and Pearson's correlation coefficients. Results showed that the most relevant factor of the outlook on marriage of university students in Korea was self-esteem. And the outlook on marriage was positively correlated with dependent attachment and intimate attachment. Based on the results of this study, it was found that university students need various educational opportunities and programs to improve their self-esteem to form a positive outlook on marriage.

12. CT-21_A Research on Semiotic Analysis for the Portraits of Scholar wearing 'Simui'

Il-Jee Lee(Hankyong Nat'l University, Korea)

This paper shows how semiology interprets the portraits of scholar wearing 'Simui'. The 'Simui' is Korean traditional garment which was mostly worn by male Confucian scholars called 'Seonbi'. First of all, the portraits of scholar wearing 'Simui' show customary meaning of the attitude, expression, dress form and the appearance of integrity. The study revealed the identification, description and the interpretation of the content of 8 images from the 17th century to the 20th century on iconology. Secondly, it gives lengthy symbolic analyses of the images. The portraits depict the 'Simui' designed by dividing "Jikyeong Simui" and "Bangyreong Simui" depending on a political faction. Finally, the research is to unveil problem on the meaning of masculinity under the male domination system. Mystery and transcendence of the '5-haeng' is identified religiosity under the justification strategy of masculinity after the mid Joseon Dynasty.

Session 2-C

01. OT-01_A Study on Social Media Users' Responses to Temporally Distant Information

Younhee Ha(Sookmyung Women's Univ., Korea), Hee-Jung Lee(CHA Univ., Korea)

The present study explores social media users' responses to temporally distant information. Results of a survey indicate that when social media users were in temporally distant situation, they perceived firm information more favorably than user information. Further analysis showed that perceived usefulness of information mediates this effect.

02. OT-04_Entrepreneurial Orientation, R&D Investment, and Uncertainty

Jaewook Yoo(Konkuk Univ., Korea)

The main purpose of this study is to examine the relations of the entrepreneurial orientation of top manager with the R&D investment of firms and the moderating effects of environmental uncertainty -dynamism, hostility, munificence- on this relationship. Using a sample of 637 Korean firms in various manufacturing and service industries, we found that the entrepreneurial orientation of top manager is positively related to firms' R&D investment. We also found that environmental dynamism weakens this positive relation while environmental munificence intensifies that.

03. OT-05_The effect of authentic leadership on the relationship between participative budgeting and budgetary slack

Tae-Jong Leem(Sahmyook Univ., Korea), Bong-Kee Kim(Kyungin Women's Univ., Korea),
Hyun-Jeong Choi(ENMOST consulting corp, Korea)

Many preceding studies note that participative budget increases budgetary slack. But there are also preceding studies that state participative budget having no effect on budgetary slack or reducing budgetary slack. Inconsistent study findings indicate that participative budget's effect on budgetary slack may vary due to other factors. This study conducts and empirical analysis on whether authentic leadership has a moderating role in the relationship between participative budget and budgetary slack.

04. OT-06_Effect of early childhood pre-service teachers' anger-expression and ego-resilience on their teaching efficacy

Hyun-Young Kang(U1 Univ., Korea), Hyun-Ah Seo(KyungSung Univ., Korea), Se-Jin Eom(Busan Digital Univ., Korea)

The purpose of this study is to examine the effect of early childhood pre-service teachers' anger-expression and ego-resilience on their teaching efficacy.

05. OT-07_Analysis of Research Trends on Learning Difficulties in Programming

Seong-Won Kim(Korea Nat'l Univ. of Education, Korea), Youngjun Lee(Korea Nat'l Univ. of Education, Korea)

With developments in computing technology, software education worldwide is actively focusing on computational thinking. However, learners commonly face difficulties in learning programming, which is an important factor in software education, making it difficult to improve their computational thinking. Therefore, this study reviewed previous studies that investigated the difficulties faced in programming. Most such studied had focused on text-based programming languages; studies on block-based programming languages focused on learners' process of learning programming languages. Future studies must investigate the difficulty faced in learning each aspect of a programming language.

06. OT-08_An Analytic Study of the Current Status of STEAM Education

SeongHey Paik(Korea Nat'l Univ. of Education, Korea), Seong-Won Kim(Korea Nat'l Univ. of Education, Korea),
Youngjun Lee(Korea Nat'l Univ. of Education, Korea)

The ongoing development of science and technology has emphasized the cultivation of talented people who can creatively solve problems and have a convergence literacy. In Korea, STEAM education has been actively implemented since 2014 in order to train such talented people. However, STEAM education presents certain problems, such as identity convergence, administrative issues, and insufficient teacher recognition. This study utilizes online questionnaires to investigate and understand the current state of STEAM education for teachers in Korea. The results have revealed that though many teachers have received training, this rarely includes STEAM education training. Among the teachers who participated in this research, a small number of teachers were applied STEAM education to class. The convergence and theme of STEAM education also appears to be concentrated.

07. OT-11_Factors Influencing Self-Esteem of the Elementary School Children

Yeon Ran Hong(Sunchon Nat'l Univ., Korea), Eunyoung Do(Kwangju Women's Univ., Korea)

The study was done to examine the factors influencing self-esteem in elementary school children. Subjects were 452 middle school students and living in Suwon city. Data was collected from April 7 to May 2, 2017

As a result of multiple regression that was performed to seek factors influencing self-esteem, communication with mother ($\beta = .279$) was revealed as the most powerful factor in elementary school children, followed by Child rearing attitude(acceptance) ($\beta = .187$), School record($\beta = -.161$), Father's education($\beta = .122$), Child rearing attitude (achievement pressure) ($\beta = .142$) and Economic status($\beta = -.096$), in that order. These factors explain 38.8percent of self-esteem in elementary school children

On the basis of this results, when nursing educational programs are developed to make positive Self-esteem, these factors need to be considered.

08. OT-13_The Modeling of Scholarly Information Services based on citation context

Byungkyu Kim(KISTI, Korea), Beom-Jong You(KISTI, Korea), Jihoon Kang(Chungnam Nat'l Univ., Korea)

In order to improve the evaluation and service of academic papers based on existing citation indexes, academic research utilizing citations is being conducted globally and partly reflected in academic information services. In this paper, we analyze the research and service cases of using overseas citation context and present a citation context – based academic information service model. The base data required for the service model was selected by citing the most frequently cited articles from KSTI provided by KISTI.

09. W-00_01_Development of Data Lifecycle Management System for Efficient Management and Public Use of National R&D Information Standard

Eungyeong Kim(KISTI, Korea), Kang-Ryul Shon(KISTI, Korea), Chulsu Lim(KISTI, Korea)

The National Science & Technology Information Service (NTIS) has provided users with diverse data such as project information, researcher and research outcome to systematically gather and integrate for the public use of national R&D information. The data are processed in the following steps: collection, analysis, filtering & transfer, quality control and monitoring. Since they are handled by a different administrator in each step, the work process which covers management of data history and redundant business rules (BR) check is inefficient. This study has developed

Integrated National R&D Data Lifecycle Management System (LCMS) for the management of the history and shared use of national R&D information standard items with a goal of improving work efficiency.

10. W-00_06_A Study of Personal Information Issues for the Shared Use of the History of Participation as National R&D Project Evaluation Committee Members

Jong-Won Kim(KISTI, Korea), Young-Jun Yoon(KISTI, Korea), Ki-Seok Choi(KISTI, Korea), Min-Woo Park(KISTI, Korea)

For the implementation of national R&D projects are designed evaluation stages. Professionals from diverse fields have participated in each evaluation process as the evaluation committee members. Externally, there has been a rising demand for matching the expertise of the evaluation committee members' information provided by the The National Science & Technology Information Service (NTIS). However, diverse legal issues can occur at the collection and utilization of the data by the NTIS. Therefore, this study investigates how to collect and use project evaluation personnel's information in the NTIS from the perspective of personal information. In addition, it attempted to discuss how to share the collected data among government bureaus at selection of project evaluation committee members.

Session 3-C

01. W-01_20_A Study on the Activation of Eco-Friendly Consumption through Analysis of Domestic Environmentally Friendly Products

Jin-Young Jeon(Hansung Univ., Korea), A-Young Shin(Hongik Univ., Korea), Kwang-Hyun Ro(Hansung Univ., Korea)

Today indiscreet production and consumption are depleting natural resources and accelerating environmental pollution, posing a threat to consumer health and safety. As a result, consumers' interest in environmentally friendly products has increased, but they are not active in terms of demand. Therefore, this study investigated the factors that are not stimulating consumption of environmentally friendly products and searched for countermeasures. The scope of research for environmentally friendly products is defined only as organic food, eco-label and Good Recycled mark. In this paper, we analyzed the impediments to activation of environmentally friendly products consumption through analysis of Current Status of environmentally friendly products Purchase in public Sector and Current Status of environmentally friendly products consciousness in the Private Sector. Finally, countermeasures for the activation of eco-friendly consumption were proposed.

02. W-01_22_A Study on the Improvement of Human Resource Management to Prevent Turnover - Focused on A Company Case -

Kwang-Hyun Lee(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea), Sang Bong Kim(Hansung Univ., Korea)

The purpose of this study is to find out the method for the human resource management plan which can avoid job turnover by analyzing the reason of the separation of the employees in large corporations in Korea. In A company, the results of the empirical analysis of the types and causes of employees who separated jobs between 2014 and 2016 are as follows: First, the most frequent turnover occurred after three to four years of employment. Second, in terms of rank, turnover was most actively occurred from the section chief and deputy in the middle class. Third, the disagreement between organizational and personal value was the most important reason for the job turnover. Fourth, male employees accounted for most of the turnover than female workers. Fifth, the jobless have similar competencies compared to incumbents, but they have a somewhat poorer performance. Through this study, I could find that emphasis should be placed on specific employees to avoid job turnover that has a negative effect on the company.

03. W-01_24_An Exploratory Study on Job Stress among Consultants

Tae-young Kim(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea), Kwan-Sik Na(Seowon Univ., Korea)

This paper was attempted to explore the stress among consultants who were exposed to a great deal of stress as professional and intellectual workers. To do this, it defined 'stress among consultants' and conducted an exploratory study on job stress measuring instruments based on the literature on job stress in other fields of occupation. As a result, it was suggested that there was a need to discuss various efforts to not only enhance consultant competency but also control stress factors among consultants in order to improve consulting performance.

04. W-01_26_Effects of Perceived Security on official replicator Products on Repurchase Intentions - Focused on official replicator market in Korea -

Sang-youll You(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of perceived security on the repurchase intention of the multi -

function products which need to strengthen the protection service of the information assets connected to the network in the office equipment environment in Korea. In this study, I analyzed the purchase experience companies of a certain brand of MFP products. The results of the study are as follows. First, perceived security attributes have a positive effect on brand image. Second, brand image has a positive effect on repurchase intention. Third, there was a difference in the effect of perceived security on repurchase intention among brand satisfaction groups. The results of this study show that the strengthening activities of information security function and information asset protection service of MFP product are important factors for customer's intention to repurchase and show academic meaning and practical implications through empirical analysis of specific brand products.

05. W-01_27_A Study on the Platform for the Cloud Service Brokerage

Jong-Yul Kim(Hansung Univ., Korea), Kwang-Hyun Ro(Hansung Univ., Korea)

As the traditional IT infrastructures are replaced by cloud computing services, users' diverse needs are growing. Against this backdrop, the importance of the CSB(Cloud Service Brokerage) to provide transit services between CSP(Cloud Service Provider) and users is increasing, and many IT service providers are entering the CSB market. However, research on the variety of actual CSB business models or on platform to support it has been lacking. So through the analysis of services based on CSB model and through the functional analysis of CSB platform that actually provide services, this paper suggests an efficient platform for CBS service.

06. W-01_32_A Study of the Effect of Significance Recognition of Consulting Projects on Project Management Capability, Technical Impact, and Reparticipation Inclination

Tae-Young Kim(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea), Joo-Sang Jeon(Hansung Univ., Korea)

This study aims to study the effect of significance recognition of consulting projects on reparticipation inclination in government-supported consulting for small and medium enterprise(SME) and present policy suggestions. The results of empirical analysis are as follows: significance recognition appeared to have a positive impact on project management capability, technical impact, and reparticipation inclination in government-supported consulting. And project management capability as consulting performances was found to have a positive impact on technical impact. But project management capability and technical impact did not have an impact on reparticipation inclination in government-supported consulting projects. The findings from this study suggests that significance recognition of consulting projects is an important factor to make continuous needs for government-supported consulting projects as well as consulting performances for SME.

07. W-01_35_A Study on the application of Business continuity management through Convergence business and Collaboration commercialization on Innovative enterprises

Kyung-Oh Kim(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

This aims to identify the application of BCM(Business continuity management) through Convergence business and Collaboration commercialization on Innovative enterprises. It performed in an empirical analysis for Venture and Innobiz of small and medium-sized businesses. Study results are as follows. First, Innovative enterprises will have a positive effect on Convergence business. Second, Innovative enterprises will have a positive effect on Collaboration commercialization. Third, Convergence business will have a positive effect on Collaboration commercialization. Fourth, Convergence business have a positive effect on Business continuity management. Fifth, Collaboration commercialization will have a positive effect on Business continuity management.

08. W-01_44_The Effect of Consultant's Ability on Customer Satisfaction, Financial and Non-financial Performance, focusing on the influence of consultant knowledge as a moderating effect
Sung-Yoon Chei(Hansung Univ., Korea), Yen-yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of consultant 's ability in domestic consulting service on customer satisfaction, financial and non – financial performance. The results of this study are as follows: First, customer satisfaction affects customer 's financial and non – financial performance. Second, financial and non-financial performance of customers affects repurchase intentions. Third, the higher the knowledge of consultant, the more significant the influence on customer satisfaction, financial aptitude, non – financial aptitude, and repurchase intention. The results of this study are meaningful in that the ability of consultant 's ability or consultant' s knowledge is measured to measure the impact on customer 's financial and non – financial performance beyond customer' s satisfaction. Through this, we confirmed the importance of knowledge among the consultant 's ability to improve customer' s financial performance as well as non – financial performance measurement and non – financial satisfaction.

Session 4-C

01. W-02_16_The Effect Scapula Setting intervention on The Function of Upper Extremity and Walking in The Patients with Stroke

Man-Seok Han(Kangwon Nat'l Univ., Korea), Sung-Ryoung Ma(Shinsung Univ., Korea),
Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea)

[Purpose] The aim of this study was to investigate the effect of scapula setting intervention on the function of upper extremity patients with stroke [Subjects and Methods] Thirty stroke patients were prospectively randomized to either the use scapula setting intervention (N=15) or common rehabilitation therapy (N=15) ; the experiment was conducted 3 times weekly, 30 minutes per session, for 4 weeks. [Results] The experimental group showed a more significant difference compared with the control group that upper extremity function. [Conclusion] This study showed that scapula setting is effective at improving the function of the impaired upper limb in stroke patients.

02. W-02_17_Effects of Knee Extensor Muscle Fatigue on Balance with Subacute Hemiplegia

Man-Seok Han(Kangwon Nat'l Univ., Korea), Byung-Il Yang(Suwon Convalescent Hospital, Korea),
Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea)

In this study, we assessed the effects of knee extensor muscle fatigue on balance with subacute hemiplegia. Thirty subjects with subacute patients participated. Subjects were randomly divided into affected-side muscle-fatigue group (n=15) and unaffected-side muscle-fatigue group (n=15). Both two groups were applied maximal voluntary isometric contraction for leading knee extensor fatigue. To compare the balance, we used paired t-test. Findings The unaffected-side muscle-fatigue group showed statically significant differences before and after knee extensor muscle fatigue. Therefore, unaffected-side muscle-fatigue fatigue was brought secondly increasing number of fall down. These factors were considered to balance training.

03. W-02_18_Effects of Multi-Purpose Integrated Intervention Program on Physical and Cognitive Function of the Disabled Elderly with Mild Cognitive Impairment

Man-Seok Han(Kangwon Nat'l Univ., Korea), Jong-Eun Yang(Bethesda Hospital Rehabilitation Center, Korea),
Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea)

In this study, what kind of change is taken place to physical and cognitive function when applying multi-purpose intervention program to the elderly with mild cognitive impairment was intended to be explored and through this study, it was learned that multi-purpose integrated intervention program is helpful for decreasing dementia prevalence of the elderly with mild cognitive impairment and it is hoped that diversified programs that may decrease dementia prevalence would be developed in the future.

04. W-02_19_The Effect of Social Support on Leisure Activities of the Elderly

Man-Seok Han(Kangwon Nat'l Univ., Korea), Kyung-Ju Lee(Kangwon Nat'l Univ., Korea),
Bo-Kyoung, Song(Kangwon Nat'l Univ., Korea)

[Purpose] This study aims to understand the leisure activities satisfaction levels of the elderly who receive social support. [Subjects and Methods] Among a group of 150 elderly individuals older than 65 years of age, those who volunteered to participate in this study were surveyed. [Results] A significant correlation was found between social

support and leisure satisfaction of the elderly. [Conclusion] If social support is provided as indicated in this study then it will have a positive effect on the leisure activities satisfaction levels of the elderly.

05. W-14_14_The Effect of Environmental Factors on Music Education

Jihyun H. Park(Gwangju Nat'l Univ of Education, Korea)

The purpose of this paper is to examine the effect of environmental factors such as teacher, school, and family on students' music learning and activities in a general music classroom setting.

06. W-23_07_A Study on Preventing Second Conviction of Sexual Violence Offenders by a Smart Electronic Monitoring Anklet

Sei-youen Oh(Semyung Univ., Korea), Jae-young Lee(Semyung Univ., Korea)

Recently, the number of sexual violence offenders against under-13 have increased and second convictions have continuously committed by the offenders even with electronic anklets. Therefore, taking the seriousness of such second convictions by the sexual violence offenders into account, this study proposes a preventive system module on second convictions of sexual violence offenders by using smart electronic monitoring anklets, which supplemented the shortcoming of previous electronic anklets - provision of simple location information.

07. W-23_09_A Study on Safe Device Authentication in IoT Environment

Jae-young Lee(Semyung Univ., Korea), Sei-youen Oh(Semyung Univ., Korea)

IoT, providing services by being connected to device with different specifications, is exposed to diverse security risks as it is difficult to be adopted to the high security technology used in previous networks. Hence, appropriate security technology that is suitable to the characteristics of IoT is being developed. Especially, various Authentication Protocols have been developed to authenticate devices that comprises of IoT, yet, are vulnerable to many risks. Accordingly, the thesis proposes an improved protocol that covers the problems such as vulnerable exposure to Tapping attacks by attackers as data transmission is conducted without any encryption during authentication procedures and to Impersonation attacks by attackers as a authentication phase upon gateways during the existing Authentication Protocol processes is skipped.

08. W-23_10_Arduino based Smart Elderly-Care System using Smart-phone

Myeon-Gyun Cho(Semyung Univ., Korea)

In this paper, we measure the temperature, pulse, SpO2, sound and movement through bio-sensors attached to the elderly's body and LED reading light, and transmit the biometric data to the smart-phone. We can see health condition of the elderly in real time through body temperature, pulse and Oxygen saturation using bionic sensors in it. In the middle of the night, when the elderly movements and painful groan are detected by LED reading light, alarms are sent to the smart-phone in real-time manner and communication between guardian and elderly patient is possible through the camera and speaker. Using the proposed smart elderly-care system, it is possible to monitor the elderly patient's status and respond in real time, while guardian is doing other tasks with ease.

09. W-23_11_Concept of Transmission Power Control Technique in Non-Orthogonal Multiple Access for 5G Communication

Kyun-Tak Kim(Kyunghee Univ., Korea), Kyu-Jin Lee(Semyung Univ., Korea)

In this paper, we are discussed on an adaptive transmission power control scheme in non-orthogonal multiple access (NOMA) based on multiple input multiple output (MIMO) techniques. In 5G communication, NOMA is a candidate technology for achieving the capacity increase of a cell, and simultaneously transmits data for two or more terminals. Moreover, it can improve the frequency resource efficiency. In the NOMA system, the core technology is a successive interference cancellation (SIC) technique. However, the efficiency of SIC depends on signal to interference ratio (SIR), and an adaptive transmission power control technique to compensate for this weakness should be considered. Therefore, we discuss the concept of transmit power control technology.

10. W-23_12_A Study on Mobile Web Service Retrieval Method Based on Meta Model

Sung-Ho Sim(Semyung Univ., Korea), Han-Yong Choi(Semyung Univ., Korea)

Mobile web service development is increasing due to the development of mobile environment. The services provided are only simple functional elements due to the limitations of mobile resources. With the increase of number of service users as well as user demand, the quality of web services is considered to be an important factor in service selection. This study proposes a metamodel-based web service search system that selects mobile web services suitable for users. Non-functional elements are provided using mobile web services metamodel. A service list provided so that the user can select a desired web service by reflecting the enhanced function and quality of the web service using the provided metamodel.

11. W-23_13_Selection and Concentration Strategy in Second language learning

Jae-il Yi(Semyung Univ., Korea), Gui-jung Kim(Baekseok Univ., Korea), Jung Soo Han(Baekseok Univ., Korea)

More and more language institutes, private and public education, utilize smart devices for educational purpose in Korea. Many of the staff related with language education believe that smart devices are helpful for increasing the learning effect. However, in reality, it is quite doubtful whether smart device based learning really helps. To make it useful, the device must be appropriately designed and the learning program lay out should also be suitable for user's purpose of use. Also, English learning contents for specialized purpose as well as guidelines to monitor the development should be prepared. Therefore, customizing a ready-to-go system by arranging IoT environment needs to be developed in the field of English education in Korea.

Session 5-C

01. W-20_09_Analysis of inorganic ions, especially thiocyanates, as biomarkers of environmental tobacco smoke exposure and their relationship in human saliva

Jung-Eun Park(Kyung Hee Univ., Korea), Jong-Hwa Jang(Hanseu Univ., Korea)

In this study, we analyzed the presence of thiocyanate (SCN⁻) in saliva according to level of exposure to environmental tobacco smoke (ETS) and evaluated the correlations between SCN⁻, fluoride, chloride, and phosphate. Collected saliva was centrifuged at 2000 rpm for 10 minutes and syringe-filtered. The analysis was carried out using HPLC conductivity detection under NaOH 150 mmol/L. The concentration of SCN⁻ was 0.34 ± 0.16 mM ($\text{LOD}=0.67$) in the non-smoking group and 0.97 ± 1.05 mM ($0.18\text{--}3.92$) in the smoking group ($p < 0.05$). The concentrations of F⁻, Cl⁻, and PO₄³⁻ in saliva were 0.00088, 11.98, and 1.98 mM for non-smokers and 0.15, 12.94, and 3.27 mM for smokers, respectively. Smoking has a significant effect on the components of saliva because the concentrations of SCN⁻ and inorganic anions are higher in smokers than in non-smokers.

02. W-20_10_Development and application of an analytical method for salivary inorganic anion quantification for the diagnosis of systemic and oral diseases

Jung-Eun Park(Kyung Hee Univ., Korea), Jong-Hwa Jang(Hanseu Univ., Korea)

The purpose of this study was to develop a method to analyze several salivary anions simultaneously using HPLC (IC) and to analyze the anions in actual saliva samples. Chromatographic separation was performed using a Dionex IonPac AG 11-HC column (50mm×4mm). The column parameters were as follows: mobile phase, isocratic elution with 120 mmol/L NaOH; flow rate, 1,000 μ L/min; separation temperature, 35° C. The linearity of the sample's linear range was 0.9902–0.9989, LOD was 0.78–1.16 μ M, and LOQ was 2.36–3.49 μ M. The recovery test showed a recovery rate of 95.63–107.77%, and RSD of 3.37–11.48%, verifying the method of analysis. The method of analysis used in this study can appropriately quantify anions in saliva. Hence, it could be used in biomarker studies.

03. W-20_11_Effect of non-thermal atmospheric pressure plasma on adhesion capability in cementation of composite resin inlay

Yu-Ri Choi(Hallym polytechnic Univ., Korea), Min-Kyung Kang(Hanseu Univ., Korea)

Non-thermal atmospheric pressure plasma treatment has been introduced in the field of the dentistry. Especially, it has the potential to solve a boding problem of resin inlay. The aim of this study was to evaluate the effectiveness of non-thermal atmospheric pressure plasma in cementation of composite resin inlay. Resin-inlay (Tescera, Bisco, USA) discs (12 mm × 2 mm) were used for this study. And shear bond strength (SBS), surface energy (SE), Energy dispersive spectrometer (EDS) and surface roughness (AFM) were evaluated. Non-thermal atmospheric pressure plasma treatment could improve bond strength with an increase of surface energy. Therefore, non-thermal atmospheric pressure plasma might be useful method in cementation of composite resin inlay

04. W-20_12_Association between the Emotional Intelligence and Coping Ability about Clinical Practice Stress among Dental Hygiene Students

Da-Yae Choi(Baekseok Univ.,Korea), Su-Min Hong(Baekseok Univ.,Korea), Jung-Eun Ha(Baekseok Univ.,Korea)

The objective of this study was to evaluate the association between the emotional intelligence and coping ability about clinical practice among dental hygiene students. The self-reported survey was conducted on 280 third-year students majoring in dental hygiene. The levels of clinical practice stress were found to be lower with coping ability scores higher if emotional intelligence scores were higher.

05. W-20_13_Improvement of operating posture through image analysis among dental hygiene students
Su-Min Hong(Baekseok Univ.,Korea) , Jung-Eun Ha(Baekseok Univ.,Korea)

The present study was conducted to investigate the knowledge related to treatment posture as well as the degree of practice, difficulty of practice, and effect of posture correction through a questionnaire survey and image analysis among eighteen dental hygiene students. Statistical analysis showed that the degree of practice was lowest and the difficulty of practice was highest for the head and shoulders among the Posture Assessment Criteria (PAC) items. The posture correction through image analysis was generally effective, and the posture-correcting effect was highest for the wrists. The results of the present study showed that the practical educational program for correct operating posture should be improved and applied for dental hygiene students.

06. W-20_15_Association between estimated fluoride intake from cereals and the number of dental caries among children in Korea

Jung-Eun Ha(Baekseok Univ.,Korea) , Min-ji kim(Dongseo Univ.,Korea)

The purpose of this study was to analyze the fluoride concentrations of cereals and to confirm the association between estimated fluoride intake from cereal and the dental caries. The dietary fluoride intake from cereals of 5-year-old Korean children was estimated to be 52.36 µg/day. Dental caries prevalence of primary teeth were lower in children who had a higher dietary intake of fluoride from cereals.

07. W-20_16_Analysis of requirements for the development of professional skills of the preliminary sports leaders

Soo-Yeon Kim(Sunmoon Univ., Korea)

The purpose of this study was to help the development of practical training courses and research related to the needs of the athletic department what the core competencies required to college students that the teacher, alumni, industry and students. In sports industry, obtaining the mean value of the 89 graduates targeted questionnaire to distribute wealth competence also analyzed the importance and need. In addition, graduates and the content of the interview subjects were students derive the required analysis of inductive methods. This study showed higher overall teamwork skills (4.45) and sports leadership skills (4.44). Discussion group exercise coordinator result of health, sports Instructor, derived key skills required in professional sports.

08. W-20_17_A Study of perception of dental workers on dental digital equipment and the necessity of related education

So-Young Park(Wonkwang Health Science Univ.,Korea,), So-Youn An(WonKwang Univ., Korea),
Da-Som Choi(Sunmoon Univ., Korea), Youn-Soo Shim(Sunmoon Univ., Korea)

The objective of the present study was to identify the need for education and awareness of digital dental equipment among dental workers and to propose the direction of education on digital dental equipment for dental workers. The participants in the study consisted of 264 active dental workers, convenience sampled from all regions of Korea. Meanwhile, 177 respondents (44,3%) had received education on digital dental equipment before, while 147 respondents (55,7%) had not. With respect to whether education on digital dental equipment should be provided separately, 226 respondents (85,6%) believed it should be provided and 38 respondents (14,4%) felt it was not needed, showing that most dental workers believed such education was necessary. In particular, the need for education based on education system showed that those who felt it is needed was 87 (78,4%) and not needed was 24 (21,6%) among 2- or 3-year school graduates, while those who felt it is needed was 81 (88,8%) and not needed was 11 (12,0%) among 4-year school graduates, showing a statistically significant difference ($p < 0.05$). Through the present study, the educational needs of dental workers were identified, and the findings in the present study may be used as basic data when setting the direction of education and acceptance of digital dental equipment by dental workers.

09. W-20_19_Relationship between Serum Vitamin D Level and Allergic Diseases

Da-doo Jung(Konyang Univ., Korea), Hee-Suk Kim(Konyang Univ., Korea),
Yo-Han Lee(Konyang Univ., Korea),Jee-Young Hong(Konyang Univ., Korea), Moo-Sik Lee(Konyang Univ., Korea)

This study was aimed to determine the relationship between vitamin D level and allergic and other diseases who visited a community hospital in Cheong-Ju city. Because vitamin D deficiency is high among Koreans, the recommended levels of vitamin D based on age, seasons and sunlight exposure are needed.

Oral Presentation / Poster Session

Thursday July 6, 2017

Session 1-A(WELL-DYING WORKSHOP)

01. W-10_01_Smoking Prevention School Projects Perceived by Health Teachers

Jung Im Kim(Kyungdong Univ., Korea), Bo Ram Choi(Yong-In Songdam College, Korea)

The purpose of this study was to investigate the perception of smoking prevention programs in schools by the teachers. As a result, it is considered necessary to establish an in school smoking cessation environment such as designation of smoking cessation in school, smoking counseling, and smoking prevention program, which affects the level of awareness of smoking cessation by health teachers.

02. W-10_02_Fate of volatiles after drying of Sab-Joo, a herbal medicine

Chang-Hwan Oh(Semyung Univ., Korea)

Sab-joo is a plant material for herbal medicine Baek-chool. In this study, the volatile compounds in raw and dried Sab-joo was analyzed by GC-MS after solid-phase micro extraction, one of the popular dynamic headspace method. Among 15 volatiles in Sab-joo, β -elemene and allo-aromadendrene was dramatically reduced while α -selinene and valencene increased with relatively large ratio after drying process.

03. W-10_05_A Study on Setting a Direction for Death Preparation Education Through the Analysis of Social Workers' Awareness of Well-Dying

Arma Park(Konyang Univ., Korea), Yong-Ha Kim(Konyang Univ., Korea), Sang-Yoon Ahn(Konyang Univ., Korea), Seo-Hui Lee(Konyang Univ., Korea), Gyeong-Won Seo(Chungnam Nat'l Univ., Korea), Kwang-Hwan Kim(Konyang Univ., Korea)

This study first tries to define the abstract value of 'well-dying'. The criteria for their awareness of well-dying include 'familiarity', which is mental attitude toward deathbed; 'self-control' at deathbed; and 'clinical manifestation' related to the pains at deathbed. Analyzing the 'familiarity', 'self-control', and 'clinical manifestation' of social workers will allow us to know their awareness and expectation of their mental and physical states related to deathbed.

04. W-10_06_A Study on Health Care Providers' Awareness of Well-Dying by Death Preparation Education

Moon-Joon Kim(Konyang Univ., Korea), Moo-Sik Lee(Konyang Univ., Korea), Chong-Hyung Lee(Konyang Univ., Korea), Hye-Jeong Hwang(Konyang Cyber Univ., Korea), Moon-Sook Shim(Konyang Univ., Korea), Seo-Hui Lee(Konyang Univ., Korea), Kwang-Hwan Kim(Konyang Univ., Korea)

As part of the research in the necessary of death preparation education for health care providers and preparation for the education, the present study is aimed to examine doctors' awareness of death preparation education and the effect of knowledge in death on awareness of well-dying. Through the attempt, the present study intends to establish the meaning and value of well-dying to health care providers and provide the basic data needed to develop and implement a death preparation education program for health care providers.

05. W-10_07_The Effects of School Structural Characteristics and Smoking Prevention Intervention Program
Intervention on the Change of Smoking Rate - For Gyeonggi-do High Schools -

Bo Ram Choi(Yong-In Songdam College, Korea), **Jung Im Kim**(Kyungdong Univ., Korea)

Purpose of this study was investigated the changes in smoking rates for smoking prevention programs interventions. The results of the study showed that smoking rate decreased according to the structural and program performance of the school. So, it is necessary to create a social atmosphere and actively promote in the provincial office of education.

06. W-10_14_How to Use Artificial Intelligence in the Classroom

Myeong-Hee Shin(Hannam Univ., Korea)

This study will look into how to use Artificial intelligence in the classroom. AI (artificial intelligence) is the simulation of human intelligence processes by computer systems. These processes include learning, reasoning, and self-correction. Compared to the pre-test and post-test, we can recognize the significant differences. Students had higher motivation and achievement in the post-test than that in the pre-test. According to students interviews, using smart devices of Artificial Intelligence helped a lot practice out of classes. With less work for teachers, artificial education can give them more time to create engaging and creative classroom activities, and work on their own professional development. This study focused on Korean university students with different majors taking on-campus English courses. The research hypotheses are as follows; 1. Is there any positive effects using AI in Korean university classroom? 2. Does Flipped learning contribute to effective AI classroom of Korean university students? 3. Do students have better motivation to their English class and better achievement at the end of semester?

07. W-10_15_A Study of Subjectivity Regarding Childcare Experience of Working Mothers

Yun-Jeong Kim(Pai Chai Univ., Korea)

Early childhood stage is a decisive developmental stage in life, and the growth of a child is formed through the relationship with his/her mother. This is a scientific approach to an individual attitude and behavior based on subjectivity of each one. According to the results of factor analysis of childcare experience of working mothers based on P sample, using PC-QUANL Program, 4 types were classified. It is estimated that the results of this study will contribute to clearly classifying the types of childcare of working mothers, and being helpful for childcare of working mothers by applying them as basic materials for individualized nursing mediation strategies and program development considering characteristics of mothers by type.

Session 2-A

01. IT-12_A Study on Image Retrieval Using Multidimensional Local Feature Density Analysis

HyunHo Han(Kwangwoon Univ., Korea), SeucHo Ryu(Kongju Nat'l Univ., Korea),
YoungSoo Park(Kwangwoon Univ., Korea), SangHun Lee(Kwangwoon Univ., Korea)

In this paper, we propose a method to more accurately retrieve similar images from a wide range of image data. The image descriptor for image retrieval is composed of multidimensional data, including GIST, color correlation curve, HSV histogram information, and chromatic dispersion information including contour direction information and color contrast information. To analyze the density between the constructed descriptors, the total image size is divided into 4x4 regions, and the feature density value is extracted for each divided region by analyzing the effective number and spatial composition of each descriptor in each divided region. By comparing the matrix structure of the feature density values analyzed in the query image with the feature density values of the database image, we can more accurately search for similar images.

02. IT-13_A Study on Character Extraction through Edge and Pattern Analysis in Image

JaeHo Yang(Kwangwoon Univ., Korea), YoungSoo Park(Kwangwoon Univ., Korea),
TaeHwan Lee(Kwangwoon Univ., Korea), SangHun Lee(Kwangwoon Univ., Korea)

In this paper, we propose a character detection algorithm that uses a pattern analysis of textures after extracting the edges of an image for effective character detection. To obtain the edge map necessary for the pattern analysis, the proposed method minimizes the light loss due to the histogram equalization and obtains the edge map. After that, the SWT (Stroke Width Transform) algorithm is applied. The textures in the edge map are analyzed to distinguish each region, and the patterns of the regions are analyzed to remove the non-character region, thereby extracting the character region as a final result.

03. IT-14_A Study on Image Retrieval Using Objects Detected by Saliency Map

YongSang Ryu(Kwangwoon Univ., Korea), JinSoo Kim(IDP System., Co, Ltd, Korea),
GangSeong Lee(Kwangwoon Univ., Korea), SangHun Lee(Kwangwoon Univ., Korea)

This paper propose an improved image search method to extract the data of the object image in the center of the search process. In the conventional method, when a large area of the background is occupied in the image, a problem that the core content of the image is lost occurs. In order to solve this problem, the proposed method detects an area that can be a core in the image as an object through the saliency map to reduce the influence of the background and emphasize the characteristic of the object. LBP texture information and HSV color histogram color information are extracted as feature values of the detected object. We propose an algorithm that retrieves similar images by comparing feature data extracted from a query image with features extracted from a database image.

04. IT-17_A Study of Natural Language Processing-based Idea Stage Setting Plan- Focusing on idea commercialization-supporting platform -

Donggu Shin(KISTI, Korea), MiHwan Hyun(KISTI, Korea), Suhyeon Yoo(KISTI, Korea), JuYeon Shin(KISTI, Korea),
Jae-Kyeong Lee(KISTI, Korea)

To provide online mentoring services under the idea commercialization-supporting platform in a fast and efficient fashion, this study attempts to set stages for the proposed ideas in term of technology feasibility, business feasibility

and marketability and propose natural language processing-based idea stage setting stage for customized online matching for each stage.

05. IT-19_Performance Measurement and Analysis on Software-Defined Local and Wide Area Networks applying DPDK

Ki-hyeon Kim(KISTI, Korea), Dongkyun Kim(KISTI, Korea), Yong-hwan Kim(KISTI, Korea), Joo-bum Kim(KISTI, Korea)

Recently, domestic and foreign companies are focusing on big data technology to create diverse value based on vast amount of data, while the efficient transmission of large-scale data is becoming a major issue. The data transmission performance can be enhanced through the physical network expansion, which, however, leads to high cost problem. Using network virtualization technology is one way to solve this cost issue. But, still, this technology comes up with performance degradation mainly because of the packet process overheads inside operating system (OS) kernel. Therefore, the Data Plane Development Kit (DPDK) technology has emerged to improve the packet process performance. In this paper, to verify the stability and performance of the DPDK technology, an experiment environment is built up based on Open Virtual Switch (OVS) where performance experiments are done on Software-Defined Local Area Network (LAN) and Wide Area Network (SD-WAN). In terms of the WAN experiment environment, we used KREONET-S, a de-facto SD-WAN in Korea, and analyze the performance results.

06. IT-20_Analysis of Influence Factors for the Promotion of the Use of Web Services : Focusing on Creative Economy Town

Ju Yeon Shin(KISTI, Korea), Dong-Gu Shin(KISTI, Korea), Mi Hwan Hyun(KISTI, Korea)

A creative economy town is a platform which supports the commercialization of citizens' ideas. It has made continued efforts to create an ecosystem for sustainable commercialization and business startup. For the success of a creative economy town, this study attempted to analyze the influence factors needed to promote the use of web services using regression analysis and suggest implications relating to such factors.

07. IT-23_A study on Effect Factors for Online Idea Platform using Satisfaction

Jae Kyeong Lee(KISTI, Korea), Dong Gu Shin(KISTI, Korea), Ju Yeon Shin(KISTI, Korea)

This study verified which operation factors from survey must focused to increase the satisfaction of online idea platform users. An online platform is divided into system factor, information factor, and service factor according to a known study, and different results were found depending on the, mentoring direction.

08. IT-24_Classification of Artificial Intelligence for Considering App Development

Kiyoung Kim(Seoil Univ., Korea), Eunchul Park(Chungbuk Nat'l Univ., Korea), Junwoo Lim(Soongsil Univ., Korea), HyungSu Lee(Korea Polytechnics, Korea)

Recently, interest in artificial intelligence is steadily increasing. A variety of artificial intelligence open-source software is available. In this paper, artificial intelligence is classified and compared. Based on this, we propose a method to add artificial intelligence function to existing system service.

09. IT-25_A Study on Semantic Publishing Platforms Designed for Academic Publication

Dong-Gu Shin(KISTI, Korea), Ju Yeon Shin(KISTI, Korea), Mi Hwan Hyun(KISTI, Korea)

Semantic publishing is a sector which has been continuously studied since the late 2000 regarding the publication and utilization of electronic journals with the development of the Internet technology. Semantic publishing improves the search of published data by utilizing appropriate metadata and automates the extraction and analysis of new information. This study analyzes semantic publishing-related research trends through literature survey, performs a case study on current semantic publishing platforms and examines their applicability to academic publications.

10. IT-26_Semantic Similar Image Retrieval System Using RDF graph similarity in Mobile Environment

Kwang-Won Seo(Hoseo Univ., Korea), Dong-Hyuk Im(Hoseo Univ., Korea)

In this paper, we propose a semantic similar image retrieval with RDF graph similarity in mobile devices. Existing image search techniques for similar images compare visual feature or simple tag. Unlike previous approaches, we focused on retrieving similar images using an image annotation. Our android application allows users to input an image and threshold for similarity, and then semantically search similar images.

Session 3-A

01. W-05_01_Impacts of Innovation Motives and Activities on Innovation Performance

Young Ki Kim(Chungbuk Nat'l Univ., Korea), Seong Taek Park(Chungbuk Nat'l Univ., Korea)

The purpose of this study is to identify the influencing factors between innovation motivation and innovation activities. In recent years, a lot of companies have been continuing various activities for innovation. It is not simply innovation to survive, but innovation for various reasons. The purpose of this study is to examine the various factors of innovation motivation and activities presented in previous studies and to identify the relationship between them.

02. W-05_06_Research on Network User's Information Security Problems Based on Mobile Social Platform

Hong Jin(Jiangxi Normal Univ., China), Haiyan Wang(Jiangxi Normal Univ., China),
Seong Taek Park(Chungbuk Nat'l Univ., Korea)

The development of the Internet led to the rise of mobile social networking platform, and brings great convenience to the majority of Internet users, but at the same time, to some extent, it also leads to the risk of network users' information security. This paper analyses the current situation of information security of users, and finds that low awareness of user information security, lack of self-discipline to the website enterprise and lack of personal information security law are the main reasons leading to the user information security issues. Based on the analysis of these three aspects, this paper puts forward the corresponding solutions further.

03. W-05_07_A Review of Information Seeking Behavior

Hong Jin(Jiangxi Normal Univ., China), Deliang Zhu(Jiangxi Normal Univ., China),
Seong Taek Park(Chungbuk Nat'l Univ., Korea)

With the advent of the Internet era, people's information seeking behavior has undergone great changes. A new information seeking pattern – social information seeking came into being. This article sorts out the literatures of traditional information seeking behavior and social information seeking and looks ahead the research direction of information seeking behavior.

04. W-05_12_Policy-based Method for Robot Control

Tegg Taekyung Sung(Kwangwoon Univ., Korea), Chaebong Sohn(Kwangwoon Univ., Korea),
Kyoungnak Lee(Kwangwoon Univ., Korea), Changhyung Kim(Kwangwoon Univ., Korea)

The industry is advanced by breakthrough researches of deep learning. Recently, combining different algorithms together to solve tasks such as detecting objects, translating foreign languages, or resolving game problem. Whereas, controlling robot has remained unsolved, because it requires handling continuous action spaces. For this kind of task, policy-based method is needed. In this paper, we selected recently proposed algorithm called deep deterministic policy gradient and simulated it to 3D environment.

- 05. W-05_14_**A Study of the Effect of Social media usage on Brand attitude, Purchasing Intentions, Brand Image and Trust: Focusing on Moderating Effects of Fairness and Mediating Effects of Perceived risk
Sung Won Lee(STEPI, Korea), Seong Taek Park(Chungbuk Nat'l Univ., Korea)

According to the development of information technology, people have come to with communication with one another through various devices and methods. Firms gradually make more promotions through social networking services in the point that the services are able to produce as much ripple effect as existing marketing tools at an inexpensive cost. Most previous studies on SNS focus on the characteristics and types of media, personal disposition, and concerns over personal information and privacy. Therefore, this study tries to find how SNS based corporate promotions influence perceived risk, and word-of-mouth intention according to consumers' media usage and fairness. It also demonstrates how consumer perceived risk through SNS marketing affects brand and trust.

- 06. W-05_19_**A Comparative Study on the Factors Influencing the Adoption of Mobile Payment Service in Korea and China
Guozhong Li(Kunming Univ., China), Seong Taek Park(Chungbuk Nat'l Univ., Korea),
Hong Jin(Jiangxi Normal Univ., China)

The development of telecommuni-cation technology and internet has dramatically changed people work and lifestyle. Mobile payment service in China has been successful and South Korean are striving for their-own way to develop. This research is going to reveal the reasons by comparing Korea and China mobile payment success cases by focusing on the users' factors.

- 07. W-05_20_**The Impact of Technological Innovation Capabilities and Patent Activities on Performance
Eun Mi Park(Kyungpook Nat'l Univ., Korea), Seong Taek Park(Chungbuk Nat'l Univ., Korea),
Joung Hae Seo(Kyungpook Nat'l Univ., Korea)

Companies face a lot of change with the rapid development of ICT.has brought many changes. Companies are innovating to survive, protecting the results of innovation with intellectual property patents and trade secrets, and so on. One of the factors that enables innovation is competency. This study aims to grasp the causal relationship between innovation capacity of firms and their effect on patent activity and performance.

Session 4-A(WELL-DYING WORKSHOP)

01. W-02_03_The relationship between parathyroid enlargement and parathyroid hormone levels in patients undergoing hemodialysis

Mi Hwa Lee(Catholic Univ. of Daegu, Korea), Pyong Kon Cho(Catholic Univ. of Daegu, Korea)

Mi Jung Kang(Clinc, Daegu,Korea), Duck Moon Kwon(Daegu Health College, Korea)

The diagnostic role of parathyroid gland and ultrasonography in secondary hyperparathyroidism is controversial. We used ultrasonography to investigate parathyroid gland enlargement in patients undergoing hemodialysis at a single center. We evaluated the correlation between intact parathyroid hormone (iPTH) levels and ultrasonography results and determined the optimal iPTH cutoff for parathyroid ultrasonography. Parathyroid ultrasonography was performed in 86 patients undergoing maintenance hemodialysis. Laboratory data included blood hemoglobin, albumin, phosphorus, calcium, alkaline phosphatase, Ca X P product, and iPTH. We evaluated age, sex, and underlying renal diseases.

We suggest that parathyroid ultrasonography should be initiated in hemodialysis patients at PTH levels ≥ 190 pg/mL, which is lower than the current KDOQI recommendation of ≥ 300 pg/mL. Parathyroid ultrasonography is a useful tool for detection of secondary hyperparathyroidism in patients undergoing maintenance hemodialysis, even when iPTH levels are within the acceptable range.

02. W-02_04_The effect of resistance strength training on muscular function of the leg

Byung-Jun Cho(Kangwon Nat'l Univ., Korea), Bo-Kyung Song(Kangwon Nat'l Univ., Korea),

Man-Seok Han(Kangwon Nat'l Univ., Korea)

The purpose of this study was to determine which resistance strength in training programs for strengthening the leg. [Methods] The subjects were randomly divided into two groups that the experimental group and the control group. The experimental group underwent strength training while the control group did not participate in such training. The subjects were educated about the content and purpose of the experiment and provided written informed consent before beginning the study. A training program was established based on previous studies with resistance training.

[Results] According to the analysis of covariance, there was a significant effect of training. Therefore, the muscle function of the knee joint the experimental group participating in training was significantly increased compared to the control group. [Conclusion] It is concluded that training had a positive effect on the muscle function of the knee. The resistance strength training on the muscle of the knee that improved the performance and prevention of injury by developing the leg muscles.

03. W-02_05_Analysis of muscle activity of ambulance workers carrying a patient on a stretcher with or without helmets

Ga-Ram Choi(Republic of Korea Air Force Academy, Korea), Byung-Jun Cho(Kangwon Nat'l Univ., Korea),

Yong-Taek Han(Korea Fire Institute, Korea), Seung-Yong Kim(Korea Nat'l Univ. of Transportation, Korea),

Gyoung-Yong Kim(Yangpeong Fire Station, Korea), Dong-Min Shin(Korea Nat'l Univ. of Transportation, Korea)

The purpose of the study was to reduce musculoskeletal symptoms. Ambulance workers with helmets performed lifting and lowering a stretcher. At this time, we compared the muscle activity of upper body muscles. With the collected data, descriptive statistics were conducted for each part and situation. We used an analysis method to verify the difference before and after wearing helmets. The results of upper body muscle activity were calculated. Therefore, our results suggest that developing higher helmets will reduce the stress of neck and back and musculoskeletal fatigue. Therefore, our results suggest that developing higher helmets will reduce the stress of neck and back and musculoskeletal fatigue.

04. W-02_06_The study of upper body angle of firefighters carrying a patient on a stretcher with helmets on a stretcher with helmets

Byung-Jun Cho(Kangwon Nat'l Univ., Korea), Ga-Ram Choi(Republic of Korea Air Force Academy, Korea), Yong-Taek Han(Korea Fire Institute, Korea), Seung-Yong Kim(Korea Nat'l Univ. of Transportation, Korea), Gyoung-Yong Kim(Yangpeong Fire Station, Korea), Dong-Min Shin(Korea Nat'l Univ. of Transportation, Korea)

This study analyzed the upper body angle of firefighters carrying a patient on a stretcher with helmets. The purpose of the study was to reduce musculoskeletal symptoms. Fire firefighters (N=15) with helmets performed lifting and lowering a stretcher. At this time, we compared the angles of their neck, shoulders, back, and upper body muscles. With the collected data, descriptive statistics were conducted for each part and situation. We used an analysis method to verify the difference before and after wearing helmets. Upper body angles were calculated as follows. With a helmet, the shoulder angle at E1 while the worker was lifting down the stretcher was statistically significant ($p < .05$). The neck angle at E2 and E3 while the worker was lifting the stretcher was statistically significant ($p < .005$, $p < .05$). And the back angle at E2 ($p < .05$) and shoulder angle at E2 ($p < .005$) showed statistically significant values with helmet, while the worker was lifting the stretcher. Therefore, our results suggest that developing higher helmets will reduce the stress of neck and back and musculoskeletal fatigue.

05. W-02_07_Evaluation of Gastroesophageal Reflux by Transabdominal Ultrasound in Adults: Focused on Subdiaphragmatic Esophageal Length, His angle, Moment of Reflux

Ki-Tae Park(Hanaro Clinic, Korea), Youn-Sin Jeong(Hanaro Clinic, Korea), Kwang-Mi Youn(Hanaro Clinic, Korea), Ji-Hae Yim(Hanaro Clinic, Korea), Youl-Hun Seoung(Cheongju Univ., Korea)

No single test was sufficiently sensitive and specific in diagnosing gastroesophageal reflux disease (GERD). Therefore, a noninvasive, simple and safe technique such as transabdominal sonography may be useful. An upper endoscopy and transabdominal ultrasound were performed on 86 adults admitted at a radiology clinic in Daejeon of Korea. This study confirmed that the ultrasonography used in measuring the subdiaphragmatic esophageal length, His angle and real-time ultrasonography of the moment of reflux were good predictive factors in diagnosing GERD. Our study concluded that a shorter subdiaphragmatic esophageal length of 25.1 mm and obtuse His angle of 134.6° , accompanied by real-time ultrasonography viewed to and fro of the air bubble during the moment of reflux on ultrasonography were good predictive values in diagnosing GERD. Therefore, a medical examination with a noninvasive procedure such as transabdominal ultrasonography could be an accurate and standardized procedure in predicting gastroesophageal disorders.

06. W-02_08_Usefulness of iterative reconstruction algorithm in low-tube voltage computed tomography: Comparison of phantom images at various contrast media concentrations

Kang-Kyo Jung(Daegu Catholic Univ., Korea), Pyong-Kon Cho(Daegu Catholic Univ., Korea)

To evaluate feasibility of low tube voltage with iterative reconstruction algorithm(IR algorithm) at the multi-detector computed tomography(MDCT) of various contrast media(CM) concentrations protocol. A phantom study was performed using 128-channel MDCT at multiple tube voltage and econstruction algorithm. Various CM(270, 300, 350 mg iodine/ml) were inserted into the phantom to acquire images. The SNR, CNR and radiation dose (CTDIVOL) in the low-tube voltage (80 kVp) with the IR- algorithm compared to the high-tube voltage (120 kVp) with the conventional algorithm .

At all concentrations of iodine CM, low-tube voltage and IR algorithms showed high SNR, CNR and low CTDIVOL. In CT angiography(CTA) using CM, the low-tube voltage with iterative reconstruction algorithm (IR algorithm) was superior to the conventional protocol regarding phantom image quality, radiation dose and is feasible for CTA.

07. W-02_10_Survey about radiation safety management of research·education field in South Korea

Yeo Ryeong Jeon(Daegu Catholic Univ., Korea), Yongmin Kim(Daegu Catholic Univ., Korea),
Pyong Kon Cho(Daegu Catholic Univ., Korea), Eun Ok Han(Korea Academy of Nuclear Safety, Korea),
Hyon Chul Jang(Suseong College, Korea)

This study surveyed the knowledge, attitude and behavior of radiation worker in research · education field in South Korea by using the questionnaires. The questionnaire was completed through expert consultation and based on the Haddon Matrix. The knowledge, attitude level of radiation workers revealed higher than behavior level. But also, the knowledge, attitude and behavior level is different value depending on using radiation source and actors. Overall, radiation workers are positive about the need for radiation safety management, and appropriate environment and education systems should be provided in order to ensure safety practices. So, it is necessary to supplement the legal and education system so that they can use radiation sources efficiently and practice safety activities.

08. W-02_11_Study on Analysis of Foreign Cyclotron Decommissioning and Status of Domestic Cyclotron

Da yeong Gwon(Daegu Catholic Univ., Korea), Yong min Kim(Daegu Catholic Univ., Korea),
kyu-young Jeong(Chonbuk Nat'l Univ. Hospital, Korea), Nam-Suk Jung(Pohang Accelerator Laboratory, Korea),
Hee-Seock Lee(Pohang Accelerator Laboratory, Korea)

In the Republic of Korea, purpose of cyclotron operation is mainly production of medical radioisotope. Cyclotrons could be largely classified by two types. One is self-shield cyclotron and the other is non self-shield cyclotron. According the foreign instance, decommissioning of cyclotron generate a lot of intermediate and low-level radioactive waste (ILLW). As a result, we confirmed that it is necessary to ensure funding for decommissioning. But, there are no regulation relating to the funds for decommissioning cyclotron in the Republic of Korea. If the cost of decommissioning is not ready, cyclotron manager and operators in charge of decommissioning procedure will go through confusion when cyclotron decommissioning take place. Therefore, we are trying to present the improvement of regulation related to domestic cyclotron decommissioning.

Session 5-A

01. W-35_01_Power Management Method for Closed Loop Seizure Controllers

Sunhee Kim(Sangmyung Univ., Korea), Seungdo Jeong(Sangmyung Univ., Korea)

In recent years, implantable closed loop seizure controllers have been proposed as an alternative therapy for epilepsy seizures. Because they usually use a life-limited battery, extending their longevity has become an important issue. This paper proposes a system level functional and power model to predict the behaviors and allow the combined estimation of power generation and consumption, and the dynamic management of power.

02. W-35_02_Fast Method of Visual Odometry without RANSAC Iteration

Chuhho Yi(Sangmyung Univ., Korea), Jungwon Cho(Jeju Nat'l Univ., Korea)

In this paper, we propose an improved visual odometry method with a camera for automotive applications. Generally, since the visual odometry method in automotive field has many outliers in the optical flow, therefore, arbitrary N points are selected and RANSAC (RANDOM SAmple Consensus) is executed. Then, the error distance is calculated over the entire data, and inliers are selected less than a threshold. However, such iteration execution of N points has the problem that the computational complexity increases the iteration number. In this paper, to decrease this kind of computational cost we provide a method to improve execution time by modifying the EPnP (Efficient Perspective-N-Point) method that uses four representative control points.

03. W-35_03_Review of Recent Online Judge System

Youngseok Lee(Kangnam Univ., Korea), Jungwon Cho(Jeju Nat'l Univ., Korea)

Most computer-related liberal arts courses are designed to teach and practice how to use software, you should be trained to have the skills to create the software they need or to ask computer program developers. In order to do this, we want to find a way to effectively implement programming education, and to find an education model that can stimulate learners' interests and improve computing thinking through interest in programming.

04. W-35_04_Design of Huvigation for the Visually Impaired

Yohan Lee(Kangnam Univ., Korea), Jinhyeok Jang(Kangnam Univ., Korea), SeonHo Kwon(Kangnam Univ., Korea), Youngseok Lee(Kangnam Univ., Korea)

People with visual impairment are vulnerable to accidents in their daily lives. It is necessary to design a wearable device with a navigation system for the visually impaired that helps them be familiar with the streets (or directions) and avoid dangerous obstacles.

05. W-35_05_AES-GCTR Mode that has Improved The Existing AES-CTR Operation Mode

Donghyeok Lee(Jeju Nat'l Univ., Korea), Namje Park(Jeju Nat'l Univ., Korea)

In the environment of Cloud-CCTV surveillance, encryption of images for the protection of privacy is essential. Yet, the existing encryption method has overhead regarding the management of mass data and streaming processing. In this thesis, AES-GCTR mode that has improved the existing AES-CTR operation mode was suggested.

06. W-35_06_Efficient Technique to Send Image Information for Mass Cloud Storage Environment

Donghyeok Lee(Jeju Nat'l Univ., Korea), Namje Park(Jeju Nat'l Univ., Korea)

Big data environment is being realized. Recently, intelligent public safety environment on the foundation of the image processing technique based on big data is being introduced, and accordingly, processing CCTV images is becoming more important day by day. Yet, image data requires mass storage, and this feature has the problem of accompanying high expenditure and low efficiency. In this thesis, an efficient technique to send image information for mass cloud storage environment was proposed. With the offered method, only the ROI area is extracted and partial object images are transmitted, and it has the strengths of higher efficiency and protected privacy with the application of a masking technique.

07. W-35_07_Proposal of the Core Competencies of SEL-based Innovative Creativity Education

Jihee Jeon(Jejuseo Elementary School, Korea), Namje Park(Jeju Natl. Univ.)

In this paper, the core competencies based on SEL for innovative creativity education were suggested, based on which the class model was proposed for the learning of AI(artificial intelligence) in the level of elementary school students as well as for the development of creativity. The SEL-based AI educational program for the development of elementary school students' creativity suggested in this thesis consists of three main stages; the understanding of the basic principles of AI, application of AI cases, and creative solutions to research questions and future design. It implies that the education is necessary that focuses on the development of creativity for the adaptation to the future society along with the understanding of new technologies as the basis.

08. W-35_08_Secure EEG Collection Model based on Privacy-preserving BCI

Kwon Cho(Jeju Science High School, Korea), Eunrae Lee(Jeju Science High School, Korea),
Buyoung Mun(Jeju Science High School, Korea), Jeongseok Oh(Jeju Science High School, Korea),
Donghyeok Lee(Jeju Nat'l Univ., Korea), Namje Park(Jeju Nat'l Univ., Korea)

As BCI Technologies are coming out nowadays, there are many BCI products. BCI, technology that directly sends brain waves (Electroencephalogram) to computer, will improve our convenience in lives. However, there are also huge privacy problems. Especially, brain wave patterns are kind of important personal privacy. Dangers that we could expect for collecting those information as cloud based on Big Data are serious privacy exposure. In this paper, we suggest safe Privacy-Preserving BCI model in Big Data environment. This model is able to prevent personal recognition in cloud environment and protect brain wave information safely.

09. W-35_09_Future Society and Practical Arts Course in College of Education

Jong-woo Kim(Jeju Nat'l Univ., Korea)

This research is to develop practical arts course in college of education for future society.

10. W-35_10_Effectiveness of Dietary Life Education Program as Undergraduate Liberal Education Curriculum for Prospective Elementary Teachers

Kim, Hyo-Shim(Jeju Nat'l Univ., Korea)

The purpose of this study was to analyze effectiveness of dietary life education program applied for prospective elementary teachers. It was developed as an undergraduate liberal education curriculum. Finally, it showed statistically significant improvements for the most part between pre and post scores of Means in their dietary life literacy and dietary life education levels except only two subcategories

11. W-35_11_Effect on Scientific Concept Formation of Science Programs for Multicultural Students

Seo-Hui Lee(JNU Univ., Korea), Ae-Kyung Shin(JNU Univ., Korea)

The purpose of this study is to analysis of effect on scientific concept formation of science programs for multicultural students with good basic learning skill. 8 students participate in this study. They are 4th~6th primary students from multicultural families. Multicultural students learn two science programs. To investigate the effect of the program, the mind maps using 'combustion' or 'temperature' as a key word are carried out before and after the programs. As analysis results of pre and post mind maps, the percentage of full terms is lower in the post mind map than in the pre mind map. However the percentage of scientific terms and the degree of structuring is higher in the post mind map than in the pre mind map. This indicates that the science programs in this study are effective in scientific concept formation of multicultural students.

12. W-35_12_Morality Desired Ethics Education for the Future Society

Seung-Hee Jang(Jeju Nat'l Univ., Korea)

Future Life takes on a new aspect unlike existing state. Without ethical reflection, human life is subordinate to machinery as robot. I will study what morality is desired for ethics education. The necessary moral abilities for future society are adaptability mutuality, and subjectivity.

13. W-35_13_A Study on the Bracing Rectangular Frameworks

Keunbae Choi(Jeju Nat'l Univ., Korea)

In this article, we provide an algorithm to determine the rigidity of braced rectangular frameworks.

Session 1-B

01. W-04_06_The Effects of Stepping Exercises on a Box or Stairs on Stroke Patients' Lower Limb Muscle Activity and Balance

Hyeon-Su Kim(Kyungnam College of Information & Technology, Korea),
Keon-Cheol Lee(Kyungnam College of Information & Technology, Korea),
Won-Sik Bae(Kyungnam College of Information & Technology, Korea)

This study examined the effects of stepping exercises on stroke patients with decreased balance ability and gait disorder in terms of muscle activity and balance during gait. The 33 subjects who consented to participate in this study were randomly divided into a box-stepping exercise group(BG), a stair-stepping exercise group(SG), and a ground-stepping exercise group(GG). The stepping exercises were applied three times per week for eight weeks. To measure the muscle activity of the subjects, the TeleMyo DTS system (Noraxon, German) was employed, and to measure the balance of the subjects, AP1153 Biorescue (RM INGENIERIE, France) was utilized to measure sway area, distance, and velocity. The resulting changes in activity were significant after exercise in all three groups. Balance change, sway area, sway distance, and sway velocity significantly decreased in all three groups, but there was relatively greater reduction of sway area, sway distance, and sway velocity in the box-stepping exercise group.

02. W-04_07_Development of a Scale for Physical Therapists' Health Management: Verification of Reliability and Construct Validity

Yeonkyo Lee(Kangwon Nat'l Univ., Korea), JeMyung Shim(Kangwon Nat'l Univ., Korea),
Soonkwon Hong(Kangwon Nat'l Univ., Korea), SungJoong Kim(Kangwon Nat'l Univ., Korea),
Seung Namkoong(Kangwon Nat'l Univ., Korea), HyoLyun Roh(Kangwon Nat'l Univ., Korea),
Byeongjin Jun(Kangwon Nat'l Univ., Korea)

The purpose of this study was to develop a Health management scale that measures the degree of physical therapist and to verify the construct validity and reliability. A Scale of 42 questions was conducted in 289 persons, who worked in hospital and community relief center. After, we counted factor analysis in order to select the items by internal consistency and factor loading. This results, factor analysis yielded 6 factors and 34 questions. Because, we were excluded factor of below 1 Eigen value of factor and total internal consistency was 0.93 of cronbach α . 6 significant factors were verified by result of explotory factor analysis and identifying significant internal consistency. Thus we suggest that the health management should be a effective scale to Health of physical therapist and we hope for Healthy physical therapist in korea.

03. W-04_08_The effect of kinesthetic imagery training and visual imagery training on the balance and foot pressure of adult with functional ankle

Minryul Yoon(Kangwon Nat'l Univ., Korea), Jemyung Shim(Kangwon Nat'l Univ., Korea),
Hwanhee Kim(Semyung Univ., Korea)

The purpose of this study is to examine whether the intervention of kinesthic imagery training(KIT) and visual imagery training(VIT) is more effective to improve the balance ability and foot pressure of adults with functional ankle instability(FAI). Imagery training(IT) related to balance was implemented for adults with FAI. 15 KIT group and 15 VIT group, three times a week for 30 minutes, for 4 weeks. Using the Biorescue program, Foot print, Limited of stability(LOS) was measured twice in total, before and after IT, once each. In KITG, there was a significant difference in Left in comparison before and after foot print pressure(FPP). In VITG, there was a significant difference in Left and Right in

comparison before and after FPP. In both groups, there was a significant difference in Left-back and Right-front in comparison before and after foot print area(FPA). There was no significant difference in comparison before and after LOS. As a result of this study, adults with FAI have balance effect though KITG and VITG, but there was no significant difference by kinds of intervention of IT.

04. W-04_10_A Comparison study of Lifestyle patterns between Ischemic Stroke and Healthy Adults

**Myung-Chul Kim(Eulji Univ., Korea), Hang-Sik Park(Eulji Univ., Korea), Jean-Kyung Paik(Eulji Univ., Korea),
Duk-Young Jung(R&BD Center, Korea), Hee-Gyoo Gang(Eulji Univ., Korea), Lee-Su Min(Eulji Univ., Korea)**

The purpose of this study was to investigate the difference in lifestyle pattern between ischemic stroke patients and healthy adults. The study was designed to be a retrospective comparison survey study of the ischemic stroke outpatient(experimental group) and healthy adult(control group). 7 ischemic stroke patients visited N rehabilitation hospital and 7 healthy adults who were visited Seongnam Senior Experience Complex on April 2017. Data were analyzed using descriptive statistics. As a result of comparing the lifestyle of ischemic stroke patients and healthy adults, there was a difference in activity time, drinking and smoking.

05. W-20_01_A Study on the Relationship between Geriatric Syndrome Factors and Quality of Life

Kyung-hee Kang(Konyang Univ., Korea),Hye-Jeong Hwang(Konyang Cyber Univ., Korea)

The study was conducted to provide basic data for the development of elderly health promotion education data in the future through measuring the relationship between causal factors of geriatric syndrome and quality of life through measurement of physical and psychological status of the elderly. For the study subjects, the results of the Community Health Survey in 2015 were requested by the Disease Control Headquarters for raw data, and 787 people aged 65 or older in one city were analyzed. Statistical software R program was used to analyze the data of this study

06. W-20_07_Posttraumatic Growth and Meaning in Life of Trauma-Exposed Undergraduate Students

Sunyoung Im(Sunmoon Univ., Korea)

The purpose of this study was to explore the relationships between posttraumatic growth(PTG) and meaning in life, considering multidimensional aspects of meaning in life. Various sources and structural aspects of meaning in life such as importance or consistency were measured using the Multidimensional Meaning in Life Scale. Data were collected from the 283 undergraduate students. The results showed that there was a significant difference between two groups (high PTG vs. low PTG) in the scores of importance and inconsistency of meaning in life. Second, the high PTG-group considered 'physical and psychological health', 'self-acceptance and growth', and 'relationships with family and friends' more important than low PTG-group, while there was no group-difference in importance for 'satisfaction at work', 'social achievement', 'spirituality and religiosity' and 'contribution to society'. These findings suggest that the relationship between PTG and meaning in life might become different according to which aspects of meaning in life identified and measured.

07. W-20_14_Moderating Effect of Employment Type on the Relationship between Subjective Health and Depression in Workers

Kyung-Shin Paek(Semyung University, Korea), Young-Sook Kwon(Joongbu Univ., Korea)

This study examined how employment type moderates the influence of subjective health and stress on depression in workers. Data from the sixth Korean National Health Examination Survey (KNHANES VI-2, 2014) was used, which included 1,664 adults (aged 19 - 64 years) who are currently working. Results revealed that employment type

moderated the association between subjective health and depression in workers. However, the type of employment did not appear to have moderating effect on the relationship between stress and depression. Therefore, we suggest that various policies be established and implemented to improve the treatment of non-regular workers to relieve depression and enhance mental health.

08. W-20_18_Factors influencing oral health-related quality of life among elderly people in Korea

Young-Sook Kwon(Joongbu Univ., Korea), Kyung-Shin Paek(Semyung University, Korea)

This study was conducted to identify factors that are associated with oral health-related quality of life (OHRQoL) in elderly people. Participants in this cross-sectional survey were 248 aged over 65 older people. Data were collected from July. 3 to 21, 2016 using the self-report questionnaire. Subjective oral health status, oral health literacy, and OHRQoL were measured. Descriptive statistics, t-test, ANOVA, and hierarchical multiple regression analysis were conducted with SPSS/WIN 22.0. The mean score of OHRQoL was $12.7(\pm 10.14)$ in the elderly people. The results of multiple regression analysis showed that subjective oral health status, oral health literacy, cohabitant, the number of teeth, education level and religion significantly predicted OHRQoL in the elderly people, explaining 44.3% of the variance. Therefore, health care providers should consider that interventions preventing tooth loss and improving oral health status and oral health literacy are required to enhance the OHRQoL in the elderly people.

Session 2-B

01. W-22_01_Authentic Leadership and Organizational Effectiveness: The Roles of Hope, Grit and Growth Mindset

Chang Seek Lee(Hanseu Univ., Korea)

This study aimed to investigate the moderated mediation effects of hope, grit and growth mindset on the relationship between authentic leadership and organizational effectiveness of office workers. Data were analysed using SPSS PC+Win, Ver. 21 and Process for SPSS. The results are as follows. First, the correlations between authentic leadership, hope, growth mindset, grit, and organizational effectiveness were all significant and positively correlated. Second, growth mindset and grit had a moderating mediation effect on the relationship between authentic leadership and organizational effectiveness through hope.

02. W-22_02_Victimized Behavior and School Adaption: The Mediating Effects of Growth Mindset and Self-esteem of Adolescents

Chang Seek Lee(Hanseu Univ., Korea), Mina Jung(Chung-Ang Univ., Korea), Sun Hee Kim(Hanseu Univ., Korea), Eunmi Shin(Hanseu Univ., Korea), Mi Sug Cho(Hanseu Univ., Korea)

This study aimed to investigate the mediating effects of growth mindset and self-esteem in the relationship victimized behavior and school adaptation for adolescents. Correlation analysis, descriptive statistics, and SPSS macro PROCESS were conducted for data analysis. The main results are as follows. First, correlation analysis showed that victimized behavior was negatively correlated with growth mindset, self-esteem, and school adjustment. Second, the mediating effects of growth mindset and self-esteem in the relationship victimized behavior and school adaptation were verified. Suggestions on school adaptation of victimized adolescents from school violence were presented.

03. W-22_03_The Moderating Effect of Growth Mindset on the Relationship between Authentic Leadership and Organizational Effectiveness

Chang Seek Lee(Hanseu Univ., Korea), Mina Jung(Chung-Ang Univ., Korea), Gwangho Lee(Hanseu Univ., Korea)

The study was done to verify the moderating effect of growth mindset on the relationship between authentic leadership and organizational effectiveness of workers. Data were analysed using descriptive statistics, correlation analysis and Process Macro for SPSS. The main results are as follows. First, there was a significant positive correlation between authentic leadership, growth mindset, and organizational effectiveness. Second, growth mindset moderated the relationship between authentic leadership and organizational effectiveness of workers. Implications on increasing organizational effectiveness through authentic leadership and growth mindset were discussed.

04. W-22_04_Parental Abuse Victimization and School Life Adaptation of Adolescents

A Moderated Mediation Model of School Violence Victimization and Self-esteem

Yeoun Kyoung Hwang(Hanseu Univ., Korea), Jin Hyung Lee(Chungnam Nat'l Univ., Korea),
Chang Seek Lee(Hanseu Univ., Korea)

The purpose of this study was to investigate the mediating effect of school violence victimization and the moderating effect of self-esteem in relation to parental abuse victimization and school life adaptation among 350 middle school students. For the analysis, SPSS Win,21.0 and SPSS MACRO program were used. Reliability analysis, descriptive

statistics, correlation analysis, mean comparison analysis, relationship between variables, bias correction bootstrap were performed. The results of the study are as follows. First, parental abuse victimization and school life adaptation were mediated by school violence victimization. Second, self-esteem adjusted the relationship between parental abuse victimization and school violence victimization. Third, self-esteem was buffered to control the indirect effect between parental abuse victimization and school life adaptation through school violence victimization. This result will be used as a new model to promote school life adaptation through the school violence victimization interaction between parental abuse victimization and self-esteem in adolescents.

05. W-22_05_The Moderating Effect of Growth Mindset between School Grades and Self-esteem of Adolescents

Yeoun Kyoung Hwang(Hanseu Univ., Korea), Chang Seek Lee(Hanseu Univ., Korea)

The purpose of this study was to investigate the adjustment effect of growth mindset in relation to academy grades and self-esteem among 350 adolescents in Korea. For the analysis, SPSS Win,21.0 and SPSS MACRO programs were used. Reliability analysis, descriptive statistics, correlation analysis, mean comparison analysis, relationship between variables, and bias correction bootstrap were performed. The results of the study are as follows. First, there was a positive correlation between academy grades, self – esteem and growth mindset. Second, in the macro PROCESS analysis, the conditional effect of the academy grades on the self-esteem was significant, and the growth mindset did not have a significant effect on the self-esteem, but the regression coefficients of the academy grades and the growth mindset were statistically significant Positive values, and the effect of academy grades on self – esteem was found to depend on the growth mindset. Third, the relationship between academy grades and self – esteem was controlled by the growth mindset, but the low group was not significant.

06. W-22_06_Parental Abuse Victimization and School Violence Victimization: A Moderated Mediation Effects of Self-esteem and Growth Mindset

Yeoun Kyoung Hwang(Hanseu Univ., Korea), Chang Seek Lee(Hanseu Univ., Korea)

The purpose of this study was to investigate the mediating effect of self-esteem and the moderating effect of growth mindset on parental abuse victimization and school violence victimization among 350 adolescents in Korea.

SPSS Win,21.0 and SPSS MACRO program were used for analysis. Reliability analysis, descriptive statistics, correlation analysis, mean comparison analysis, relationship between variables, and bias correction bootstrap were performed. The results of the study are as follows. First, parental abuse victimization and school violence victimization were mediated by self-esteem. Second, growth mindset moderated the relationship between self-esteem and school violence victimization. Third, the growth mindset has a buffering effect to moderation the indirect effect between parental abuse victimization and school violence victimization through self-esteem. This result will be used as a new model of parental abuse victimization in adolescents to reduce school violence victimization through the interaction of self-esteem and growth mindset.

07. W-22_07_Diaspora as an application of human rights for social communication

Song Young-Hyun(Chungnam Nat'l Univ., Korea), Lee Hye-Kyoung(Konyang Univ., Korea)

The purpose of this study is to explore the concept of diaspora and human rights and expand the form of social communication. The development of transportation and communication that modern society shows is not exactly where the end is. The development of science and technology is breaking down the boundaries between people and people,

as well as between society and society. Paradoxically, however, there are more and more people who do not belong to any group. Refugees that are caused by various disputes can be an example. It is also necessary to understand the multicultural phenomena created by those who are incorporated into a society. Therefore, the issue of human rights has become a reality of international society, and it is necessary to establish a new concept of 'diaspora'.

08. W-22_08_A Study on the Factors Influencing on School Violence Victimization of Adolescents

Chang Seek Lee(Hanseu Univ., Korea), Hye Young Shin(Hanseu Univ., Korea), Yeon Sook Cho(Hanseu Univ., Korea), Ha Young Jang(Hanseu Univ., Korea)

The purpose of the present study was to investigate the relative influence of self-esteem, aggression, violence recognition, and empathy ability on the school violence victimization for the subject 523 adolescents. To this aim, bivariate correlation analysis and logistic regression analysis with the control variables of personal variables were utilized. The findings are as follows. First, the aggression and violence recognitions showed a significant positive correlation among them. And self-esteem and empathy ability were positively correlated each other. Second, according to the logistic regression analysis, only self-esteem, aggression showed significant influences on adolescents' school violence victimization. But the direction of influences of self-esteem and aggression was the opposite. In other words, self-esteem had a negative influence. On the contrary, aggression had a positive influence. Based on these results, measures for lowering adolescents' school violence were proposed.

09. W-22_09_The Influences of Psychological Capital and Organizational Communication on the Stress and Turnover Intention of Office Workers

Chang Seek Lee(Hanseu Univ., Korea), Soo Hyun Park(Hanseu Univ., Korea), Mi Hyang Choi(Hanseu Univ., Korea), Ha Young Jang(Hanseu Univ., Korea)

The purpose of the present study was to clarify the role of psychological capital and organizational communication on stress and turnover intention of 346 office workers. To this aim, bivariate correlation analysis, certificated factor analysis and structural equation method were utilized. The findings are as follows. First, psychological capital negatively influenced on the office workers' stress. But it did not on their turnover intention. Meanwhile, organizational communication negatively influenced on both office workers' stress and turnover intention. Second, the mediating effect of office workers' stress in the relationship between psychological capital and organizational communication has been verified. And as the result of bootstrapping, the mediating effect of stress was verified. Based on these results, measures for lowering office workers' stress and turnover intention were proposed. Also the significant reasons why there is not direct effect between office workers' psychological capital and turnover intention were clarified.

10. W-22_10_The Roles of Hope and Organizational Effectiveness between Authentic Leadership and Turnover Intention of Office Workers

Chang Seek Lee(Hanseu Univ., Korea), Ha Young Jang(Hanseu Univ., Korea)

The purpose of the present study was to clarify the role of hope and organizational effectiveness in the relationship between office workers' authentic leadership and turnover intention. To this aim, bivariate correlation analysis and regression analysis with the control variables of personal variables were utilized. The findings are as follows. First, boss' authentic leadership positively influenced on office workers' hope and organizational effectiveness. Also hope turned out to positively influence on organizational effectiveness. Organizational effectiveness had direct impact on turnover intention. Second, dual mediating effect of hope and boss' organizational effectiveness in the relationship between authentic leadership and turnover intention has been verified on office workers. But there was no direct effect between

boss' authentic leadership and turnover intention, also between hope and turnover intention. Based on these results, a measure for lowering office workers' turnover intention was proposed. Also the significant reasons why there is not direct effect between boss' authentic leadership and turnover intention, between hope and turnover intention was clarified.

11. W-22_11_The Moderating effect of growth mindset between School Violence Victimization and School Class Adaptation of Adolescents

Chang Seek Lee(Hanseo Univ., Korea), Ha Young Jang(Hanseo Univ., Korea)

The purpose of the present study is to investigate the moderating effect of growth mindset on the relationship between school violence victimization and school class adaptation of 952 adolescents. To this aim, bivariate correlation analysis and regression analysis with the control variables of personal variables were utilized. The findings are as follows. First, growth mindset and school class adaptation showed a significant positive correlation, but school violence victimization showed a negative correlation. Second, according to regression analysis, it is verified that growth mindset had a moderating role on the relationship between school violence victimization and school class adaptation. Based on these results, a measure for promoting adolescents' school class adaptation by improving growth mindset of them was proposed.

Session 3-B

01. W-03_04_The Relationship between Social supports and Health Promoting behaviors of Participation in Regular life Sports

Wang-Sung Myung(Yonsei Univ., Korea)

This study aims to provide basic data necessary for participants in regular life sports to continue positive and active participations by examining the relationship between social supports and health promoting behaviors of them. To this end, exploratory factor, correlation and multi-regression analysis and reliability test were conducted by using the SPSS 21.0, based on data of 179 participants. The regular life sports activities are best methods necessary to continue and enjoy healthy life and also health promoting behaviors to which everyone can easily access. In this aspect, this study examined the relationship between social supports and health promoting behaviors, while it cannot but admit that some problems were revealed.

02. W-03_14_Effects of loading method on MEF of Pectoralis major and Triceps brachii during Bench Press

Kyung-Seok Han(Hanseu Univ., Korea), Chun-Ho Yang(Hanseu Univ., Korea)

The purpose of this study is to clarify the muscle fatigue tendency of the agonist according to the weight strength during the bench press exercise. The subject will be an average of 23 male college students. We will perform three sets of bench press exercises with different intensity for each set, and we will calculate electromyogram to calculate muscle fatigue value during bench press exercise. EMG will measure pectoralis major and triceps brachii. Bench presses by type will be randomly distributed at intervals of 10 days. Will use it mixed design two-way ANOVA . Significant level was $\alpha = .05$.

03. W-03_17_Usefulness of Prevention of Laboratory Infection in the Department of Radiology using Digital Automated X-ray Equipment

Jung-Yim Lee(Cheongju Univ., Korea), Youl-Hun Seoung(Cheongju Univ., Korea)

The purpose of this study was to evaluate quantitatively the influence of the automation system on pathogen infection, which was installed in the general X-ray laboratory room for diagnostic imaging in the department of radiology. This study showed that there was an infection prevention effect of pathogens by using automation system in the department of radiology. If it seems like additional infection prevention activities such as hand washing, it could expect to greatly contribute to the prevention of secondary infection by pathogenic bacteria.

04. W-03_18_A Study on Deep Cleansing Utilization and Post-Care Satisfaction of Female College Students

Mi-Ra Jeong(Hanseu Univ., Korea), Cheong-Hwan Lim(Hanseu Univ., Korea), Dae-Jin Baek(Hanseu Univ., Korea)

This study is about the preference and satisfaction of the exfoliation products of female college students. Female college students had a high level of satisfaction with AHA, once a week, on average. In the future, it can be used as a useful material for selection of keratin products.

05. W-03_21_Quality Assessment of Spatial Resolution for MRI

Woo-Taek Lim(Hanseu Univ., Korea), Hong-Ryang Jung(Hanseu Univ., Korea)

This study analyzed quantitatively the spatial resolution by evaluating image quality of modulation transfer function for MRI. The MTF technique could accurately distinguish between low spatial resolution and high spatial resolution and it can be considered to be useful in the quality control of MRI spatial resolution.

06. W-03_22_Development of automated quantitative analytical technique in the phantom radiography of mammography

Mi-Hwa Lee(Hanseu Univ., Korea), Hong-Ryang Jung(Hanseu Univ., Korea), Ik-Pyo Lee(Kyung Hee University hospital)

This study, suggests an automated quantitative evaluation method to minimize the error caused by the evaluator that occur in conventional quality control subjective judgment. And it has a purpose to evaluate the usability. Using the Matlab software, and the pixel size of the image of each pixel with the gray level, such as to develop a QC automation program. The proposed software system provides easy quality control with a relatively short time. This study also generated a new evaluation index on computerized quality control of mammography, and provided the cornerstone of systematic quality control.

07. W-03_23_The relationship of maternity leave realization, dental clinic attitude and organizational effectiveness by dental hygienists

Su-Jung Lee(Hanseu Univ., Korea), Ji-yeon Oh(Hanseu Univ., Korea), Jong-hwa Jang(Hanseu Univ., Korea)

This is a cross-sectional correlation study to the relationship of maternity leave realization, dental clinic attitude and organizational effectiveness by dental hygienists. This study explained the purpose of this study by visiting the dental clinics and clinics in Seoul, Gyeonggi, Incheon, Chungcheong, Gyeongsang, Jeolla and Gangwon from September 15, 2016 to February 2017. The questionnaire was distributed to 223 dental hygienists who agreed to participate in the study. There was a strong positive correlation between the attitude and job satisfaction ($r = 0.384$, $p < 0.01$) and organizational commitment ($r = 0.386$, $p < 0.01$). Regression analysis showed that the attitude toward maternity leave of workplace and clinics had a statistically significant effect on job satisfaction ($\beta = 0.383$) and organizational commitment ($\beta = 0.325$). It was suggested that dental hygienists should develop and operate an education program for the conservation education program at the association or society so that they can understand the right knowledge about the maternity leave and find out the rights defined by the law by themselves. In addition, it is urged to improve the attitude of the dental clinics and clinics so as to comply with the ordinance stipulated in the law.

08. W-03_26_Evaluation of Contrast Media Concentration in Aneurysm According to Change of Condition in Digital Subtraction Angiography

Sang-Wook Lim(Hanseu Univ., Korea), Cheong-Hwan Lim(Hanseu Univ., Korea), Yuxin Huang(Hanseu Univ., Korea)

This study aims to obtain DSA of the aneurysm using Aneurysm Blood Flow Simulator. The purpose of this study is to suggest an optimization method to improve the risk perception of the contrast media and to acquire the appropriate image by comparing and evaluating the concentration of the contrast media in the cerebral aneurysm with objective values.

Session 4-B

01. W-15_01_A Study on the Personality Formation of Artificial Intelligence Secretary Service

Chul-Nyuon Kim(KT Corporation, Korea), Sang-Ho Lee(Kyungsung Univ., Korea)

Recently, several kinds of AI secretary service is released from several IT and telecom companies. AI secretary is made up of connection with user, several devices and information systems. It has feature that it only can exist not by 'Der Einzelne' but by interconnection. Therefore, to understand the identity is possible inside connection under constantly changing environments but not the Ego of Cartesian principal. In this study, the identity of AI secretary service is considered using the concept of ontology in modern philosophy which is provided by Levinas and Deleuze. Using the identity understanding of AI secretary from the feature of relation, a developer or service provider can get an insight to develop.

02. W-15_02_A Study on the Factors Affecting Reuse of Hologram Theater

In-Kyu Lee(KT Corporation, Korea), Chul-Nyuon Kim(KT Corporation, Korea), Sang-Ho Lee(Kyungsung Univ., Korea)

Hologram is one kind of performing art using visual optical illusion. Some hologram theater is launched but not vitalized until now. TAM is useful methods to identify the technical factors when new technology is come to the market. In this paper, three external variables are considered which are system quality, contents quality, and service quality. Also user interaction is considered as mediator variable because interaction with visitor in hologram performance is very powerful method to attract the visitor's interest. Contents quality is the most important factor to make perceived usefulness. At the same time, interaction reinforces to make result and affect to intention of reuse. This study shows that good quality content is the best answer the visitor to come again. Also, the hologram content shall have attribute of interaction with visitor.

03. W-15_03_Why don't people play mobile games? Focused on their perception of benefits and costs for playing mobile games.

Young-Berm Kim(Kt corp., Korea), Sang-Ho Lee(Kyungsung Univ., Korea)

This study deals with people's perceptions for mobile games. Particularly, for those who do not enjoy mobile games at all, while handling smartphones well, authors analyze their difference in loss and gain perception for the game compared to those who enjoy playing games. Unlike existing kinds of game, mobile games have a wide range of users in terms of age and gender. Nevertheless, there are many non-players. Why don't they enjoy it at all? This study attempts to find out the factors that explain their indifference to the game focusing on the epistemic curiosity as personality. This feature presents a new direction for game developers to discover new customer segments.

04. W-15_04_A Study on the Quality Factors of Public Relations Video

Seung-Woo Jeong(Kyungsung Univ., Korea) , Sang-Ho Lee(Kyungsung Univ., Korea)

This research is a study on the recognition and satisfaction of the quality of public institution's public relations video. The researcher tried to verify citizens' satisfaction through researching their cause of recognition, under the premise that annually produced local government's public relations video should be planned and produced based on the feedback of the citizens who are the recipients. The research results showed that citizens watched the public relations video and that they showed trust and satisfaction through emotional and rational factors, which led to the improvement of the recognition on the local government administration's result. Therefore, it is advisable for local government's public

relations officials to reflect the result of recipients' recognition research when planning and producing annual public relations video.

05. W-15_05_A Study on the Influencing Factors of the perceived Eco-system to Satisfaction & Revisit
Yun-Sik Choi(Kyungsung Univ., Korea) , Sang-Ho Lee(Kyungsung Univ., Korea)

The purpose of this study is to improve the visitor's perception through improving the ecological service design of the major tourist sites and to raise the satisfaction of the local residents to win-win effect between them. Therefore, the researchers selected the Junam Reservoir from domestic tourist sites and tried to find out how the perceptions related to visitors' environmental protection affected the satisfaction and return visit through emotional and rational factors. The findings of this study are as follows. The perceived environmental awareness influenced emotions and rational factors, and it was confirmed that these influences affect satisfaction and return visit. If we improve the service design based on the survey results and recognize the importance of ecosystem services to the visitors, it will contribute to improve the quality of life by eliminating environmental problems(traffic congestion, parking, garbage increase, etc.) for local residents.

06. W-15_06_Repeat Consumption of Mobile Contents: Analysis For Factors Affecting Repeat Clip Video
Ji-Hoon Yang(Yonsei Univ., Korea), Sang-Hyuk Yoon(Yonsei Univ., Korea), In-Kyu Lee(KT Corporation, Korea), Sang-Ho Lee(Kyungsung Univ., Korea)

As technology has developed, various media have appeared and consumers have a rich media environment. In particular, smart devices such as smart phones and tablet PC have become popular, allowing users to enjoy video content anytime, anywhere. Changes in the viewing environment affected the length of content. Improved hardware mobility also reduced the time spent on content and the length of content has been shortened. Shortening the length of video content is one of the phenomena of the snack culture. Snack Culture means a new type of cultural consumption trend that can be easily enjoyed in a short time like snacks. The characteristics of the snack culture, which does not require much time to use and has a rapid deployment method of contents, induce repetitive consumption. Despite the rapid changes in the consumption behavior of video contents, there have been few studies on clip videos. Therefore, the purpose of this study is to clarify the consumption behavior of clip video and the factors of repeat viewing through quantitative data analysis. The following implications are expected through this study. First, it will be able to figure out the consumption behavior of clip video for new media, and provide objective indicators for future development of the market. Second, we would like to suggest some complications for marketers and practitioners by identifying the factors causing repeat viewing like ads optimized for each factor. Finally, we will applicate a media theory to clip video, which is new media, and suggests academic implications.

07. W-15_07_A Comparative Study on the Purpose of Consuming Online to Offline Service
Youn-Soo Ha(Kyungsung Univ., Korea) , Sang-Ho Lee(Kyungsung Univ., Korea)

This paper deals with a comparative study on the purpose of consuming online to offline service persistently. O2O service is one of the most popular business models in ICT in recent years. O2O service (online to offline) is to attract online consumers to in-store stores (Jung-Gun Son · Jong-ho Lee, 2014). In the case of Korea & Japan, there has been explosive growth since online co-purchasing in 2010. However, research on Japanese O2O service is mostly based on literature and lacks empirical research. Therefore, this study aims to analyze empirically the effect of consumer characteristics based on the characteristics of O2O service and goal - oriented behavior model on the trust, desire and intention of O2O users. The online variables (mobility, safety); the relationship between the constituent

variables is theoretically modeled as offline characteristics (provider reputation, service quality), O2O trust, consumer characteristics (attitude, subjective norm, perceived behavior control) Respectively. In addition, we conducted a questionnaire survey on the users of Japanese O2O service in order to establish the relationship between these variables as research hypotheses and verify it empirically. Among ten research hypotheses derived from prior research and the research model, eight hypotheses are tenable, while the rest hypotheses are untenable. Online features of mobility and Offline features of service quality. The Online features of mobility bring consumers convenience but also have some latent customer privacy issue. On other hand, because of the untenable hypothesis, there is inconformity between online service and offline service, and customer have distrust on the O2O service. In order to achieve continuous online consumption, offline businesses need to improve service to attract consumers. The perceived quality of selling company exert a significant effect upon the customers' reliability for the brand equity of open market company and selling company, such as the brand awareness of the open market, open market image, brand awareness of selling company, the perceived quality of selling company. Thus, selling company should improve self-brand service and quality in order to improve customers' reliability. In addition, the consumer characteristics of attitude, subjective norm, and perceived behavioral control are all tenable. These results mean that O2O service is a favorite way of consumption by Korea & Japan consumers.

08. W-15_08_A Longitudinal Time Series Study on the Viewing Behavior of Digital Media Service

Sang-Ho Lee(Kyungsung Univ., Korea)

This paper deals with a longitudinal time series study on the viewing behavior of digital media service, like an IPTV and digital cable TV. After holdback of terrestrial broadcasting VOD service was extended in 2013, viewers' terrestrial broadcasting VOD viewing went down sharply. Researcher assumed that there was driven by watching alternative products such as movies, kids, etc. as the cause of the decline of the terrestrial broadcasting VOD viewing. In addition, researcher assumed that the decline of terrestrial broadcasting VOD viewing had an influence on the viewing rate of the terrestrial real-time broadcasting, and confirmed the cause of the decreasing of the terrestrial real-time broadcasting viewing rate. Unlike VOD case, the decline in the viewing rate of the terrestrial real-time broadcasting was confirmed to be due to the channels of the channel substitution CJ E&M channels and the general programming TV channels. Through this research, researcher has discovered the following. Overall, terrestrial broadcasting channels tend to decrease all viewing rate of real-time broadcasting and VOD. The influence of the decrease of the terrestrial broadcasting channel is from the general programming TV channels and CJ E&M channels, and the decrease of VOD is decreasing due to watching kids and movies contents. In order for terrestrial broadcasters to retrieve real-time broadcasting and VOD viewing, it is necessary to shorten the VOD holdback and reacquire viewers away from terrestrial broadcasting. Through this research, researcher expects the trend of the media industry and the reasons for the decline in the viewing rate of terrestrial broadcasters to contribute to the healthy growth of the industry.

09. W-15_09_A Comparative Study on the User Perception of Social Media Based Messenger Service

Hee-Young Yang(Kyungsung Univ., Korea) , Sang-Ho Lee(Kyungsung Univ., Korea)

This comparative study deals with the user perception of social media based messenger service with generation, gender to confirm the factor of service acceptance. Social media based messengers such as kakao-talk and facebook have improved functions according to user's needs. Therefore, researchers conducted this research to confirm the research model through define of acceptance factors and to increase the practical value. Researchers wanted to demonstrate the messenger users by gender in their generation and summarize them in statistical methods. In this research, from the viewpoint of a business operator, it is expected that confirming the acceptance factors of young people and using this result practically makes it possible to help a company that provides messenger service.

10. W-15_10_The effect of self concept formed through the use of SNS on user's happiness

Yeon-Hee Hwang(Yonsei Univ., Korea), Sang-Ho Lee(Kyungsung Univ., Korea) , Young-Berm Kim(KT, Korea)

The purpose of this study is to investigate whether the use of Facebook is contributing to user's happiness or whether it is causing relative deprivation. Specifically, it examines the social psychological mechanism of the reasons to enhancement of user's happiness, and vice versa. In order to this, this study examine how self-concept formed through the use of Facebook affects individual's happiness and how perceived social support influence on promoting happiness.

Session 5-B

01. W-08_11_The Effect of Leadership perceived by Flight Attendants on Core Self-Evaluation and Job Performance

Seon-Hee Ko(Seowon Univ., Korea)

This study intends to examine the effect of leadership types of cabin managers on core self-evaluation and job performance. Through the analysis, this study intends to search for theoretical and practical hints on effective leadership type and human resource management. In addition, by conducting empirical research on core self-evaluation and related variables in the context of flight service, this study wants to compare the findings with those of previous researches.

02. W-08_12_The Effects of Wholeness Program Using Virtual Reality (VR) on Cognitive Function, Depression, and Activities of Daily Living for the Elderly with Dementia

Kim Young-Mee(Seowon Univ., Korea), Hong Hye-Jeon(Seowon Univ., Korea)

This study analyzed the effects of participating in wholeness programs according to virtual reality(VR) viewing status on the cognitive function, depression and activities of daily living of elderly with dementia. The subjects were 8 elderly persons aged 75 years or older who were diagnosed with dementia by a neurologist who were divided into an experimental group of 4 subjects that participated in a wholeness program after 15 minutes of VR viewing and a control group of 4 subjects that participated in a wholeness program without viewing VR, and data were collected and analyzed in the wholeness program conducted at K1 and K2 Senior Welfare Centers in Seoul from March 6 to April 14, 2017, once every week for 60 minutes. As a result, there was no effect on cognitive function and activities of daily living, but there was a significant difference in depression, and it was confirmed that wholeness program activity after VR watching decreased depression of elderly with dementia.

03. W-08_13_Study on Flight Safety Training of Cabin Crew using IPA

Seon-Hee Ko(Seowon Univ., Korea)

This study intends to examine the effect of leadership types of cabin managers on core self-evaluation and job performance. Through the analysis, this study intends to search for theoretical and practical hints on effective leadership type and human resource management. In addition, by conducting empirical research on core self-evaluation and related variables in the context of flight service, this study wants to compare the findings with those of previous researches.

04. W-08_15_A Study on the Relationship Between the Organizational Loyalty and External Happiness of Internal Employees in Professional Sport Clubs According to the Type of CSR Activities

Il-Gwang Kim(Korea Nat'l Sport Univ., Korea), Ja-Young Kim(Korea Nat'l Sport Univ., Korea),
Ka-Eun Kim(Jeonju Univ., Korea), Sung-Duck Kim(Baekseok Univ., Korea),
Joo-Young Kim(Korea Nat'l Sport Univ., Korea)

The purpose of this study is to establish effective implementation plans of professional sport clubs for social responsibility activities by determining the type of CSR activities actually implemented by professional sport clubs and the relationship between organizational loyalty and external happiness. For such purpose, the survey targeting 240 officials from

professional sport (baseball, soccer, basketball, volleyball) clubs was carried out using the convenient sampling method. The confirmatory factor analysis, Cronbach's α , correlation analysis and structural equation model (SEM) analysis were carried out using the SPSS 20.0 and AMOS 20.0 programs for data analysis. The investigation result is as follows. First, it was discovered that the protection of fans' rights and Public interest-linked marketing among the types of social responsibility activities of professional sport clubs had a significant influence on the organizational loyalty. Second, it was discovered that the Cultural business in the hometown and Public interest-linked marketing among the types of social responsibility activities of professional sport clubs had a significant influence on the external happiness. Third, it was discovered that the organizational loyalty had a significant influence on the external happiness.

05. W-08_16_Effects of Participation in Dancesport on Age Identity, Existential Identity, and Ego Integrity of Korean Elderly People

Yoon-Mee Jeong(Chungnam Nat'l Univ., Korea), Moon-Suk Lee(Chungnam Nat'l Univ., Korea),
Jong-Gil Lee(Chungnam Nat'l Univ., Korea)

The purpose of this study is to examine effects of participation in dancesport on age identity, existential identity, and ego integrity of elderly. To achieve the research goal, first, dance sports participation and change of age identity, second, participation in dancesport and change of existential identity, third, participation in dancesport and change of self were analyzed. The subjects of the study were experimental group(n=93) who participated in the dancesport program and The control group (n=107) consisted of male and female elderly who did not participate in regular dancesport activities. The results are as following. First, participation in dancesport positively affects the elderly's sense of age identity. The sense of age identity improved after participation in dancesport. Second, participation in dancesport positively affects the existential identity of the elderly. In other words, after participating in the dancesport before participating, the existential identity feeling became higher. Third, participation in dancesport positively affects the ego-integrity of elderly people. The self-sense of integration improved significantly after participation in dancesport.

06. W-08_17_The Effect of Social Capital of Old Women Participating in Community Dance on Their Suicide Ideation

Eun-Yeong Kim(Seowon Univ., Korea), Young-Mee Kim(Seowon Univ., Korea), Hye-Jeon Hong(Seowon Univ., Korea)

This study tried to investigate the effect of elderly women's social capital on suicidal ideation, who were participating in community dance. For that study purpose, 167 elderly women, participating in community dance, were sampled from senior welfare centers and community centers. The results were as follows. First, there were significant differences in social capital according to community dance participating frequency and satisfaction level with participation. Second, self-trust and social relation network had negative effects on serious suicidal ideation, and, trust in others, self-trust, and trust in policy had negative effects on slight suicidal ideation. To summarize those results, to change elderly women's thinking and attitude toward suicidal ideation positively, it was need to attract elderly women to make social capital by active participation in community dance.

07. W-08_19_Effects of Parents and Teachers' Support of Autonomy and Degree of Recognition on Career Preparation Behavior of Undergraduate Students in Art Major

Jin-Hee Jo(Jeonju Nat'l Univ., Korea), Soo-Jin Seo(Seowon Univ., Korea), Mi-Ra Jeon(Sejong Univ., Korea)

The purpose of this study was to investigate the degree of recognition of major in undergraduate students in art major and the effect of parents and teachers' support of autonomy on career preparation behavior In order to accomplish

the purpose of this study, this study selected the undergraduate students in art major as the population, and collected a total of 367 students. As a result, first, the difference of parents and teachers' support of autonomy and career preparation behavior according to the personal characteristics of undergraduate students in art major showed that musical department was higher than dance and design department in major satisfaction and teacher autonomy. In career counseling and information gathering, dance and music were higher than design. In the gender, female counseling was higher than male counseling. Second, as a result of difference in career preparation behavior according to the recognition of major in undergraduate students in art major, it was found that career counseling and information gathering were higher than those who were very satisfied or satisfied with major. Third, parents and teachers' support of autonomy had a positive effect on parental autonomy support in career counseling, career counseling, and autonomy support in information gathering.

08. W-08_21_Study on Learning Experience of Practical Field Subjects for Development of Social Welfare Practice Competence

Su-Sun Park(Seowon Univ., Korea)

This study was attempted to evaluation the current state of the social welfare practice education and to seek the improvement measures by examining what impact has the social welfare practice education currently being implemented in undergraduate course in Korea on the development of practice competence of the students through the experience of the attending students.

09. W-08_22_A Study of Structural Analysis Simulation for Squat Excise Foot Plate

Ju-Hoon Park(Nambu Univ., Korea), Ji-won Kim(Nambu Univ., Korea), Byeong-Ho Jeong(Nambu Univ., Korea)

Squat exercise is one of the important free weight exercises that can safely and effectively expect the athletic performance by establishing the rationale and the rationale for the exercise method and posture. Therefore, it is necessary to study the side effects caused by incorrect exercise, scientific countermeasures for it, and develop a model of exercise. It is effective and accurate to use a variety of assistive devices to calibrate athletic posture. The issues of the structural analysis for design a foot plate for squat exercise is to model the behavior by simplifying the dynamic behavior. It should be considering that the center of gravity of each segmented body is different when the maximum load is applied. It is necessary to present the stability of the structure and the design method of the exercise equipment by calculating the strain and the magnitude of stress due to the limit load of the load cell placed on the foot plate. In this paper, the authors proposed a design method for the vertical load distribution applied in the design of the foot plate used for the squat exercise mechanism, and based on these results, design make the more safe and reliable free weight exercise equipment system.

10. W-08_23_The Study on Development and Practical Application of Psychological Skill Training Program for National Wheelchair Curling Player: Frontal EEG Asymmetry

Sung-Woon, Kim(Kyungpook Nat'l Univ., Korea), Han-Cheol, Kim(Yeungnam Univ., Korea)

The purpose of this study was to examine the effect of psychological skills training on psychological skills of Korean national wheelchair curling player. For the purpose of this study, the program of counselling and psychological skills training included psychological characteristics of subject and was operated by personal needs. Subject have been to 12 sessions of 6 different psychological skills training programs (writing practice training in diary, relaxation training, self-control training, routine training, attentional focus training and positive self-talk training). The effectiveness of

psychological skills training has been evaluated with 6 questionnaires and eeg measurement. The result was that psychological skills training had improved coping with adversity, peaking under pressure, and concentration and reduced worry of Korean national wheelchair curling player. The result implies that psychological skills training could be a effective strategy for improvement of psychological skills as well as delivery performance of Korean national wheelchair curling players.

11. W-08_28_The Effect of Language and Subjective Status Consciousness among Marriage Migrant Women on Their Perception of Role in Family and Satisfaction with Relationship with Offspring

Ki-Jung Kang(Beakseok Univ., Korea), Su-Sun Park(Seowon Univ., Korea), Da-Yeon Shim(Soongsil Univ., Korea)

Based on the National Multicultural Family Situation Survey in 2015, this study tried to the effect of language and subjective status consciousness among marriage migrant women on perceptions of their roles in family and satisfaction with relationship with offspring. The study used 2,780 marriage migrant women from 5 countries to analyze the effect.

12. W-08_35_The Effect of Participation in Taekkyeon on Peer Status and Problem Behaviors of Infants
Wang-Ha Lee(Seowon Univ., Korea), Young-Mee Kim(Seowon Univ., Korea)

This study is to identify the influence of Taekgyeon participation on peer status and problem behavior of infants. To investigate the relation among Taekgyeon class participation, peer status and problem behavior of age-specific infants, the Taekgyeon class participating and non-participating infants were compared and analyzed. 70 infants at age 6~7 were selected as the study subjects. 37 infants who participate in Taekgyeon class voluntarily were sampled as experimental group and the other non-participating 33 ones were sampled as control group. The conclusions are as follows. First, There was no significant difference between experimental and control group in peer status according to Taekgyeon class participation of infants. Second, there was significant difference problem behavior according to Taekgyeon class participation. 6 years old infants showed significant difference between experimental and control group's attention deficit and noncooperation. And 7 years old infants showed significant difference hyperactivity problem between experimental and control groups.

13. W-08_37_An Analysis of the Ethnographic Method for Doctoral Dissertations in Korea : Focused on (1) Research Participants, (2) Data Collection Methods, and (3) Trustworthiness Criteria

Ho-young Oh(Chonnam Nat'l University, Korea), Hong-Joong Cho(Chonnam Nat'l University, Korea)

Ethnography is concerned about specifically-based behavior and belief and the learned pattern of language and aims to describe and interpret them. Therefore, it is a classical form of qualitative research that was developed by anthropologists who spent for long time in conducting fieldworks within the cultural group. The results of analyzing ethnographic research methods of doctoral dissertations in Korea are as follows. First, the number of research participants in data collection methods was 1-10(32 dissertations, 44.4%), 11-20(18, 25%), 21-30(13, 18.1%), 31-40(2, 2.7%), and others(7, 9.8%). Second, data collection methods were in-depth interview(71, 98.6%), participant observation(70, 97.2%), document data(38, 52.7%), engineering device(12, 16.6%), and others(8, 11.1%). Data collection periods were 3-5 months(7 dissertation, 9.8%), 6-8 months(15, 20.8%), 9-11 months(14, 19.6%), 12-14 months(13, 18.1%), more than 15 months(17, 23.6%), and unrepresented(4, 5.4%). Third, trustworthiness criteria were triangulation(46 dissertation, 63.9%), research participants' evaluation of study results 44(61.1%), peer researchers' advice and indication(33, 45.8%), follow-up(25, 34.7%), use of reference(20, 27.8%), reflexive subjectivity(17, 23.6%), intensive observation for a sufficient period(10, 13.9%), in-depth description(7, 9.8%), and others(7, 9.8%).

Session 1-C

- 01. BT-02_**Inequality life social factors according to oral pain, chewing difficulty and periodontitis among over 65 aged Koreans: the 6th KNHANES (Korea National Health and Nutrition Examination Survey)
Hye-Sook Choi(Kyungdong Univ., Korea), Moon-Hee Kwon(Kyungdong Univ., Korea)

Inequality life social factors reflect influence of oral health status. This study was planned to know the inequality life social factors according to oral health state among older Koreans.

1197 subjects were chosen and used a comprehensive questionnaire, survey data from 6th KNHANES with complex sampling methods. The most inequality life factors of oral health state were anxiety/depression, economical activity on oral pain, and anxiety/depression, self-management education level and yes-spouse on chewing difficulty, and physical exercise on periodontitis. Strong social inequality factors of oral health should be considered so that health care providers could approach on the strategies of health policy to develop various programs for better oral health.

- 02. BT-03_**Major factors associated with physical inactivity among Korean adults: the 6th KNHANES (Korea National Health and Nutrition Examination Survey)
Moon-Hee Kwon(Kyungdong Univ., Korea), Hye-Sook Choi(Kyungdong Univ., Korea)

Physical inactivity problems are reported to be caused serious chronic diseases of lowering quality of life in both physical and mental aspects as well as keeping the adults immobile. This study was aimed to know the major factors of physical inactivity in Korean adults. A total of 1649 participants were selected for a cross sectional multi-analysis. The most related major factor of physical inactivity was chewing. And the other factors were lower income, depression, presence of spouse, smoking, and drinking problem. Government, local authorities and health care professionals should have the responsibility and have a key role for the community health level improvement through these evidences in this targeting population in Korea.

- 03. BT-19_**Specific major factors of depression in the community among middle and older aged Koreans: from the 6th KNHANES (Korea National Health and Nutrition Examination Survey)
Hye-Sook Choi(Kyungdong Univ., Korea), Moon-Hee Kwon(Kyungdong Univ., Korea)

Mental problems are especially very common among the middle and older aged in Korea. This study was performed to find out the major factors of psychological problems. The adults aged 35 and older were selected and analyzed with 3,331 respondents by multi-level logistic regression of complex sampling methods through a cross-sectional study. The prevalence of depression were 52.9%(total), 69.1%(35-64)and 30.9%(65≤). The specific major factors of depression were remaining teeth (≤ 20), two of family members and no spouse presence significantly. Therefore, it is needed for specialized and tailored strategies and interventions to decrease the influence of the depression of the middle and older aged population in the community.

- 04. BT-25_**Neural Network based Design for classifying breast cancer pathway
Heejin Yoon(Jangan Univ., Korea), Bohyun Wang(Gachon Univ., Korea), J.Y Choi(Sungkonghoe Univ., Korea)

Breast cancer pathogenesis is accompanied by complex and various mutations of genes. During the process of mutagenesis, sub groups can be classified to characterize individual-specific pathogenic genes in patients. Personalized medicine specific to each individual could enhance patients' quality of life compared to standardized

treatment for complex and various forms of diseases. We aim to use neural network, in order to classify pathway sub groups of gene mutations in breast cancer.

05. BT-29_A machine learning based MACE prediction model in patients with acute myocardial infarction

Young Joong KIM(Chungbuk Nat'l Univ., Korea), Jong Yun LEE(Chungbuk Nat'l Univ., Korea),
Yu Jun JEONG(Chungbuk Nat'l Univ., Korea)

Currently cardiovascular diseases (CVD) are the main cause of death worldwide, CVD risk estimates can be used as prognostic information and support for treating CVDs. The commonly used score model for CVD risk prediction may not yet be accurate enough. Thus, we propose a prediction system based on machine learning methods to more accurately estimate the MACE risk score for AMI patients. Consequently, our results will contribute to estimate the prognosis of CVD through proper prognostic factors for myocardial infarction (MI) patients.

05. W-09_01_Nursing Preceptors' Perception of Preceptor Roles in Korean Hospitals

Hee-Sook Sim(Pai Chai Univ., Korea), Weon-Hee Moon(Pai Chai Univ., Korea)

The purpose of this study is intended to review preceptor role self-perceptions. Preceptor role self-perceptions were examined in four classifications: role model, designer, resource person, and supervisor. The format of the study is descriptive survey research using a direct survey method. The researcher selected 262 preceptors from 9 randomly chosen hospitals as the subjects in Korea. The preceptor role that the preceptor recognizes the most is the 'Supervisor' role. The results of this study are expected to provide basic data necessary for establishing and developing efficient and systematic new nursing education programs that meet the needs of new nurses in the future.

06. W-09_02_Relationship between 'The Person in the Rain' Drawing and Ways of Stress Coping in Korean Nursing Students

Kil-Soo Chung(Kyung-in Women's Univ., Korea), Weon-Hee Moon(Pai Chai Univ., Korea)

The purpose of this study is intended to review the relationship between the Person in the Rain (PITR) drawing characteristics and the ways of coping in Korean nursing college students. Participants were a convenience sample of 166 students. The data were collected by the Person in the Rain drawing and questionnaire of the ways of coping. Two raters used revised PITR rating scales to score the drawings for stress and protection indicators. There were significant differences in the problem focused coping subscale of ways of coping to 'contact with rain' of stress indicators and to 'figure putting on clothes' of protection indicators. There were significant differences in the emotion focused coping subscale of ways of coping to 'puddle' of stress indicators and to 'figure size' of protection indicators. The number of PITR stress indicators correlated negatively with the problem focused coping subscale. The coping ability of PITR correlated positively with the problem focused coping subscale. Some of indicators of PITR is related to the problem focused coping and the emotion focused coping of ways of coping. The PITR drawing appears to be a promising instrument in measuring ways of coping.

07. W-09_05_Effects of expressive writing on emotional intelligence of nursing students

Hee-Sook Sim(Pai Chai Univ., Korea), Sung-Yun Ahn(Pai Chai Univ., Korea)

The purpose of this study was to examine the effects of expressive writing, including mental theme film and reading tasks on emotional intelligence, mental illness attitudes, and major's satisfaction in nursing students. After the expressive writing task, significant improvement was found in different variables. The study provides basic data to develop nursing education that can enhance the emotional intelligence of nursing students.

08. W-09_11_Factors that affect the tooth-brushing behavior in multicultural migrant women

Han-Hong Kim(Daejeon Health Institute of Technology,Korea) ,

Jae-Ran Lim(Daejeon Health Institute of Technology,Korea),

Yang-Keum Han(Daejeon Health Institute of Technology,Korea)

The study investigates the actual condition of oral health behavior in multicultural migrant women, specifically tooth-brushing behavior, which is the most major one of all, and various factors that affect the oral behaviors of multicultural migrant women. The study has shown that in order to improve one's state of oral health, it is important for one to receive high frequency of dental health education and have high level of self-esteem.

Session 2-C

01. W-32_15_Ease of Use Software Solutions for the Engineer Specific Level

Jungyun Kim(Kyunghee Univ., Korea), Joungil Park(WatoSolution INC., Korea), Wonshik Na(Namseoul Univ., Korea)

Today, professional education of service center engineers is indispensable together with the release of various products.

However, due to the creation of various security and related manuals, delay in education, frequent change of technical engineer (more than 30%) and repair skill according to individual's ability car, actual service time delay and repair quality And so many problems have been occurring. In this paper, in consideration of this situation, we describe the ease-of-use software solution industry suitable for engineer star level.

02. W-32_16_Implementing Software Framework for Training and Evaluation Certification

Jungyun Kim(Kyunghee Univ., Korea), Joungil Park(WatoSolution INC., Korea), Wonshik Na(Namseoul Univ., Korea)

Recently, due to technological innovation of various products including smartphones and diversification of consumer needs, there are hundreds of models released by each company, and in the future development and release of new models will continue Types of mobile phones, home appliances, automobiles, etc. are continuously increasing as long as repair has to be done at the service center to the reality that has been repeated. Therefore, in this paper, we have studied ways to implement the same quality of service by implementing a software framework for education and evaluation and authentication. In addition, we tried to implement general-purpose software with maximum efficiency by investigating domestic and overseas situations rather than repeating learning centers.

03. W-34_01_A Study on R&D Activities of ICT SMEs in Yangje Area

Dongwook Kim(Seoul Nat'l Univ., Korea), Dae Ho Kim(Mokwon Univ., Korea)

The purpose of this study is to study the characteristics of R & D activities of ICT SMEs located in Yangje area and to suggest the ways to strengthen the R & D capacity of ICT SMEs.

04. W-34_02_Analysis of behavior of participant based on resource dependency theory in process of deregulation by designation of R&D special zone

Sang-Kill Lee(IITP, Korea), Dae-Ho Kim(Mokwon Univ., Korea), Kyung-Sin Kim(IITP, Korea), Jung-Yeon Im(IITP, Korea)

This paper is to analysis behavior of performer based on resource dependency theory in the process of deregulation of urban area (Seocho-gu) by designation of R&D Special zone. By this research first, we can see main actors, second we can find Policy incentives, and finally we will find correlation between policy incentives and behaviors.

05. W-34_03_A Study on the Asset Smart Management Solution based on IoT

Moonhee Han(KISTI, Korea), Yousin Kim(KISTI, Korea), HarkSoo Park(KISTI, Korea), Dae Ho Kim(Mokwon Univ., Korea)

Recently, various IoT(Internet of Things) technologies have been released and the demand for asset management systems using IoT technology is increasing. This study aims to study how to manage assets efficiently using new IoT technology.

06. W-34_04_A System Building and A Case Study for the Real Time Transmission of Research Funds
Ji-Hoon Hong(KISTI, Korea), Hak-Su Park(KISTI, Korea), Dae Ho Kim(Mokwon Univ., Korea)

National R&D Supervision institution is implemented by preparing various measures to prevent the illegal execution of this research and development budget and to operate efficiently. As one of them, standards are set up for each institution and the details of the research budget execution are transmitted in real time. This study introduces a real time research funds transmission system and a case of using it.

07. W-34_05_ICT Cluster Activation Plan in Yanhjae-Umyeun area

Jin Ho Gil(Hanyang Univ., Korea), Dongwook Kim(Seoul Nat'l Univ., Korea), Dae Ho Kim(Mokwon Univ., Korea)

Recently, the Korean government is planning to create ICT-centered clusters that will lead the fourth industrial revolution in the Yangjae-Umyeun area. In order for a cluster to be successful, innovation environments such as support systems and institutions should be appropriately prepared. In this study, we present a hierarchical model of ICT SME support measures after comprehending the support measures for existing SMEs and the factors needed for clustering, and then deriving the priorities of support measures.

Session 3-C

01. W-07_05_A Study on the satisfaction of the Customer Interaction Center Employee: A case Study of Public sites

Sang-Kuk Kim(KISTI, Korea), Yong-ho Lee(KISTI, Korea)

The right awareness of people has improved to provide a high level of public services. And depending on the rapid development of information technology, the customer has a various requirements. Also, as a mean of serviced to provides a fast and correctly consultation service, the need of call center is increasing. In this paper, we analyze a correlation between the job satisfaction and the turnover intentions through the job characteristics and attitude of employee who work in call center as a customer interaction. The supervisor's interest and support was an important factor reduce a turnover intention. The goal of this research is contribute to decreasing a turnover intention through a increasing a job satisfaction by a efficiently manage the stress on the job.

02. W-07_06_A Study on Biometric Authentication Method for Improving Security in FIDO Authentication System

Cheol-Joo Chae(Korea National College of Agriculture and Fisheries, Korea), Han-Jin Cho(Far East Univ., Korea)

The right awareness of people has improved to provide a high level of public services. And depending on the rapid development of information technology, the customer has a various requirements. Also, as a mean of serviced to provides a fast and correctly consultation service, the need of call center is increasing. In this paper, we analyze a correlation between the job satisfaction and the turnover intentions through the job characteristics and attitude of employee who work in call center as a customer interaction. The supervisor's interest and support was an important factor reduce a turnover intention. The goal of this research is contribute to decreasing a turnover intention through a increasing a job satisfaction by a efficiently manage the stress on the job.

03. W-07_13_A Study on the Use of Creative Media in Counseling and Psychotherapy for Children and Adolescents

Jeong-Sook Lee(Catholic Kwandong Univ., Korea), Kyeong-Ouk Jeong(Hannam Univ., Korea)

The purpose of this research is to scrutinize how creative media can be used in counseling and psychotherapy for children and adolescents. To this purpose, a questionnaire survey and Focus Group Interview were conducted to examine how counselors and psychotherapists for children and adolescents used creative media in their practice. The collected data for this study were analyzed qualitatively. The results showed that the counselors and psychotherapists for children and adolescents were very positive in using creative media in the therapeutic context. This study also revealed that counselors and psychotherapists used creative media mainly for the purpose of promoting diagnosis and therapeutic process.

04. W-07_14_Learning by Teaching through Group Collaboration for University EFL Education

Kyeong-Ouk Jeong(Hannam Univ., Korea)

The purpose of this study is to examine the university students' language learning experiences and their attitudes toward collaborative learning environment in the English as a foreign language (EFL) instruction. Through group collaboration on reading English texts, participants in this study could get constructive feedback from each other and

exchange language learning experiences. Online collaboration also played a crucial role. It is revealed that participants of this study perceived group collaborative learning as positive and entertaining experience. They also commented socio-affective and cognitive benefits of group collaboration for their EFL learning.

05. W-07_28_An analysis of container technology in high performance computing

Hyeyoung Cho(KISTI, Korea), Daeyoung Kim(KAIST, Korea)

Virtual machine technology is evolving rapidly over the last few decades. Recently, container-based virtualization technology is rapidly developing. In this paper, the trend of container technology analyses in HPC environments. We analyze and discuss two container-based technologies, Singularity and Shifter.

06. W-07_29_Comparative Analysis of Placement Time for Varying Component Inspection Methods

Soon-Ho Kim(Ajinextek Co,Ltd, Korea), Chi-Su Kim(Kongju Nat'l Univ., Korea)

The SMT equipment uses a camera to perform visual inspection and to check for defects. The two methods of visual inspection are the stop-motion method, in which components stop before the camera, and the moving-motion method, which does not involve any stopping.

This study developed a placement time algorithm for the existing stop-motion method and the proposed moving-motion method.

07. W-14_20_An Analysis of Land Substitution for Project Implementation in Dry Field Infrastructure Arrangement in South Korea

Jae-hwan Kim(Kongju Nat'l Univ., Korea), Min-seok Baik(Semyung Univ., Korea)

It is expected that the feasibility of the project should be apparent when the field effect of the field based maintenance business appears remarkably, and the business effect analysis is analyzed according to the scenarios of the target site. As a result of the analysis, the productivity of crops did not increase significantly compared to the cost, but the physical efficiency of the crops was improved.

08. W-14_21_The Effective Marketing Project on the Real Estate Transaction Parties by Analysis of Information Acquisition Sources

Min-seok Baik(Semyung Univ., Korea), Jae-hwan Kim(Kongju Nat'l Univ., Korea)

It is expected that the feasibility of the project should be apparent when the field effect of the field based maintenance business appears remarkably, and the business effect analysis is analyzed according to the scenarios of the target site. As a result of the analysis, the productivity of crops did not increase significantly compared to the cost, but the physical efficiency of the crops was improved.

09. W-14_23_The relationship between ethical situations and turnover intention of hospital nurses

Myo-Suk Lee(Kyungbok Univ., Korea), Bong Suk Lee(Hallym Polytechnic Univ. Korea),
Tae Kyung Kim(DongEui Institute of Technology, Korea), Joo Young Lee(Seoul Women's College of Nursing, Korea)

On the professional nurses perform nursing duties, such as in humans it has recently expanded due to the growing role of the nursing profession and the situation in the medical field to participate in important decisions are being

increased. The purpose of this study was to investigate the relationship between attempts to take advantage of the degree of practical experience in the field of ethical situations that hospital nurses, as the basis for the development of interventions and efficient human resource management on the turnover of nurses. Subjects participated in this study was carried out using a structured questionnaire to 154 people. Nurse ethical situations and turnover showed a positive correlation between both. Considering the relevance of the help of the turnover on the basis of the above results is considered that there is a need to seek intervention measures to relieve the situation that the ethical, emotional seat of the nurse.

10. W-14_24_Family support and depression of elderly patients living in elderly care facilities

Joo Young Lee(Seoul Women's College of Nursing, Korea),

Tae Kyung Kim(DongEui Institute of Technology, Korea), Bong Suk Lee(Hallym Polytechnic Univ. Korea)

Due to the aging population continues to increase after entering the aging society has been increasing along with the elderly patient is hospitalized elderly care facilities. The purpose of this study was to try to identify depression and family support of elderly patients admitted to the degree of aged care facilities. Subjects participated in this study was carried out using a structured questionnaire to 204 subjects. It showed that there is a net correlation between depression and social support of this study is depressed subjects were differences according to age and gender. Understanding the burden of family dependents through these results and confirmed the personalized intervention can consider the family support required.

11. W-14_31_Socioeconomic factors affecting the age at first childbirth and the age at last childbirth of women in Korea

Myoung-Hee Kim(Semyung University, Korea), Mi-Joon Lee(Kangbuk Samsung Hospital, Korea)

The purpose of this study was to examine the effect of socioeconomic factors perceived as major causes of the declining fertility rate, on the age of the first and the last childbirth. Using raw data from the Korean National Health and Nutritional Examination Survey (KNHANES) conducted from 2013 to 2015, a secondary analysis was performed with data from 5,702 women who responded to the first childbirth and to 5695 women who responded to the last childbirth age. The results are as follows: The age of first childbirth was difference according to the age group, residential area, education level, father's education level, occupation, and breastfeeding status. The age of last childbirth was difference according to the age group, education level, and occupation.

Session 4-C

01. Other-02_A Correlational Study of Personality, Demography, and Creativity among Students in the University of Science and Technology

Jin-Young Kim(Ulsan Nat'l Institute of Science & Technology, Korea)

The study has three purposes: it examines 1) correlations among personality, creative self-efficacy, demography, and creativity, 2) differences between males and females and differences between academic years in creativity, 3) predictors of creativity through variables. A total of 60 students (31 males and 29 females) from the university of Science and Technology in Korea participated for the present study. As a results, there were significant and positive relationships between extraversion and creativity, between gender and creativity and between creative self-efficacy and creativity. The data revealed that female students showed higher total scores of creativity than male students' creativity. Moreover, among variables, extraversion and gender were meaningful predictors for creativity in this study.

02. Other-09_Development of an Educational Program to Strengthen Mentor Competence

Boyana Park(KISTI, Korea), Dong-Gu Shin(KISTI, Korea), Suhyun Yoo(KISTI, Korea)

The revitalization of technological startups has been suggested as a solution to discover new growth power and promote economic growth for job creation. As a policy to support startups, nurturing of accelerators, creation of angel investment funds, and mentoring have become active. This study aims to develop a mentoring educational program to strengthen individual mentors' competence and increase mentoring effects, since startup mentoring highly relies on individual mentors' professionalism. Since this study proposes a Creation Guardians Mentorship Program proposed to improve the necessary capabilities for effective mentoring, it is expected to contribute to the improvement of mentoring quality by strengthening mentors' competence.

03. Other-12_A Study on ICTs Application for Acculturation of Marriage Immigrants in South Korea: Focusing on the Results of the Digital Divide Surveys

MyungHee Kim(Sahmyook University,Korea)

The purpose of this paper is to analyze the degree of influence of ICT on acculturation of them in the recent digital divide surveys for marriage immigrants and to suggest implications. The conclusion suggests that information education should be further strengthened in order to complement their language acquisition and enhance acculturation.

04. W-06_12_Development of nursing informatics education model for enhancing information processing capacity

Jihyun Kim(Baekseok Univ., Korea), Seung Jae Lee(Baekseok Univ., Korea)

This study was aimed to develop education model based on Tyler's four-step curriculum theory to enhance the ability of nursing information processing. The subjects of this study were 37 students of undergraduate nursing science course at the university from September 1, 2014 to December 11, 2014. Before class begins, the teamwork skills were assessed, the reevaluation was made at the end of the class, and then data were analyzed using descriptive statistics. Students' teamwork skills after the 1st and 15th lectures of the lectures, the post-test score (3.94 (.45)) was higher than the pre-test score (3.89 (.39)). It was found to be effective to link the activities of clubs, special lectures, learning communities, and autonomous communities, in addition to the basic curriculum provided by universities. In the future,

this study proposes to develop a competency-based curriculum linkage model to achieve learning outcomes in accordance with the characteristics of the curriculum.

05. W-06_13_Difference in Core Competence and Major Satisfaction Factors among Nursing Students and Other Undergraduates

Jihyun Kim(Baekseok Univ., Korea)

Purpose: This study was aimed to identify the differences in core competencies and major satisfaction factors between nursing students and other major students. Methods: The subjects of this research are 874 college students located in C city in Korea. The data were analyzed using stepwise multiple regression to estimate main factor to affect major satisfaction and t-test to compare means 2 groups. Results: mean scores of nursing students were higher than other undergraduates in communication, practical service, servant leadership, citizenship, service spirit, problem solving ability, field practice, understanding practice knowledge, humanities, calling. The main factors to affect major satisfaction were field practice, citizenship, GPA, calling in turns($F=11.149$, $p=0.000$). Conclusion: Nursing students showed the higher level of servant leadership and spirit, calling, humanities than others. Main factors to affect major satisfaction field practice. To raise up the good point, it is need to consider strategies how to strengthen them in curriculum

06. W-06_14_Attitudes about Open Recognition of Sexuality, Pregnancy, Abortion and Perceptions of Abortion Among Nursing Students

Misun Yoon(Baekseok Univ., Korea)

The purpose of this study was to understand the open recognition of sexuality, attitudes of pregnancy and abortion and the perceptions of abortion among nursing students. Participants were 282 nursing students in Seoul, Chungnam, Kyonggi, South Korea. Data were collected using a self-reported questionnaire from January 11 to June 31, 2016. The mean scores of open recognition of sexuality was 3.3 points, which was positive for sexual openness.

The attitudes of pregnancy according to general characteristics was a significant differences according to religion ($F = 4.758$, $p = .001$) and presence of sexuality education ($F = .934$, $p = .001$). The attitudes of abortion was a significant difference according to religion ($F = 3.969$, $p = .004$) and presence or absence of lover ($F = 2.653$, $p = .037$). abortion according to religion, existence of Therefore, it is suggested that sexuality education should be carried out according to the emotion and necessity of young people so as to reduce pregnancy and abortion rate.

07. W-06_15_The Supplemented Data Visualizing Utilizing the Art Metaphors and the Methods of Visualizing by Phase

Kyoungnam Kim(Baekseok Univ., Korea), Myounjae Lee(Baekseok Univ., Korea)

The purpose of this study was to understand the open recognition of sexuality, attitudes of pregnancy and abortion and the perceptions of abortion among nursing students. Participants were 282 nursing students in Seoul, Chungnam, Kyonggi, South Korea. Data were collected using a self-reported questionnaire from January 11 to June 31, 2016. The mean scores of open recognition of sexuality was 3.3 points, which was positive for sexual openness.

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Session 5-C

01. W-18_01_The Effect of Message Framing Direction and Temporal Distance in Preannouncing Strategy Utilizing on Attitude and Memory

KwangSeok, Han(Namseoul Univ., Korea)

This study empirically verified how differences between global product judgment and discrete product judgment occur based on the message framing direction (positive/negative) and temporal distance (near future/distant future) of new product preannouncing strategies utilizing Facebook by corporations. First, we found that in the case when the preannouncing message on Facebook is for the near future, that 'Dpj' has a greater positive effect on product attitude and judgment than 'Gpj'. Second, we found that in the case when the preannouncing message on Facebook is for the distant future, that 'Gpj' has a greater positive effect on product attitude and judgment than 'Dpj'. Third, the preannouncing message on Facebook showed a greater positive effect on product attitude in the case where it was for the near future rather than the distant future. Forth, in both cases of the preannouncing message on Facebook being positive/distant future and negative/near future, we found the 'Dpj' had a greater positive effect on product judgment than 'Gpj'.

02. W-18_02_Structural Relationships of Message Diffusion Depending on Facebook Users' Concern about Privacy Infringement and the Attributes of an Information Source

Jea-Young Kim(Namseoul Univ., Korea)

This research analyzed how Facebook users' interest in privacy protection affected brand attitude and word-of-mouth (WOM) intention depending on the attributes of an information source. The research model is broadly divided into two areas: the area where Facebook users show their interest in privacy protection and the subsequent area where the receiver reacts to an advertising cue.

03. W-18_03_The Relationship between Support Activities for Strategic Account and Performance

Hae-Soo Pyun(Namseoul Univ., Korea)

Strategic account may demand special value adding support activities from their suppliers. Given the importance of strategic account management in practice, academic research on this topic is still limited. This study is to bridge the gap of strategic account management related theory. And this study is to explore the relationship between support activities for strategic account and performance and to provide theoretical and managerial implications.

04. W-18_04_A Study on the Roles of Subject Knowledge and Temporal Distance for Effective Preannouncing Strategies of IT Products

Hong-Kun Chin(Kyungnam Univ., Korea), Min-Jung Kim(Donggeui Univ., Korea)

The aim of this study is to examine the effects of preannouncing strategies through the temporal distance and consumer's subjective knowledge level. The result of the study shows that the remote future preannouncing strategy is relatively better than the near future preannouncing strategy in the group with high subjective knowledge.

05. W-18_05_The Types of Visual Metaphors in Advertisements of High-tech Products and the Persuasion Effect that Social-face Sensitivity has on the Participation Behavior and Citizenship Behavior of Consumers

Byueong-hyun Min(Chung Woon Univ.,Korea), **Jea-Young Kim**(Namseoul Univ., Korea)

This study can suggest a message strategy framework to morphologically expand the advertising creativity, and therefore be able offer practical utility.

06. W-18_06_A Study about the Impact of Open Market's Characteristics of Sales on Purchasing Intention
Jae-Hak Lee(Namseoul Univ., Korea)

This study is going to look into the impact of open market's characteristics of sales on customer's attitude and purchasing intention. The result of this study is as follows. Not only having a variety of products but also updating the design of online shopping mall and product information consistently is important for open market. Additional discount and free gift promotion would help the sales. At the open market, it is important to do promotion through product review and differentiated prices based on the customer's cognitive side.

07. W-18_07_The Perception of Judges of Advertising Awards towards Ambiguous Expressions: An Ad Creativity Perspective

Woon-Han Kim(Sunmoon Uni., Korea)

This study aims to understand the perception of judges of advertising awards toward advertising creativity, focused on the strategic use of ambiguity as one of the creative appeals. In-depth interviews are conducted to the former judges of international advertising awards. The results reveal that it is generally agreed advertising copy should be minimized for the sake of communication effects, and ambiguity should be appreciated with the association of originality and expressive completion.

08. W-18_08_Effects of Training to Improve Working Memory Skills on Driving Behaviors of Elderly Drivers
Boseong Kim(Dong-Eui Univ., Korea)

This research examined the characteristics of the elderly when it comes to the driving behaviors using multiple driving behavior indicators, which included driving performances, eye movements, and physiological responses. In addition, this research examined whether the training which would improve visual and spatial working memory abilities of elderly drivers affected the changes of their driving behaviors. To do this, we assigned elderly drivers into two groups. One group of elderly drivers conducted a visual and spatial working memory training program and the other group did not conduct the program. Then the subjects were compared their changes of visual and spatial working memory task performances between pre- and post-time between two groups. As a result, working memory task performances of former group were improved than latter group at the post-time compared to the pre-time. Besides, we compared driving behavior's characteristics of pre- and post-time between three groups. The three groups included one elderly group who conducted the visual and spatial working training program, another elderly group who did not conduct the training program, and the other young adult group. The results showed that the effect of training in the driving performance was not significant. Conversely, the pattern of eye movements of elderly drivers who conducted the training program was similar to that of the young adult drivers. Also, the arousal level of elderly drivers who conducted the training program was lower in the post-time than in the pre-time, they had maintained the arousal responses about a specific stimuli in the post-time similar to the pre-time. These results imply that the driving behaviors of elderly drivers

are compensation for their decreased cognitive abilities. The results also indicate that if the training program to improve the cognitive ability of elderly drivers is induced, then the behaviors of elderly drivers when driving can change.

09. W-18_09_The Effect of Visual Metaphor Advertising Type on Recall and Attitude According to Congruity-Incongruity

KwangSeok, Han(Namseoul Univ., Korea)

In this study, three dimensions of the visual metaphor, the parallel metaphor, the convergent metaphor, and the pure metaphor, were identified through experiments to determine the difference between memory effect and ad attitude according to congruity–incongruity. The results of this study are summarized as follows.

First, in the visual metaphorical advertising, the difference between the incongruity advertising and the congruity advertising is high. However, in the case of the ad attitude, Incongruity ad has more positive attitude than Congruity ad.

Second, in parallel metaphor, metaphorical memory has higher memory effect in congruity condition.

Third, in the case of congruity, the parallel metaphor and the pure metaphor were found to have an effect on judgment by remembering 'Attribute–related memory' higher than 'Advertising–related memory'. In particular, the pure metaphor had an influence on the judgment by remembering the attribute–related memories of the product compared to the parallel metaphor.

Fourth, in the case of Incongruity, the parallel metaphor and convergence metaphor were more influenced by the 'Advertising–related memory' than by 'Attribute–related memory'.

10. W-18_10_The Persuasive Effects of Fictional Brand Character

Woon–Han Kim(SunMoon Univ., Korea), Hong–Lim Choi(SunMoon Univ., Korea), Hyun–Jeong Kim(Seowon Univ., Korea)

This study examined the difference in consumers' brand attitude according to low fictional characters (highly perceived) and high fictional characters.

11. W-18_11_Societal Model of International Public Relations: A More Ethical Proposition with Postmodern Perspectives

Hong–Lim Choi(SunMoon Univ., Korea)

This study suggests a possible way of envisioning the ideal of public relations as a contributor to society by expanding the scope of understanding public relations at a social and ethical level beyond an organization–centered and instrumental level.

12. W-18_12_A Study about Product Placement (PPL) to the Web Comics (Web toon) platform: Eye-tracking and Q-methodology Approach in Cross Media

Tae–Yang Kim(Daejin Univ., Korea)

The intent of this paper is to discuss how branded content may be adopted to succeed with the webtoon content market using the PPL strategy. Specifically, this study employed a multiple research methodology comprising eye–tracking analysis and Q–method to investigate the effects of PPL in the webtoons.

13. W-18_13_A Study on the Mediating Effects of Experiential Avoidance on the Relationship between Insecure Attachment and Smartphone Addiction

Mi-Na Ko(Dong-Eui Univ., Korea), **Yeong-Hee Kwak**(Keimyung Univ., Korea)

The aim of this study is to clarify the mediating effects of experiential avoidance on the relationship between insecure attachment and smartphone addiction of undergraduate students. For this purpose, a questionnaire survey was conducted targeting undergraduate students in Busan. The total respondents were 319. A three-step regression analysis suggested by Baron and Kenny(1986) was conducted by SPSS 23.0. The effectiveness of the analysis results on the mediating effects were verified by the Sobel test.

The results are summarized as follows; (i) there was a significant positive correlation between insecure attachment consisting of two subordinate attachments – anxious attachment and avoidant attachment, and experiential avoidance and smartphone addiction. (ii) experiential avoidance was completely mediated between avoidant attachment and smartphone addiction. (iii) experiential avoidance was partially mediated between anxious attachment and smartphone addiction. The results of this study contribute to the determination of specific behaviors attributed to smartphone addiction by verifying the role of experiential avoidance on insecure attachment.

14. W-18_14_Perceived Self-Efficacy and Attitude in Information Technology Usage

Minho Lee(Namseoul Univ., Korea)

The purpose of this study tries to analyze the role of perceived self-efficacy on attitude for information technology. We investigate to the effect of perceived self-efficacy on optimism and innovativeness. Also, we analyzed the effect of optimism and innovativeness on perceived usefulness, perceived ease of use, and social presence. In turn, we investigate the relationships between perceived usefulness, perceived ease of use, social presence and satisfaction.

15. W-18_15_The Influence of Communication Stress on the effect of Health Communication Campaign

Jin-Woo Lee(Namseoul Univ., Korea)

This research recognizes the necessity of executing the research that reflects the unusual properties of the health communication based on the mutual interactive relationship. Also, it studies the existing communication theories based on the interaction between the sender and the recipient of the communication. In order to execute the research for the deduction of the health communication campaign method based on the result of the research in regard to the theories related to public health,

Session 1-D

- 01. MT-01_A Study on the Range & Deflection Distance Observation Based on Coriolis Acceleration Vector**
Hyun Soo Kim(Myongji Univ., Korea), Hwan Il Kang(Myongji Univ., Korea), Gun In Kim(Konkuk Univ., Korea)

The modified point mass trajectory model is used for fire power performance analysis. The trajectory of projectiles results from the forces such as gravity force, drag force, lift force, Magnus force and Coriolis force. By changing the latitude of gun position, variation of the deflection distance is larger while the range does not change much because of Coriolis force. When the latitude is fixed and the azimuth angle changes from zero degree to 360 degree, the variations of range and deflection distance are measured.

- 02. MT-02_Delivery Accuracy Determination for Indirect Weapon Systems Using Error Budget Methodology**
Gun In Kim(Konkuk Univ., Korea), Hwan Il Kang, (Myongji Univ., Korea),
Jae Jeong, Pyun(Agency for Defense Development, Korea)

The process for determining Hit Probability is proposed in this paper. This procedure can be used in SBD(Simulation Based Design) for artillery systems. Traditionally, interior ballistics analysis and exterior ballistics analysis were performed separately due to complexity. Muzzle velocity is a typical element in interior ballistics. Also muzzle velocity is a main factor for determining the hit probability in exterior ballistics. We combined the two processes together in this paper.

- 03. MT-04_Advanced Model Predictive Control for Power Converter of Fast EV Chargers**
Changhyun Kim(Vision College of Jeonju, Korea), Sungkeun Oh(Vision College of Jeonju, Korea)

This paper proposes a new model predictive control method for bidirectional DC-DC converters of fast electric vehicle chargers. The proposed control method includes the discretization of the converter model and optimization with predictive output error and performance constraints. The discretized model with the single prediction state is modified as the multiple prediction states. The control factors are determined in order to consider the long term response and weighting of performances. The effectiveness of the proposed method is verified by numerical example and simulation.

- 04. W-29_01_A Study on the moving in gas spring elevation**
Jeongick Lee(Inha Technical College, Korea)

Gas springs of the television is to control the piston speed when operating under along stroke(200~300 mm, television elevation)is possible. User by this principle is capable of elevation adjustment. This study is the development of a gas spring of more than 50 inch television with a large television stand. Hollow piston rod for optimal control(the outer diameter 19.9 mm, the inner diameter 13.9 mm) was injected into the nitrogen gas(0.3 mm/s) in. As a result, the flow rate the pressure drop of the piston rod as the increase was increased without any change of the external force. As a result, control of the displacement via the gas spring is possible

- 05. W-29_02_Effect of Electrolytic Condition on Composition of Zn-Ni Alloy Plating**
SooYoung Kang(Inha Technical College, Korea)

The requirements for performance of automotive corrosion resistance is increasing, and automotive makers are continuously requesting their part suppliers to improve the performance of automotive corrosion resistance.

The electrodeposition of Zn on the automotive parts has been adapted. However, because Zn plating needs to increase its thickness to increase corrosion resistance, it has problem of flaking of the deposited layer. This problem causes to decrease its corrosion resistance. As a result, Zn plating does not satisfy performance requirements of automotive materials corrosion resistance. Therefore, there are needs to establish technology of electrodeposition having excellent corrosion resistance. Recently, electrodeposited Zn-based alloys have been studied for improving corrosion resistance. Especially, Zn alloys with iron group metals have higher corrosion resistance than pure Zn coatings. There are several electrodeposited coatings of Zn-iron group metals alloys such as Zn-Ni, Zn-Fe, Zn-Co. Especially, Zn-Ni alloy coatings have drawn a lot of attention

In this study, Composition of Zn-Ni electrodeposits in various manufacturing condition such as temperature, current density, and electrolyte content, was investigated to understand effect of electrolysis condition on Corrosion. The results were explained by cathode overvoltage.

06. W-29_10_Development of functional spectacle lens with photo-discoloration and ultraviolet blocking function

Doo Hee Han(Chungwoon Univ., Korea)

The photochromic property must have an ultraviolet ray, which is hard to occur simultaneously with the ultraviolet ray blocking function. We have developed a spectacle lens that has both homochromaticity of refractive index of 1.60 and optically discoloration and ultraviolet shielding function simultaneously by using the method of double polymerization of monomers. Ultraviolet ray blocking was completely blocked below 410nm and photochromism was excellent in both dark and light reaction.

07. W-29_11_Liquid separator for livestock manure by dual raw separation equipment

Doo Hee Han(Chungwoon Univ., Korea)

The study relates to the domestic animals and food waste device for sewage disposal, and more particularly to the purifier for separating the effluent generating during the process of handling of the food waste or the domestic animals into water and sludge and discharging the effluent in which the percentage of water content is high.

Session 2-D

01. W-12_01_User Location based Travel Information Chat-Bot Service for Convenience of Travel (Ko-T bot)

Ge-Hoon Hwang(Dongseo Univ., Korea), Tae-Min Kim(Dongseo Univ., Korea), Su-Jin Choi(Dongseo Univ., Korea), Hye-Ji Jo(Dongseo Univ., Korea), Kyeong-Ho Yoo(Dongseo Univ., Korea), Joo-Chang Kim(Sangji Univ., Korea), Roy C. Park(Dongseo Univ., Korea), Jeong Hee Hong(Dongseo Univ., Korea)

In this paper, we proposed user location based travel information chat-bot service for convenience of travel (Ko-T bot). The proposed system is possible to create rule / learning AI for Hangeul's morpheme, prototype, sentence structure and user's intention. Chat bot connecting SNS account and web server can communicate with user through data upload, API connection, web hook in real time. We propose a location – based travel information chatting bots service that utilizes existing apps as a chat bot service based on SNS Messenger with enhanced user accessibility.

02. W-12_02_Image recognition and conversation based medical products information Chat bot service M-Bot (Medical-bot)

Keon-Woo Kim(Dongseo Univ., Korea), Chang-Hwan Lee(Dongseo Univ., Korea), Ji-Hye Oh(Dongseo Univ., Korea), Song-Yi Oh(Dongseo Univ., Korea), Hyo-Jin Park(Dongseo Univ., Korea), Hyun Yoo(Sangji Univ., Korea), Roy C. Park(Dongseo Univ., Korea)

In this paper, we proposed image recognition and conversation based medical products information Chat bot service M-Bot (Medical-bot). The proposed system used amazon recognition to upload images of medicines, compare them with deeply-run data on S3 servers, find similar values, and provide related information. It is a drug information chat bot service that enables users to use the SNS instant messenger chat-bot, which is easy and easy to use, and to provide correct information and appropriate information on medicines.

03. W-12_03_Public Information based Smart Life Management System of Improve Quality of Life

Chang-Min Ryu(Dongseo Univ., Korea), Ji-Eun Kim(Dongseo Univ., Korea), Ji-Yeon Jung(Dongseo Univ., Korea), Hyeon-Hui Lee(Dongseo Univ., Korea), Yu-Rim Kim(Dongseo Univ., Korea), Dong-Hoon Shin(Dongseo Univ., Korea), Hoill Jung(Local Information Institute, Korea), Gi-Hyun Hwang(Dongseo Univ., Korea), Roy C. Park(Dongseo Univ., Korea)

In this paper, we proposed public information based smart life management system of improve quality of life. By using the dust sensor and the humidity sensor temperature measuring dust, temperature and moisture content in the space where the user is using shows through the touch display. It also automatically adjusts the amount of humidity and allows the user to visually recognize the amount of dust and humidity in the space by using the lighting. By using information of Open API, more accurate information will be provided to the user and the user will be able to improve the quality of life of the user by allowing the user to quickly and accurately prevent or manage the disease from the convenience.

04. W-12_05_Big Lifelog-based Management using Similarity for Health Platform

JooChang Kim(Sangji Univ., Korea), Yoo Hyun(Sangji Univ., Korea), Myung-A Kang(Gwangju Univ., Korea), Supratip Ghose(UITS, Bangladesh), Kyungyong Chung(Kyonggi Univ., Korea)

The recent health management has been making a rapid transition from providing treatment after diseases occur to

focusing on preventing and continuously managing chronic diseases. In our daily lives, it is necessary to be provided with the health services for user-initiated disease prevention and management. Smart health requires diverse types of big lifelog such as environment information, PHR, lifelog, medical big-data, biometric information and context information regardless of time and place. In this paper, we proposed the big lifelog-based management using similarity for the health platform. The proposed method prevents error occurrence in the distributed processing stage through using the similarity of the big lifelog to predict and input the missing data. Accordingly, it proposes reliable results in the health platform and establishes configuration to allow provision of efficient services.

05. W-12_06_Development of Smartphone Contents to Improve Concentration based on EEG

Ji-Yun Seo(DongSeo Univ., Korea), Yuni-Hong Noh(DongSeo Univ., Korea), Do-Un Jeong(DongSeo Univ., Korea)

In recent years, the importance of concentration has attracted much attention in the modern society. So the diseases interest related to concentration are increasing. Among the various diseases related to concentration, ADHD has been studied for the treatment of ADHD because it has a great influence on academic and work efficiency and everyday life. In order to increase concentration, many training programs using brain waves are used and it can see effective through steady training. However, training programs are expensive and difficult to use because they use specialized equipment and they can be measured only at designated locations, which so It is burdensome to public at large. In this study, we implemented an Android based concentration enhancement content that can be easily used by the general public.

06. W-12_07_Implement Wrist-worn PPG and Spo2 Monitoring System

Yun-Hong Noh(DongSeo Univ., Korea), Ji-Yun Seo(DongSeo Univ., Korea), Do-Un Jeong(DongSeo Univ., Korea)

Of the various types of biological information of the human body, the pulse wave signal reflecting the activity state of the heart has a constant cycle and has a regular characteristic. For general pulse wave measurements it will be measured with a touchable artery including the carotid artery, femur and radial artery, or it will be measured using a PPG measurement device. In this study, we implemented a smartphone application that includes a wrist worn wireless pulse wave measurement system and a movement noise canceling function for real time pulse wave measurement. For the performance evaluation we compared the correlation coefficient with the PPG and SpO2 measuring devices and confirmed that they are very similar.

07. W-12_08_Implementation of the Variable Data Transmission System of Abnormal ECG with Activity State

Yun-Hong Noh(DongSeo Univ., Korea), Ji-Yun Seo(DongSeo Univ., Korea), Do-Un Jeong(DongSeo Univ., Korea)

In recent years, research is underway to compare biomedical signals and physical activity information for accurate analysis and diagnosis of biological signals. However, when ECG data and physical activity information are simultaneously transmitted for a long time, the amount of data increases exponentially. We have Implementation of the variable ECG data packet transmission system with activity state. In this systems abnormal ECG and activity data, transmits minimal information wirelessly, and provides it to users in real time. The experiments were conducted for the peak detection and classification techniques activity, performance evaluation for the compressed transmission. As a result, the performance of the data packet rate and signal recovery was confirmed excellent.

08. W-12_09_Implementation of Unconstrained Chair-type Multi-function Smart Health Management System

Ji-Yun Seo(DongSeo Univ., Korea), Yuni-Hong Noh(DongSeo Univ., Korea), Do-Un Jeong(DongSeo Univ., Korea)

User's varying posture incurs undesired measurement error on conventional BCG or non-restrictive ECG measurement system during real time measurement. In this paper, We implemented an unconstrained chair-type multifunction smart health management system. Implemented system, there is an unconstrained electrode that can measure the ECG without restraint on the backrest part. There are three load-cell sensor between the top plate and the lower plate of the chair to measure BCG and weight, and each sensor detects the bio-signal and attitude via the circuit part. This study can monitor various health information by simultaneously detecting cardiac activity and weight and attitude information. In order to evaluate the performance of unconstrained ECG and BCG, the comparison with the ECG system using the reference Ag / AgCl electrode was evaluated and the similarity with the commercial system was confirmed. As a result of evaluation after executing the predetermined posture detection, a high determination rate was confirmed.

09. W-12_10_Real-time pronounce analysis system based on speech recognition

Jung-A Kim(DongSeo Univ., Korea), Hyung-Su Kim(Sangji Univ., Korea), Gi-Hyun Hwang(DongSeo Univ., Korea), Roy C. Park(DongSeo Univ., Korea)

"Speech recognition" technology that recognizes human words and converts them into text or executes commands has emerged as "Next Big Thing" in the IT industry. Speech recognition function (Siri) "installed on" iPhone 4S (iPhone 4S) "released by Apple (Apple) has been released, interest in speech recognition service is increasing. Recently, the speech (speaking) ability that can express yourself well can be positioned as a fundamental requirement for interpersonal relationships and success, and the market is expanding. As a politician, the chief executive officer (CEO), speaking skills are essential for those who draw attention. Speech related business is emerging as inspired by such trends, as it requires talking techniques for employment and admission as well as for ordinary people. In this paper, we developed a system that can analyze pronunciation and proofread in real time by using speech recognition technology.'

10. W-12_11_Real-time Emotion Recognition using Face Database

Jung-A Kim(Dongseo Univ., Korea), Hyung-Su Kim(Sangji Univ., Korea), Gi-Hyun Hwang(Dongseo Univ., Korea), Roy C. Park(Dongseo Univ., Korea)

In this paper, we proposed real-time emotion recognition using face database. we use face database to detect human emotion in real time. Although human emotions are pre-defined, actual emotional perception is based on the subjective thought of the person making the judgment. Therefore, judging human emotions using computer image processing technology requires high technology. In order to recognize the emotion, basically the human face must be detected accurately and the emotion should be recognized based on the detected face. In this paper, based on the Cohn-Kanade Database, one of the face databases, faces are detected by connecting the database to the detected face regions.

Session 3-D

01. W-14_09_Ship Trajectory Big Data Analysis with MapReduce

Kwang-il Kim(Chungbuk Nat'l Univ., Korea), Keon-myung Lee(Chungbuk Nat'l Univ., Korea)

In the era of e-Navigation, it is important to deliver maritime traffic data from a shore based station to all navigating vessels. In this study, we propose the maritime big data analysis method using ship trajectory data. To process large data, the MapReduce method is applied to grid cell data based on water area map.

02. W-14_10_Building for Personal Policy based on Bigdata Analysis of SNS User Pattern

Hyung-Jin Mun(Sungkyul Univ., Korea), Kwangyoun Jin(Kangwon Nat'l Univ., Korea)

ICT developments have contributed to the proliferation of smart phones, resulting in a variety of services. The service company collects personal data for services. The organization is granted access to the institutional privacy policy by the institutional privacy policy. However, due to the incorrect settings in SNS services, the damage is often caused by privacy infringement. Also, it is not easy for individuals to decide their scope of information disclosure. This study proposes techniques that determine the extent to which individuals can determine the extent of individual disclosure by analyzing personal characteristics and patterns, even if individuals do not know how to use it.

03. W-14_25_The relationship between family health and school adaptation perceived by college students

Hye Jin Kim(Kyungbok Univ., Korea), Tae Kyung Kim(DongEui Institute of Technology, Korea)

This study is the family's health and self-identity of university students to investigate the correlation between school adjustments was done to help the adaptation of school students. The subjects of this study in health of family and school adjustment was all over in the middle. This was the highest respect for the results of the health of family members, family members confirmed by the sub-factors were found with the lowest social. The results of this study indicate the need for research on the educational environment and the effects that can improve family health and self-identity in intervention for the school adaptation of college students. In order to improve school adaptation of the college presented the basic information on school adjustment counseling and educational intervention and will provide suggestions.

04. W-14_26_The Relationship Between Pain and Nutritional Status in Osteoarthritis Patients

Seo Yeong-Mi(Gyeongnam Nat'l Univ. of Science and Technology, Korea), Won Hee Choi(Kyungsung Univ., Korea), Tae Kyung Kim(DongEui Institute of Technology, Korea)

The purpose of this study is to determine the nutrient intake, pain and quality of life of patients with osteoarthritis, and comparing the relationships between variables. Using the year 2005, the National Health and Nutrition Examination Survey data were analyzed by targeting patients with osteoarthritis 816 people. Content analysis was used as the subjects of demographic characteristics, Vitamin B1, calcium, iron, potassium intake, pain or without items listed in Resources.

The lower the economic level, the lower the education level higher prevalence of arthritis. Looking at the individual nutrient intake characteristics. The pain of osteoarthritis patients was a significant difference in the degree of the recommended intake of calcium and Vitamin B1. In other words, was the Vitamin B1 and calcium group than in the group without pain consume less than the recommended amount. Meanwhile, the pain of osteoarthritis patients did not show significant differences depending on the extent of the recommended intake of potassium and iron.

05. W-14_38_Mining Frequent Simultaneous Event Groups with A Single Pass Algorithm

Chan Sik Han(Chungbuk Nat'l Univ., Korea), Keon Myung Lee(Chungbuk Nat'l Univ., Korea)

With the advances in IoT technology and wide deployment of sensors, stream data have been collected in various domains. Sometimes, the event groups which occur together provide meaningful information for the domain from which stream data are collected. This paper presents a method to find frequent simultaneous event groups from multiple sensors. The proposed method finds such event groups in a single pass with map-reduce approach.

06. W-16_04_A study on the development of C-mooc Liberal arts class based on C-mooc instructional model

Mi-Seung Yun(Kyungpook Nat'l Univ., Korea), Hee-Seung Lee(Tongmyong Univ., Korea),
Byung-Man Kim(Kyungnam Univ., Korea), Seong-Won Kim(Tongmyong Univ., Korea)

The purpose of this study is to develop a curriculum based on the C-mooc instructional model developed to improve the effective learning of K-mooc. To do this, we first designed a lesson structure that maximizes the activation of online interaction that can search for and optimize the C-mooc instructional model and propose a class example. As a result, it is expected that the creativity and personality of learners will be improved through creativity & personality curriculum as a large public emphasis.

07. W-16_05_A Study on the Constituent Factors and Customer Characteristics of Chinese Internet Shopping Malls - Centering around purchase satisfaction, customer loyalty and repurchase Intention of Chinese female college Students-

Miao Yu(Dalian Polytechnic Univ., China) , Young-Sook Lee(Tongmyong Univ., Korea),
Ji-Eun, Lee(Tongmyong Univ., Korea)

In order to gain the market advantage, it is necessary for the sellers of internet shopping to know the factors affecting customer loyalty to internet shopping. The purpose of this study is to analyze the determinants of consumers' intention to repurchase in Internet fashion shopping malls among Chinese female college students. In so doing, the relationship between the evaluation factors of the website of the Internet shopping mall, purchase satisfaction, and royalty and repurchase intention are derived, and then the effect of each factor is examined.

08. W-16_07_Effects of Satisfaction of Team Teaching Method Using Movie Contents on Self-Directed Learning Ability and Learners' Learning Commitment

Young-Sook Lee(Tongmyong Univ., Korea), Jeong-Jin Youn(Tongmyong Univ., Korea),
Kang-Hyuk Lee(Tongmyong Univ., Korea), Se-Jin Eom(Busan Digital Univ., Korea)

This study investigates the effects of instructional methods using movie contents on learners' satisfaction and learning commitment. For this, we conducted a survey of the students of T-university who registered for a liberal arts class based on movie contents, and analyzed the relationship between the variables on class satisfaction and learning commitment. The program used for the analysis is SPSS23.0.

The results of the study are as follows:

First, it was found that the higher the class effect and satisfaction with the class contents were satisfied, the higher the satisfaction of class became. Second, the higher the class effect, the satisfaction with the class contents were and the satisfaction with the level of class were, the higher the learning commitment became. Third, the class effect showed that the satisfaction of class had a positive (+) effect on learning commitment.

Session 4-D

01. CT-08_A Study of Improvement of Sociality through Participation in Mobil Game

Sun-Ae Shim(Kwangwoon Graduate School, Korea), Hyung-Won Jung(Kwangwoon Univ., Korea)

As the number of mobile game players are increasing, more attention is gathered toward positive and negative effects of mobile games. By preparing the relationship between participation in mobile games and sociality, this study is to prepare the theoretical bases indicating that mobile games are helpful for improvement of sociality. Mobile games not by oneself or with computer but with many people through interaction may bring an expectation of gaining positive effect called improvement of sociality through interactive influence among game players.

02. CT-10_A Study of Educational Factors in Real Farm Game

Mi-A Jung(Kwangwoon Graduate School, Korea), Hyung-Won Jung(Kwangwoon Univ., Korea)

This study is about educational factors of games that may be evaluated from mobile simulation game called "Real Farm." Acquisition and use of information through indirect experience, or the special properties of simulation games, have been accentuated, and educational factors from conventional games may be used in education progressively. If information about geographical data is added later on, the game may be used to acquire information about geographical features and regional specialties.

03. CT-11_Implementation and Evaluation of Program to Extract Colors in Games

Hyun-Joo Jang(Kwangwoon Graduate School, Korea), Hyung-Won Jung(Kwangwoon Univ., Korea)

The game market is invigorated. Among contents for people to engage into games, a visual content is very important. Nevertheless, conventional image editing programs are inconvenient to get RGB values, brightness, and intensity of single image as numerous menus have to be selected, and they may not take care of files of multiple images. Therefore, the color extraction program may be designed and implemented to obtain various information of colors from game images.

04. CT-13_A Study on the Development of Early Childhood Agriculture Education Program for Education for Sustainable Development

Hyun-Ah Seo(KyungSung Univ., Korea)

This research aims to develop an early childhood agriculture education program for sustainable development. The final development program is education on the pluralistic function of agriculture is carried out to form the right values of agriculture from early childhood, it is aimed to promote the sustainable development of present and future society by growing to coexist with nature in the future.

05. CT-15_Issues in Mobile Game Advertisement

Cheon-Hyuk Im(Kwangwoon Graduate School, Korea), Hyung-Won Jung(Kwangwoon Univ., Korea)

The distribution rate of smart phone is increasing along with the growth of mobile game market. As more demand in mobile games lead to more progressive advertisement market, the size of expenditure is increasing as well. Yet, issues are created thereafter, and thus it is now the point to prepare to trouble-shoot such issues with inspection and solutions. This study is to evaluate the influential factors of game advertisement and to review general issues in visual advertisement of mobile games and to propose tasks and directions to be settled from now on.

06. CT-17_Pitfalls of the Revised Marriage Brokers Business Management Act in South Korea: Focusing on Increasing Damage Cases in International Marriage Victim Counseling

MyungHee Kim(Sahmyook Univ., Korea)

This paper aims to analyze the cases of increased international marriage damage counseling in South Korea, and to clarify what kind of pitfalls were exposed by the revised Marriage Brokers Business Management Act in 2012, based on the literature analysis. In conclusion, strengthening the open system of personal information and expanding the capital stock by marriage brokers have never been able to reduce the damage from international marriages and protect the marriage system.

07. CT-19_Study on Usability with Operation Method of Mobile Virtual Reality Game

Hong-Sub Lee(Kwangwoon Graduate School, Korea), Hyung-Won Jung(Kwangwoon Univ., Korea)

This paper has studied usability with operation method of mobile virtual reality games in a type of HMD (Head Mounted Display). It has covered game operation method with movement of head using 3 axis direction tracing function with a gyroscope embedded in the mobile virtual reality equipment. It has also studied relation among factors related to usability of the mobile virtual reality games.

Session 5-D

01. W-00_02_A Study on Korean R&D with Foreign Researchers' Participation to Promote International Joint Researches

Eungyeong Kim(KISTI, Korea), ChulSu Lim(KISTI, Korea)

To develop science and technology capability and to strengthen national competitiveness, international joint research programs are needed. This study analyzed current trends in foreigners' participation in Korean R&D programs based on the national R&D information such as projects and personnel provided by the National Science & Technology Information Service (NTIS). Among 50,000 R&D activities in the Republic of Korea, the number of foreigner-participating joint researches and commissioned projects was less than 1,000. To facilitate international joint researches, therefore, it is needed to attract foreign researchers, dispatch Korean researchers abroad and have the data exchanged.

02. W-00_04_Study on Process Methodology of Deducting key projects for technology transfer of R&D information management system

Byeongjeong Kim(KISTI, Korea), Chulsu Lim(KISTI, Korea), Kiseok Choi(KISTI, Korea), Sanggi Lee(KISTI, Korea), Byeonghee Lee(KISTI, Korea)

To enhance the R&D productivity, study key process methodology to derive preferences of the projects for technology transfer of R&D information management system, which is managed by government. As the part of the research method, in this paper, it was assumed that a country where the EGD(e-government development index) is at an intermediate level and the GDP is in between \$10,000–20,000. We divided the target countries into 5 groups and tested the hypotheses by deriving core tasks based on the present survey results.

03. W-00_05_A Study on Building Integrated National Researcher Information Service

Young-Jun Yoon(KISTI, Korea), Min-Woo Park(KISTI, Korea), Ki-Seok Choi(KISTI, Korea), Jong-Won Kim(KISTI, Korea), Han-Jo Jeong(KISTI, Korea)

As part of NTIS service, national R&D participant information service collects and provides information of researchers participating in national R&D projects. The National Research Foundation of Korea collects and provides the information of university researchers' achievements through the KRI. However, it is difficult to know the current status of researchers in Korea. This study will expand NTIS personnel information service and collect the information of researchers in government-funded institutes and university-affiliated researchers through the KRI of the National Research Foundation to propose a building plan for integrated national researcher information service.

04. W-00_08_A Study on Virtualization and Security Technologies in a Cloud Computing Environment

Keun-Hee Park(KISTI, Korea), Jong-Won Kim(KISTI, Korea), Ki-Seok Choi(KISTI, Korea), Min-Woo Park(KISTI, Korea)

The newly introduced cloud computing with the advancement of IT and network technology has brought many changes to an individual's internet environment as well as the service environment of companies. Cloud computing environment has become popular especially because IT resources can be borrowed at a low cost, infrastructure does not need to be built, and computing environments can be provided through virtualization. However, various access methods and the range of services provided in cloud computing have also increased the range of attack threats. Thus, a virtualization security technology is needed to protect resources from various attacks with malicious intentions. This

study will propose ways to strengthen the security of cloud computing by applying analysis on the weaknesses of virtualization layer and how to respond to them.

05. W-00_19_A Study on Service Downtime Minimization according to Database Integration and Migration
Young-Ho Shin(KISTI, Korea)

When running multiple user accounts and multiple database servers, one of the common problems in database integration and migration to new databases is that source code need to be changed due to the use of various database connection types. In such cases, a considerable amount of time, money, and manpower will be incurred in the process of analyzing, developing, testing, and deploying the source code corresponding to the business logic. In this paper, we propose a method to facilitate connection to a new integrated database with services that handle a variety of business logic while minimizing service downtime. This makes it possible to reduce the burden of modifying the database and interworking parts of the entire individual service, and to save time and money.

06. W-00_21_Comparative Study of National R&D Information System: Focus on NTIS Korea and NSTMIS India
Richa Kumari(Korea Univ. of Science and Technology, Korea), Kiseok Choi(KISTI, Korea),
Inje Kang(Korea Univ. of Science and Technology, Korea), Byeong-Hee Lee(KISTI, Korea)

R&D Information System of a country is important for efficient resource management and fund allocation, which further strengthen the nation technologically and economically as well. Many countries currently focus to build a national R&D information system. In this study, we compare between National Science & Technology Information Service (NTIS), Korea and National Science and Technology Management Information System (NSTMIS), India. We analyzed the differences in both organization, data structure and other important components. Based on the comparison study result, we recommend further improvement.

07. W-00_26_Real-time Tracking of User's Interest Fields using the National Science and Technology Standard Classification
Heejun Han(KISTI, Korea), Eunjun Kim(KISTI, Korea), Sungpil Choi(Kyonggi Univ., Korea)

Search results for a given keyword are identical across most search engines. However, a search service that offers identical results for a given keyword does not meet the demands of users whose fields of interest vary significantly. This paper proposes a methodology in which a user's fields of interest are identified by tracking the user's behavior and interest in science and technology information (research subject information, articles, patents, study reports) in real time using the National Science and Technology Standard Classification; this information is reflected in the search results. For classification information to determine the user's fields of interest, the medium codes of the National Science and Technology Standard, pre-granted in the document records for science and technology information, are used.

08. W-00_27_South Korea's R&D Policy to Strengthen Creative and Challenging Research: A Focus on Case Analyses of Creative Research Projects in a Government-funded Institute
Eunjin Kim(KISTI, Korea), HeeJin Han(KISTI, Korea), YongHo Lee(KISTI, Korea)

Future social and science changes need fundamental change in R&D Policy. Existing project-centered R&D policy limit the attraction of various creative ideas. This study performed a case analysis to find insights to establish a policy supporting people, not projects.

- 09. W-00_28_**Development of the automatic extractor of non-text content in the national R&D reports
Il-kwon Lim(KISTI, Korea), Kwang-Nam Choi(KISTI, Korea), Ji-Seung Son(KISTI, Korea), Ye-jin Jo(KISTI, Korea),
Yong-Ju Shin(KISTI, Korea)

KISTI extracts and stores non-text content for effective use of the R&D report. In this paper, we have improved to be able to search by based on the list of figures and the list of tables for efficient DB construction and utilization of extracted non-text contents.

- 10. W-00_30_**Analysis of researchers' coauthorship networks in Chinese Science & Technology core journals

MuYeong Kang(KISTI, Korea), Byungkyu Kim(KISTI, Korea)

As the demand for information services of domestic researchers on the research information of Chinese science and technology field has increased, KISTI has selected the core Chinese journals in China science & technology (Specifically three subject fields : Bio, Ocean and Aerospace) and constructed CAIS DB and provides them as "Chinese Advanced S&T Information Service(CAIS)". In this paper, we analyze the general status of the scientific and technological journals in China and create and visualize coauthorship networks of authors and authors' institutions in each subject field. The results of this study can help to identify the trends of researchers and research institutes in the science and technology field in China.

Session 1-E

01. W-29_03_A Study on the Cooling Performance of Electronic Control Unit with Heatsink under various operating conditions

Ki-Hyun Kim(Silla Univ., Korea), Jae-Hyeong Seo(Dong-A Univ., Korea), Mahesh Suresh Patil(Dong-A Univ., Korea), Chan-Jung Kim(Pukyong nat'l Univ., Korea), Gee-Soo Lee(Youngsan Univ., Korea), Moo-Yeon Lee(Dong-A Univ., Korea)

The objective of this article is to study, numerically and experimentally, the cooling performance of ECU with heatsink for 72V light electric vehicle. The cooling performance of heatsink were experimentally investigated and numerically simulated considering the various vehicle velocities along with ambient temperature variation. The numerical study was validated within 5% of experimental data by comparing temperatures at critical locations. The minimum surface temperature of ECU system with heatsink increased 40.13% when vehicle velocity increased from 10 km/h to 20 km/h.

02. W-29_04_Effects of the Exhaust Gas Heat Recovery System on the Warm-up Performance of the Gasoline Engine using Multidisciplinary Analysis

Geesoo Lee(Youngsan Univ., Korea), Ansig Choi(CS Co. Ltd., Korea), Hochul Seo(Sejong Industrial Co. Ltd., Korea), Chunghui Kim(Korea Automotive Technology Institute, Korea), Sangwook Han(Korea Automotive Technology Institute, Korea)

A multi-disciplinary analysis was carried out to predict and investigate the warm-up performance of a 2 liter gasoline engine with the EHRS(exhaust gas heat recovery system) undergoing the transient operations. A gasoline engine was modeled and simulated by a commercial code, CRUISE M. We numerically and experimentally investigated the effects of an EHRS on the warm-up performance of the engine at various operating conditions. An EHRS enabled to shorten the warm-up time by 30 s at the step-load condition of $T=140$ Nm at $N=2,400$ rpm.

03. W-29_05_Improvement of Linearity of a Solenoid Valve using Multiphysics analysis coupled with a 1-DOF system

Chan-Jung Kim(Pukyong nat'l Univ., Korea), Ki-Hyun Kim(Silla Univ., Korea), Moo-Yeon Lee(Dong-A Univ., Korea), Gee-Soo Lee(Youngsan Univ., Korea)

A multiphysics analysis was performed to analyze the design parameters of a linear control solenoid valve and improve its linearity under various external conditions. Axially symmetrical simulations were carried out to investigate simultaneously the phenomena of the electromagnetic field and the flow field coupled with a spring-mass-damper system. The redesign II model, which had improved the core cone and the equivalent orifice area (EOA) was proposed. The redesign II model could precisely control the pressure during the external current 0.18~1.0 A; it was 68.3% of the total control range.

04. W-29_06_Selection of damping coefficient of simplified mount module to control transmissibility of environmental response under no seismic mass

Gee-Soo Lee(Youngsan Univ., Korea), Moo-Yeon Lee(Dong-A Univ., Korea), Ki-Hyun Kim(Silla Univ., Korea), Chan-Jung Kim(Pukyong nat'l Univ., Korea)

Mount module is widely used for supporting main system as well as controlling the vibration path between the main

system and neighbors. Mount module is consisted with several mechanical sub-components, such as a spring and a damper, and sometimes seismic mass is also considered during installation. In this paper, a simplified mount module is proposed with one spring and one damper to control the transmissibility of excitation from original structure to environments and most of research was focused on the selection of damper coefficient of mount module. The original system, that is source of excitation, was modeled by single degree of freedom system and the natural frequency of the original system was previously determined with an adjusted spring coefficient. The classical type of mount module, by comparison, was also modeled with a spring and a damper but its mount module is more complex structure because it is integrated with a seismic mass. The frequency response function between the force input and the response of environment was derived from the free body diagram of the concerned system and responses of environment from the same force input were compared according to variations of design variables, the coefficient of damper and the mass of seismic mass. The effectiveness of the proposed simple mount module was finally discussed from those simulation results.

05. W-29_07_Investigation of Combustion Characteristics of Dual-fuel in a Compression Ignition Engine

Moo-Yeon Lee(Dong-A Univ., Korea), Gee-Soo Lee(Youngsan Univ., Korea),
Chan-Jung Kim(Pukyong nat'l Univ., Korea), Ki-Hyun Kim(Silla Univ., Korea)

Analysis of variance before and after experiment(one-way ANOVA) has showed sig=0,012. The SUKI t-test, showed significant difference=0,006. But the TENS t-test, did not showed significant difference=0,620. The results was that the SUKI alternative therapy technique had an increased effect for the cheek muscle tonus(buccinators). *p<0,05

06. W-29_08_Development of Mild Cognitive Impairment Prediction Model Based on Random Forest Technique

Haewon Byeon(Honam Univ., Korea)

This study identified the visuospatial and verbal characteristics of mild cognitive impairment (MCI), developed a MCI prediction model based on the random forest technique with using the identified characteristics, and provided basic data for diagnosing and intervening MCI. The subjects of study were 245 elderly over the age of 65 (174 healthy elderly and 71 elderly with MCI). The prediction model was developed by using the random forest technique and its predictive power was compared with models developed by logistic regression analysis and decision tree. In this study, random forests had better predictive power than logistic regression analysis and decision tree. Also, visuospatial ability and confrontation naming ability were significant predictors of MCI.

07. W-29_09_Level of knowledge of the elderly in local communities on the dysphagia after stroke and related factors

Haewon Byeon(Honam Univ., Korea)

This study explored level of knowledge of the elderly on dysphagia caused by stroke in the local communities and suggests basic materials for the development of educational programs for dysphagia. The subjects of the study were 135 elderly over the age of 65 without the history of stroke in the local communities. Factors related to the level of knowledge of the elderly in the local communities were analyzed by using multiple regression analysis. Age, level of education, and average monthly household income turned out to be the factors which had significant effect on the knowledge of the elderly on dysphagia in the local communities. It is necessary to develop educational programs to prevent and manage dysphagia for the elderly who are aged and have low income and low level of education.

08. CT-23_Increasing Drop-outs of Multicultural Students in Seoul City: Issues and Implications Based on Multicultural Education Policies

MyungHee Kim(Sahmyook University,Korea)

This paper aims to analyze various related literature in order to find out the causes of increasing dropouts of multicultural students on the policy level of Seoul metropolitan government and suggests the issues and implications based on the analysis results. As a conclusion, the policy authorities should propose differentiated policy according to the segmentation of the scope of multicultural families and increase policy effectiveness.

Session 2-E

01. W-11_01_Personal Disposition of Advertising Creative Directors and its Influence on the Person-job Fit Perception: a Multiple Intelligence Perspective

Chull Young Lee(Hongik Univ., Korea), Jin-Hee Kim(Hongik Univ., Korea), Seung-Yeob Yu(Namseoul Univ., Korea)

The paper aims at understanding the distribution of multiple intelligences and indentifying the dominant and strong intelligences of the advertising creative directors. The intelligences influencing the person–job fit perception was also identified.

02. W-11_02_A Survey of Korean Advertisers Using Standardization and Localization Global Advertising Campaigns

Sangpil Han(Hanyang Univ., Korea)

The purpose of this research is to study the possibility of using standardization and localization approaches with conducting a survey of international advertisers. A total number of 62 companies answered the questionnaires. Majority of the Korean international companies (58.0%) like to employ the combinational campaign that combines the standardization with localization campaigns. The reason that impede using standardization strategy is cultural differences in global markets.

03. W-11_03_A Study on Exposure Effect of YouTube Pre-roll Advertisement - Focusing on VTR(View Through Rate)

Ki-Hyun Kim(Hanyang Univ., Korea), Sangpil Han(Hanyang Univ., Korea)

This study investigates the effect of 1) type of TV commercial, 2) product involvement, 3) advertisement type, and 4) advertisement length on YouTube VTR. To do this, we used 300 YouTube advertising data in South Korea from 2016 to 2017. The result of study showed that there were some differences in the types of VTR by industry, and there was a difference in VTR according to product involvement. However, there was no significant difference according to ad type and length of advertisement. There was an interaction effect between ad type and ad length.

04. W-11_05_The Strategy of Message and Model Selection according to the Theme of CSR Advertisement

Na Mi Kim(Namseoul Univ., Korea), Seung Yeob Yu(Namseoul Univ., Korea)

This study confirms the interaction effect between CSR advertisement theme and advertisement model and message strategy. The results of this study provide practical implications for CSR advertising producers on the advertising model and message utilization strategy for each CSR activity area.

05. W-11_07_Webtoon Advertising Effect: focusing on the expression strategy and media strategy of the webtoon advertisement

EunHee, Kim(Mokwon Univ., Korea), SeungYeob, Yu(Namseoul Univ., Korea)

The purpose of this study is to investigate the factors affecting the effectiveness of the webtoon advertisement based on the expression strategy and media strategy of the webtoon advertisement. The result of this study suggests the expression strategy and media strategy that can be used for the advertisement of the webtoon to the practitioners of the advertisement.

06. W-11_08_Exploring Risk Factor about School Dropout of Adolescent of Multicultural Family

Jeong-A Oh(Chungbuk Nat'l Univ., Korea), Yun-Tae Jung(Cheongju Welfare Foundation, Korea),
Young-Joo Lee(Baekseok Univ.,Korea)

This study focused on school dropout of multicultural adolescent, and aimed to find factors which affect this in order to prevent it. According to results, proposal on policy to prevent male multicultural adolescent was made.

07. W-11_09_What are the factors that influence the readiness for independent living of school-dropout adolescents?

Jung-A Oh(Chungbuk Nat'l Univ., Korea), Young-Joo Lee(Baekseok Univ.,Korea)

The purpose of this study was to investigate the factors influencing the self- reliance of adolescents. Based on the results of this study, we will provide basic data for policy and practical alternative for school-dropout adolescents.

08. W-11_10_Consumer response to print advertisements containing culturally congruency and incongruency advertisements in Korea

Sangpil Han(Hanyang Univ., Korea)

The purpose of this research is to study the relative effectiveness of print advertisements containing culturally congruency and incongruency advertisements in Korea. This research uses the six different types of advertising appeals (individualism-collectivism, uncertainty avoidance, power distance, equalitarianism-authoritarianism, modernity-tradition, materialism-humanism) that are including culturally congruency and incongruency advertisements in Korea. A total number of 300 participants were randomly assigned in experimental groups. Findings suggested that the role of culture is an important factor to the usage and effectiveness of advertising.

09. W-11_11_A study on consultant evaluating factors of consult client companies

Hui-Joo Jeong(Kumoh National Institute of Technology, Korea),
Gwi-Gon Kim(Kumoh National Institute of Technology, Korea)

The purpose of this study is to verify and evaluate the degree of relative importance of consultant evaluating factors(education, consulting license, consulting experience, experience in similar projects, consulting fees) of consulting client companies. To achieve this, Study I has identified the degree of relative importance through the conjoint analysis, and Study II has verified the results of Study I by applying the Fishbein model to raise the external validity(generalization). In Study I, the relative importance of consultant evaluating factors based on conjoint analysis was shown highest in the 'experience in similar projects' followed by consulting experience, consulting fees, education and consulting license. In Study II, as for the factor with higher consulting result, "experience in similar projects" showed the highest relative importance, and followed by consulting experience, consulting license, education and consulting fee which reconfirmed the conclusion of Study I. Therefore, consulting companies must consider the experience in similar projects as top priority to attempt differentiating strategical approach toward consulting client companies.

10. W-24_01_Effects of Refractive Index and Thickness on the Fabrication of SiO₂-TiO₂ Thin Film by Dip Coating Process

Bo An Kang(Nambu Univ., Korea)

SiO₂-TiO₂ thin films were fabricated to produce the sols required for the production of anti-reflective glass, and the factors affecting thickness and refractive index were investigated.

thin films were prepared by dip coating method. Soda-lime glass was used as a substrate. The coated gel films were baked at 300–500°C for 5–10 min. TiO₂ contents were changed to 10–100 wt% to control the refractive index. Thickness of thin films varied with sol concentration, viscosity, withdrawal rate, baking temperature and time. When the thickness of the thin film exceeded 1000 angstroms, a crack occurred. The refractive index of thin films varied with TiO₂ content and baking temperature and time. For anti-reflective coating on soda-lime glass substrate, the refractive index could be adjusted to 1.45–2.20 by mixing SiO₂ and TiO₂ sol. By adjusting the sol concentration and withdrawal rate, the thickness of the thin film can be changed.

Session 3-E

01. W-17_06_Control of 4-DOF MR Haptic Master Using S-chain Model

Jong-Seok Oh(Kongju Nat'l Univ., Korea) , Young-Choon Kim(Kongju Nat'l Univ., Korea)

In this work, haptic master using MR fluid is proposed and analyzed. With MR clutch featuring gimbal mechanism for 2-DOF rotational motion (X and Y axes) and MR brake attached at gripper of gimbal structures for 1-DOF rotational motion (Z axis) and 1-DOF translational motion, proposed haptic masters can generate a repulsive force with the 4-DOF motion.

In order to realize a human organ into virtual space, a volumetric deformable organ is formulated by a shape retaining chain linked (S-chain) model. By using S-chain model, haptic architecture can be constructed. By incorporating the virtual organ with the real master device in which the repulsive force and desired position are transferred to each other.

02. W-28_03_Evaluating the Impact and Characteristics of Serious Games

Woo-Seok Choi(Youngsan Univ., Korea), Bong-Gyu Park(Dong-Eui Univ., Korea)

Serious games have drawn attention with positive effects on users in various areas. While many categorizations and definitions of serious games have attempted to make clear the elusive term, we are still some way off in formulating an agreed understanding of what serious games are and how they can be classified. This study's aim is to evaluate the impact and characteristics of serious games. It explores the appropriate criteria set for evaluation factors of serious games using analytic hierarchy process (AHP). This study's results show that the specific criteria set are: company, characteristics factors, game characteristics, and customer services.

03. W-28_04_Impact on Customer Trust and Customer Satisfaction according to the Logistics Service Quality of Home Shopping

Soo Ho Choi(Sogang Univ., Korea), Jeong Il Choi(Sungkyul Univ., Korea)

The purpose of this study is to establish a hypothesis and to analyze the research model on the relationship between logistics service quality and trust and customer satisfaction by referring to previous research on logistics service quality of home shopping. To do this, we propose the factors related to order quality, delivery quality and return quality with regard to logistics service quality. And we analyze the effect on customer satisfaction after presenting factors related to customer trust. As a result of the analysis, order quality, delivery quality, and return quality were all supported by customer trust. It is analyzed that customer trust are supported by customer satisfaction.

04. W-28_06_A Study of Purchasing Behavior on Tourism Omnichannel

Hyun-Jee Park(Tongmyong Univ., Korea), Bong-Gyu Park(Dong-Eui Univ., Korea)

This paper aims to measure the purchasing behavior of tourists on tourism omnichannel and to identify the factors that are critical to the repurchase intention. The findings from an extensive survey showed positive reaction on tourism omnichannel. Moreover, the study provides some interesting insights on purchasing behaviors on tourism omnichannel. The tourists as respondents of a field survey have positive attitudes towards tourism omnichannel which is mainly due to convenience and experience in terms of less time consuming. The characteristics of purchasing behavior and security for tourism omnichannel are found as the critical factors for repurchasing intention toward tourism omnichannel.

05. W-28_07_The Effect of Training and Training of Security Personnel on Job Satisfaction

Jeong Il Choi(Sungkyul Univ., Korea), Ye Jin Jang(Kookje Univ., Korea)

In recent years, safety accidents have occurred frequently in places where people gather such as airplanes, ships, subways and concert halls around the world. The need for security personnel is becoming more urgent. This study is to investigate the training process affecting job satisfaction of security personnel. Education and training are divided into theoretical curriculum and practical education. The satisfaction of theoretical training course and the satisfaction of practical training course were separately examined. Therefore, the purpose of this study is to analyze how the two training courses affect the job satisfaction of security personnel. Based on this, I would like to find a training course that can improve the job satisfaction of security personnel.

06. W-28_09_Price Index Trends and Changes of Gangnam and Gangbuk Apartments in Seoul

Jeong-il Choi(Sungkyul Univ., Korea), Ok-dong Lee(Sungkyul Univ., Korea)

The purpose of this study is to compare apartment price trends in Gangnam and Kangbuk in Seoul with the National Real Estate Price Index(REPI) and to predict future changes. Recently, the price of apartments in Seoul is showing a low interest rate. Gangnam apartment prices are higher than those of Gangbuk. Among Gangnam, Gangnam-gu, Seocho-gu and Songpa-gu showed a particularly high uptrend. On the other hand, the rise of Dobong-gu, Nowon-gu and Gangbuk-gu among the Gangbuk provinces appeared the weakest.

07. W-30_02_Analysis of Muscle Activity in Normal Adults during Motion in Fully-Immersive Virtual Reality and Actual Motion

Jong Ho Kang(Catholic Univ., Korea), Tae Sung Park(Catholic Univ., Korea)

In this study, we attempted to compare and analyze muscle activity during motion in fully-immersive virtual reality and actual motion. We compared the muscle activity of 14 normal adults performing archery motions in virtual reality and actual reality. There was no significant difference in the muscle activity between the motions performed in fully-immersive virtual reality and actual reality. This study will present a new field by combining and further developing rehabilitation therapy and fully-immersive virtual reality.

08. IT-05_Architecture and Applicability Analysis of Campus Network based on SDN

Kwang-Jik Kim(Soongsil Univ., Korea), Yong-Sun Ko(Soongsil Univ., Korea), Jae-Pyo Park(Soongsil Univ., Korea), Hwa-Yoon Shin(Soongsil Univ., Korea)

This study aimed to suggest the ways to apply the campus network in the field of enterprise, among the three fields, including the telecommunications business, data center, and enterprise, and analyze the associated technical weaknesses and strengths of the application of campus network SDN and the relevant possibility. It is expected that the proposed method will be helpful in the composition of SDN-based campus network in many colleges.

09. IT-08_The Application Execution Control System based on the White-list

Sang-Ann Nam(Soongsil Univ., Korea), Jong-Chul Park(Soongsil Univ., Korea), Jae-Pyo Park(Soongsil Univ., Korea), Chang-Hong Kim(Soongsil Univ., Korea)

In this paper, we suggest the endpoint application program controlling method that enables a more secure protection of PC not only from the malicious codes, but also from the exploit attacks based on the vulnerabilities of the OS or the application program, by applying various integration of protection technologies, such as the whitelist-based application program execution control method to verify integrity, media control, registry protection, important file manipulation prevention, and the process access inverse connection IP/Port control. Also, we suggest a method of measuring and learning the riskiness of the agent application program before registering the user-proven safe application programs on the white-list.

10. IT-09_Quantitative Risk Evaluation based on FMEDA for SW functional safety of Marine Data Analysis System

Hee Yeong Kim(Hanyang Women's Univ., Korea)

SW safety function is beyond the SW quality and IEC 61508 is needed instead of ISO/IEC 9126 or ISO/IEC 25023. FMEDA is good method for certifying SIL and deciding safety function based on IEC 61508. I made quantitative risk evaluation procedure for analyzing MDAS(Marine Data Analysis System) as results of this study to pursuit the SW functional safety high.

Session 4-E

01. W-00_03_Study on the User Behavior of NTIS using Web Log Analysis

Yun-Jeong Kim(KISTI, Korea), Myung-Seok Yang(KISTI, Korea), Won-Kyun Joo(KISTI, Korea),
Ki-Seok Choi(KISTI, Korea)

NTIS, South Korea's national R&D information portal service, has focused on the gathering and open of data so far in order to improve the rate of utilization of national R&D information. NTIS have offered differentiated services by user type, but it is time to change service system according to user's purpose of use. Large-scale log collection and interpretation is important for designing services based on user experience. The purpose of this paper is to analyze the web log data and find information to help improve the NTIS.

02. W-00_07_Collaborative Partner Search Service Trends for National R&D Project

SungHee Lee(KISTI, Korea), WonKyun Joo(KISTI, Korea), MyungSeok Yang(KISTI, Korea), EunJi Yu(KISTI, Korea),
YunJeong Kim(KISTI, Korea), KiSeok Choi(KISTI, Korea)

Collaboration is becoming more important in rapidly changing science and technology. Recently, services are being provided to support the search of collaborative partners who spend a lot of time and effort in research and development. In this paper, we analyze the services that help to find collaborative partners to carry out R & D tasks easily and quickly and suggest implications.

03. W-00_09_A method of user information management for gathering and providing national R&D information securely

JeongOh Kim(KISTI, Korea), Minwoo Park(KISTI, Korea), Wooseung Jo(KISTI, Korea), Jungho Seok(KISTI, Korea),
Jongwon Kim(KISTI, Korea)

The National Science & Technology Information Service (NTIS) should provide user information to research institutes in a safe and secure manner for the collection, management and provision of national R&D data. Furthermore, it is required to keep users reliable at the provision of such data with the expansion of data opening and disclosure. To solve these problems, this study proposes a highly reliable user information authentication system which uses SSO API-based user information system and Korea's national public key infrastructure (NPKI).

04. W-00_11_Information Visualization for the LOD Services on National R&D Data

Hanjo Jeong(KISTI, Korea), Yong-Ki Kim(VISION College of JeonJu, Korea), Minwoo Park(KISTI, Korea)

NTIS (National Science & Technology Information Service) is constructed and operated to provide a comprehensive data-provider service of national R&D data. This paper presents the NTIS LOD service in terms of the system architecture and its visualization interfaces. For the visualizations, a hierarchical and network-type user interfaces are introduced to represent the NTIS LOD data and allow users to browse the LOD data in a convenient way.

05. W-00_13_Convergence of User Feedback Information and Conventional Information to Improve Quality of Data

ChulSu Lim(KISTI, Korea), EunGyeong Kim(KISTI, Korea), KiSeok CHOI(KISTI, Korea)

Quality of the data of an information service is one of the critical factors for the successful service for reliability and usability of the information. So there are many efforts to improve data in regards to business processes, filtering

algorithms and data quality management system. In this paper, we introduce a method to converge information of user feedback with conventional information system. By using error reports of the users of a system we could have another change to improve the correctness of the data. But also, we need a procedure to justify and verify the data and updating policies. Not only business processes and related data construction manuals but also underlying information system and databases need to be modified. Based on the designed scheme of conversing feedback information as a source for the data into the legacy information system, we could promote quality data construction.

06. W-00_14_An Analysis on National R&D Outcomes Information

Jungho Seok(KISTI, Korea), Minwoo Park(KISTI, Korea), Kiseok Choi(KISTI, Korea)

The purpose of this paper is to collect national R&D outcome information systematically and analyze the national R&D outcome status, by focusing on national R&D outcome information service provided. To do so, this paper seeks to examine the overview of national R&D outcome information service and development status, and conduct a trend analysis on national R&D outcome information.

07. W-00_16_Private Cloud Service for National R&D Information

MinWoo Park(KISTI, Korea), Yong-Ki Kim(Vision College of Jeonju, Korea)

Cloud VDI emerged to provide a service for an individual to use his or her PC environment through the internet at anytime, anywhere by having computing resources in one place. Also, NTIS collects national R&D information for efficient investments in performing national R&D. This paper suggests a system that provides an environment to analyze national R&D information through cloud VDI and prevent a malicious use of national R&D information.

08. W-00_17_National R&D Information Analysis Service for User-convenience

Ki-Seok Choi(KISTI, Korea), Yong-Ki Kim(Vision College of Jeonju, Korea)

The proposed national R&D analysis service provides an environment to analyze not only the data provided by NTIS but also for users to freely analyze data. For this, an analysis service in a cloud environment service was built for users to use conveniently anytime, anywhere. The proposed service enables a direct extraction or analysis of desired national R&D data to analyze the easily extracted data without processing. It also allows users to download the analyzed results from the cloud environment.

09. W-00_18_Mobile Service for Supporting R&D Projects

Young-Joon Yoon(KISTI, Korea), HanJo Jeong(KISTI, Korea), Yong-Ki Kim(Vision College of Jeonju, Korea)

National Science & Technology Knowledge Information Service (NTIS) is the world's first national R&D information knowledge portal to increase the efficiency of an R&D project in all cycles from the planning to the use of R&D information. NTIS provides comprehensive information on national R&D projects such as projects, programs, participant, facility and equipment, outcomes, etc. In this paper, we provides a mobile NTIS service for customized national R&D service, diversification of service channels, and user-participatory R&D information service.

10. W-00_31_A Study on the Improvement of National R&D Paper Registration Process

YongJu Shin(KISTI, Korea), Ji-Seung Son(KISTI, Korea), Kwang-Nam Choi(KISTI, Korea)

National R&D papers should be utilized to create new researches and improve research productivity. This study examines problems in national R&D paper registration process and discusses its improvement plan.

Session 5-E

01. W-01_05_A Study on the Effect of Job Satisfaction and Personnel Evaluation Fairness on Employee Loyalty

Chang-Soo Han(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the mediating effect of personnel evaluation fairness on the effect of job satisfaction on employee loyalty.

02. W-01_06_A Study on the Effect of Consulting Service Quality and Innovative Organization on Non financial Business Performance

Chang-Soo Han(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

This study investigates how the Innovative Organizational Culture has a distinctive regulation effect on the impact of Consulting Service Quality on Non Financial Business Performance. As a result of the empirical analysis, it is found that all five of the consulting service quality such as Reliability, Tangible, Responsiveness, Empathy, and Assurance have influence on Non Financial Business Performance. In addition, Innovative Organizational Culture has been shown to have significant moderating effects on Non Financial Business Performance, suggesting that innovative organizations play an important role in Non Financial Business Performance, and it is necessary to conduct research on Innovative Organizational Culture in the future.

03. W-01_07_A Study on the Effect of Competency of Consultant on Non-financial Business Performance. Chang-Soo Han(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of managerial competency on non-financial performance. As a result of the empirical analysis, it was found that the ability factors of consultants such as Abilities, Knowledge, and Attitude influence the management performance as in the previous research,. It is also analyzed that there are significant regulatory effects on non-financial business performance, suggesting that the functions of the executive play an important role in non-financial business performance. It is necessary to carry out a detailed follow-up study on the measurement methods to measure and the methodology of the functions of the executive in the future.

04. W-01_12_A Study on the Effects of Corporate Environment and Internal Perception on Consulting Young-ku Hong(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

The purpose of this study is to verify the effect of the manager commitment on corporate performance, which is the result of consulting, through the acceptance of organization and the participation of members in response to the external environment stimulus of corporate consulting. The results of this study are summarized as follows: the impact of manager commitment on consulting result was neglected because the standardization coefficient(–) did not have a positive effect . But the p-value is less than 0.05 and the effect is significant. However, it was confirmed that the influence of the standardization coefficient is lowered by the effect of the parameters.

05. W-01_14_The Effect of Servicescape on Purchasing Intention : Focused on mediated effect of Customer Satisfaction and Staying

Go Eun Song(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea),
Kyoung Ha Lee(CSTONE consulting inc.,Korea)

The Korean Expressway has grown rapidly to be 9th country in the world with 38 lines and 4,323km. The expressway rest area also has grown from 4 in 1970 to 185 in 2012 and now its sales is 14 trillion Korean dollars. And express rest area is very important factor for customer satisfaction to use the express way. However, this premise has not been validated in a scientific manner so far.

The main purposes of this dissertation are two folds. First, this dissertation investigates the determining factors of the service expressway customers' satisfaction. Based on the service scape approach, this dissertation tests how much drivers are satisfied with the service scape of the expressway rest area. The second purpose of this dissertation is to understand the effects of the customer's satisfaction and staying time on the purchasing intention.

06. W-01_16_A Study on the Influence of Characteristics of Family Business Succession Environment on Decision Making - Focused on the moderating effects on consultant competence -

Bong-Soo Kim(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the effect of consultant 's competence on the family business succession decision making in the effect of the characteristics of the succession environment on the succession decision. As a result, Family Business Succession environmental characteristics in the same manner as previous research has shown to affect the family business succession decisions. On the other hand, the competence of the consultant was analyzed to have significant discriminative effect on the succession decision. This implies that the consultant capacity plays a very important role in the succession decision making of the Family Business Succession, so detailed and in-depth follow-up study on the technique and methodology to measure and enhance the competence of the consultant in the future will be needed.

07. W-01_17_A Study on the Influence of the Characteristics of Family Business Succession Environment on the Sustainability - Focused on the moderating effects on consultant competence -

Bong-Soo Kim(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

This study investigates how the ability of consultants to differentiate the sustainability of a company in terms of the impact of environmental characteristics on the sustainability of a company in the process of succession or completion. As a result of the empirical analysis, the competence, knowledge and attitude, which are the competence of the consultant, have the same effect on the sustainability. On the other hand, the capacity of consultant was analyzed that the ability and knowledge except for attitude had differentially moderating effect on sustainability. This suggests that the competency of the consultant plays a very important role in improving sustainability management. A detailed and in-depth follow-up study on the techniques and methodology for measuring and improving the capacity of consultants in the future will be needed.

08. W-01_18_A Study on the Influence of the Characteristics of Family Business Succession Environment on the Management performance and Sustainability -Focused on the moderating effects on consultant competence -

Bong-Soo Kim(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

In the impact of environmental factors on the success of family business succession and sustainability, It is the study of how the capacity of a consultant has differentially controlling the sustainability of a company. As a result, In the same way as the previous research, the competence, knowledge, and attitude of the consultant were found to affect the management performance and sustainability. On the other hand, the capacity of consultant was analyzed that the ability and knowledge except for attitude had differentially moderating effect on management performance and sustainability. This implies that the consultant's competence plays an important role in improving management performance and sustainability, and further, detailed and in-depth follow-up studies should be conducted on the technique and methodology that can be used to measure and enhance the competence of future consultants.'

09. W-01_21_The Effect of Servicescape on Purchasing Intention : Focused(?)

Hyun-soon Jang(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

The purpose of this research is to verify the reward program's practical hints of brand loyalty on general internet shopping activity which is operated at the reverse direct purchase style online store in South Korea which target the overseas customers. And also verify the reward program's positive effects on Brand credibility and feelings about the brand. In this research results, the reward program showed significant results at brand loyalty however additional analysis about the types, methods and time of the reward program will be necessary.

10. W-01_25_A Research on How Sales Representative Competency Affects the Customer Loyalty in B2B Environment

Joon Hyuk Seo(Hansung Univ., Korea), Yen-Yoo You(Hansung Univ., Korea)

This study conducted an empirical study on the influence of sales representative's technical support capacity and consulting competence on brand image and its effect on loyalty in B2B transaction. In B2B trading, social science research methodology was applied to organizational buyers and stakeholders of purchasing center. First, service support capability of sales representative affects the brand image positively. Second, the consulting capacity of sales representative affects the brand. Third, brand image has a positive effect on repurchase. Fourth, service support capability of sales representative has a positive effect on repurchase.

11. W-01_40_An empirical study on the repurchase of consulting affecting the consultant selection criteria
Ga-neum Han(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The research was conducted on the effectiveness of the management of the consulting firm in relation to the criteria for consulting on Consulting Selection Criteria in relation to the criteria of consulting and review.

The problem solving ability was analyzed as having a significant differentiating effect between consultant 's ability, excluding attitude, and knowledge and consulting service quality. This suggests that managerial consulting skills play an important role in the recruitment criteria. Thus, in the future, detailed and in-depth follow-up studies on techniques and methodologies for measuring and improving the problem solving ability of consultants will be needed.

12. W-01_41_An Empirical Study on the Effect of Consulting Selection on Completion Level of Consulting
Ga-neum Han(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The research was conducted on the effectiveness of the management of the consulting firm in relation to the criteria for consulting on Consulting Selection Criteria in relation to the criteria of consulting and review.

The problem solving ability was analyzed as having a significant differentiating effect between consultant 's ability, excluding attitude, and knowledge and consulting service quality. This suggests that managerial consulting skills play an important role in the recruitment criteria. Thus, in the future, detailed and in-depth follow-up studies on techniques and methodologies for measuring and improving the problem solving ability of consultants will be needed.

13. W-01_42_An empirical study focusing on the problem solving ability that mediates the effect of consulting selection criteria on the completeness of consulting
Ga-neum Han(Hansung Univ., Korea), Yen Yoo You(Hansung Univ., Korea)

The purpose of this study is to investigate the mediating effect of consulting performance on the consultant selection criteria.

14. W-01_45_Study of Measures for Enhancing Security Through Analyzing the Trend of the Development of Security Technology in the ICT Convergence Industry
Jong-Hyuk Won(Hansung Univ., Korea), Yeon-Woo You(Hansung Univ., Korea)

As we are provided with more convenient services thanks to the development of information and communications technology (ICT) and the development of the convergence industries, we increase the quality of life. However, while we are provided with these conveniences, the security risks of the infringement of personal information and privacy are inherent. To continue this convenience, security must thoroughly be protected first in principle. To solve this, the government, academia and companies are considering various studies and plans. For this purpose, this study would analyze the security technology applied to each ICT convergence industry, draw features and problems and investigate measures for enhancing security in the future.

Oral Presentation / Poster Session

Friday July 7, 2017

Session 1-A

01. W-04_02_Core and lower limb activations of the two-handed and single-handed kettlebell exercises

JaeHa Lim(Sunmoon Univ., Korea), MinJoon Kim(Sunmoon Univ., Korea), JinSeop Kim(Sunmoon Univ., Korea), JiHeon Hong(Sunmoon Univ., Korea), DongYeop Lee(Sunmoon Univ., Korea), JaeHo Yu(Sunmoon Univ., Korea)

The aim of this study was to compare the electromyographic(EMG) activity of lower erector spinae(ES), biceps femoris(BF), rectus abdominis(RA), rectus femoris(RF), gluteus maximus(GMAX), gluteus medius(GMED) at dominant side of the trunk and lower limb in two-handed and single-handed kettlebell exercises. The second purpose was to prescribe appropriate exercise, as necessary to analyze the activity of the muscles along the kettlebell exercise. Twenty-eight healthy men participated in this study. During each kettlebell exercise, they were performed until the activity patterns of the graphs come out correctly with a 3kg kettlebell. A maximum voluntary isometric contraction(MVIC) of unilateral each muscles was recorded. EMG activity was recorded during both the two-handed kettlebell exercise(THKE) and single-handed kettlebell exercise(SHKE) in a randomized order. Normalized muscular activation of the six muscles was calculated from EMG data. As a result, ES, BF and RF showed significant difference according to kettlebell exercise($p<0.05$, $p<0.01$, $p<0.01$). ES was a significant difference between two-handed and single-handed. BF was a significant difference all between the swing movements and rest exercises. RF was a significant difference between kettlebell swing exercises and kettlebell goblet squat. In conclusion, this article is expected to affect as information to be used the kettlebell exercises for patients with particular muscle weakness or low back pain in clinical.

02. W-04_03_Comparison between sit-up and bridging exercises on trunk muscles response during sudden impact loading

YunGyeong Jeong(SunMoon Univ., Korea), JinHa Hwang(SunMoon Univ., Korea), JinSeop Kim(SunMoon Univ., Korea), JiHeon Hong(SunMoon Univ., Korea), DongYeop Lee(SunMoon Univ., Korea), JaeHo Yu(SunMoon Univ., Korea)

The aim of the this study is to explore the comparison between sit-up and bridging exercise on trunk muscle response during sudden impact loading. We recruited twenty four healthy adults agreed to participate in this study. The subjects were twelve healthy men and twelve healthy women who currently attending S University in Asan, Chungnam. The experiment was conducted after random placement through a draw. To remove measurement errors before measurement, the area on the subject were shaved, rubbed with alcohol cotton to cleanly prepare the skin. Electromyography(EMG) attachment location was on four areas transverse abdominis(TrA), rectus abdominis(RA), erector spine(ES), multifidus(MF) based on the anatomic knowledge by a trained evaluator. The load was given when the subjects had their eyes open(EO) and after eyes close(EC) with auditory input was cutted out. The evaluator loaded a sandbag of 5% of the subject's body weight at the eye level of the subject. The onset latency, peak latency and peak EMG amplitude were evaluated. As a result, there were statistically significant differences in TrA, RA, MF muscles in EC condition during the sit-up and bridging exercise($p<0.05$). But there was no difference in other variables. In conclusion, this study suggests that when there are sudden external stimulus during sit-up exercise, due to the compensatory mechanism, the MF suddenly activates to cause microtrauma. In addition, EC condition weren't affected to healthy adult compared to Low back pain(LBP) patients.

03. W-04_04_Comparison of the thickness of sternocleidomastoid muscle in young smokers

Kwan-Young Lee(Sunmoon Univ., Korea), Hyo-Rae Noh(Sunmoon Univ., Korea), Seong-Jin Jang(Sunmoon Univ., Korea), Dong-Yeop Lee(Sunmoon Univ., Korea), Ji-Heon Hong(Sunmoon Univ., Korea), Jae-Ho Yu(Sunmoon Univ., Korea), Jin-Seop Kim(Sunmoon Univ., Korea)

The purpose of the study is to compare and measure the sternocleidomastoid muscle in the smokers. Total 30 people who were matched agree to participate in this study. Our measurement used ultrasonographic. The result of this study showed no significant difference in the between smokers and nonsmokers. The results of this study show that cigarette has no effect on the muscle thickness of the respiratory muscles in young smokers.

04. W-04_05_The effects of different Abdominal Drawing-in Maneuver during core exercises on trunk stability

Da-Song Gil(Sunmoon Univ., Korea), Eun-Song Kim(Sunmoon Univ., Korea), Su-Bin Kim, Dong-Yeop Lee(Sunmoon Univ., Korea), Ji-Heon Hong(Sunmoon Univ., Korea), Jae-Ho Yu(Sunmoon Univ., Korea), Jin-Seop Kim(Sunmoon Univ., Korea)

The purpose of study is to measure the thickness of transversus abdominis(TrA), internal oblique(IO), external oblique(EO) and multifidus(MF) and compare the effects on trunk stability according to the performing abdominal drawing-in maneuver during plank exercises on the stable surface and unstable surface. Thirty healthy male and female adults were recruited, and agreed to participate as subjects in the study after a prior investigation. Subjects perform the plank exercises after measuring thickness of TrA, IO, EO and MF in resting position. These findings suggest that plank exercises with abdominal drawing-in maneuver is useful way in trunk stability.

05. W-04_09_Effects of Whole body vibration exercise combined with forced weight bearing on balance and gait in patients with stroke hemiplegia

Nam, Yong-Woong(Kangwon Nat'l Univ., Korea), Shim, Jemyung(Kangwon Nat'l Univ., Korea)

The purpose of this study is to investigate the effect of whole body vibration using Galileo equipment with forced weight support on static – dynamic balance and walking speed improvement before and after gait training in stroke patients. Subjects participated in the experiment were 30 persons who 10 m walking test with 3 points or more, able to stand independent without any support, with communication ability. 15 patients with forced weight support and whole body vibration exercise, 15 patients with forced weight support And randomly assigned through lot drawing. In the experimental group, 10mm insole was provided the shoes of the non-affected side, and the whole body vibration exercise was performed using Galileo equipment at 3Hz for 5 minutes at 25Hz and for 1 minute between sets. In the control group, only 10mm insole was provided non-affected side the shoe, and all the daily activities were performed without the whole body vibration exercise. The results of the study showed no statistically significant difference in the BBS, TUG, and LOS items in each group, but showed a statistically significant improvement in FP and 10mWT. There were statistically significant differences between BBS, TUG, LOS and 10mWT except for FP. This study suggests that whole body vibration with forced weight support is effective in balance and walking of stroke patients.

06. W-04_11_Comparison of pennation angle between vastus intermedius and vastus lateralis according to the angle of squat

Hye Ri Jung(SunMoon Univ., Korea), Ju Hye Park(SunMoon Univ., Korea), Dong Yeop Lee(SunMoon Univ., Korea), Jae Ho Yu(SunMoon Univ., Korea), Jin Seop Kim(SunMoon Univ., Korea), Ji Heon Hong(SunMoon Univ., Korea)

The purpose of this study is to measure the comparative analysis pennation angle of the vastus intermedius and vastus lateralis in the squat position of the knee angle. Knee angle was set as 0° , 60° , 75° , 90° the vastus intermedius and vastus lateralis of pennation angle of the knee angle was measured using ultrasonography. All measurements of the experiments were performed by one-way ANOVA. According to a study 0° , 60° , 75° , 90° that was pennation

angle is greatly increased in the knee angle of 75° , all the statistical value has differences but 60° , 90° was statically significant than other values. The study found out the significant difference between the pennation angle of men and women. In conclusion, the result of experiment shows that the quadriceps muscle was most stimulated when we did a squat exercise while flexion our knee at an angle of 75° . Clinically, it is considered that the interaction between knee angle and quadriceps muscle will help to prevent injuries related to quadriceps muscle such as patellofemoral pain syndrome.

07. W-04_12_Shoulder strength ratio between baseball player and general public

Nam Yong(SunMoon Univ., Korea), Dong Yeop Lee(SunMoon Univ., Korea), Jae Ho Yu(SunMoon Univ., Korea), Jin Seop Kim(SunMoon Univ., Korea), Ji-Heon Hong(SunMoon Univ., Korea)

62 male baseball players and 30 healthy adults were studied to determine if the shoulder used for throwing was weaker than other shoulder. Muscle strength of the rotator cuff was measured with a hand-held dynamometer. Result shows, that comparing with healthy adults, baseball players pitching shoulders was significantly weaker than the other side shoulder. However, there was no significant difference between any baseball player groups.

08. W-05_02_Smart Factory on Keyword Network Analysis

Tae Gu Kang(Konyang Cyber Univ., Korea), Sung Won Lee(University of Seoul, Korea), Seong Taek Park(Chungbuk Nat'l Univ., Korea)

This study seeks research trends on Smart Factory based on Big Data. In this study, we try to search for articles related to smart factories on scopus site and analyze them using text mining technique which is a big data analysis technique.

09. W-05_03_Towards Inclusive Education : the Case of Korean Preschool

Yeonsook Choi(BaeWha Women's Univ., Korea)

The objective of this study is to conduct a case study of a highly effective, inclusive preschool located in Seoul, Korea and investigate the contents of the programs provided by this preschool. During the summer of 2016, observations were made on the facility and classrooms of the Seoul-K preschool as well as the attitude of teachers and the behavior of children. The results reveal several key practices and programs that were important contributors to meeting the needs of all students and satisfying the goals of the inclusive education.

10. W-05_04_A Study of Crossing the Chasm in Applying Smart Factory System for SMEs

Young-Hwan Choi(Chungbuk Nat'l Univ., Korea), Sang-Hyun Choi(Chungbuk Nat'l Univ., Korea)

This paper describes the practical methodology which encourages manufacturing SMEs in adopting smart factory system. The focus is to cross the chasm successfully between Basic and Middle level of smart factory environment, being differentiated depending on whether few or all machines are connected. Basic level of smart factory cannot provide the information of shop floor with reliable in real time manner as much fully connected Middle level of smart factory does support real time data collection and take an action to prevent further quality problem immediately. In order to expedite to next advanced Middle level for higher productivity, we need to understand challenges since their post Basic level of smart factory implementation, so that they could cross the chasm efficiently with no dilemma and their return on investment would be realized eventually with better productivity, quality and revenue up. This paper suggests the analysis result with the case in South Korea in terms of what SMEs are experiencing in applying smart factory environment initially and what challenges they have in upgrading their smart factory continuously.

Session 2-A

01. W-08_01_Study on the Social Network Analysis in the Sharing Economy of the Tourism Field

Jae-Woo Choi(Kyonggi Univ., Korea), Hye-Young kim(Gwangju Tourism Development Institute, Korea)

As sharing economy is being activated as a new alternative economy, it is having great influence also in the tourism field. Therefore, the business keywords of sharing economy in the tourism field were utilized to analyze the transactional characteristics of the social network. As a result, 'Airbnb' in accommodation and 'Uber' in transportation were shown to have the most active interaction in Twitter.

02. W-08_02_What can Spinal column Thermal Massage Device possibly do for human body?

Ka-Eun Kim(Jeonju Univ., Korea), Sang-yun Nam(Jeonju Univ., Korea), Soon-Kwon Park(Jeonju Univ., Korea), Soon-Hi Park(Jeonju Univ., Korea), Jeong-Sook Park(Nambu Univ., Korea), Yong-Soon Yoon(Presbyterian(Jesus) Medical Center, Korea), Il-Young Cho(Jeonju Univ., Korea)

In this study, we hypothesized that positive effects can be given to the human body according to the function of the spinal column thermal massage device. This is based on a positive response from consumers on the global market, although there is no definitive scientific evidence yet. The main potential factors that can have a positive effect on the human body are the heat and massage work. Therefore, this study explains how heat and massage of this device can possibly have positive effect on the human body. By doing so, we want to reduce product confusion and become the cornerstone of the development of related new products.

03. W-08_03_A Study on Influence of 'Sport for All' Participant's Exercise Experience Factors on Emotional Response, Exercise Satisfaction and Exercise Persistence

Kye-Sok Lee(Soongsil Univ., Korea), Seung-Yong Kim(Hanyang Univ., Korea)

This study intended to look into 'sport for all' participants' exercise experience factors, and aims to inquire into the relations between such factors, emotional response, exercise satisfaction and exercise persistence. The concrete data processing method was as follows: This study conducted frequency analysis, exploratory factor analysis, reliability analysis, correlation analysis and regression analysis using PASW Ver. 18.0 to explain research subjects' characteristic analysis, and questionnaire items. The results of research were as follows: First, exercise experience factors had an influence on an emotional response. Second, the sub-factors of emotional responses-arousal and domination had a significant influence on exercise satisfaction. Third, the sub-factors of emotional responses-enjoyment and arousal had a significant influence on exercise persistence. Fourth, exercise satisfaction had a significant influence on exercise persistence.

04. W-08_04_Pro-inflammatory cytokine production inhibitory effects of everlasting oil

Jeong-Suk Kim(Nambu Univ., Korea), Jeong-Sook Park(Nambu Univ., Korea)

The aim of present study is to investigate anti-inflammatory effect of the everlasting oil. everlasting oil showed significant anti-inflammatory effects on inflammatory mediator. The cytotoxic effects of everlasting oil was determined by MTS Assay in RAW264.7 cell. Proinflammatory Cytokines (TNF- α , IL-1 β) were measured by ELISA Kit. Amount of NO was measured using NO Detection Kit. Results suggest that everlasting oil may have an anti-inflammatory property through suppressing inflammatory mediator productions and appears to be useful as an anti-inflammatory essential oil.

05. W-08_05_Anti-Malassezia furfur activity of Several medicinal herbs

Jeong-Sook Park(Nambu Univ., Korea), Jae-Hyeok Lee(Nambu Univ., Korea)

The aim of this study was anti-Candida Albicans effects for 18 kinds of Medicinal plant, Melia azedarach L., Brassica rapa, Orostachys japonicus (Maxim.) Berger, Houttuynia cordata, Cinnamomum cassia Blume, Syzygium aromaticum Merrill et Perry, Torilis japonica, Rheum officinale Baillon, Mentha arvensis L., Polygonum multiflorum Thunberg, Prunus mume Sieb. et Zucc., Angelica dahurica Benth et Hooker, Lithospermum erythrorhizon, Lysimachia foenumgraecum Hance, Anemarrhena asphodeloides Bunge, Sanguisorba officinalis L., Rhus javanica L., Perilla frutescens Britton var. acuta Kudo. Medicinal plant ethanol extracts were examined by disc diffusion method for anti-Malassezia furfur activity and used fluconazol(50mg/ml), 99% Ethanol as a positive controls. we measured the area of clear zone and evaluated that the larger size of the area was more effective against Malassezia furfur. The result of this study, Cinnamomum cassia Blume value was highest as 32mm and next Rhus javanica L. 25mm. This result is a result which is equivalent to about 62% when compared to 52mm of the Fluconazol (50mg / ml) positive control.

06. W-08_06_Analysis of Educational desire of Korean Nursing Students for Developing Patient Safety Awareness

A Young Park(Gwangju Univ., Korea), Hae-Ryoung Park(Kwangju Women's Univ., Korea)

Numerous researches and practical endeavors have been reported to improve patient safety since the last decade. Our study could also serve as a basis to develop programs, or curricula to promote patient safety awareness. Subjects in this study were 193 fourth-year students of 3 nursing colleges in G city. Confidence analysis from our questionnaire showed that confidence in awareness significance was 0.92 (Cronbach's alpha), and confidence in awareness readiness was 0.91 (Cronbach's alpha). This study analyzed the needs of nursing students. 'Root cause analysis'(4.49), 'Error reporting'(4.46), 'Error disclosure'(4.45), 'hand off skills'(4.36), 'Effectively communication'(4.13) were high. In order for nurses to have new commitments in the restructured medical service field, it is vital to nurture their ability in comprehensive patient safety, and this ability should be educated consistently starting from college.

07. W-08_07_Convergent Research on Demanded Physical Activity Types for Adolescents with Developmental Disorder: Applying Q methodology

Hye-Min Kim(Pusan Nat'l Univ., Korea)

The purpose of this study is to explore physical activity types demanded for adolescents with developmental disorder and analyze characteristics related to it. To address the goal, Q methodology was applied for subjectivity research. Based on the small sample theory of Q methodology, this researcher selected 27 13- to 18-year-old adolescents with developmental disorder belonging to special class in five general schools located in Y City as subjects. The subjects classified 24 physical activity cards developed for this study, and their preferred types were analyzed by using QUANL PC program. The results of this study have been drawn as follows: first, there are four types of physical activities preferred by adolescents with developmental disorder (type 1; 6.2, type 2; 3.5, type 3; 1.9, type 4; 1.4). Second, the four types are peer-oriented activity (type 1), family-oriented activity (type 2), rhythm-oriented activity (type 3), and competition-oriented activity (type 4). The results imply that adolescents with developmental disorder have subjectivity about physical activity, and there can be various types of it according to their individual characteristics and sexual or background variables.

08. W-08_08_Analysis of asymmetric pelvic shift in overhead squat assessment of patients with chronic low back pain

Seon-Ju Kim(Wooridul spine exercise center, Korea), Wan-Yeong Yun(Seowon Univ., Korea),
Jeong-Ho Park(Wooridul spine exercise center, Korea)

The purpose of this study was to investigate the asymmetric pelvic shift of 48 patients with chronic low back pain during overhead squat assessment. The LPHC deformity was examined by A-P stand X-ray. The total number of patients with pelvic asymmetric and lumbar scoliosis incidence was 36, which was 75% of the total subjects. Group classification was based on the X-ray results, pelvis symmetric and no lumbar scoliosis group A (n = 12), pelvis level difference group B (n = 17), and lumbar scoliosis group C (n = 19). In this study, the asymmetric shift of the pelvis was evaluated during overhead squat assessment. Pelvic asymmetry shift in the overhead squat assessment was significantly different between group A, B, C ($P < 0.001$). The pelvic asymmetry shift was greater in the lumbar scoliosis group C than in the pelvis level difference group B, there was a statistically significant difference. ($P < 0.013$)

09. W-08_09_Improvement of Facial Wrinkle by Mixed Extracts of Medicinal Herbs

Hun-Yong Ha(Seowon Univ., Korea), Wan-Young Yoon(Seowon Univ., Korea)

We developed a prescription contains the extracts from the traditional medicine theory and tested its Facial wrinkle improving effects. The prescription is organized into three medicinal herbs – *Coptis chinensis* FRANCH, *Cimicifuga heracleifolia* KOM, and *Poria cocos* (Schw) WOLF. We measured the skin elasticity improvement by using the Cutometer. At two-weeks and four-weeks application with the mixture ethanol extract of three medicinal herbs, the average levels of skin elasticity in the parts applied significantly increased by 12.7% and 11.1%, respectively ($p < 0.05$). These data indicate that extract from the three medicinal herbs improve skin elasticity.

10. W-08_10_Effects of 3D-printing linked PE STEAM program on Learners' Problem-Solving Ability

Gun-Sang Cho(Pusan Nat'l University, Korea), Ik Young Chang(Korea Nat'l Sport Unive., Korea),
Young-Jun Choi(Busan Univ. of Foreign Studies, Korea), Eun-Surk Yi(Gachon Univ., Korea)

The purpose of this study was to investigate the effect of 3D PRINTING and physical education central STEAM program on problem solving ability of middle school students. In order to achieve this purpose, this research collected data from two different groups; a control group (n=98) and a comparison group (n=101) who are attending middle schools located in Gyeonggi-do. The results are as follows; physical education central STEAM utilizing 3D PRINTING is efficient in the problem solving ability.

Session 3-A

01. W-14_13_Session Key-Based Duplication for Collected Data of IoT Environment and Data Obfuscation Through Hash Chain

Won-Kyu Choi(Soongsil Univ., Korea), Moon-Seok Jun(Soongsil Univ., Korea), Jung-Oh Park(Sungkyul Univ., Korea)

In this paper, will provide security function to the End Point sensor and device under IoT(Internet of Things) environment. For a safe transfer of the collected data from End point, it will be dualized as metering and time data; also will be using either hash chain or sample number generator to match the transferring data. It will then suggest to transfer the data through the encrypted session key, which the node shares.

02. W-14_15_Feature Extraction for Signature Synthesis

Naoaki Ishigami(The Univ of Aizu, Japan), Jungpil Shin(The Univ of Aizu, Japan)

Signature is one of a biometric authentication. This Characters are basically transformed for prevent another person using it. However, it is very difficult to make sensible signature because character transformation method has not a rule. This paper shows method to create signature which along a rule that read from among the signature to exist. We generated such a signature by using Affine transformation and Bezier curve. The base of emphasizing individuality in stroke signature is built.

03. W-14_16_Antidepression effects of Gami-Shinkiwihan in immobilization stressed aging mice

Sun Young Park(Semyung Univ., Korea), Ho Hyun Kim(Semyung Univ., Korea),
Ki Bong Kim(Pusan Nat'l Univ., Korea), Sang Hyun Ahn(Semyung Univ., Korea)

The purpose of this study is to investigate the antidepression effects of Gami-Shinkiwihan(GS) in immobilization stressed aging mice. The results of this study show that GS has the potential to be used as a depression induced by immobilization stress on aging mice.

04. W-14_17_The effects of SM-215 on androgenetic alopecia

Sun Young Park(Semyung Univ., Korea), Ho Hyun Kim(Semyung Univ., Korea), Ki Bong Kim(Pusan Nat'l Univ., Korea),
Sang Hyun Ahn(Semyung Univ., Korea)

We investigated the effect of SM-215 on androgenetic alopecia through immunohistochemical and TUNEL assays in terms of external morphology, alleviation androgen induced hair follicle damage, regulation of androgen induced dermal inflammation, and activation of resting hair follicle. As a result, SM-215 could be used as a natural remedy for androgenetic alopecia with no side effect and effective.

05. W-14_18_Relationships between Truth Claims, Use of Evidence, Independent Critical Thinking, the Invention of Possible Solutions to Novel Problems and Academic Integrity

Jungju Cha(Kyungnam Univ., South Korea) , Heeseon Koh(Kyungnam Univ., South Korea)

The purpose of this study is to explore relationships between truth claims, use of evidence, independent critical thinking, the invention of possible solutions to novel problems and academic integrity.

06. W-14_22_Humanoid as a Robo-Advisor: Issues on User Satisfaction

Junghun Kim(Kyung Hee Univ., Korea) , Ohbyung Kwon(Kyung Hee Univ., Korea),
Mucheol Kim(Wonkwang Univ, Korea,), Namyoon Lee(Sungkyul Univ., Korea)

Robo–advisor adopts big data analytics and machine learning technology to provide the potential customers with information useful for choosing suitable investment products as investment consultation. However, efforts to combine the human–humanoid interface functionality and robo–advisor have been very few. In particular, how the humanoid personality affects the counseling results has not been examined empirically. Hence, this study performs an empirical study to investigate the effect of the difference between the personality of robo–advisor implemented by humanoid and customer 's personality.

07. W-14_27_A Mechanism on Authentication Vector Generation of using Machine Learning Algorithm in Virtualized Environment

Do–Hyeon Choi(SoongSil Univ., Korea), Jung–Oh Park(SungKyul Univ., Korea)

Recently, in the artificial intelligence area, competition in investment and research on machine learning is accelerating among high–tech companies like Google, Amazon, and Microsoft, etc[1]. And, on virtualization technology which is its basic technology, its vulnerability in security structure has continued to become an issue[2–6]. This paper suggests a data verification method making use of machine learning algorithm different from existing virtualization security technologies.

08. W-14_28_A Study on GoF Design Pattern for Android Device Optimization

Woo–Chul Jung(SoongSil Univ., Korea), Do–Hyeon Choi(SoongSil Univ., Korea), Mun–Seok Jun(SoongSil Univ., Korea)

Recently, for mobile devices like Internet of Things (IoT) and wearable, a variety of object–oriented design–based software such as design pattern of GoF (Gang of Four), together with OOP (Object–Oriented Programming), are being developed. But, wrong application design can cause problems such as slowing of operation system speed or increase of memory occupation rates and battery use. Thus, it is important to optimize programming. This paper suggests a method of choosing and applying a design pattern optimized to mobile environment based on the Android operation system.

09. W-14_29_Simplicity for Routing Protocol in Wireless Sensor Networks

Han Wu(Yanbian Univ., P.R. China), Yong–zhen Li(Yanbian Univ., P.R. China)

Clustering the sensor nodes and choosing the way for routing the data are two key elements that would affect the performance of a wireless sensor network (WSN). In this paper, a novel clustering method is proposed and a simple two–hop routing model is adopted for optimizing the network layer of the WSN. New protocol is characterized by simplicity and efficiency (SE). Through adjustment of two parameters in SE, the network on any scale (varies from the area and the number of nodes) could obtain decent performance. This work also puts forward a new standard for the evaluation of the network performance—the uniformity of the nodes' death—which is a complement to merely taking the system lifetime into consideration. The combination of these two aspects provides a more comprehensive guideline for designing the clustering or routing protocols in WSN.

Session 4-A

01. W-23_01_By using Path Analysis, an Analysis of the Structural Relationships between Diverse Variables of Employees and Organizational Performance

Soo-Yong Park(Hanbat Nat'l Univ., Korea), Hong-Kyu Kwon(Namseoul Univ., Korea),
Yoon-Eui Nam(Hanbat Nat'l Univ., Korea), Dong-Hyung Lee(Hanbat Nat'l Univ., Korea)

The purpose of this study was to analyze the structural interrelations between positive leadership and employees' positive life position, activities of learning organization, and job engagement, which could affect organizational performance for corporate survival and prosperity. It aimed, first, to suggest the need to develop a strategy for practicing positive leadership in an organization and give implications for spreading positive organizational behaviors within an organization; second, to analyze the causal relations between positive leadership and employees' positive life position, activities of learning organization, and job engagement and suggest the need to make systematic activities for developing human resources in a company.

02. W-23_02_Analysis of cochineal-staining patterns by the pre- or post-treatment of several mordants

Suk-Yul Jung(Namseoul Univ., Korea)

In this study, using various mordants, it was analyzed whether the pre- or post-treatment of the mordants to cochineal dye could induce the changes of color in fabric silk. Cochineal dye stained the silk pink without any mordant, which was deduced by the main component of a carmine substance. In post-treatment of mordant, aluminum potassium sulfate showed very similar pattern of pale pink as compared with the pre-treatment of the mordant. However, other staining patterns were very different from the pre-treatment of the mordant.

03. W-23_03_Comparative analysis of silk-staining by the coat of *Allium cepa* L. and leaf of *Camellia sinensis* var. *assamica*

Suk-Yul Jung(Namseoul Univ., Korea)

In this study, using various mordants, color changes to fabric silk were compared with the dye of the coat of onion and *C. sinensis* var. *assamica*-fermented leaf. Iron (II) sulfate induced near black, which was completely different from the only staining by onion dye without any mordant. Original color without any mordant of "none" represented brownish in the staining of *C. sinensis* var. *assamica*-fermented leaf. This study would be useful to comparatively analyze the staining changes by the coat of onion and *C. sinensis* var. *assamica*-fermented leaf.

04. W-23_04_A Study on UV Awareness and Sunglass-purchasing Factors among Women in Their 30s and 40s

Suk-Yul Jung(Namseoul Univ., Korea), Su-Youn Park(Konkuk Univ., Korea), Ji Min Kim(Konkuk Univ., Korea)

This study aims to identify the level of UV awareness and how it correlates with the factors contributing to sunglass-purchase. The responses from a total of 273 female consumers in their 30s and 40s were utilized for analysis. The majority of respondents answered that sunlight has very harmful or harmful effect on eye and vision health and UV light damages eye sight. The most commonly chosen influential factor in purchasing sunglasses was "to protect eyes and vision from the sun's UV rays".

05. W-23_05_ROK PSN and U.S. DCS for C3 System

Young C. Park(Baekseok Univ., Korea), Si Eun Lee(Baekseok Univ., Korea)

We describe the quality and capacity of Korea's Public Switched Network (PSN) and the U.S. Defense Communications System (DCS) transmission network for Command, Control and Communication (C3) systems.

06. W-23_06_A Study of Positioning Map using Functional Benefit Attributes of DSLR Cameras

Byoung-Guk Jeong(Namseoul Univ., Korea), Hong-Kyu Kwon(Namseoul Univ., Korea)

Positioning map refers to a type of coordinate that shows position representing the complex relationship between own products and competitive products recognized in the brains of consumers, displaying product perception of customers as a 2-dimensional or 3-dimensional graph. Therefore, since positioning strategy using positioning map allows companies to predict positioning of their new products in the market in relation to competitive products and perform more effective repositioning of existing products, it can be regarded as an extremely important strategic element of modern marketing. The purpose of this study is to extract functional benefit attributes of products in the DSLR camera market of South Korea showing heated competition and to examine its effectiveness as a marketing strategy.

07. W-23_08_Suggestions For Drones Utilization In Private Security Industry

Kee-Nam Choi(Semyung Univ., Korea)

This paper makes policy suggestions in order that we should settle legal or institutional constraints and realistic limitations for drones utilization in the private security industry. Above all, we should definitely set their limitations of utilization in relation to drones with aggressive behaviors or possible violations of privacy. Secondly, we should control private security guards' area of competence based upon the Private Security Act, and ordain legal grounds on drones application.

08. W-23_14_A Study on the Development of Reasoning Engine for Context-Aware System

Moonsuk Yeon(Kyunghee Univ., Korea), Byeongsoo Jeong(Kyunghee Univ., Korea)

A context-aware system adapts itself according to the changing contexts of ambient environment and provides service to the user based on available contexts. Context acquiring, processing, reasoning, and disseminating to the services are complex tasks for a context-aware system. An appropriate middleware architecture could handle such complexities. The rule-based reasoning is one of the most well-known methods for reasoning context to build a context-aware system. However, it is difficult for the rule-based algorithm to reason personalized context because it requires a large number of personalized rules to apply the user's preferences. To overcome this weakness, we proposed the Profile-Applied Reasoning Engine for the middleware architecture. The experiment result shows that proposed algorithm has a better outcome for reasoning personalized context than the traditional rule-based reasoning.

09. W-24_02_The Effects on Face Muscle Tonus by SUKI Alternative Therapy

Cha-Bum Lee(Nam Bu Univ., Korea), Seong-Gyun Hong(Nam Bu Univ., Korea), Min-A Choo(Nam Bu Univ., Korea)

This paper described the effect of FMT(Face Muscle Tonus) and by SUKI stimulation and TENS (TranscutaneousElectricalNerveStimulation). A certain face muscle(buccinators) weakness will could arise the aging on the face which fibers give effects to the lower region of the face.The purpose of this study is to know the enforcement the muscle tonus comparing the stimulate to the special muscle regions by the SUKI (Superficial Using Ki energy Instruments) alternativemedicinetechiniquesandTENS(Transcutaneous Electrical Nerve Stimulation). Two factors make wrinkles causing by internal aging and outer aging imbalances in the human body. This study subject is a total 14 (female 14) without an acute and a chronic pain (Table 1). The aim of this study was to find the impact of face muscle tonus with SUKI stimulation via MTM analysis. SUKI stimulation region is a face(cheek area). That point is a cheek region. All the data was analyzed with SPSS 22.0 for window program.

Session 5-A

01. W-32_11_A Subjectivity Study on the Types of Relationship between Professors and Nursing Students for Successful College Life: A Q- methodological approach

Hee-Jeong Kim(Namseoul Univ., Korea)

The purpose of this study is to identify the types of relationships between professors and students, as recognized by university nursing students in Korea, and to formulate desirable types of nursing students by applying the results of the study in the administration and school policy of nursing. Q-methodology, which provides a method of analyzing the subjectivity of each item, was used. The 48 university nursing students of this study classified 48 selected Q-statements into a normal distribution using a 9-point scale. The collected data was analyzed using the pc-QUNAL program. Among the university nursing students, three types were identified: Type 1, "Relationship-relevant type"; Type 2, "Relationship-passive type"; and Type 3, "Relationship-oriented type" These results provide an improved outline and standards for nursing students to identify appropriate relationships between professors and nursing students which will allow students to establish their successful identity throughout their college life.

02. W-32_12_The quality of life and fatigue of gastric cancer patients

Eun Ja Yeun(Konkuk Univ., Korea), Hee Jeong Kim(Namseoul Univ., Korea), Ho Yoon Bang(Konkuk Univ., Korea)

This study was conducted to investigate the effects of cancer fatigue on the quality of life of patients with gastric cancer. From October 2014 to February 2015, data were collected from 140 gastric cancer patients at two higher-grade general hospitals in Seoul. Descriptive statistics were used to describe the general characteristics of the subjects, and the relationship between quality of life and fatigue was analyzed using Pearson's correlation. Quality of life was negatively correlated with cancer fatigue ($r = -.454$, $p < .001$). The quality of life subscale and cancer fatigue were significantly negatively correlated with overall QOL and general health ($r = -.295$, $p < .001$), physical factors ($r = -.506$, $p < .001$), psychological factors ($r = -.352$, $p < .001$), social factors ($r = -.406$, $p < .001$) and environmental factors ($r = .314$, $p < .001$).

03. W-32_13_Acute vibration exercise on the calf region decreases arterial stiffness in the middle aged men

Deok-Jin Kim(Namseoul Univ., Korea), Yong-Taek Rhim(Namseoul Univ., Korea)

The Purpose of this study was to determine the effect of acute vibration exercise on arterial stiffness. Twelve healthy middle aged men recruited as subject. They executed acute single bout of 10 min's mechanical vibration exercise on the calf region and measured CAVI and ABI, marker of arterial stiffness, at pre and post of that exercise. The results showed that there were significant decrease in CAVI and ABI according to and it can be suggested that acute local vibration exercise on the calf region decrease arterial stiffness in middle aged men.

04. W-32_14_On the Relationship between College Students' Perceived English Proficiency and their Self-Confidence

Kabyong Park(Namseoul Univ., Korea), Mihee Han(Namseoul Univ., Korea), WonShik Na(Namseoul Univ., Korea)

The central goal of this research is to identify the relationship between one's perceived English proficiency and his or her self-confidence. The group of 80 research subjects were selected from students attending at N University. A set of analysis methods were adopted for that purpose: SPSS 19.0, frequency analysis, ANOVA analysis and Scheffe

post-test. It was found that perceived English proficiency was closely related with their self-confidence. The findings are expected to present meaningful implications for the importance of English proficiency and more effective English education at college.

05. W-32_17_Effects of the Shock Wave Therapy on Upper Trapezius and Sternocleidomastoid Muscle Tone and Neck Range of Motion in People with Forward Head Posture

Cho Jun Hyung(Namseoul Univ., Korea), Choi Jung Hyun(Namseoul Univ., Korea)

This study was for confirming that how change the range of motion(ROM) of the neck and the muscle tone of upper trapezius(UT) and sternocleidomastoid muscle(SCM) when stretching exercises applied to all subjects with forward head posture(FHP) and additionally the shock wave therapy to 15 subjects for 7 weeks.

06. W-32_18_Effect of Kinesio-taping and Theraputic Exercise with Idiopathic Scoliosis

**Tae-Seok Choi(Namseoul Univ., Korea), Wan-Suk Choi(International Univ. of Korea, Korea),
Jung-Hyun Choi(Namseoul Univ., Korea)**

Idiopathic scoliosis, with its lateral curvature of the spine and vertebral rotation, has been managed to its own characteristics. This study aimed to address the efficacy of Kinesio Taping and theraputic exercise with Idiopathic scoliosis. The Cobb angle of scoliosis ranged from 10 to 20 degrees before the exercise. Group A received therapeutic exercises for scoliosis, while group B received therapeutic exercise in addition to kinesio taping. Studies have shown that A group with taping has significantly reduced cobb angle.

07. W-32_19_The effect of using visual feedback during ankle joint strategy exercise on proprioception and balance in stroke patients

Jeon Sinae(Namseoul Univ., Korea), Jung-Hyun Choi(Namseoul Univ., Korea)

This study investigates the effect of ankle joint strategy exercise on proprioception and balance in the presence/absence of visual feedback on stroke patients. Of the 26 stroke patients, 13 were placed in the visual feedback group (VFG) and the other 13 in the visual disuse group (VDG) in a random order. The results indicated that there was no statistically significant difference in proprioception ($p>.05$). Furthermore, in the limit of stability and BBS there was a statistically significant increase post-intervention ($p<.05$), with the BBS exhibiting particularly effective changes ($p<.001$).

08. W-32_20_Effects of Music Therapy and Gym Ball Exercise on Dysmenorrhea and Premenstrual Syndrome.

Mina Gim(Namseoul Univ., Korea), Jung-Hyun Choi(Namseoul Univ., Korea)

This study investigates the effect of music therapy and gym ball exercise on dysmenorrhea and premenstrual syndrome. Subjects in this study were divided into the music therapy group and gym ball exercise group. Both interventions began 3 weeks prior to the start of menstruation and lasted until final day of menstruation. Both interventions were performed 3 times a week. The degree of menstrual discomfort was measured using the Menstrual Distress Questionnaire (MDQ).

09. W-32_21_A Study on College Student's Cultural Competency and Multicultural Acceptability

Mi Yu(Gyeongsang National Univ., Korea), Junghyun Choi(Namseoul Univ., Korea)

This study examines the relationship between cultural competency and multicultural acceptability of the college students in Korea. The study participants included 24 males (12.0%) and 176 females (88.0%). Cultural awareness was significantly positively related with cultural openness ($r = .156, p=.028$), stereotype cultural sensitivity ($r = .282, p<.001$), unilateral anticipation of assimilation ($r = .141, p=.047$), avoidant emotion of refusal ($r = .142, p=.046$) and mutual will of exchange ($r = .179, p=.011$). Culturally competent health care will lead to greater patient satisfaction, improved clinical outcomes, and greater cost efficiency.

10. W-32_22_Factors influencing on organ donation attitude of university students

Hye-gyeong Cha(Namseoul Univ., Korea)

This study is a descriptive research to identify factors influencing on organ donation attitude of university students. A survey was executed on 233 male and female university students, and data collection was from November 11 to December 17, 2016. Data were analyzed using χ^2 -test, t-test, ANOVA, Pearson's correlation coefficients, and multiple regression analysis. From the results of the study, research participants' organ donation attitude showed a positive correlation with utilitarian life-seeking type ($r=.748$), individualistic thinking type ($r=.610$), familistic thinking type ($r=.593$), cynical thinking type ($r=.578$), deontological life-seeking type ($r=.430$), knowledge of organ donation ($r=.313$). The stepwise multiple regression analysis was executed by setting the general characteristics and main variables as independents variables influencing on organ donation attitude, it was found that utilitarian life-seeking ($\beta =.741$), and blood donation experience ($\beta =.117$) were significantly influencing variables, and their explanatatory power was 56.9% ($F=152.610, p<.001$). Based on the results of this study, for activate organ donation, it is necessary to develop programs that can show interest in more utilitarian life by looking at the direction of life of university students rather than improving knowledge on organ donation. Also, various publicity and policies should be developed so that university students can actively participate in blood donation.

Session 1-B

01. W-05_05_A Study on the Effect of the boss's Leadership on the Organizational Performance

Myoyng-Hoon Kim(Korea Nat'l Univ of Transportation, Korea),
Jang-Hum Yon(Korea Nat'l Univ of Transportation, Korea), Dong-Kee Kim,
Jae-Boong Kim(Korea Nat'l Univ of Transportation, Korea)

In the present study, the effects of transformational leadership and transactional leadership of a store manager within home appliance retail distribution organizations on organizational performance, i.e. organization immersion, job immersion as well as self-efficacy were considered, and the moderating effects according to challenge consciousness among subordinates' achievement motivation were subjected to consideration. The results revealed through a statistical analysis are summarized as follows. A part of the moderating effects on challenge consciousness of sales employees has positive influence in terms of the effects of transformational leadership on the organizational performance. In the present study, the moderating effects on challenge consciousness were observed to have a negative effect on organization immersion and job immersion. Whereas a person with high challenge consciousness tends to have interests in the tasks allowing demonstration of his/her own abilities while enjoying and feeling satisfied with the process of achieving the tasks themselves has a small effect of leadership of branch managers, it may be considered that a person with low challenge consciousness responds greatly to the effects of branch managers' leadership through the transformational leadership.

02. W-05_08_A Study on Satisfaction of Smart Factories Using Cluster Analysis

Jeong-Yoon Oh(Chungbuk Nat'l Univ., Korea), Sang-Hyun Choi(Chungbuk Nat'l Univ., Korea)

With the emergence of the manufacturing crisis, major developed countries have announced innovative policies as countermeasures. Korea is also introducing smart factories for SMEs by forming Korea Smart Factory Foundation in the Ministry of Trade, Industry and Energy. The purpose of this study is to find out the difference between high satisfaction level and low satisfaction level among the companies applying smart factory basic level through cluster. It is expected that it will be able to refer to what part to focus on when introducing smart factory.

03. W-05_09_A Study on Personal Information Protection Behavior in Easy Payment Service: Focused on Protection Motivation Theory

Jae-Hoon Shin(Chungbuk Nat'l Univ., Korea), Sang-Hyun Choi(Chungbuk Nat'l Univ., Korea)

This paper deals with the simple payment service among PinTech, a hot market worldwide. In order to understand the behaviors related to the personal information protection of users of the simple payment service, we conducted an empirical study using the theory of protection motivation. A lot of existing researches have been going on. However, since many services are currently being implemented and the research has not been conducted in a generalized situation, we will investigate the behavior of users in a situation where many services are generalization

04. W-05_10_Virtual reality exercise contents production method using vibration sensing treadmill

Giback Han(Namseoul Univ., Korea), Yuseok Choi(Namseoul Univ., Korea), Jinkon Kim(Namseoul Univ., Korea)

Modern society is experiencing a serious lack of exercise due to the development of technology and science. Obesity rates are increasing rapidly due to lack of exercise, and even if we want to improve your lack of exercise, we are

in a difficult situation to exercise due to complex factors such as time, place and fun. If we use virtual reality simulations, we can solve these problems in various ways. Therefore, in this paper, VR-Gym contents are created by combining virtual reality technology. In order to develop VR-Gym contents, VR Treadmill, which detects vibrations, is used to create content using the Oculus lift, which is expected to reduce the lack of exercise for modern people.

05. W-05_11_Effects of augmented reality-based exercise system on user's motor learning

Yu - Seok Choi(Namseoul Univ., Korea), Gi-Back Han(Namseoul Univ., Korea), Jin-Gon Kim(Namseoul Univ., Korea)

The fitness industry has grown steadily up to now and has been popularized, but it is now necessary to consider the limitations of the fitness industry structure and the wasting of human resources, which has to only rely on the trainers for exercise equipments and exercise methods. Hence, this paper aims to create a virtual trainer using an augmented reality (AR) technology connecting real and virtual reality as a substitute of a real trainer, and to investigate the effects of augmented reality-based exercise system that constantly provides exercise and guidance to members.

06. W-05_13_A Study on Learning Flow and Communication Ability consequent on a College Student's Korean Geometry Psychology type

Dong-Kee Kim(Korea Nat'l Univ of Transportation, Korea), Kil-Man Ko(Korea Nat'l Univ of Transportation, Korea), Jeong-Hyun Han(Korea Nat'l Univ of Transportation, Korea), Jae-Boong Kim(Korea Nat'l Univ of Transportation, Korea)

The purpose of this study is to classify the character types through the Korean geometry psychology type indicator, and to look into what relations the character type has with learning flow and communication ability, and whether individual character types show a difference in learning flow and communication ability. The study results are as follows: First, there was a significant difference in learning flow consequent on a college student's Korea geometry psychology type, and learning flow by type was found to be high in the order of an achievement type, creation type, relation type and prudence type. Second, there was no significant difference in a college student's communication ability consequent on the Korean geometry psychology type. Third, the results indicated that there exists a mutually significant relation between communication ability and learning flow. Through the above results, it might be safe to say that the character type classified through Korean geometry psychology types has an influence on learning flow. In addition, the result that there exists a correlation between learning flow and communication ability could be regarded as being implicative of the need to take into account the character type to increase learning performance in educational environment changes aiming for a debate and presentation.

07. W-05_15_Effects of Supervisor's Leadership on Organizational Justice, Trust and Job Performance

Jae-Boong, Kim(Korea Nat'l Univ of Transportation, Korea)

The purpose of this study was to investigate the effect of boss leadership style on organizational citizenship behavior and organizational justice's role in the relationship between them. In order to accomplish the purpose of this study, a survey was conducted on Korean companies and analyzed.

08. W-05_16_An Exploratory Study on 360VR Content Implementation

Jun-Hyung Kim(Namseoul Univ., Korea), Jin-Gon KIM(Namseoul Univ., Korea), Jaerim Jung(Namseoul Univ., Korea)

The ideal technology for virtual reality (VR) is to realize imaginary spaces and actual spaces in a manner that is difficult to differentiate. To this end, current technology is realized in 2 ways of 360 VR and modeling VR. These two have different approaching methods in production and also in end results. This research aims to explore the advantages and disadvantages of VR contents and suggest a method for 360 VR contents that can realize dynamic environments.

**09. W-05_17_Mankiw and Wail housing demand forecast using classified by income quantile model tree-
The case of Seoul city**

Hyoungseon Lim(Chungbuk Nat'l Univ., Korea), Sanghyun Choi(Chungbuk Nat'l Univ., Korea)

The Mankiw and Weil (MW) model used for housing demand forecasting utilizing data on population has been extended to overcome the limit not including key variables such as income and expense. However, it is pointed out that the added variable has no linear relationship with the age-specific housing demand. Therefore, in this research, we tried to supplement this problem by proposing classified by income quantile model tree. In order to evaluate relative performance, linear regression analysis is preceded and henceforth analysis is planned to carry out relative performance evaluation between two analyzes by advancing the classified by income quantile model tree, to the same population housing data is there. We expect the model tree to complement the expansion problem of the traditional M-W model.

10. W-05_18_A Study on the Utilization Trend of Patent Right Using Big Data; Focused on jewelry industry
Chin-hee Chang(Wonkwang Univ., Korea), Seung-geun Ko(Wonkwang Univ., Korea)

The concept of elements and principles of design may be a theory born for our eyes, which are uniformized. Nowadays, it is always natural to start to study constantly in order to find the subject of design in the future in the overflowing design of modern times. The beauty of nature is already a part of our lives and our lives. In this way, getting a design element in nature is a part that anyone can know. However, even if I find a subject in a nearby place, I think it is the ability of the artist to interpret it and express it as a work. As a research on the development of the author's competence, researchers set out the theme of water that is the most representative of nature and that is always in close proximity to our life, and based on various theoretical knowledge and physical characteristics that are generated in the future, And this was solved formally, I realized that there is a possibility of studying various changes and attempts of design with only one element and material by completing the work by analyzing the wave of water which is the representative phenomenon of water which is the most representative phenomenon. It is necessary to pay attention not only to 'how' but 'how to develop the design', and it is necessary to pay attention to various attempts to escape from the limit of design material and to interpret the design theme in a formative way based on this result.

11. W-05_21_The Role of Social Media between Work-Life Balance and Job Engagement

Hyungju Lee(ETRI, Korea), Geonil Ko(Hanyang Univ., Korea)

Human being does work to live out and they have their private life because human has sociality. Both work and life are important to live out but they are on the trade-off relationship. Because keeping the balance between work and life is too hard, in has been interested by academic and practical areas.

The Work-Life Balance (below WLB) of employee may helpful to be an innovative company. On the other hand, imbalance of work-life may result in employee turnover and productivity decrease. Therefore, it seems that WLB of employee is an important factor in determining the capabilities of the companies.

As the recent change in corporate and social environment, there are various kinds of telecommunication tools such as smartphone, wearable devices, and so on. They are being used in many area in organization to improve job engagement and satisfaction. Therefore, in this study, we aim to examine the relationship between WBL and Job engagement. Based on findings in this paper, we establish some hypothesizes and develop a research model.

12. W-05_22_A case study of dispatched worker's transition to contracted: In close examination of financial institution

Jeong-Hyun Han(Korea Nat'l Univ. of Transportation, Korea), Ho-Jung Na(Korea Nat'l Univ. of Transportation, Korea), Sung-Tae Jo(Korea Nat'l Univ. of Transportation, Korea), Jae-Boong Kim(Korea Nat'l Univ. of Transportation, Korea)

In order to improve the dual structure of the labor market in Korea, this study focuses on the improvement of overall organization performance and the change of perception of dispatched workers through the employment stabilization of dispatched workers in terms of human resources management. I want to see.

First, we tried to suggest an alternative to the employment stabilization plan based on the comparison of the job satisfaction and the organizational commitment questionnaire between regular and dispatched workers in A financial group.

The purpose of this study was to present a more effective plan through the case of employment type conversion of dispatched workers in working group A. Before examining the cases of patients before the employment type, we analyzed the cases where the dispatched workers who were working in the A financial group from 2010 to May 2013 changed their employment from self-employed to self-contracted.

The results of the analysis are as follows.

Conversion rates for simple tasks and occupations that do not require special qualifications are significantly lower, and occupations that require planning and organizational skills such as office support work are more likely to be converted. In addition, it was found that systematic system to know the part of the conversion process was not applied. It has been confirmed through examples that dispatched workers in various occupations are not given the opportunity to grow together as members of the organization.

In the future, if the changes in the perception and the system are complemented by the use of the employment type conversion case of the financial group A, the social opportunity cost resulting from the conversion of the employment type of the dispatched worker is surely reduced and the synergy effect of the user and the employer is brought about Will give. This will contribute to the creation of a social environment in which dispatched workers are transformed from the employment type into a more rational and user-assisted recruitment tool.

13. W-05_24_OpenADR 2.0b Transaction Analysis and Optimization

Min-Young Choi(NAONWORKS Co.,Ltd., Korea), June-Kyoung Lee(NAONWORKS Co.,Ltd., Korea), Kyoung-Hak Lee(NAONWORKS Co.,Ltd., Korea)

We defined the transaction analysis model for OpenADR 2.0b payload in our previous study. The model was not sufficient to determine the decisions needed for the analysis at reduction stages and did not fully cover the necessary scenarios that OpenADR 2.0b would perform. In this paper, we optimize the existing syntax, generating OpenADR 2.0b payload transaction, to solve disadvantages described above and introduce a domain-specific language approach that utilizes it.

Session 2-B

01. W-08_14_Social Support, Resilience and Nursing Performance of Nurses

Bong-Sil Choi(Nambu Univ., Korea)

The level of the subjects' social support was 3.62, resilience was 3.38, and nursing performance was 3.63 on the 5-point scale. Nursing performance had a significant positive correlation with social support ($r=.383$, $p<.001$) and resilience ($r=.545$, $p<.001$) and no significant correlation with violence experiences ($r=.084$, $p=.189$).

02. W-08_18_Effects of Short Term High Intensity Exercise on Blood Lipid and Leptin Levels

Soon-Gi Beak(Jungwon Univ., Korea), Do-Jin Kim(Bucheon Univ., Korea)

The purpose of this study was to investigate the effect of short duration high intensity exercise on serum lipid and leptin levels in obese men. For this purpose, we selected 20 short – term high intensity exercise group and control group for 20 obese men in Gyeonggi, Korea. Subjects were restricted from participating in other exercise programs and dietary control programs while participating in the program. In this study, descriptive statistics on the measurement variables were analyzed using PASW 18.0 statistical program. Two-way RGRM ANOVA was applied to compare the inter group time between two groups. The significance level was set at 0.05. The results of this study showed significant differences in blood lipids. Serum lipid showed significant interactions with TG, TC, HDL and LDL ($p<.05$). The results of this study showed that leptin had a significant interaction effect between groups ($p<.05$).

03. W-08_20_A Study on Life Sports Instructor's Informal Learning Type and Learning Improvement Plan

Seung-Yong Kim(Hanyang Univ., Korea)

The purpose of this study was to present a life sports instructor's learning type and learning improvement plan through informal learning. To achieve the purpose of this research, this study selected 4 instructors of the life sports instruction field as research participants. In addition, this study brought light on a life sports instructor's learning type and the learning improvement plan in depth using the ethnographic research method based on Spradley's domain analysis and taxonomic analysis through the research participants' case. The research results were as follows: First, This study could classify a life sports instructor's learning type through informal learning into 5 sorts, i.e. 'experience, learning, exploration, dissemination, extension.' Second, As regards the learning improvement plan for a life sports instruction through informal learning, learning environment should be constructed 1)from the personal & content aspects, 2)cultural & environmental aspect, and 3)institutional & organizational aspects.

04. W-08_24_Certified Healthy Family Specialists' Working Conditions and Experiences of Work

Seohee Son(Sookmyung Women's Univ., Korea)

The purpose of this study was to examine Certified Healthy Family Specialists' working conditions and experiences of work in the Seoul Metropolitan Local Healthy Family Support Centers (HFSCs). A total of 136 HFSC staff were recruited through 25 local HFSCs in Seoul. Descriptive statistics were conducted for data analysis. The Certified Healthy Family Specialists (CHFSSs)'s work hour was similar to Korean average working hours, while they often worked on weekend or holiday. Regarding experiences of work, the CHFSSs experienced a higher level of job stress and emotional labor. Their job satisfaction, however, was moderate level. These findings suggest that employee support system is warranted to help CHFSSs remain in the HFSCs.

05. W-08_25_A Comparison of Chest Compression Quality between the Right and Left Palms of a Rescuer's Giving Cardiopulmonary Resuscitation (CPR)- Using Manikin of Measuring-

Young-Chul Lee(University of Seoul, Korea), Sang-Sub Park(Chungcheong Univ., Korea)

The purpose of this study was to analyze the differences in the quality of chest compression between the right and left palms of a rescuer. The participants were divided into two groups: one was the right hand group (RHG) giving compression with the right palm on the chest compression point and the other was the left hand group (LHG) giving compression with the left palm on the chest compression point. The criteria for chest compression evaluation were the 2015 guidelines. Chest compression evaluation was carried out in terms of compression depth, average compression velocity, and chest compression accuracy (%). The analyses were performed using SPSS for Windows 18.0 Version. Significant differences were found between putting the right palm on the chest compression point and putting the left palm on the chest compression point in giving compression. It is therefore necessary to develop programs for efficient chest compression.

06. W-08_26_The Effects of Food Insecurity Caused by Insufficient Household Food Expenses on Diabetes Mellitus in South Korea

Yoon-Ho Lee(ChungCheong Univ., Korea), Sang-Sub Park(ChungCheong Univ., Korea)

The purpose of this study was to determine the effects of food insecurity caused by insufficient food expenses on diabetes. For this purpose, the raw data from Korea Health Statistics 2014: Korea National Health and Nutrition Examination Survey (KNHANES VI-2), which were disclosed by the Ministry of Health and Welfare (MOHW) and the Korea Centers for Disease Control and Prevention (CDC) in 2015, were used. The analyses were performed using an SPSS 18.0 Version program. Food insecurity caused by insufficient food expenses affected diabetes. Because diabetes is significantly affected by a dietary habit, it is necessary to do exercise on a regular basis and have a good dietary habit. It is also necessary to reinforce health programs for preventing diabetes.

07. W-08_27_The Effects of Dietary Habits on Obesity and Weight Control of Adults

Sang-Sub Park(ChungCheong Univ., Korea), Yoon-Ho Lee(ChungCheong Univ., Korea)

The purpose of this study was to determine the effects of dietary habits on obesity and weight control of adults. For this purpose, the data from Korea Health Statistics 2015: Korea National Health and Nutrition Examination Survey (KNHANES VI-3), which were disclosed in 2016, were used. To determine the effects of dietary habits on obesity and weight control of adults, the respondents aged <20 years and those giving no answer were excluded from this study. The analyses were performed using an SPSS 18.0 Version program. Undesirable dietary habits affected obesity and weight control. It is necessary to reinforce health programs and publicity with the objective of helping people have a good dietary habit.

08. W-08_29_Effects of Sport Massage on Recovery Cardiopulmonary Function and Blood Lactate Concentration of Ssireum players by age groups after doing the Upper Maximum Exercise as possible
Hong-Young Jang(Sungkyul Univ. Korea), Jong-Hyuck Kim(Jungwon Univ.,Korea), Il-Young Cho(JeonJu Univ., Korea)

The purpose of this study is to compare the effects of sports massage on recovery cardiorespiratory function and lactate concentration after the upper maximum exercise for the ssireum players by age group. The study subjects were 9 high school ssireum players, 7 university ssireum players and 8 business team ssireum players, and through static rest and sports massage rest after the maximum exercise of Arm Ergometer, the difference in recovery cardiorespiratory

function and lactate concentration was compared. The measured data were analyzed by SPSS 18.0 program, and cardiorespiratory function variables were analyzed by covariance analysis and effect size, and lactate concentration was analyzed by two-way repeated measures ANOVA($p < .05$). The results obtained through this study are as follows. Oxygen uptake was significantly higher in sports massage treatments from players of all age groups($p < .05$) and effect size by age group appeared in order of high school>college> business team players. Respiratory exchange rate and heart rate were significantly lower in sports massage treatment from players of all age groups ($p < .05$), and effect size by age group appeared in order of high school>college>business team players.

09. W-08_30_Performance Prediction According to University Elite Wrestling, Judo, and Ssireum athletes on Body Composition, Upper and Lower Anaerobic Ability and Isokinetic Muscle Function

Hong-Young Jang(Sungkyul Univ. Korea)

The purpose of this study is to predict the performance of university elite wrestling, Judo, and Ssireum athletes depending on their body composition, upper and lower anaerobic ability and isokinetic muscle function. Study subjects were 9 wrestlers, 9 Judo players, and Ssireum players going to Y University who had more than 5 years of athletic career and had won a prize at least in the third place at national contests over the last 3 years. Their body composition, upper and lower anaerobic ability, and isokinetic muscle function were examined. The measured data of body composition, upper and lower anaerobic ability, and isokinetic muscle function were analyzed with SPSS 18.0 program. When significant differences were found by one-way ANOVA depending on sports games, Scheffe Post-hoc test was conducted. Logistic Regression Analysis with the type of 'Enter' was applied for performance prediction ($p < .05$). According to the comparison of the body compositions of the Ssireum, Judo, and wrestling athletes, body fat mass and fat mass was found high in the order of Ssireum>Judo>wrestling athletes, and lean body mass and bone mineral content were found high statistically and significantly in the order of Judo>wrestling>Ssireum athletes.

10. W-08_31_The Study of Establishment and Development Procedure of Gongkwonyusul, A Korean Mixed Martial Arts.

Seung-Il Chae(Kunsan Nat'l Univ., Korea), Jung-Hun An(Sungkyul Univ. Korea)

The goal of this research is to explore the establishment and procedure of development of Gongkwonyusul, a Korean fighting martial arts. For this study, interviews were conducted with four standing committees who contributed to the development and development of Gongkwonyusul. The conclusions based on the results of the research method and data analysis are as follows. First, the purpose of inventing Gongkwonyusul is to use various techniques in conjunction with training by practicing as if it is a real situation, to suppress opponents in any posture or position, and to train them to defend themselves. In the late 1990s, it was launched under the name of Gongkwonyusul, and since the establishment of its head office in Seoul, more than 50 branches have been established throughout the country. Third, the majors of Gongkwonyusul are increasing, and the academic development is being pursued through the linkage between Gongkwonyusul and department of martial arts. As customized programs are being developed in consideration of diversity and universality, the possibility of development of academic, technical and programs is sufficiently high and worth researching.

11. W-08_32_A Comparison Analysis of cardiorespiratory functional capacity in Wheelchair treadmill and Arm ergometer GXT Test in Wheelchair using Disabled and Nondisabled

Hong-Young Jang(Sungkyul Univ., Korea) Jong-Hyuck Kim(Jungwon Univ., Korea)

Purpose of this study is to compare cardiorespiratory functional capacities of the disabled and the non-disabled, both in wheelchair, in wheelchair treadmill test and graded-exercise testing using arm ergometer. Subjects of this study were 19 in total, 8 disabled basketball players in wheelchair and 11 non-disabled basketball players in wheel chair. As for the method, cardiorespiratory functional capacity was measured by breathing gas analyzer and wireless heart rate monitor in wheelchair treadmill test and graded-exercise testing using arm ergometer. Gathered data were analyzed in pair t-test with SPSS 18.0 program and statistical level of significance was set at .05. The outcome was as following. First, maximum oxygen consumption showed significant difference, with the arm ergometer showing higher value. Second, significant disparity was found in respiratory exchange rates, with wheelchair tread mill showing higher value. Third, no significant disparity was found in maximum heart rate, with wheelchair treat mill showing higher value. Fourth, in regard of subjective workout intensity, significant disparity was found in end point, with arm ergometer showing higher value. Fifth, though no significant disparity was found in blood lactate concentration, arm ergometer showed higher results.

12. W-08_33_Effects of Mckenzie Exercise on Back Pain and Physical Fitness

Do-Jin Kim(Bucheon Univ. Korea), Jong-Hyuck Kim(Jungwon Univ.,Korea)

The purpose of this study was to investigate the effects of the McKenzie exercise program on the relief of back pain and physical fitness. The subjects of this study were 20 middle – aged women living in Seoul, Korea. PASW 18.0 Statistical programs were used to present the descriptive statistics of the measurement variables. Comparisons of the two groups were analyzed by 2-way RGRM ANOVA. The significance level was set to be .05.

There was a significant difference in the low back pain index between the experimental group and the control group ($p<.05$). There was a significant difference between the experimental group and the control group in grip strength, back muscle strength, and flexibility. ($p<.05$).

13. W-08_34_The Effect of Korean Social Phenomenon on Modern Sports

Seung-Il Chae(Kunsan National Univ., Korea), Wan-Sik An(Sungkyul Univ., Korea)

Nowadays, South Korea has faced a crisis of political power, the formation of vertical relations, and the imbalance of economic structure due to the ills and conflict of capitalism, and this has led to the transition to modern sports, which also face a crisis. Therefore, the relationship between social phenomena and modern sports is very organic and direct. The study is a case study of how the various phenomena influence modern sports based on actual examples, and studies and analyses through humanistic approaches and insights.

14. W-08_36_Immune-related symptoms may be alleviated by an automated thermal massage: a retrospective survey

**Ka-Eun Kim(Jeonju Univ., Korea), Sang-yun Nam(Jeonju Univ., Korea), Il-Young Cho(Jeonju Univ., Korea),
Soon-Hi Park(Jeonju Univ., Korea), Jeong-Sook Park(Nambu Univ., Korea), Yong-Soon Yoon(Presbyterian(Jesus)
Medical Center, Korea), Soon-Kwon Park(Jeonju Univ., Korea)**

In the study, we explored effects of automated thermal massage on immune-related symptoms through a retrospective survey. Multiple regression analysis showed that symptoms of arthritis, rhinitis, asthma, allergy, and dermatitis can be reduced by the automated thermal massage. It is speculated that the relaxation and the improvement of the blood flow by the massage contributed to the reduction of symptoms.

15. W-08_38_Study on the characteristics of γ -Aminobutyric acid(GABA) containing salts made by various process

Seok-Cheol Cho(Seowon Univ.,Korea), Joo-Eun Lee(Seowon Univ.,Korea)

γ -Aminobutyric acid (GABA)-containing salt was prepared by crystallization, spray drying and coating process. Salt from deep sea water which removed fresh water by osmotic pressure has higher mineral contents and fermentation broth by lactic acid bacteria that contained GABA converted from glutamic acid were combined using various processes. Spray drying of the mixtures of sea water and fermentation broth made GABA containing salts at various GABA contents. Spray the fermentation broth on the surface of the commercial salt and drying by superheated steam effectively produced the GABA containing salts also. Depending on the process and contents of GABA, the color of GABA containing salts changed. The appearance and surface of this prepared GABA-containing salts were examined with a scanning electron microscope. Difference was found between the commercial sun-dried salt, spray-dried salt and dried by superheated steam, and no separated particles were detected which indicates that the various processes were applied to make GABA-containing salt. Sensory characteristics of GABA salts compared with refined salt showed low scores at saltiness, bitterness, color and overall acceptance so commercialization of GABA salts needs not combine process GABA and salt but solve the organoleptic problems.

Session 3-B

01. W-14_30_Factors affecting health-related quality of life (HRQoL) and level of HRQoL of the age group among Korean adults

Myoung-Hee Kim(Semyung University, Korea)

The purpose of this study was to identify the demographic factors affecting the health-related quality of life and level of HRQoL according to age group of Korean adults. Using raw data from the Korean National Health and Nutritional Examination Survey (KNHANES) conducted from 2013 to 2015, a secondary analysis was performed with data from 8035 people (men: 3601, women: 4434) who responded to research major variables among subjects with a condition of non-disease. The results are as follows: Overall, the HRQoL for women was lower than men by age group ($F=74.28$, $p<.001$). In the case of men, the HRQoL scores were lower as the age increased ($F=12.65$, $p<.001$). In the case of women, the HRQoL scores were lower as the age increased ($F=30.42$, $p<.001$). Controlling for age, factors affecting HRQoL among Korean adults were educational levels, marital status, household income levels, and occupation.

02. W-14_32_Anti-inflammatory Effect of Mixture of Jingyoganghwaltang and Cheongsimhwan on Croton Oil Induced Hemorrhoid Model in Rat

**Jong-Cheng Mou(Bubuho Korean Medicine Clinic, Korea), Kanghyun Leem(Semyung Univ., Korea),
Nayoung Jo(Semyung Univ., Korea), Taeyeon Kim(Semyung Univ., Korea)**

Hemorrhoids are one of the most common diseases in humans. This study investigated the effect of mixture of Jingyoganghwaltang and Cheongsimhwan on croton oil induced hemorrhoid model in rat. Mixture of Jingyoganghwaltang and Cheongsimhwan treated group showed that decreasing the contents of ICAM1, MMP2 and MMP9 than croton oil stimulated group. These results suggest that treatment of Jingyoganghwaltang with Cheongsimhwan demonstrated anti-inflammatory effects in croton oil induced hemorrhoid model in rat.

03. W-14_33_Anti-inflammatory Effect of the Hedgehog Skin Extracts on LPS-Stimulated RAW 264.7 Cells
Nayoung Jo(Semyung Univ., Korea), Taeyeon Kim(Semyung Univ., Korea), Kanghyun Leem(Semyung Univ., Korea)

Hedgehog skin is one of the Korean medicines for hematochezia and Hemorrhoids. This study investigated the anti-inflammatory effect of the hedgehog skin extracts on RAW 264.7 cells. Extracts of hedgehog skin were suppressed LPS-induced nitric oxide productions, and it reduced the expression of IL-6 and increase the expression of RasGRP3. Also, it inhibited phosphorylation of ERK1/2 and JNK in LPS-stimulated RAW 264.7 cells.

These experiments suggest that extract of hedgehog skin has an anti-inflammatory activity through the regulation of the mitogen-activated protein kinase pathway in LPS-stimulated RAW 264.7 cells.

04. W-14_34_A Design of Security Framework for User Information and Data Privacy based IoT in ICT Environments

Byung Wook Jin(Soongsil Univ., Korea), Jung oh Park(Sungkyul Univ., Korea)

The development of Internet technology led the era of hyper connectivity in which things are connected with people. The convenience increased since people are provided with a variety of services through IoT technology. The security threat in existing network remained only in the level of information leakage and economical damage, but in the fusion

environment combined with IoT is exposed to be connected with the problems of social disaster and casualties. This study will design the IoT-based security framework in ICT environment to strengthen user information and data privacy.

05. W-14_35_A study on the trends of Competency-Based Curriculum

Keunho Lee(KICE, Korea), Sahoong Kim(Hankuk Univ. of Foreign Studies, Korea)

This study thus aims to analyze the competency research trends. In order to identify the competencies of each country, curriculum documents and research of each country were analyzed. This study conclude that in many of previous studies on competency-based curriculum are lack of in-depth discussion on practical strategies.

06. W-14_36_A Study on the Compensations for Loss of Farming and Plans for Project Implementation in Dry Field Infrastructure Arrangement in South Korea

Jae-hwan Kim(Kongju Nat'l Univ., Korea), Min-seok Baik(Semyung Univ., Korea)

It is a reality that the implementation of the actual business is poor due to the exposure of various problems due to the surveillance of the dry field infrastructure maintenance project in South Korea. This study is a plan for real farming and rewarding of field based maintenance business. It suggests ways to compensate for the lack of compensation for real farming due to the fact that compensation is not necessary according to the current situation and to comply with legal regulations and to organize autonomous farming union Suggesting a plan.

07. W-14_37_Various Non-Linear Cinematic Narrative Styles Based on New Media

Minah Jeong(Sungkyul Univ., Korea)

Based on the historical, industrial, and aesthetic foundation of new media, this study examines existing new media discourse and seeks new paradigm. In addition, the theoretical foundation of the new medium is constructed by studying the narrative style and methodology of cinema based on new media. At the same time, based on the interactivity of cinema using the new device, nonlinear narrative style is sought and a new critical criterion is presented. This presents the 21st century artistic vision and new direction of new media image industry.

08. W-16_01_Processing IoT information suitable for P2P environments

Yoon-Su Jeong(Mokwon Univ., Korea), Yong-Tae Kim(Hannam Univ., Korea) , Gil-Cheol Park(Hannam Univ., Korea)

Recently, the network service of the 5G environment is provided, and the service system based on the IOT service is provided in a different manner. In this paper, we propose a P2P service based on probability information to improve the reliability of IoT devices operating in P2P environment. The proposed scheme uses the missing trust value of the IoT device so that it can process the random variable information in pairs to guarantee the information accuracy of the IoT device. In addition, the accessibility of information on IoT devices is improved by applying the information generated from the IoT device to the hash function so that the information can be linked. As a result of the performance evaluation, the proposed method showed an improvement of 5.2% on the information processing delay time generated by the IoT device and 10.8% higher communication efficiency between the IoT device and the server than the existing technique.

09. W-16_02_BLAST based Bioinformatics Search Speed Scheme

Yoon-Su Jeong(Mokwon Univ., Korea), Seung-Soo Shin(Tongmyong Univ., Korea)

In this paper, we propose a BLAST – based probabilistic approach to improve the processing speed by collectively managing large amounts of bio information. The proposed method improves accessibility by linking weights and probability elements, and hierarchical grouping is performed by prioritizing according to similarity. In addition, weighting is given to the attribute information (type, attribute, priority, etc.) of the bioinformatic information, thereby lowering the processing time. As a result of the performance evaluation, the proposed method improved the accuracy by 13.5% than the existing method. The efficiency of data retrieval is improved by 19.7% compared to the existing technique. The overhead of bioinformatics information processing was 8.8% lower than the conventional method. The processing time was 13.5% lower than the conventional method.

Session 4-B

01. W-28_01_An Analysis of Effect on Performance and Relationship Quality of ICT-based O2O Inter-organization System

Dong-Il Kim(Pusan National Univ., Korea)

5. TENS experimental time: each participants performed 5minutes/4times in 4 weeks, according to the technique of the first method

02. W-28_08_The Death and Life of American Charter Schools

In Hoi Lee(Jeju Nat'l Univ., Korea)

9. MTM model number: MT59803/5000 Pattee Canyon Drives Missoula program for the data collection and analysis.

03. W-28_10_Effects of Event-Sponsor Congruence on Attitude toward Sponsor in CSR Advertising Campaigns: The Moderating Role of Perceived Sponsor Motive and Event-Self Congruence

Min-Sook Park(Catholic Univ. of Pusan,Korea), Jong-Kuk Shin(Pusan National Univ., Korea),

Min Kyung Moon(Pusan National Univ., Korea)

This study explores the moderating role of perceived sponsor motive and event-self congruence on the relationship between event-sponsor congruence and attitude toward sponsor in CSR advertising campaigns. According to the results of ANCOVA, consumers' perceived sponsor motive and event-self congruence are shown to moderate the effect of event-sponsor congruence on consumers' attitude toward sponsor. And, when the consumer perceives sponsor motive as 'altruistic' and event-self congruence as 'high', the difference of attitude toward sponsor between the high group and low group of event-sponsor congruence perception is the lowest.

04. W-28_11_A Study on the City's Elder-Friendliness and Active Ageing in Jeongeup

Jae-nam You(Sungkyul Univ., Korea)

his study will analyze the elder-friendliness and active aging of Jeongeup city. The survey period is 2015, and quantitative research and qualitative research were conducted for public officials, elderly people, and providers.

The main variables consisted of variables measuring the city's elder-friendliness and active aging. As a result of the analysis, quantitative and qualitative research results were different, and based on this, policy practical suggestions were made.

05. W-30_01_Implementation and Verification of a Secure IoT Authentication Method based on Hash Function

Woo-Sik BAE(Ajou Motor College, Korea), Kun-Hee Han(Baekseok Univ., Korea)

The advancement of IoT technology has made medical equipment smaller and smarter, while computing environment has shifted from server-client wire/wireless communication networks toward diverse portable laptops, smartphones, tablet PCs, and PDAs. However, security issues in communication sessions resulting from the leakage of personal medical information, infringements of privacy and improper management of medical information are looming large. Hence, this paper proposed a method of addressing the vulnerabilities to a range of attacks in the communication between medical devices.

06. W-30_03_Effect of core stability exercise with feedback on the balance ability of young adults

Jae-Hyun Jung(Seokmun Convalescence Rehabilitation Hospital, Korea), Ji-Yeun Lee(Shinsung Univ., Korea)

The purpose of this study was to compare effect of core stability exercise with feedback on balancing ability of young adults.

The subjects will be about 10 young university students. The subjects were randomly divided into 3 groups which are auditory feedback group, visual feedback group, control group. Functional reach test, timed up & go test, one leg stand test was taken to measure balancing ability.

The auditory feedback group and visual feedback group showed significant differences in balance ability compared to the core stability exercise ($p<0.05$). This study suggests that core stability exercise with auditory feedback helps to balance ability more effectively in rehabilitation training and training.

07. W-30_04_Effects of cognitive therapy on cognition, depression and quality of life in the community-dwelling elderly

Hwanhee Kim(Semyung Univ., Korea), Jemyung Shim(Kangwon Nat'l Univ., Korea)

The purpose of present study was to investigate the effect of cognitive therapy on cognition, depression, and quality of life in elderly people living in the community. In this experimental study, 48 subjects were included in cognitive therapy (90 minutes of once a week for 12weeks). The study instruments included CERAD-K, GDS-K, SF-36. Statistically significant differences were observed in cognitive function and depression. Mean SF-36 score was decreased 2.56, but it was not significant. In the future, various programs should be provided to the community to prevent dementia.

08. W-30_05_Study about the muscle tone of the upper trapezius in young adults

Jae-Hyun Kim(Shinsung Univ., Korea), In-Hyoun Hyong(Shinsung Univ., Korea)

The purpose of this study was to investigate the muscle tone of the upper trapezius in young adults.

57 subjects measured muscle tone in a supine resting position. Myoton Pro was used as a muscle tone measuring instruments. The muscle tone of upper trapezius was 12.3 Hz.

In our study, The upper trapezius muscle are more likely to be injured by repetitive movements of the hands and arms when performing tasks requiring visual demands or fine motor control. Therefore, our study suggests a standard of muscle tone for normal young persons.

Session 5-B

01. W-32_23_Association of Loneliness and Health Behaviors Among Nursing Students

Kyung-Sook Kim(Namseoul Univ., Korea), Hye-gyeong Cha(Namseoul Univ., Korea)

This study was a descriptive research to identify factors related to loneliness among university students. Data were analyzed using descriptive statistics, Pearson's correlation coefficients. The level of loneliness was 1.69 point, self esteem was 3.04 point (ranging 1-4) and social support was 5.30 point (ranging 1-7).

Loneliness was a significantly negative correlation self-esteem($r = -.575$, $p < .001$), social support($r = -.309$, $p < .001$). Further studies are needed to clarify the associated factors and to develop intervention for harmful or persistent loneliness.

02. W-32_24_A Study on Contraceptive Behavior of Unmarried Young Couples

Junghyun Choi(Namseoul Univ., Korea)

The purpose of this study was to investigate the correlation between the contraceptive behavior and sexual autonomy of unmarried young people. The study participants included 67 males (38.5%) and 107 females (61.5%). Sexual autonomy was significantly positively related with marital communication ($r = .235$, $p = .002$) and relationship satisfaction ($r = .207$, $p = .006$). Marital communication was significantly positively related with relationship satisfaction ($r = .474$, $p < .001$). It is investigated that contraceptive behavior is associated with communication of young couple and sexual autonomy. Thus, it was found that when considering how to increase safe contraception for unmarried couples, communication and sexual autonomy should be taken into account in contraception education program.

03. W-32_25_A Study on Sexual behavior among College Students

Miok Kim(Dankook Univ., Korea), Hyegyeong Cha(Namseoul Univ., Korea)

This study was to investigate the degree of sexual behavior of college students. A survey was distributed from October 1st to 30th in 2015. 236 college students. the mean of sexual behavior was $.17.53 \pm 7.61$ (score of range 0~36), $1.46 \pm .63$ (scale of range 0~3). The risk environment should be minimized on an individual basis so that college students have the right sexual behavior. In addition, active sex education at university level is necessary.

04. W-32_26_A Study on Fatigue of Smartphone user in Korea

Junghyun Choi(Namseoul Univ., Korea), Hye-gyeong Cha(Namseoul Univ., Korea),

Kyung Sook Kim(Namseoul Univ., Korea), Hee Jeong Kim(Namseoul Univ., Korea), Sejin Ju(Namseoul Univ., Korea)

The purpose of this study is to investigate the relationship between fatigue and smartphone syndrome such as turtle neck syndrome and carpal tunnel syndrome. The study participants included 78 males (26.9%) and 212 females (78.1%). Fatigue was significantly positively related with turtle neck syndrome ($r = .347$, $p < .001$) and eye exhaustion ($r = .142$, $p = .016$). Turtle neck syndrome was significantly positively related with carpal tunnel syndrome ($r = .307$, $p < .001$). An exploratory approach is needed to grasp the relationship between fatigue and smartphone syndrome in order to propose a practical intervention strategy to improve problem behaviors due to excessive use of smartphone.

05. W-32_27_Trauma experience of multicultural adolescents in South Korea

Kyung-Sook Kim(Namseoul Univ., Korea), Minkyong, Kim(Namseoul Univ., Korea), Sejin, Ju(Namseoul Univ., Korea), Eun-Jee, Song(Namseoul Univ., Korea), Min-Jung, Kim(Namseoul Univ., Korea)

This study aims to understand trauma experience of multicultural adolescents South Korea. We did perform face-to-face interviews with a group of 12 adolescents in Korea. This study is a cross-sectional qualitative research design by in-depth interview. The current research was analyzed Colaizzi' phenomenological approach to the experiences of multicultural adolescents. The result was follows: The investigation of experience phenomenon was conducted with 4 themes of 3 categories: confusion of identity, untreated trauma experiences, verbal violence experiences. The first problem is the confusion of identity. Second, the trauma experience of childhood was intact in the mind without being healed. Third, multicultural adolescents were exposed to severe verbal violence including sexual abuse. The trauma of multicultural adolescents should be structured in consideration of the unique problems that individuals have because they vary depending on the degree and the individual's ability to cope with trauma, even though the content of the similar accidents.

06. W-32_28_Factors affecting local residents' hospital choice in Korea

Mi Joon Lee(Kangbuk Samsung Hospital, Korea)

As a hospital changes to consumer-centered competitive medical care environment, it is a very important element to understand the factors of the hospital by which customers choose and visit in terms of hospital marketing perspective. This study conducted an analysis of the factors affecting the satisfaction with the elements of the choice of a hospital to establish effective marketing strategies for the improvement of the management of local hospitals with community residents who moved in the area. As a result of an analysis of the doctor's skills concerning satisfaction with a medical institution, of the doctor's expertise, knowledge, ability and fame, the doctor's expertise was the most important element when local residents choose a hospital, and of the technical capabilities for medical care, ability of medical care quality management was the most important element. Of the medical institution's capabilities for facilities and equipment, safe procedures were the most important element. Thus, local hospitals can bring about the improvement of differentiated hospital management as community hospitals, managing the quality of medical care, establishing the system in which customers can be provided with medical care service in relief in safe procedures and bringing the doctor's expertise into relief.

07. W-33_01_A Study on Process of Development from Seal Making to the Art of Seal Engraving

Joonho Choi(Gwangju Univ., Korea), Ga-Yeon Lee(DongShin Univ., Korea)

The origins of the seal originate from patterns stamped on the Neolithic pottery. In this way, a seal is closely related to the development of human civilization. The name of a seal has also changed along the times. In the beginning, a seal was used to identify oneself or certify transaction. However, as the esthetic value was added to a seal, it started to become a genre of art. This study is aimed to examine the origin of a seal, the process of sublimation from the origin of the seal to the art of seal engraving, and the components and appreciation of the art of seal engraving.

08. W-33_02_Research on Types of Stamp 〈Bodamjaein〉in relation to Chusa Kim Jeonghee

Joonho Choi(Gwangju Univ., Korea), Ga-Yeon Lee(DongShin Univ., Korea)

Kim Jeonghee went to Yanjing, China, and served two masters, Weng Fanggang and Ruan Yuan. He was deeply immersed in epigraphy by the influence of the two masters, and came to use a lot of pen names. One of them is 〈Bodamjaein〉, which was used to cherish his master Weng Fanggang like a treasure. However, as a result of the author's research, it has been revealed that there are at least four types of the stamp 〈Bodamjaein〉. In this paper, the research process and results and problems will be presented.

09. W-33_03_The 4th industrial revolution and Korean university's role change

Sang-kyu Park(Gwangju Univ., Korea)

It was an quite influential that two smart masters of the game of go(baduk) confronted five times last year. One was Lee Sedol who is world top-class player and another was Alphago which was AI. Namely, it was the confrontation between the human and the machine. There were several issues in this game , the ability of deep learning by machine, the identity of human, the change of job environment and the concern about the social change etc. Neither technology nor the disruption that comes with it is an exogenous force over which humans have no control. All of us are responsible for guiding its evolution, in the decisions we make on a daily basis as citizens, consumers, and investors. We should thus grasp the opportunity and power we have to shape the Fourth Industrial Revolution and direct it toward a future that reflects our common objectives and values. At times where the boundaries between the internet, physical world and people are becoming more blurred by each passing day, the need for education in general and higher education in particular to be "Place-based" is diminishing. Currently, education is being connected to mobile devices through applications in the cloud and is no longer limited to knowledge but extended to skills acquisition. With the expansion in networking services nationally and globally, physical boundaries are no longer barriers to education.

10. W-33_04_Development of Functional Enzymes and Dietary Ancillary Products through Microbial Grain Cultivation Technology

Gyeong-Do Seo(Gwangju Univ., Korea)

Enzyme products with live enzyme activity will be developed through grain fermentation and these products will be appropriately mixed with the extracts of foods effective for diet in order to develop new health ancillary products.

Session 1-C

01. W-06_01_Research Trends of Women with Disability in the Field of Social Work in Korea

Hyunjung Lee(Baekseok Univ., Korea)

The purpose of this study was to identify the trends of research on women with disability in the field of social work in Korea. For this aim, this study reviewed domestic articles that are registered (or nominated to be) in the National Research Foundation of Korea. Using content analysis, the articles were analyzed in terms of research subjects, research themes, and research methods. The results of the analysis indicated that women with disability were described as client, family, and worker. 10 research themes were found in the following: motherhood including child-rearing experiences, grasping current state of women with disability plus policy or service suggestions, employment, marital life, discrimination, social or community integration, quality of life or life satisfaction, violence, program or service-related issues, and others. With regard to research methods used, empirical research methods were prevalent. Based on the research findings, recommendations for future research were discussed.

02. W-06_02_A Research of the Dementia Support in the Long-Term Care Insurance in Korea

Wook Kim(Baekseok Univ., Korea), Dong-Min Seo(Baekseok Univ., Korea)

Due to the advent of an aging society, elderly dementia population in Korea is continuously increasing and the social economical burden is increasing. Introduction of dementia benefit in long-term care insurance in Korea is contributing to the improvement of quality of life in elderly with dementia and families through subject expansion and cognitive ability improvement. Along with mild dementia patients, now the benefit provision is progressively expanding to severe dementia patients and their families. Medium and long-term policy activation plan is necessary for care benefits for dementia patients in early stages to be effectively and continuously provided.

03. W-06_03_Maritime Operations for Combined Forces in Korea

Young C. Park(Baekseok Univ., Korea)

This paper briefly describes the principal automated information management systems presently available and/or presently being installed for combined forces use during the conduct of maritime combined operations.

04. W-06_04_A Study on Comparison of Workers' Compensation System with Accident Compensation System for public officials

Mun Sunghyun(Baekseok Univ., Korea), Young-Chan Lee(Baekseok Univ., Korea)

This study is intended to compare and analyze occupational health and safety insurance targeting on regular laborers with accident compensation policy for public officials and suggest issues and plans for improvement. In addition, this study aims to compare the degree of accident compensation provided to public officials and accident compensation offered to regular laborers seeking for plans to establish efficient accident compensation system. There is a need to acquire fairness between public officials and regular laborers by equalizing the compensation system in the identical level with accident compensation level with regular laborers.

05. W-06_05_A Study on the Survival Strategies in Retail Business Districts

Young- Chan Lee(Baekseok Univ., Korea), Mun Sunghyun(Baekseok Univ., Korea)

This paper analyzes strategic behaviors developed by retail business in Japan in circumstances where business district has been reduced from decrease in the size and changes in the market. The objective of this paper is to analyze a topic of small-scaled retail business district in Japan with similar industrial structure with Korea and to review the areas for implications in the development of distribution and, particularly, retail business in Korea. Hereupon, this paper finds characteristics of distribution in Japan proceeded after bubble economy from establishment of strategic format in retail business was collapsed in the era represented by reduced district business and reviews actual conditions and contents of them

06. W-06_06_Application of Problem Based Learning(PBL) for Nursing Students' Practicum in Handoff Communication

Eun-Kyung Lee(Catholic Univ. of Daegu, Korea), Sun-Young Park(Baekseok Univ., Korea)

The study's purpose is to verify its effectiveness upon developing and carrying out the field practicum in PBL applied handoff communication. The study formed discussion learning groups consisting of senior nursing students in B university, and was developed and operated for the practical training class for handoff communication utilizing the suggested scenario. The evaluation for the overall PBL class was an average point of 4.46 ± 0.43 . Through the study, upon graduation, senior nursing students transitioning into new nurses ahead of actual duty, are considered more benefited from carrying out practical training in handoff communication in the aspect of adaptation of nursing duty and its handoff communication.

07. W-06_07_Work environment and Work engagement in Korean nurses

Eun-Kyung Lee(Catholic Univ. of Daegu, Korea), Sun-Young Park(Baekseok Univ., Korea)

This study aimed to examine the work environment and Work engagement in Korean nurses. A cross-sectional design was used. The data was collected using questionnaire consisting of the six areas of worklife scale and the Work engagement scale. The participants were 189 nurses who were employed at hospitals in Korea. The result indicated a statistically significant positive effect on Work engagement of work environment. This study suggests that work environment may increase work engagement among nurses.

08. W-06_08_Creative Thought and Fun Gamification Elements in Education

Seongdong Kim(Kaywon Univ. of Art and Design, Korea), Kyungae Song(DaelimUniv. College, Korea),
Myoungjae Lee(Baekseok Univ., Korea)

Computer games including mobiles have grown in many area. Many researches have tried with different elements such as fun and thoughts in the game structure to improve learners' motivation. We propose the different gamification elements in education to motivate learners for "Fun" and "Thoughtful" elements with computer games.

09. W-06_09_A Research on the Improvement of Grade Rating System and Fluctuations of Beneficiaries in the Long-Term Care Insurance in Korea

Dong-Min Seo(Baekseok Univ., Korea), Wook Kim(Baekseok Univ., Korea)

The long-term care insurance (LTCI) is enforced in Korea from July 2008. In 2014 the LTC grade rating system was changed from 3 grades to 5 grades. The number of beneficiaries increased from 324 thousand people in 2011 to 468 thousand people by the end of 2015. The increase in LTC grade 3~5(moderate and mild state) is higher than LTC grade 1~2(very severe and severe state). Especially the year on year increasing rate in LTC grade 4(mild state) and grade 5(special state) is revealed. The rate of beneficiaries in elderly people increased from 5.7% in 2011 to 7.0% in 2015. After the grade rating system reform in 2014, this rate increased 0.5%p in 2014, 0.4%p in 2015. But the proportion of LTC grade 5 in the total was fewer than expected. The expansion of LTC grade 1~2, the countermeasures about the rapid increase of LTC grade 3~4, the participation of LTC grade 5, the security of LTC facilities and care workers corresponding the number of beneficiaries are necessary.

10. W-06_10_A Review of Women's Issues: Focusing on Korean Journal of Social Welfare, 2009~2017

Hyunjung Lee(Baekseok Univ., Korea)

The purpose of this study was to examine the trends of research on women in the field of social work in Korea. For this purpose, given that Korean Journal of Social Welfare is one of the representative journals in social work field and trends of research on women in the journal was previously analyzed, as an effort to extend previous research, this study reviewed domestic articles that are published in the same journal. Using content analysis, the articles were analyzed in terms of research subjects, research themes, and research methods. The results of the analysis showed that women were mainly described as client, family, and worker. 13 research themes were found in the following: family and home, adaptation to society, trauma-related issues, work, social welfare service-related issues, social/community involvement, inventing program or scale, self-sufficiency, marital life, exploring gender difference, discussing gender, gender equality, and others. With regard to research methods used, empirical research methods were dominant. Based on the research findings, recommendations for future research were discussed.

11. W-06_11_The Effect of Interferential Current Therapy on Upper Trapezius Muscle Fatigue in Myofascial Pain Syndrome

You-Jin Lee(Yes Hospital, Korea), Su-Young Lee(Baekseok Univ., Korea), Hye-Rim Suh(Korea Univ., Korea)

This study aims to find the effect of ICT (interferential current therapy) on upper trapezius muscle fatigue in patient with myofascial pain syndrome (MFPS). Twenty-three subjects with MPS on upper trapezius was assigned randomly to ICT group (n=10), placebo-group (n=13). There were no significance in muscle fatigue between ICT group and placebo-group, between before and after treatment in ICT group ($p>.05$). These findings shows that ICT is not effective treatment method for upper trapezius muscle fatigue in patients with MPS.

Session 2-C

01. W-09_03_Study of Analysis of Nurse's Communication Type

Myoungjin Kwon(Daejeon Univ., Korea), Sung-Yun Ahn(Pai Chai Univ., Korea)

This study investigated the nurse's communication type. The subjects were 170 nurses working in university hospitals. Data were analyzed using IBM SPSS program version 23.0. Two groups of group 1(verbal and nonverbal communication positive) and group 2(verbal and nonverbal communication negative) were finally determined. Comparison of emotional labor and organizational commitment according to communication type of nurse, Emotional labor was higher in group 2, but not statistically significant, and organizational commitment was significantly higher in group 1 ($p = .040$). Therefore, Emotional labor and organizational commitment programs based on nurse communication styles are needed.

02. W-09_04_Factors Affecting Blood Pressure Control in Older Adults with Hypertension

Myoungjin Kwon(Daejeon Univ., Korea), Sung-Yun Ahn(Daejeon Univ., Korea)

This study found that blood pressure is significantly better controlled among patients with cerebral infarction than among those without cerebral infarction. The findings of this study are meaningful as foundational data to develop intervention programs to aid in the control of blood pressure among the elderly with hypertension.

03. W-09_06_A Study on the Relationship between Learning Motivation, Learning Attitude, and Academic Self-Efficacy in Nursing Students

Soon-Young Yun(Baekseok Univ., Korea), Min-Suk Kim(Baekseok Culture Univ., Korea)

As the importance of teaching at university is strengthened, self – efficacy through learning is desperately needed. This study was a descriptive study for nursing students. Data were analyzed by t-test, ANOVA and bonferroni post test, and Pearson correlation coefficients using SPSSWIN 18.0. The results showed that academic self – efficacy had a significant positive correlation with learning attitude and learning motivation. From these results, it is necessary to develop strategies to improve learning motivation and learning attitude, which have a positive effect on academic self – efficacy.

04. W-09_07_A Study on the Relationship among Academic Self-Efficacy, Learning Satisfaction, Learning Attitude of Nursing Students

Min-Suk Kim(Baekseok Culture Univ., Korea), Soon-Young Yun(Baekseok Univ., Korea)

This study attempted to confirm the relationship among academic self-efficacy, learning satisfaction, learning attitude of nursing students. This study was analyzed with pearson's correlation coefficient using SPSS/WIN 18.0 program. Academic self – efficacy showed a significant correlation with learning attitude, learning satisfaction.

05. W-09_08_The Effectiveness of Standard Ethics Education to Moral Sensitivity and Moral Motivation of Nursing Students

Ok-Hee Koo(Baekseok Univ., Korea), Young-Mi Ryu(Baekseok Univ., Korea),
Myung-Sook Kim(Yeouju Institute of Technology, Korea)

This study examines the influence of standard ethics education to moral sensitivity and moral motivation of nursing students to utilize it as the basic material for nursing ethics education in the future. The study analyzed total 163 copies and the outcome confirmed the moral sensitivity increased from 4.95 ± 0.45 (out of 7) in pre-test to 5.13 ± 0.48 (out of 7) after the education and had significant difference ($p < .001$). As for the subcategories of moral sensitivity, patient-oriented care point was average 5.84 ± 0.71 before education and rose up to 5.67 ± 0.62 after education which was a significant decrease ($p < .017$). As for the professional responsibility category, it was 4.92 ± 0.52 in pre-test which rose up to 5.45 ± 0.58 after education which was a significant rise ($p < .000$). As for the moral meaning, it was 4.53 ± 0.89 in pre-test which rose up to 4.76 ± 1.06 after education which was a significant rise ($p < .044$). As for the moral motivation, most of it indicated principle of duty, which decreased from 3.51 ± 0.23 (out of 5) to 2.71 ± 0.35 (out of 5) after the nursing ethics education which was significantly different in statistics ($p < .000$). Finally, the study proposes longitudinal studies to examine the changes of same study subjects in their morality development and future studies about the relevant factors influencing morality development other than moral sensitivity and moral motivation.

06. W-09_09_A comparative study on stigma of disabled persons in korean society

Mi Jin Kim(Daejeon Institute of Science and Technology, Korea)

This study was conducted to investigate the stigma of parents who raise children with disabilities in Korean society. Also, the purpose of this study explore the degree of stigma of parents who raise children with disabilities and compare them with those of ordinary people. The results of the study are as follows. There were 283 participants in the study. Parents who raise children with disabilities are 96. And there were 187 nursing students as general subjects. The mean of total stigma for the disabled was 80.32. The mean of stigma parents who raise children with disabilities was 90.81, the mean of stigma nursing students was 74.93. The mean analysis of the two groups showed significant difference and the mother group was higher ($t = -6.378$, $p = .000$). Therefore, nursing interventions should be provided to reduce the high level of stigma experienced by parents with a child with a disability.

07. W-09_10_Comparison of Situation Awareness in Gender and Age Difference among Acute Coronary Syndrome Patients

Jeong, Younghee(Woosong College, Korea)

This study conducted to figure out whether there is a difference by gender and age in situation awareness that is an important factor in decision making for treatment seeking behavior. Using the structured questionnaire, 113 patients who were admitted in the hospital after PCI (Percutaneous coronary intervention) were included as respondents of the study. The instrument used for this study was SART (Situation Awareness Rating Technique) by Taylor (1990). The exploratory and deterministic factor analyses were used to evaluate reliability and validity of the data. Independent T-test was used to determine the difference of situation awareness between two groups by gender and age. The finding has shown that the younger group (< 65) had higher situation awareness than the older group (≥ 65), however, it was statistically significant. Male patients had higher situation awareness than female patients, however, no statistical difference was found. Therefore, it is recommended that which appropriate method could raise situation awareness specifically the vulnerable groups like women and older patients.

08. W-10_03_Nurse's Images Perceived by Girl's High School Students

Hye-Young Joung(Kyungdong Univ., Korea), Mi Jin Shin(Gyeongju Univ., Korea)

This study researched the nurse's images perceived by girl's high school students. We statically analyzed personal characteristics and by using Q methodology, we also analyzed scored 29 Q statements using forced normal distribution among 30 high school girls in order to recognize their perception for nurses' image. There were three Factors. Factors showed the differences between 3 groups with their own perception of nurse's image.

09. W-10_04_Relationship between English Speech Sound Perception and Phonemic Awareness of Korean University Students

Myeong-Hee Shin(Hannam Univ., Korea), Jin Ee Sung(Konyang Univ., Korea)

This study will look into how Korean college students perceive English speech sound and to find out the effective ways to achieve communicative competence through phonemic awareness. To acquire accurate English pronunciation, English speech sound and phonemic awareness should be elaborated. To attain this aim, English speech sound and phonemic awareness were analyzed to find the correlative function of various individual variables focused on individual perception and suprasegmental phonemes. The findings will serve as basic data for the development of effective teaching methods for English pronunciation and students' achievement for communicative competence. Based on the relevant literature, the current study focused on undergraduate students with different majors taking on-campus English courses; accordingly, two hypotheses are presented: 1. Is there any positive relationship between university students' English speech sound and phonemic awareness. 2. Does Form-focused instruction contribute to the acquisition of English pronunciation on the achievement of English communication competence?

10. W-10_08_A Study on Mediating Effects of Emotional Intelligence on Relationship between Life Stress and Ego resilience of University Students

Sang-Young Han(Kyungdong Univ., Korea)

The purpose of this study was to inform fundamental data to develop educational method and programs to address life stresses effectively by surveying the life stress, emotional intelligence, and ego-resilience of university students majoring in medical science and natural science and investigating the effects of mediating variable of emotional intelligence on the ego-resilience. The results showed that the life stress mediated partially the relationship between life stress and ego-resilience, meaning that the higher life stress is correlated with higher emotional intelligence and ego-resilience and that the emotional intelligence increased with ego-resilience.

Session 3-C

01. W-16_03_A Study on the Intelligent Teaching and Learning using Smart Education Environment

Jin-Hee Ku(Mokwon Univ., Korea), Yoon-Su Jeong(Mokwon Univ., Korea)

As the Fourth Industrial Revolution has started in the whole world, changes in the industrial field and everyday life as well as the education field are foreseen. In recent years, Smart Learning has developed intelligent teaching and learning that can personalize individual education by utilizing vast amount of information such as the realistic and intelligent contents that combine advanced technologies such as artificial intelligence, big data and virtual reality. Interest is growing. In this study, we intend to explore the intelligent teaching and learning method through the recent smart education environment that can overcome the limitation of LMS / LCMS which is the main purpose of management and delivery of existing contents. The result of this research is expected to be the basis of highly personalized learning guidance in teaching and learning methods.

02. W-16_06_From Training to Operations: An Asian Airline Implementation of Smartphone Collaboration

**Yong-Young Kim(Konkuk Univ., Korea), Douglas M. Schutz(Tokyo Univ. of Science, Japan),
Dante Dionne(Chicago School of Professional Psychology, USA)**

Knowledge sharing enabled by using smartphones as a distributed information system can become a common platform for achieving and sustaining competitive advantage. Audio transcripts of interacting employees of a global Asian airline provide a unique data set for this grounded theory analysis of the implementation and adoption of corporate smartphones for sharing knowledge. Before advancing to using smartphones, airline employees of this organization had used walkie-talkies for their work in airports for decades. New insights are uncovered from our analysis of data captured from the field as users progress from learning how to use the mobile devices, to using the devices for managing knowledge for their work in the airline industry.

03. W-16_08_Effects of Forest Based Creativity / Personality Convergence Program on Children's Happiness and Prosociality

**Mi-Jin Kim(Pusan Nat'l Univ., Korea), Jung-ju Kim(Choonhae college of health sciences,Korea),
Byung-Man Kim(Kyungnam Univ., Korea)**

The purpose of this study is to develop forest based creativity / personality convergence program and to verify the effectiveness of the program after applying it. To do this, we developed the final program through reviewing relevant literature, composition of programs, reviewing program appropriateness. In order to investigate the effects of the program, fifty students in kindergarten in Gyeongsangnam -do in Korea were selected. Of the 50 selected subjects, 25 were divided into experimental groups, 25 were divided into comparative groups. For the 25 experimental groups, the forest based creative / personality convergence program developed in this study was applied 20 times a week for 20 weeks. As a result of pre-test and post-test, there was no significant difference between pre-test. In the post-test, the happiness and pro-sociality scores of the experimental group were significantly higher than those of the comparative group. This implies that the forest-based creativity / personality convergence program positively affects infant's happiness and pro-sociality. This result suggests that the creativity / personality convergence program of the forest based program has a positive effect on the development of the children

04. W-16_09_A Study on Web Crawler System Design for Digital Curation System

Seung-Soo Shin(Tongmyong Univ., Korea), Jun-Yeon Lee(Tongmyong Univ., Korea),
Jung-In Kim(Tongmyong Univ., Korea)

A variety of data such as activity data, teaching materials, and the like, which are created during the course of various education, which combines the existing ICT, are enormous in proportion to the number of users and the information about them every time. These vast amounts of data are called big data and they can be classified and managed according to a certain amount of data and cycle to form digital curation. Digital curation can be analyzed based on the data stored in the education site, and the analyzed information can increase the importance of learning method research. In this paper, we design a system that can provide convenience to learners by utilizing digital curation and web crawling technology

05. W-17_01_Study on Flame Propagation Characteristics according to Volume Diffusion of Arc Plasma for Premixed Combustion

Kwonse Kim(Kongju Nat'l Univ., Korea), Taejun Yoon(Kongju Nat'l Univ., Korea) ,
Dooseuk Choi(College of Engineering Kongju National Univ. Korea)

This research was attempted to suggest a result that can be stable for combustion's response, fuel efficiency, ignition performance and IMEP which were applied to Arc source of Plasma. Experimental method was analyzed at flame spread process according to experimental condition which set equally of λ , pressure, fuel and ignition types. As the result, when laminar flame changes as rarefied condition from $\lambda = 1.0$ to 1.4, the result could verify to burn from characteristics as Non-Turbulence. From the results, because Arc plasma has quickly created the Turbulence energy of laminar flame, the characteristics could be noticeable that the kernel of distribution within combustion is largely expended than point spark.

06. W-17_02_Analysis on Strength Characteristic of CFRP Material and Inhomogeneous Material as Compact Tension Specimen

Jung Ho Lee(Kongju Nat'l Univ., Korea) , Guiping Zhao(Xi'an Jiaotong Univ., China),
Jae Ung Cho(Kongju Nat'l Univ., Korea)

Most of deformation or damage of mechanical structure is due to the cracks that occur within the structure. Cracks cause deformation and damage of mechanical structures to bring about the possibility of casualties. The material used for these mechanical structures is an essential factor, and this study result can contribute to the design of safer mechanical structures and improve the durability and strength characteristics according to material property by compact tension specimen models with CFRP material and stainless steel and copper alloy as inhomogeneous material. In this study, the simulation analyses for compact tension specimen are carried out.

07. W-17_03_Finite Element Analysis on CT Specimens Using SM45C Steel and Unidirectional CFRP

Jae Woong Park(Kongju Nat'l Univ., Korea), Guiping Zhao(Xi'an Jiaotong Univ., China),
Jae Ung Cho(Kongju Nat'l Univ., Korea)

Environmental problems are receiving great attention in contemporary society. As a result, new lightweight material is being developed in the automotive industry. The analyses are carried out with CT (compact tension) specimens composed of SM45C steel and UD (unidirectional) CFRP (carbon fiber reinforced plastic). The maximum stress of the model in this study turned out to be approximately 564GPa, and the crack of SM45C occurred at this stress.

08. W-17_04_Analytical Research for the Improvement of Durability of Drone under Impact

Kye Kwang Choi(Kongju Nat'l Univ., Korea), Jae Ung Cho(Kongju Nat'l Univ., Korea)

This study investigates an analytical research method using 3D modeling to show the effect of damage on the durability of drones according to the area of impact. The results of equivalent stress and deformation are used for the durability of drones according to the area of impact, and the basic data for areas of impact during flight can be obtained through this research. It is thought that the improvements can be made for durability through the designs based on results of this paper [1–3].

09. W-17_05_Durability Research of Each Figuration of ECU Using Thermal Analysis

Kye Kwang Choi(Kongju Nat'l Univ., Korea), Jae Ung Cho(Kongju Nat'l Univ., Korea)

The application of integrated ECU for automobile nowadays holds an advantage in the quality management aspect because it involves management of less components. However, thermal load of components increases significantly compared with individual control because FET, MCU, and driver IC are operated as an integrated unit. Thus, there may be reliability issues from the thermal degradation of composed component packaging and spread of compounds between metals. This study is to obtain data of ECU when releasing heat, and to contribute to the development of ECU with a higher level of durability.

10. W-17_07_Signal Analysis of Ultrasonic Sensor According to Pressure Change in CNG Tank

Hongju Kim(Kongju Nat'l Univ., Korea), Namwook Kim(Kongju Nat'l Univ., Korea),
Dooseuk Choi(College of Engineering Kongju National Univ. Korea)

In the present study, a measuring method will be presented by simulating a detection system for CNG fuel amounts as a study of fundamental stage for accurate measurement of gas amounts inside the fuel tank for CNG vehicles. For experiments, a simulation apparatus for detection of CNG fuel amounts with application of an ultrasonic sensor was configured, and the output signals were verified by variation from 50 bar to 0 bars by the unit of 5 bar. As a result, the output signals of the ultrasonic sensor could be seen to be attenuated with an increase in pressures inside the tank, their linearity could be affirmed although there was some difference.

11. W-17_08_Effects of the BeHaS Exercise Program on Self-esteem and Depression among Community Dwelling Elderly

Tae Hui Kim(Chungnam Nat'l Univ., Korea) , Jong-Im Kim(Chungnam Nat'l Univ., Korea),
Sun Kyung Kim(Mokpo Nat'l Univ., Korea), Bohyun Kim(Chungnam Nat'l Univ., Korea),
Sunae Kim(Kkottongnae University, Korea), Jihyun Lee(Kyungwoon Univ.,Korea)

This study was to identify the effects of the BeHaS exercise program on the self-esteem and depression in the elderly. One group pre-posttest design was used. The total of 54 old adults from one community senior center were participated in the 8 weeks exercise program. After the 8 weeks of interventions, there was statistically significant increase in self-esteem ($t=-2.756$, $p=.005$). In addition the participants showed statistically significant decrease in the level of depression ($t=-2.920$, $p=.008$). Findings indicated that the BeHaS exercise program was effective at enhancing psychological health for elderly.

Session 4-C

01. W-31_01_Research on Secure and Diagnostic Sensor Node

Sunghyuck Hong(Baekseok Univ., Korea)

In this paper, I propose a secure and diagnostic sensor node. Recently, research on ubiquitous computing which is a new type of network environment are actively conducted. One of the important factors in ubiquitous computing is a sensor network which consists of sensors and sensor nodes based on a low-power Ad-hoc network, and they serve as a mediator between the real environment and ubiquitous computing. Therefore, in this paper, we discuss the general idea for sensor node's function for monitoring conveyor belts in semiconductor manufacturers to avoid the unnecessary maintenance cost and economic loss.

02. W-31_02_A Study of Malware Prevention Methods in Mobile Phone

Ji-Young Yun(Baekseok Univ., Korea), Sam-Jin Jeong(Baekseok Univ., Korea)

At the same time that the use of smart phones abruptly increased, mobile malware tends to develop like malware and the damage is increasing. In this paper, we look at the type of malicious code that harms mobile users, introduce malignant code infection routes like Smishing and Repackaging, informal routes, and analyze recently emerging malicious code. Using malware analysis and infection route of malware on smart phone, this paper presents prevention method and solution of spyware code.

03. W-31_03_Case of Convergence Technology Education with personality

Jina Kim(Baekseok Univ., Korea), Jinkeun Hong(Baekseok Univ., Korea)

For convergence technology education, personality education is defined as education to nurture human beings, or education to pursue humanity in harmony with intellect and virtue, sensitivity and physical strength. In this paper, we examined the case of convergence technology education based on the definition of humanity education which is the core of human education.

04. W-31_04_Security Review for Convergence Service of Self Driving

Jina Kim(Baekseok Univ., Korea), Jinkeun Hong(Baekseok Univ., Korea)

This paper presents security function and IEEE1609.2 characteristics of convergence service for autonomous mobile service.

05. W-31_05_PKI Issue in V2V & V2I environment

Samjin Jeong(Baekseok Univ., Korea), Jina Kim(Baekseok Univ., Korea), Jinkeun Hong(Baekseok Univ., Korea)

This paper presents public key infrastructure in vehicle to vehicle and vehicle to infra station's environment. In this paper, we focus on the issues of application characteristics and management required in the vehicle PKI structure.

06. W-31_06_Tactical Air Operations and Combined ADP Systems

Young C. Park(Baekseok Univ., Korea)

This paper describes tactical air operations and combined ADP (Automated Data Processing) systems for US–ROK Combined Forces Command.

07. W-31_07_Effects of an Educational Program on Pre-and Postpartum Self-care & Parenting Knowledge, and Parenting Efficacy of Marriage Immigrant Women in South Korea

Misoon Jeon(Baekseok Univ., Korea), Yoonyoung Hwang(Seoul Women's College, Korea)

This study has been attempted to identify the effects of educational program on pre–and postpartum self–care & parenting knowledge and efficacy in married immigrant women. The data collection period and pre–and postpartum self–care and parenting educational program were between April 4 and August 27, 2016. Twenty married immigrant women participated in 4 times parenting educational programs. Data were analyzed using frequency analysis, paired t–test and Cronbach's alpha coefficients with the SPSS 18.0 for windows program. Following the programs, there were significant increased in knowledge on pre–and postpartum self–care ($t=-2.31$, $p=.033$) & parenting ($t=-2.77$, $p=.012$), and parenting efficacy $t=-6.71$, $p<.001$.) Various studies need to be performed to develop and test programs that can promote quality of life and adaptation to Korean society for this population by reducing the various difficulties they face.

08. W-31_08_The Effect of Learner Question – Based Instruction; Based Nursing Students

Misoon Jeon(Baekseok Univ., Korea)

This study has been attempted to investigate the effect of learner question–based instruction on nursing student's motivation and satisfaction. 120 nursing college students were recruited through convenience sampling in B University. From September to December, 2015, 15 lecture – centered classes were held and the data were collected using questionnaires on the 1st and 15th weeks. The collected 112 data were analyzed with the SPSS 18.0. There were significant differences in the learning motivation ($t=-5.503$, $p<=.001$) and the learning satisfaction ($t=-160.480$, $p<.001$). There was a statistically significant difference in attention ($t=-5.731$, $p<.001$), relationship ($t=-4.799$, $p<.001$), confidence ($t=-2.476$, $p=.015$) and satisfaction ($t=-4.575$, $p<.001$) with the subcategories of learning motivation. There was a highly positive correlation between the learning motivation and satisfaction ($r=.406$, $p<.001$). In the future, it is necessary to apply the learner question–based instruction in all the subjects as well as the major curriculum of the nursing field to induce active and active participation of the learner.

09. W-31_09_The Relationships of Grit, Critical Thinking Disposition, Self-Efficacy and Communication Competency among Nursing Students

Soyoun Yim(Baekseok Univ., Korea), Misun Yoon(Baekseok Univ., Korea), Heejeong Kim(Baekseok Univ., Korea)

The purpose of this study was to identify the relationships of grit, critical thinking disposition, self–efficacy and communication competency. Participants were 92 junior nursing students in Chungnam, South Korea. Data were collected using a self–reported questionnaire from March 2 to March 31, 2017. The mean scores of grit, critical thinking, self–efficacy, and communication competency were $3.21 \pm .50$, 121.32 ± 12.95 , 57.46 ± 7.94 , 56.81 ± 6.55 respectively. And Grit showed significant positive relationships with critical thinking, self–efficacy, and communication competency. Based on the results of this research, it is necessary to apply various learning methods in order to improve Grit, critical thinking disposition, self–efficacy, communication competency to improve nursing student's practical ability.

10. W-31_10_Development of Flipped Learning Model for Nursing Education

Misun Yoon(Baekseok Univ., Korea), Heejeong Kim(Baekseok Univ., Korea), Soyoun Yim(Baekseok Univ., Korea)

Nowadays the concept of education has changed from teacher-centered instruction to learner-centered learning model. The purpose of this study is to investigate the concept of flipped learning and develop new instructional design model for nursing students.

Session 5-C

01. W-33_06_A Study on the Effect of the Servant Leadership Style of Hotel Managers on Employees' Trust
Dong-heui Choi(Gwangju Univ., Korea)

The purpose of this study is to examine how a hotel manager's servant leadership influences trust among hotel employees and suggest implications related to it. For the research, five-star hotels located in Seoul were chosen. As a selection method, this author considered the total number of chain hotels and local hotels and also the number of first-class and second-class hotels and then chose total 10 hotels. To each first-class hotel, 30 sheets were distributed, and the total was 300, and to second-class hotels, 20 were distributed, and the total was 500. Among the total 500 questionnaire sheets, 462 were collected. Except for 31 sheets unreliably answered, 431 went through positive analysis. To verify study questions, SPSS 21.0 was employed. Frequency analysis, the measuring scale's reliability analysis, factor analysis, and multiple regression analysis were done. According to the results of analyzing correlation between servant leadership and trust, the factors of servant leadership influencing superior trust are found to be growth support, vocation, empathy, communication, community formation, and vision provision, and those influencing organizational trust are community formation, teamwork, and vision provision. To enhance trust towards the organization, hotel management needs to form a community among organizational members. Also, to attain the goals of the organization, it is needed to go through the process of having them understand the goals and be persuaded. To realize mutual cooperation among organizational members, it is also necessary to build up a system to share information and communicate favorably.

02. W-33_07_Impact of Organizational Culture on the Organizational Commitment in Hotel Employees
Dong-heui Choi(Gwangju Univ., Korea)

The purpose of this study is to organize the concept and types of organizational culture that hotel employees perceive. Also, it is intended to examine how organizational culture influences organizational commitment and how teamwork as a moderating variable between the two variables influences the effects of organizational culture on organizational commitment. The research lasted for about a month from October 20 till November 21, 2016. Total 300 questionnaire sheets were distributed, 20 sheets to each of the 15 hotels, and 261 sheets were finally collected. Except for 17 unreliably answered sheets, 244 sheets were used for positive analysis. As an analysis method, SPSS Ver. 21.0 was utilized. Before verifying the study hypotheses, both reliability and validity of the study concept were verified through frequency analysis, descriptive analysis, and exploratory factor analysis, and then, the study hypotheses were verified through multiple regression analysis and hierarchical regression analysis. Based on the results of this study, it can be concluded that it will be needed to make plans to improve trust among organizational members in order to create organizational culture that is suitable for the organization and enhance their organizational commitment.

03. W-33_08_A Study on the Effect of Local Festival Service Quality on Visitors' Satisfaction, Revisit and Positive Behavioral Intentions - With a Focus on the Suncheon Food & Art Festival -
Tai-Gi An(Gwangju Univ., Korea), Ga-Yeon Lee(DonghSin Univ., Korea)

The purpose of this study is to understand the relationship between the quality factors of local festivals and visitors' revisit and behavioral intentions based on satisfaction analysis. As a result of the study, 3 factors were extracted, those being: F1 (Festival facilities), F2 (Marketing and Visitor information), F3 (Festival Contents). As a result of studying the effect of festival service quality on festival satisfaction, it was found that marketing and visitor information (.463), festival

contents (.431) and festival facilities (.178) were the influential factors, in descending order. Also, it could be inferred that festival contents (.446), marketing and visitor information (.423) factors have an influence on festival revisit intentions and on positive recommendation intentions. In order to investigate the effect of festival satisfaction on the revisit intentions and the positive recommendation intentions, the standardization coefficient beta (β) value was used and it was found that there is a correlation between revisit intentions (.584) and positive recommendation intentions (.651).

04. W-33_09_A Study On The Effect of Involvement and Food Tourism Motivation of Food Tourists on Participation Activity and Satisfaction

Tai Gi An(Gwangju Univ., Korea)

The purpose of this study is to propose a solution to revitalize food tourism by local governments through a study on the effect of involvement and motivation of tourists on participation activity and satisfaction. Based on the study, the purpose is also to increase the satisfaction on food tourism of tourists. The results of this study through empirical analysis are as follows. First, the involvement of food tourism was found have an effect on food tourism participation activities. Among them, social bonding in food experience and self-expression in local foods did not have an effect. Second, food tourism motivation was found to have an effect on food tourism participation activities. Among them, culture, experience and happiness in local foods, and traditional food in food experience did not have an effect. Third, food tourism participation activities was found to have an effect on food tourism satisfaction. It was found that local foods have a greater effect than food experience.

05. W-33_10_A research on structural relationships between Cross-Cultural Awareness, Authenticity and Tourist experience and Tourist Satisfaction

**Zhang Hao(IGSNRR, China), Ge Quansheng(IGSNRR, China), Tai Gi An(Gwangju Univ., Korea),
Cho Taeyoung(Joongju Univ., Korea)**

The purpose of this study was to understand the structural relationships between Cross-Cultural Awareness, Authenticity and tourist experience of Chinese tourists. The results of this study are as follows .1. The Cause and Effect Analysis about Chinese tourists, including Suitability, Cross-Cultural Awareness, objective authenticity, constructive authenticity, existential authenticity, tourist experience 5 factors and so on. 2. The results of Models Suitability Analysis ,including $\chi^2=353.005(p=.000)$, $DF=170$, $Q=2.077$, $GFI=.915$, $AGFI=.885$, $RMR=.031$, $NFI=.930$, $TLI=.953$, $CFI=.962$, $RMSEA=.054$, and compared with general evaluation standard index comes to a conclusion of models with validity. 3. Cross-Cultural Awareness has positive effects on objective, constructive, and existential authenticity. 4. Except existential authenticity, Objective authenticity and constructive authenticity has positive effects on tourist experience, and existential authenticities.

06. W-33_11_The structural relationship of Culture Adjustment with authenticity experience and tourism satisfaction

**Zhang Hao(IGSNRR, China), Ge Quansheng(IGSNRR, China), Tai Gi An(Gwangju Univ., Korea),
Cho Taeyoung(Joongju Univ., Korea)**

The purpose of this study was to clarify the Influence relationship among authenticity of world cultural heritage tourist attraction tourist Satisfaction and culture adaptation based on Chinese tourist, and then provide suggestions for development and management of world cultural heritage. By the result of this study: Authenticity plays very important role to Increase tourist satisfaction of Chinese tourists, also on the moment of research accumulation, this study propose a framework for further study and point out that Authenticity and Acculturation will affect and operate each other.

07. W-33_13_Study on the Cognition of Behavior on Make-Up in Adolescent

Jeong-Yeon Park(Gwangju Univ., Korea)

This study is attempted to examine how adolescents think about makeup behavior at this point that their makeup behavior is constantly increasing.

08. W-33_14_A Study on the Estheticians' Importance Perception of Applying Spa Programs

In-Sun Jeong(Gwangju Univ., Korea), Jeong-Yeon Park(Gwangju Univ., Korea)

The Purpose of this Study is to Investigate the Importance Items of Esthetician about the Spa Program that is Being Utilized in the Skin Beauty Identify.

Session 1-D

01. W-07_01_A Study on Web Crawling Improvement Model for Real-time Data Collection

Ki-Bok Nam(Kongju National Univ., Korea), Koo Rack Park(Kongju National Univ., Korea),
Young-suk Chung(Kongju National Univ., Korea), Joon-Yong Kim(Kongju National Univ., Korea),
Myung-seob Yoon(Gumi Univ., Korea)

Big data, one of keywords in the IT era, has developed from collection and analysis of mass data to the prediction of human behavior. Nevertheless, incorrectly collected data or changeable data with the lapse of time make it difficult to bring about an accurate result. To solve the problem, this study tries to find the problems of web crawler engine which is used most for data collection and thereby to propose a model to solve the problems arising in data collection step.

02. W-07_02_A Study on Emergency Situational Awareness Algorithm with Biometric Data

Jong-Hak Lee(Kongju National Univ., Korea), Koo Rack Park(Kongju National Univ., Korea),
Young-suk Chung(Kongju National Univ., Korea), Dong-Hyun Kim(Woosong Univ., Korea)

This thesis suggests emergency situational awareness algorithm with biometric data to cope with and support not external environmental risk elements but internal risk elements of socially vulnerable class. This thesis makes it cope quickly with and support emergency situation by recognizing emergency situation of users and sending information of emergency situation to guardians or managers with biometric data acquired from various biometric sensors.

03. W-07_07_A Study on the Shape of the Ear Shell Produced Based on DICOM Images and 3D Printing

Hyong-Gyun Kim(Far East Univ., Korea), Joon-Koo Choi(Far East Univ., Korea), Gha-Jung Kim(Far East Univ., Korea),
Dong-Hee Hong(Far East Univ., Korea)

The surface precision and modeling structure of the hearing aid ear shell shape produced based on the Digital Imaging and Communications in Medicine (DICOM) image and 3D printing were compared. The size and surface roughness of the shape were in the order of 0.5 mm, 1.0 mm, and 2.0 mm image thicknesses, from lowest to highest; and the triangular isoline of the modeling structure was in the order of 0.5 mm, 1.0 mm, and 2.0 mm image thicknesses, from densest to sparsest. This is the effect of the DICOM image thickness difference on the shape surface and shape size, and the image thickness needs to be sufficiently considered during the production of the ear shell that requires the precision of the shape.

04. W-07_08_Effects of 15% Tube Voltage Application on the Image Density for X-ray Filming

Hyong-Gyun Kim(Far East Univ., Korea), Gha-Jung Kim(Far East Univ., Korea), Joon-Koo Choi(Far East Univ., Korea),
Dong-Hee Hong(Far East Univ., Korea)

In this study, to observe the effects of the 15% tube voltage rule on the image density, the relationships for the cases with different subject thickness and density were examined based on the theoretical rule where the image density doubles or decreases by half when the tube voltage is changed by 15%. The result showed that the difference in the image density became larger as the thickness of the subject decreased and as the density of the subject increased, suggesting that the 15% tube voltage rule could not be properly applied. The difference was larger when a lower tube voltage was applied compared with when a higher tube voltage was applied.

05. W-07_09_Incremental Learning Algorithm based on Uchoo

Jong Chan Lee(Chungwoon Univ., Korea), Ki-Bong Kim(Daejeon Health Institute of Technology, Korea)

Extended data expression is designed to take into account data integration from different sensors, loss or absence of certain attribute values, and differentiated value assignments of specific events according to the judgment of experts, which can generally occur in the ubiquitous environment. And it shows very good results when applied to loss data processing method, rule and data integration, and integration of different data. UChoo is a modified algorithm based on C4.5 algorithm for extended data expression. It was mostly used in the applications mentioned above. In this paper, UChoo is used as a weak learner for the Learn ++ algorithm and the incremental learning algorithm which are modified AdaBoost algorithm. And the results are better than the conventional method.

06. W-07_10_Design and Analysis of Disaster Safety Services based on the Disaster Context Awareness Platform

Jung-Mo Yang(Hanbat Nat'l Univ., Korea), Jeong-Ho Kim(Hanbat Nat'l Univ., Korea)

In this study, we designed an Event Driven Architecture (EDA) based disaster context awareness platform in order to utilize the information related to disaster as an infrastructure to collect and analyze. In addition, we designed an optimal response service to minimize disaster damage. As a result, in order to efficiently cope with unpredictable disaster situations, we confirmed that it is possible to establish the effectiveness and timeliness of disaster safety services by collecting and analyzing disaster related data based on the disaster context awareness platform implemented through the general purpose architecture.

07. W-07_11_A Study on attack prediction model for enhancing Kendo athletic performance

Hoo-Young Lee(Kongju National Univ., Korea), Koo-Rack Park(Kongju National Univ., Korea),
Young-suk Chung(Kongju National Univ., Korea), Myung-seob Yoon(Gumi Univ., Korea)

Recently in various sports fields there are increasing cases where IT technologies and statistics are utilized in order to establish basic strategies and tactics for enhancing individual athletes' performance. This study suggests a model for improving athletic performance of Kendo, Japanese fencing, which does not utilize IT technologies that much compared with other sports areas by applying analysis results which are earned by applying attack pattern prediction model using Markov chain to individual athletes' training and instruction.

08. W-07_12_A Study on the Problem Solving Algorithm of Non-contact Water Level Meter

Ki-Deok Kweon(Kongju National Univ., Korea), Jae woong Kim(Kongju National Univ., Korea),
Koo Rack Park(Kongju National Univ., Korea), Joon-Yong Kim(Kongju National Univ., Korea)

Among the fields of environmental facilities which become increasingly important due to recent global interest in the environment, precision instruments are required to have high reliability in terms of technical importance and user operability. Especially, a level meter, which accounts for the largest proportion among these precision instruments, has the problem that the second reflected wave is generated in the surrounding environment or structure due to the technical characteristics of measuring by using a minute signal, so that irregular signals are generated and frequent errors occur. In this paper, we propose Digital Weighting Algorithm as a method to solve measurement errors caused by 2nd reflected wave.

09. W-07_15_Optimization of energy level viewing significantly improve contrast conspicuity in abdominal CT

kwanghyun Chang(Samsung Seoul Hospital, Korea), Joonkoo Choi(Far East Univ., Korea),
yung-kyoon Kim(Samsung Seoul Hospital, Korea), Gajung Kim(Far East Univ., Korea)

DECT has several key advantages over traditional conventional single-source CT (CSCT) systems. The purpose of this study was to find the optimal keV for each organ using the Optimal CNR Tool. GE Discovery 750 HD (General Electric Medical Systems, Milwaukee, USA) CT was used and phantom was used with Cheese phantom (Gammex RMI, Middleton, WI). Optimal CNR Tool provided in ADW 4.6 was used to find optimal keV for each organ.

10. W-07_16_Usefulness of Screening MRA for the Diagnosis of Cerebral Aneurysm

Seunggi Kim(Seonam University College Of Medicine Myong Ji Hospital, Korea), JoonKoo Choi(Far East Univ., Korea),
Ghajung Kim(Far East Univ., Korea)

A typical noninvasive examination method for diagnosing a cerebral aneurysm includes brain CT angio and brain MRA. A cerebral aneurysm was diagnosed in 2680 of 107(4% of the total) who screening MRA at medical examination. Considering that the national incidence rate of un-ruptured aneurysm is about 4% per population, this result shows similar numerical values. Brain MRA for the purpose of primarily diagnosing cerebral aneurysm has the advantage that it can observe blood vessels of the brain without using contrast media and it takes less time than other MRI examination. Also, even without NPO, there is no radiation exposure. Using these advantages, MRA for cerebral aneurysm diagnosis, for asymptomatic examiners, can use cerebral if you use the price part and the resilient reservation program of MRI room properly. It is judged to be the best exam for early diagnosis of aneurysm.

Session 2-D

01. W-10_09_Attitude training increases willingness to perform cardiopulmonary resuscitation

Tai-Hwan Uhm(Eulji Univ., Korea), Jee Hee Kim(Kangwon Nat'l Univ., Korea),
Ga-Young Lee(Severance Hospital, Korea)

The application of the advantages of traditional face-to-face cardiopulmonary resuscitation (CPR) training will both improve layperson training and achieve cost savings. A total of 347 participants who took CPR course from March to May 2015 at a university were divided into three groups. Among the 347 participants (94.3% completed the course) who responded to our group interviews out of the 368 students who participated in six CPR courses at a University. The participants in EG 1 showed increased readiness to perform CPR for non-family members (49.6% versus 85.7%, $p<0.000$). No significant difference was observed between the readiness to perform CPR for family members before and after the course (91.1% versus 95.1%).

02. W-10_10_5, 10, 15-min video self-instruction in cardiopulmonary resuscitation training

Tai-Hwan Uhm(Eulji Univ., Korea), Jee Hee Kim(Kangwon Nat'l Univ., Korea)

The application of 5, 10, 15 minutes video self-instruction in cardiopulmonary resuscitation (CPR) training will reveal the repeated effectiveness of CPR training. The advantages of CPR training to the video self-instruction method will both improve layperson training and achieve cost savings.

03. W-10_11_Delivery time of automated external defibrillator in apartment houses

Tai-Hwan Uhm(Eulji Univ., Korea), Jee Hee Kim(Kangwon Nat'l Univ., Korea)

The purpose of this study was to find out factors affecting time for application of automatic external defibrillator (AED) in apartment houses. Data were drawn from managers, directors, guards through interviews and standard multiple regression analysis was employed to verify the effect of households, number of AEDs, locking up on the delivery time. Thirty (21.8%) under three minutes, 54 (38.6%) over eight minutes in the delivery time were revealed and households (.38, $p<.001$), number of AEDs (.27, $p=.001$) exhibited a statistically significant to the delivery time. Installation of AED will improve the CPR performance rate in the apartment houses.

04. W-10_12_Difficult airway management in prehospital traffic accident patients

Sung-Hwan Bang(Daejeon Health College., Korea), Jee Hee Kim(Kangwon Nat'l Univ., Korea),
Gyu-Sik Shim(Korea Nazarene Univ., Korea)

The purpose of the study is to compare the performance of difficult airway device and to provide the basic data for improvement of 119 emergency services. The study subjects were 40 paramedics in Gyeonggi Province Fire Services. Performance of difficult airway consisted of direct laryngoscope endotracheal intubation, Laryngeal mask airway ClassicTM (LMA), and King laryngeal tube suctionTM (LTS) under the three position of sniffing position, neutral position, and vehicle upside down position.

05. W-10_13_First response, rescue and transport of emergency patients in Korea Coast Guard Center workers focused on drowning, fall and isolation

In-Seob Lee(Kangwon Nat'l Univ., Korea), Jee Hee Kim(Kangwon Nat'l Univ., Korea),
Tae-Young Moon(Kangwon Nat'l Univ., Korea), Byung-Jun Cho(Kangwon Nat'l Univ., Korea),
Sang-Gyun Roh(Sunmoon Univ., Korea), Chul Tae Kim(Konyang Univ., Korea), Hyo Cheol Lee(Honam Univ., Korea),
Eun Jwoo Kwag(Daewon Univ., Korea)

The purpose of the study was to investigate the first response, rescue, and transport of emergency patients by Korea coast guard center officials. A self-administered questionnaire was completed by 333 coast guard center officials in Korea from March to June, 2016. The influence of basic life support (BLS) certification on the emergency rescue revealed that BLS certification had an important role and confidence in the life guard officials. Those having BLS certification were able to use automated external defibrillator (AED) in cardiac arrest situation. This study gauged the degree of ability of workers at Korea Coast Guard center who perform the most important tasks in case of coastal accidents in Korea for the initial action, response and transportation of the emergency patients.

06. W-10_16_A phenomenological study on the self-identity of students of nursing

Jee Hee Kim(Kangwon Nat'l Univ., Korea), Yun-Jeong Kim(Pai Chai Univ., Korea)

This will use phenomenological methods among qualitative methods to analyze the identity of students of nursing studies. The process of qualitative studies consist of setting the purpose of the study, selection of questions, selection of the study model, collection of data, application of findings and interpretation. This study analyzed the identity of nursing students. Follow-up studies would have to take a more in-depth perspective into individual fields and further clarify the concept of identity through qualitative studies. It is recommended that other qualitative methods be used on the study of identity.

07. W-10_17_The clinical practice experience of nursing students

Jee Hee Kim(Kangwon Nat'l Univ., Korea), Yun-Jeong Kim(Pai Chai Univ., Korea)

The purpose of this study is to understand the significance of clinical practice of nursing students by using a phenomenological method, and to provide a basic set of data for clinical practice and training programs for nursing students. The analysis method presented by Van Kaam for phenomenological studies were used as the basis. The result was that of the total of 260 meaningful statements, 32 sub-themes and 5 themes, as well as 2 categories were determined. While reading repeatedly the original data that describes the nursing students' experience of clinical practice, meaningless statements were abandoned.

08. W-10_18_Knowledge assessment of pre and post cardiopulmonary resuscitation training in healthcare providers

Chul-Tae Kim(Konyang Univ., Kroeae), Suk-Hee Kim(Konyang Univ., Kroeae), Seung-Yun Han(Konyang Univ., Kroeae),
Jee Hee Kim(Kangwon Nat'l Univ., Korea)

The purpose of the study was to investigate the knowledge assessment of pre and post cardiopulmonary resuscitation (CPR) in the hospital healthcare providers in D city. A self-reported questionnaire was completed by the participants of CPR training from July 4 to August 31, 2016. CPR training improved the knowledge level of the healthcare providers. So the CPR education will improve the out of hospital cardiac arrest in the healthcare providers.

09. W-11_04_The Interaction of Types of Failure Situation and Consumer Mindfulness on Regret

Seongsoo Lee(Sunmoon Univ., Korea)

One of the issues that people always face in a decision-making situation is whether to keep the current situation or make a change. And in any case, the outcomes after the decision are not always positive. This study examines how negative emotions such as regret experienced after failure will change according to consumers' mindfulness tendencies in the situation the outcomes of the decision are negative. The results show that the type of situation and the level of consumer mindfulness for regret each have independent effects. The interaction effect of the two variables as expected at the beginning did not appear. Based on these results, some implications and research limitations were discussed.

10. W-11_06_Effects of K-Drama characteristics on Korean wave effect: Targeting Chinese consumers

Seung Yeob Yu(Namseoul Univ., Korea)

This study was conducted on Chinese consumers and the effect of K-Drama characteristics on Korean wave effect was examined. For this purpose, K-drama characteristics were classified into drama theme characteristics, production characteristics and main actor characteristics.

Session 3-D

01. W-19_01_Impacts of the Internet on General Managers' Operations and Decision Makings of A Firm.
Lark Sang Kim(Cheongju Univ., Korea)

General managers' primary responsibility is to guide their organization to meet its performance goals and mission to attain and maintain a competitive advantage. In the face of Internet, the general managers' responsibility includes using the new technology to reinforce an existing competitive advantage or to gain a new one. First, the extent to which general managers meet this challenge is a function of the following factors; whether the firm is an incumbent or a pure internet firm of new entrant. Second, execution of a good strategy. Third, the characteristics of the general managers. In this research, we explore how these three factors make impacts on business operation and performance. In Chapter 1, we introduce the concept of competitive advantage and explain why it is an important performance goal of many firms. Then we explore the characteristics of legacy and bricks and mortar firms that adopt the internet, and those of new entrant or pure internet firms. In the face of internet, each exhibits some characteristics that make managing it a challenge. Next, we examine the process of formulating and implementing an internet strategy that helps the managers of firms. Finally, we examine some traits that would serve a general manager well in the face of internet.

02. W-19_02_Goodwill Impairment Loss and Managerial Ability
Hyun Taek Oh(Cheongju Univ.,Korea)

Korean International Financial Reporting Standards(KIFRS) allows a lot of managerial discretion in goodwill impairment accounting that requires goodwill to be tested annually for impairment. Related literature documents that goodwill impairment recognition is more likely to be practiced opportunistically. Other recent studies suggest that more competent managers make better judgements as reflected in accrual decisions, report higher quality reporting, and they also better prevent or reduce goodwill impairment than less competent managers. Therefore, in this paper, we analyze whether managerial ability reinforces relationship between goodwill impairment loss and indication of impairment, but undermines the relevance between goodwill impairment loss and opportunity incentives. We investigate firm-year data that is listed on KSE and KOSDAQ between 2011 and 2014. We test our hypothesis by regressing the goodwill impairment loss (occurrence and amount) on managerial ability. This empirical results show significant effect of managerial ability on goodwill impairment accounting.

03. W-19_03_Wearing Effectiveness of the Nowire Mold-Bressiers Design
Heh Soon Jung(Cheongju Univ., Korea), Mi Hyang Na(Cheongju Univ., Korea)

In this study, mold-brassière design was developed to effectively hold and display voluminous breasts in a defined way without a wire. we conducted a sensory test and comparative bra analysis of two types of bras on the market. The wearers evaluated the appearance of nine items, and the researched bra was rated higher than article A and B.

04. W-19_04_Group Positive Affect Diversity and Group Creativity:Mediating Role of Groupthink and Moderating Role of Affective Fit Perception
Moon Joung Kim(Cheongju Univ., Korea)

In the present study, I examine how group positive affect diversity (GPAD) may influence group creativity via groupthink. The proposed moderated mediation model was tested using data collected from 293 employees in 66 workgroups.

The analysis confirmed the role of groupthink as the mediating mechanism between GPAD and group creativity. Results also demonstrated that the indirect effect of GPAD on group creativity via groupthink is significant only when affective fit perception is low.

05. W-20_02_Impact of Pain Management Education on Knowledge and Attitude in One University Hospital's Nurses

Yun-Mi Cho(Konyang Univ., Korea), Hye-Jeong Hwang(Konyang Cyber Univ., Korea),
Moo-Sik Lee(Konyang Univ., Korea), Jee-Young Hong(Konyang Univ., Korea),
Moon-Sook Shim(Konyang Univ., Korea)

The effect of education was insufficient than predicted result from advanced research. It appears that it is due to short education (1 time, 40 minutes) and mass education. There is research opportunities to expand this study by developing guide and program for pain management and by extending education time(hour) and repetition.

06. W-20_03_A study on the relationship between subjective oral health and dietary habits of Korean adolescents (2010-2013)

Eun-suk Ahn(Kyungbok Univ., Korea), Eun-Young Jeon(Graduate School of Dankook Univ.,Korea),
So-Youn An(WonKwang Univ., Korea), Youn-Soo Shim(Sunmoon Univ., Korea)

The purpose of this study is to identify the relationship between dietary habits and subjective oral health of adolescents in Korea to provide basic data that can be used in development of oral health policies needed during adolescence. The present study was a secondary analysis design using data for 2010–2013 from the Korea Youth Risk Behavior Web-Based Survey(KYRBS). The subjects for this study were 295,502 youth people. The results of the association between dietary habits and subjective oral health about youth, showed that higher subjective oral health status scores those who had higher frequency of consuming food for beneficial oral health than those who responded "none".

07. W-20_04_Factors that have an Impact on the Community Periodontal Index (CPI) of the Elderly

Youn-Soo Shim(Sunmoon Univ., Korea),So-Youn An(WonKwang Univ., Korea),
So-Young Park(Wonkwang Health Science Univ.,Korea)

This study was conducted to obtain basic data necessary for developing an oral health promotion program and improve the quality of life of senior citizens using elderly facilities. Towards this end, the study analyzed factors that have an impact on their community periodontal index (CPI). Of the 430 respondents who received the questionnaire, 15 were excluded for being unreliable and 415 were selected as subjects for the final analysis. Oral health symptoms included food impaction, bleeding, dry mouth and pain in teeth. Those with food impaction, bleeding, dry mouth and pain in teeth had high CPI scores. Based on the above results, it may be concluded that systematic oral health education should be provided to elderly individuals to improve their oral health and enhance the quality of their lives.

08. W-20_05_Relationship between Oral Health Care and Happiness in Dental Hospital Patients

So-Youn An(WonKwang Univ., Korea), Youn-Soo Shim(Division of Health Sciences Sunmoon Univ.Korea),
So-Young Park(Wonkwang Health Science Univ.,Korea)

The purpose of this study is to suggest the oral health promotion plan for the happy life by grasping the close relation between oral health care and happiness in dental hospital patients. The responses to the questionnaires were 359 respondents, excluding 19 who responded unfairly to the 378 respondents. Overall happiness was 3.55 points. Among

the items of euphoria, the feeling of happiness felt at home was the highest at 4.17 points. Significant variables were the number of toothbrushes per day and oral health education. The overall happiness was higher when the number of brushings per day was more than 3 times. Overall oral well-being was high when they received oral health education.

09. W-20_06_Effect of Team Based Learning on Problem Solving Ability and Learning Attitude

Soo-Yeon Kim(Sunmoon Univ., Korea)

This study aims at investigating possibilities and effects of application of teaching methods focusing on learners by designing and applying team-based learning strategies for preliminary sports coaches. For this, 54 students with sports-related majors in S university were selected as research participants, and pre-tests and post-tests about problem-solving ability, learning attitude, etc in team-based learning were conducted. The collected data was analyzed by using SPSS 22.0 program, and then the following results were deduced. First, among problem-solving abilities, factors of executing and adventure-risking showed significant differences. Second, for learning attitude, the most significant differences were shown after team-based learning.

10. W-20_08_Diagnostic benefits of ultrasonography-guided biopsy compared with mammography-guided biopsy for suspicious microcalcifications without definite mass

Min Jae Yun(Konyang Univ., Korea), Keum Won Kim(Konyang Univ., Korea), Jae Young Seo(Konyang Univ., Korea), Young Joong Kim(Konyang Univ., Korea)

The purpose of this study is to compare the diagnostic outcomes of ultrasonography-guided core needle biopsy (US-CNB), USG-guided localization with excisional biopsy (US-LEB), mammography-guided localization excisional biopsy (MG-LEB) and stereotactic-guided vacuum assisted biopsy (S-VAB) for diagnosing suspicious breast microcalcifications without definite mass. Ultrasonography-guided core needle biopsy is an accurate and acceptable biopsy method for US-visible microcalcification lesions. US-visible microcalcifications are higher in BI-RADS category and higher malignant rate than US-invisible microcalcifications.

Session 4-D

01. W-31_11_A Study on the relation between Self-Leadership, Spiritual Well-Being, and College students' Adjustment

Shin-hong Min(Baekseok Univ., Korea), Soon-young yun(Baekseok Univ., Korea)

During college years, one is able to develop one's specialty and sociality to choose a career and set the direction of life. Therefore, the successful adjustment to college life is a significant development task of man. Especially, the social maturity and adjustment formed in college life of freshman does not only influence current development also to future life which makes it more significant. Therefore, this study aims to examine the relationship between self-leadership and spiritual well-being in order to determine the influential factors college life adjustment of freshman. To achieve the study purpose, the study conducted on-line survey targeting 255 freshmen from 4-year colleges located in Seoul, Gyeonggi and Chungcheong. The study results are as follows. The study compared based on sociodemographic characteristics, Self-Leadership showed difference by gender, major, religion, religious period, participation in leadership education, necessity of leadership education and Spiritual Well-Being showed difference by gender, religious period, participation of religious activity per month, degree of religious devotion while College students' adjustment showed difference by religion, religious period, and participation of religious activity per month. As the result of examining the relationship among three variables, they were all correlational. Based on the study result, the study concluded that there is a need to develop and reinforce programs to improve self-leadership, spiritual well-being to boost the college life adjustment of freshman.

02. W-31_12_A Study on the relation between Parents' Parenting attitudes, Sexual attitude, and Consciousness of gender equality.

Soon-young yun(Baekseok Univ., Korea), Shin-hong Min(Baekseok Univ., Korea)

To man, sex is an inclusive concept which plays important role in establishing overall sense of value in one's life. Therefore this study researched the Sexual attitude and Consciousness of gender equality degree of female college students and examined the relationship with Parents' Parenting attitudes recognized by the study subject to find influential factors. As for the data collection, the study conducted survey targeting 226 female students in 4-year college located in C region from April 3 to 21 2017. The results are as follows. Parents' Parenting attitudes was classified to caring of father, caring of mother and overprotection. The caring of father, overprotection and caring of mother all differed in accordance with participation of household work of father. As for the result of correlation among three variables, pleasure and playful sex among Sexual attitude showed significant correlation with caring of father while the view on marriage was related to overprotection of father. As for the Consciousness of gender equality, it showed significant correlation with pleasure, playful sex, view on marriage, sexual permissiveness among Sexual attitude. Sex education in family was not strictly demanded. However, if an appropriate sex education in family, school and society is conducted, it will be able to resolve the negative problem related to Sexual attitude or gender equality to some extent. If in family where the primary childcare is done conducts proper and healthy sex education along with the growing of children, school conducts sex education with scientific knowledge starting from horizontal relationship of male and female with equal personality, and the society implements rational policy based on right sexual culture with responsibility, it is expected to contribute to building mentally and physically healthy society for the next generation.

- 03. W-31_13_P**ublic awareness and attitudes toward hospice and palliative care in Republic of Korea
Eunsil Yim(Daegu Health College, Korea), Young Soon Choi(Health Insurance Research Center, Korea),
Ahrin Kim(Cheongju Univ., Korea)

This study was conducted to explore public awareness of hospice and palliative care in Korea. 1,500 Korean adults nationwide who were selected by quota sampling strategy according to sex, age, and region participated in this survey. 60.5% of respondents replied having no knowledge about palliative care. 85.8% of the respondents replied that hospice and palliative care were needed. 73.9% of the respondents replied that they were willing to use the services of hospice and palliative care. It is necessary to improve the perception about hospice and palliative care and to establish systemic and political support.

- 04. W-31_14_E**ffects of Public Education on Hospice and Palliative Care in Republic of Korea
Young Soon Choi(Health Insurance Research Center, Korea), KyoungA Lee(Daegu Health College, Korea),
Ahrin Kim(Cheongju Univ., Korea)

This study was performed to develop a universally accessible education program for death preparation and to evaluate the effectiveness of the program. The participants of this study were 91 people who participated in 11 sessions of the education program, 'Beautiful & Dignity My Life', which was conducted by the National Health Insurance Service (NHIS) from August 10 to October 2, 2015. The data collection was conducted before and after the education program and analyzed using paired t-tests by age-groups. After the education program, the meaning of life was significantly increased in all age groups and the depression was significantly decreased in age groups of 50s and over 60s. These findings imply that public education program for death preparation can help people discover their meaning of life and reduce their depression.

- 05. W-31_15_A** Study on the Strategy a Fundraising of Non-Profit Organization in Korea
Eun Jung Lee(Baekseok Univ., Korea)

This study started with concerns for NPOs that is increasing as an alternative for resource development of social welfare field in Korea. However, there has been relatively less discussed on the private resource development environment in terms of staffs in NPOs. This study is to explore perceptions on the strategy of resource development among fundraising agencies' staffs. Data were collected from 17 staffs in charge of fundraising in 10 main NPOs in Korea with self-administered questionnaires. The result shows that staffs perceived as important factors of fundraising in NPOs: reinforcing organization environment for fundraising, activating donation marketing and developing the goals and brand of fundraising agencies. Based on the findings of study, suggestions are discussed for implications and effective management systems in order to activate private resource development in NPOs as potential resources.

- 06. W-31_16_M**edical Utilization of the National Health Insurance by Cause of Death in the Republic of Korea
Yunhui Tae(Health Insurance Research Center, Korea), KyoungA Lee(Daegu Health College, Korea),
Ae-Sook Choi(Baekseok Univ., Korea)

This study analyzed the medical utilization among the terminal patients in the last one year of life. By cause of death, renal disease placed first in medical expense per patient, HIV (Human Immunodeficiency Virus) came second, followed ALS (Amyotrophic Lateral Sclerosis), cancer, Parkinson's disease, COPD (Chronic Obstructive Pulmonary Disease), stroke, liver disease, CHF (Congestive Heart Failure), other lung disease, and dementia. Considering the medical expense of non-cancer terminal illness patients, the hospice palliative care should be extended to cancer patients as well as non-cancer patients in Korea.

07. W-31_17_The Analysis of Health Promotion Benefits on Public Health Care Posts

Kyunghee Noh(Division of Health Policy, Ministry of Health and Welfare, Korea),
KyoungA Lee(Daegu Health College, Korea), Eunshil Yim(Daegu Health College, Korea)

This study uses benefit analysis to evaluate the economic value of health promotion on public health care posts (PHCPs). The health benefits for hypertension patients using PHCPs were estimated at 46,117,347 KRW per year, and the benefits for diabetics were estimated at 465,670 KRW. The benefits from the vaccination of the PHCPs were 73,246,564 KRW. Benefits from oral health care service were 1,715,810 KRW and benefits from depression management were 1,046,425 KRW. The benefits from medication adherence management were 1,510,713 KRW. Total benefits of health promotion services at PHCPs were estimated at 164,957,776 KRW per year. Since the health promotion benefits of PHCPs are estimated to be considerably high, it will be possible to increase the efficiency of PHCPs by expanding health promotion service programs.

08. W-31_18_The Health Promotion Effect of Public Health Care Posts User: Focusing on Hypertension and Diabetes Control Rate

Sangjin Lee(Division of Health Policy, Ministry of Health and Welfare, Korea), Eunshil Yim(Daegu Health College, Korea),
Ahrin Kim(Cheongju Univ., Korea)

The purpose of this study is to develop health promotion performance indicators and analyze the health promotion effect of public health care posts . The health promotion performance indicators of public health care posts are: smoking cessation, exercise, obesity, oral health, hypertension, diabetes, hypercholesterolemia, stroke, cancer management, and infectious disease management. The blood pressure and glucose control rate for public health care post users are higher than the results of Korea National Health and Nutrition Examination Survey. Public health care posts are an effective system to promote the health state of users.

09. W-31_19_Strategies for Reestablishing the Role of Public Health Care Posts in Korea

KyoungA Lee(Daegu Health College, Korea), Eunshil Yim(Daegu Health College, Korea),
Ahrin Kim(Cheongju Univ., Korea)

The purpose of this study is to identify the current status of Public Health Care Posts (PHCPs) and to analyze the surrounding environment and to suggest the future role of PHCPs. To redefine the function of the PHCPs, the PHCPs were classified to four types. The classification is based on whether there is a medical facility in the jurisdiction, the time to hospital in case of emergency, and the frequency of emergencies. As a result of the study, 3.1% of the total PHCPs were required to strengthen the function of the clinic, 9.5% of the PHCPs to maintain the current clinic function, 54.9% of the PHCPs to strengthen the health promotion function, 32.5% of the PHCPs should be transferred to health promotion service. Most PHCPs need to expand their role from clinic to health promotion, so institutional support should be provided.

10. W-31_20_The Effect of Cool Dialysis on Pruritus and Fatigue in Hemodialysis Patients

Eun-mi Ham(Konkuk Univ., Korea), Ji-Hye Lim(Konkuk Univ. Hospital, Korea), Sul-Hee Lee(Konkuk Univ., Korea)

This study examined the effects of the cool dialysis on pruritus and fatigue in hemodialysis patients. The crossover design was used to evaluate the difference of the effects between the regular hemodialysis with 36.5°C and the cool dialysis with 35.5°C on relieving pruritus and fatigue. 37 participants received total 4 week hemodialysis consisted of the cool hemodialysis for 2 weeks after 2 week the regular hemodialysis. The results showed that the score of pruritus

were lower than those after the regular hemodialysis. This study indicates that the cool hemodialysis is more effective on relieving pruritus and fatigue than the regular hemodialysis in hemodialysis patients.

11. W-31_21_A Study on Correct Time Estimation of Target Computer in Digital Evidence Analysis

Sung-Jin Lee(Baekseok Univ., Korea),Jong-Hwa Song(Baekseok Univ., Korea), Se-Ho Kim(Baekseok Univ., Korea),
Song-Yi Hwang(Baekseok Univ., Korea)

In digital evidence analysis, knowing the correct time of the target computer system is very important because the analysis results are dependent on the time. In this paper, we propose an investigation method to find correct time of the target computer by analyzing remaining traces (Event Log, Http Cookies) when the user changes the system time.

Session 5-D

- 01. W-33_15_A Study on Cosmetics Purchasing Behaviors of Elementary, Middle and High School Students**
Chae Young Park(Gwangju Univ., Korea), Jeong Yeon Park(Gwangju Univ., Korea)

This study was conducted to look into teenagers' cosmetics purchasing behaviors at a time when their makeup starting age is getting faster. As a result, Favorite Cosmetics Brand, Cosmetics Purchaser, Cosmetics Purchasing Place, Cosmetics Purchasing Cost, How to Raise Cosmetics Purchasing Cost, and Prime Consideration Point on Purchasing Cosmetics were 'Etude', 'themselves', 'cosmetics shop', 'under 10,000–30,000 won', 'by saving pocket money', and 'quality', respectively.

- 02. W-33_17_Development of e-sport platform based on virtual reality with functionality**
Yong Ho Kim(Gwangju Univ., Korea), Ga-Yeon Lee(DonghSin Univ., Korea)

Treadle plate based on location recognition and remote controller which is able to realize motion for design of virtual reality sport equipment with functionality in consideration of characteristic for the disabled as well as the edged are developed in this study.

- 03. W-33_18_A Study on the Service Quality of Management Consulting Affecting the Management Performance**
Jae-Hee Ryu(Honam Univ., Korea), Yong-Ho Kim(Gwangju Univ., Korea)

Analysis of actual proof targeted to small to midsize business which takes consulting is performed to study the effect of management consulting service quality on management result.

- 04. W-33_19_Beacon security camera for transmission of situation of disaster or crimes and location tracking**
Yong Ho Kim(Gwangju Univ., Korea)

CCTV combined beacon module is developed to provide guardian or acquaintance and police office with the service of sending text message in one's location using smartphone in case of emergency circumstances. It is necessary for crime prevention to build the beacon zone near CCTV so as to achieve it.

- 05. W-33_20_Construction of remote control for Web based street light pole**
Yong-Mo Kim(Gwangju Univ., Korea)

It is needed to be introduced the system which not only considers excessive communication cost as well as failure treatment of communication device and replacement cost but also makes full use of a dispersed generating system. Control system which is able to do scientific action of making up for fault and proper monitoring as well as maintenance in a solar power plant is constructed in this study.

06. W-33_21_Development of mobile control system for lighting tower in golf courses

Yong Ho Kim(Gwangju Univ., Korea)

The core technology of light control monitoring ranging from smartphone application development for the complex control system of lighting tower in golf courses to remote control solution is secured in this study.

07. W-33_22_High efficiency LED driver module

Seok-hyun Lee(Gwangju Univ., Korea)

High efficiency intelligent LED driver module with self-awareness is developed and is able to accumulate its technology. Acquisition of LED dimming technology also makes it possible not only to control illumination sensitivity but also to acquire technology of sensor and its control related to LED street lights as well as security lights.

08. W-33_23_Implementation of mobile APP service in an electronic tax invoice

Myeong-Seop Shim(Chosun Univ., Korea)

Smartphone based functions of how to write or issue or check a tax invoice as well as supporting customer are implemented in this study in order for the target of design and building application in smartphone for Web based electronic tax invoice through analysis of database in existing Web based electronic tax invoice.

09. W-33_24_Development of IOT furniture platform application connected to smart home and application

Seok-hyun Lee(Gwangju Univ., Korea), Ga-Yeon Lee(DonghSin Univ., Korea)

Application connected to closing and opening device based on IoT is developed not only to remotely monitor open and shut the door in closet or drawer but also to switch device remotely which controls ion generator and humidity but also to operate alarm device in case of opening door of closet or drawer forcibly.

10. W-33_25_Development of control device for digital permanent equipment capable of temperature control in each rod

Yong-Mo Kim(Gwangju Univ., Korea)

Control devices such as power supply for rod, temperature setting for rod, and distribution module to control temperature in each module which generates control signal of heater and sensor in rod are developed not only to improve the convenience of permanent work that is controlled rod temperature by group unlike conventional products but also to allow with checking fault signal of each rod by an over current. Degree of precision for temperature control has greatly increased to utilize temperature sensor.

Session 1-E

01. W-07_17_A study on the performance of metal and plastic connectors in contrast auto-injector and micro-catheter connection in vascular intervention

Joongseok Go(Seoul National Univ., Korea), Joonkoo Choi(Far East Univ., Korea), Gajung Kim(Far East Univ., Korea)

The intervention room is an operating room that monitors the presence or absence of abnormal vessels, the size, location, and appearance of the lesion and treats the cancer concurrently. A catheter is inserted into a blood vessel for examination or treatment, and a medication called contrast media is administered, and the appearance or disease of the blood vessel, the position of the cancer, DSA(Digital subtraction angiography). To view these images, a connector is needed to connect the contrast injector to the catheter

02. W-07_18_Evaluation of image quality according to the use of copper filter in indirect conversion type DR equipment

Sinyoung Yu(Seoul Sung-sim Hospital, Korea), Joonkoo Choi(Far East Univ., Korea), Gajung Kim(Far East Univ., Korea)

In this study, the image quality is evaluated by applying copper to the thickness of filtering filter in indirect conversion type DR equipment. To evaluate the appropriate filter criteria, that does not deteriorate the image quality is obtained for SNR and CNR for each thickness.

03. W-07_19_RPL-based Route Repair Mechanism Design for Indoor Disaster Situation

GangHee Jung(Sunmoon Univ., Korea), YoonYoung Park(Sunmoon Univ., Korea), SeYeob Kim(Sunmoon Univ., Korea), Jae-Sung Choi(Sunmoon Univ., Korea)

As 80 to 90 percent of our daily activities are indoor activities, indoor disaster environments such as a gas leak and fire have been breaking out more than before. In order to reduce the damage caused by these things, WSN-based detection systems have been studied not just as emergency notification systems, but as evacuation route guide system for evacuation routes. IETF working groups announced RPL(Routing Protocol for LLNs), combined with IP network, so that they could manage the sensor networks more efficiently while IoT(Internet of Things) and Smart Grid have emerged as major interests. The purpose of this paper is to propose a RPL-based route recovery algorithm to prevent disconnecting links that could be caused by disaster situations.

04. W-07_20_Research of optimization of exposure dose in CT exam

Dong-Hee Hong(Far East Univ., Korea), Joon-Koo Choi(Far East Univ., Korea), Gha-Jung Kim(Far East Univ., Korea), Hyeong-Gyun Kim(Far East Univ., Korea)

This study measured the exposure dose during abdominal-pelvic CT exam which occupies 70% of CT exam and tried to propose a protocol for optimized exposure dose in abdomen and pelvis without affecting the imagery interpretation. As for the result, scanning of 2 phase showed significant difference compared to 1 phase. In CTDIvol value, the 2 phase showed 26% decrease in abdomen, 1.8~59.5% decrease in pelvis for 100~250mA, 12.7%~30% increase in pelvis for 300~400mA. Also, DLP value showed 53% decrease in abdomen and 41~81% decrease in pelvis when scanned by 2 phase compared to 1 phase. Also, the CT number and noise was overall similar, but the noise was high close to pelvis. However, when scanning 2 phase for 250mA close to pelvis, the noise value came out similar to 1 phase. Therefore, it seems when separating pelvis to scan in 250mA rather than 400mA in 1 phase as before, it is expected to have reduced effect of exposure dose without difference in the quality of image.

05. W-07_21_Proposal of radiography training simulator using object recognition method

Joon-Koo Choi(Far East Univ., Korea), Hyeong-Gyun Kim(Far East Univ., Korea), Gha-Jung Kim(Far East Univ., Korea), Dong-Hee Hong(Far East Univ., Korea)

This study is to propose a method to detect patient's posture by applying object recognition technique among simulator implementation methods to develop radiography training simulator.

06. W-07_23_Study on the Big Data Reduction Method of Unstructured Data Using Optical Flow

Hongro Lee(Woosong Univ., Korea), Samtaek Kim(Woosong Univ., Korea)

In this paper, we present a data reduction method of unstructured data which can be used in the big data platform. The big data can be divided into structured data and unstructured data. Especially, the number of unstructured data such as video is increasing exponentially. Thus, study on the auto classification of unstructured data are urgent. To solve these problems, we need a preprocessing which extract scene images from video firstly. Therefore, we suggested a preprocessing method which can reduce size of unstructured data using optical flow algorithm. Experimental results show that video scenes of object can reduce size of unstructured data by extracting various viewpoints.

07. W-07_24_Verification of EID Signal In Eddystone Beacon

Ki-bong Kim(Daejeon Health Institute of Technology, Korea), Ki-mun Keum(R2soft Co. LTD, Korea), Chang-bok Jang(R2soft Co. LTD, Korea), Oh-suk Kwon(Chungnam Nat'l Univ., Korea)

Recently, users are receiving various services through smart phones. Especially, with the emergence of IoT, the service by collecting and using information from things is expanding, and various techniques for using beacons in this environment are being studied. However, the beacon signal has a security problem that can be easily generated using a device capable of Bluetooth communication such as a smart phone. Therefore, in order to solve this security problem, in this paper, we implemented a system that consists of BLE beacons, Google cloud servers, service servers, and EID applications, respectively by using Google's Eddystone beacon EID technology.

08. W-07_25_A Study on the Optimal Line Integrated Design Analysis System

Taesung Kim(Kumoh Nat'l Institute of Technology, Korea), Hyunsoo Lee(Kumoh Nat'l Institute of Technology, Korea), Heedong Hong(Semyung Univ., Korea)

This paper is a study on a system that standardizes processes based on smart virtual production technology strategy for manufacturing line design and development, and integrates new or existing resources and systems into one consistent and structured framework.

09. W-07_26_Research of Advanced Object Tracking by Improved Dark Channel Prior Fog Removal

Hyochang Ahn(Far East Univ., Korea), June-Hwan Lee(Far East Univ., Korea), Han-Jin Cho(Far East Univ., Korea)

Fog images have difficulty in identifying objects because color information and boundary information are reduced. Since the fog removal is performed by estimating the amount of fog transmission using the color information of the fog image, there is a problem that the estimation of the anomaly improvement and the transmission amount are estimated for the region having a high brightness object such as a white object or a light source in the image. Occurs. In this paper, we propose an improved object tracking method by improving the image quality of fog images by applying color normalization to the white region of the fog image and then correcting it to the surrounding fog value.

Session 2-E

01. W-13_01_Study case of Application of the Control Management System based on Inter-Collaboration against Cyber Threat

Kyuil Kim(KISTI, Korea), Wonhyuk Lee(KISTI, Korea), Buseung Cho(KISTI, Korea), Dongkyun Kim(KISTI, Korea), Hyungwoo Park(KISTI, Korea)

These days, Internet is the important communication and sharing means in our life. In other words, it used in various ways such as not only the conversation, e-commerce but also personal privacy. However, today's society has been increased in cyber-attacks that abuses it along with internet development. Especially, cyber terror that destroy information system of a government or put a stop to the nation's function is threatening our cyber space. Recently, cyber terror of foreign control system brought about great damage of the nation and the resource drain. The primary reason that doesn't prevent the cyber -attacks are extremely difficult to manage extensive security issues in itself. In this paper, we propose the fast and accurate response mechanisms through the statistical analysis of the case of study and the realization of Inter-collaboration system between ISP CERTs and security monitoring center.

02. W-13_02_An analysis of e-infrastructure for open science as a commons

Manhyung Cho(Hannam Univ., Korea)

This paper analyzes GSDC as a case of e-infrastructure for open science. It approaches the case from the perspective of the commons. E-infrastructure includes and harmonizes computing, network, and data services. GSDC provides a typical model of e-infrastructure that is managed as a commons. The case provides an empirical success model of how to developing e-infrastructures for open science to improve data hosting, access and governance.

03. W-14_01_Study for Sensing Bigdata Analysis of Device in the IoT Home Network

Eun-Jin Park(Baeksoek Univ., Korea), Hyung-Jin Mun(Sungkyul Univ., Korea), Kun-Hee Han(Baeksoek Univ., Korea), AKASH KUMAR BHOI(Sikkim Manipal Institute of Technology, India)

With ICT developments, IoT technology is rapidly gaining traction and IoT technology is being applied to various household appliances with high-speed and fast communications. As a result, devices in the home environment are becoming smart and the IoT home network is being built. With the establishment of the IoT home network, the family members of the household have been used and large amounts of data are generated. The reason why IoT technology is emerging as next-generation technology is that it is equipped with big data analytics techniques. In this paper, the user examines the big data detected through IoT terminals in IoT home network and suggests a system for diverse services. In particular, identifying users identified by the detected data analysis enables the user to tailor the customized services. Since the analysis of detected data exists in the presence of privacy, it requires a certification model for the collection of information and the need for access to process information in the process of collecting information and obtaining access to process information from the Big Data analytics system.

04. W-14_04_The Impacts of Emotional Labor on Organizational Effectiveness and Psychological Empowerment of Information Security Professionals

Joon-Hwan Kim(Sungkyul Univ., Korea), Min-Ho Yang(Sungkyul Univ., Korea)

The purpose of this study was to investigate the relationships between emotional labor and organizational effectiveness

and psychological empowerment, Data collected from 188 workers of information protection and analyzed through structural equation modeling (SEM) was as follows. Deep acting was positively related to organizational effectiveness, but surface acting was not significantly related to organizational effectiveness. Organizational effectiveness had a significant positive relationship with psychological empowerment. The results of this study imply that development of level of organizational effectiveness and training on emotional labor strategies can bring about positive psychological empowerment for employees performing emotional labor.

05. W-14_05_A study on the scope of realization of the right to be forgotten

MINA SHIM(Sungkyul Univ., Korea), HYE-KYEONG KO(Sungkyul Univ., Korea)

The purpose of this paper is to present effective research directions and methods for studying the realization scope of the right to be forgotten in the domestic environment. And also this study aims to clarify the scope of realization of the right to be forgotten. We compare laws in different countries for differentiation studies. In addition, we derive requirements from the point of view of processing personal information, and seek the scope of more detailed and systematic realization. It is expected that this will be the foundation of the domestic legalization of the forgotten right which is discussed in the field of personal information protection recently.

06. W-14_06_A Study on Structural Ontology Matching Method Using Cache

HYE-KYEONG KO(Sungkyul Univ., Korea), MINA SHIM(Sungkyul Univ., Korea)

OWL, a web ontology language, publishes and shares ontologies that provide web search and knowledge management functions on the web. This paper proposes an ontology matching method and framework for improving match efficiency in OWL-based semantic web searches. The method proposed in this paper searches query patterns that have been saved for previous queries without searching the entire ontology, therefore can significantly reduce the processing speed for the user queries.

07. W-14_07_A Study on Language Landscape in ICT Era

Minho Yang(Sungkyul Univ., Korea), Joon-Hwan Kim(Sungkyul Univ., Korea)

This paper is to explore the direction of reconsideration and development studies for the language landscape in ICT era. A way to overcome the limitations of language landscape research is to follow up using various road views provided on the Internet. By doing this you will be able to complete a diachronique research on the language landscape.

08. W-14_08_Design of Disaster Broadcasting System using Metadata Crawling in Mobile Web Environment

Kil-Hun Lee(Soongsil Univ., Korea), Moon-Seok Jun(Soongsil Univ., Korea), Jung-Oh Park(Soongsil Univ., Korea)

In this paper, the system designed collects comprehensive information generated by the disaster warning system of each field when national disasters such as earthquake and terrorism occurred, and transmits the final on mobile phone.

09. W-14_11_Relationships between Self-Achievement, Academic Self-Efficacy and Professional Self-Concept among Nursing Students

Ahrin Kim(Cheongju Univ., korea), Myung-Ock Chae(Cheongju Univ., Korea)

The purpose of this study was to explore the relationships among self-achievement, academic self-efficacy and professional self-concept in nursing students. Data were collected by self-reporting questionnaire. It conducted mean and standard deviation, Pearson correlation analysis by SPSS 23.0 from 169 nursing students using convenient sampling method. The professional self-concept indicated a statistically significant correlation with academic achievement ($r=.666$, $p<.001$) and academic self-efficacy ($r=.612$, $p<.001$). So self-achievement and academic self-efficacy need to be increased by efficient management and intervention to improve professional self-concept of nursing students.

10. W-14_12_Effects of Integrated Simulation Education for Undergraduate Nursing Students

Myung-Ock Chae(Cheongju Univ., Korea), Ahrin Kim(Cheongju Univ., Korea)

Simulation in nursing education can allow students to practice repeatedly in a safe environment, replicating clinical practices. This study was performed to evaluate the effectiveness of an integrated simulation program in improving academic self-efficacy and clinical judgement for nursing students who were in their senior year in the university. Using a one-group pre and post-test quasi-experimental design, 85 senior nursing students completed Academic Self-Efficacy Scale and Lasater Clinical Judgement Rubric prior to and after undertaking the integrated simulation education program. The program consisted of 12 sessions over an 8-week period. Significant positive changes were found to measure academic self-efficacy and clinical judgement.

Session 3-E

01. W-21-01_Evaluating Web Accessibility of Organizations Related to Radiation in ICT Environment

Kyoungcho Choi(Jeonju Univ., Korea)

This research is to evaluate actual compliancy of web accessibility of national agencies and associations related to radiation, organizations that are expected to have frequent access with the purpose of acquiring information about radiation safety. Furthermore, statistical significance of compliancy gap among national agencies and associations will be tested.

02. W-21-02_The Big Five Personality Traits and L2 Achievement: A Correlational Study

Sunhee Choi(Jeonju Univ., Korea)

The purpose of this study is to investigate the relationship between the big five personality traits and second language (L2) achievement. L2 researchers have made use of various measures of personality factors, but the studies resulted in inconsistent and inconclusive findings. Part of the reason for this unfortunate situation is that different instruments were used to measure the same personality constructs. The present study uses the Big Five model of personality traits which has been long established to represent most basic and independent personality traits. 200 college students who have been learning English as a foreign language answered a 44-item questionnaire and also reported their perceived levels of English proficiency along with authorized English proficiency test scores. The correlation analysis between the five personality factors and L2 proficiency was conducted. Implications and suggestions are drawn for future research and teaching.

03. W-21-03_A Study on the Impact of Macroeconomic Variables on unsold Apartments

Dae-Bong Kim(U1 Univ., Korea), Jong-Jin Kim(JeonJu Univ., Korea)

This study analyzed the effects of macroeconomic changes such as economic rate, interest rate, consumer price, exchange rate, and money supply on unsold housing using a vector error correction model (VECM). As a result, exchange rate and interest rate are the most important factors affecting the number of unsold housing.

04. W-21-04_Research on the Importance of IT Factors in the purchasing of Housing using AHP

Jongjin Kim(Jeonju Univ., Korea)

This research holds its significance in a sense that it considers IT-based factors which were not considered important in the past. This means that housing consumers consider IT-based factors as important when purchasing houses. On the other hand, voice recognition and IOT showed lower importance. This could be due to the fact that consumers are relatively unaware of such factors. If such services become prevalent in the future, their importance could grow. Therefore, housing providers should consider applying IT-based factors along with traditional factors when building houses.

05. W-21-05_Relationships between Macroeconomic Variables and Office Management Profits

Dae-Bong Kim(U1 Univ., Korea), Jong-Jin Kim(JeonJu Univ., Korea)

This research applied the VECM model in order to suggest a solution for effective office management by analyzing the impacts macroeconomic variables have on office management, a representative type of property asset. The results imply that property asset companies need to consider the status quo, predictions on local economic activities and unemployment rates. Especially, since the real estate market has a significantly different characteristic, understanding the local market is vital.

06. W-21-06_Change in PSNR according to kVp, mAs and SID in CR system and DR system

Keongho Choi(Jeonju Univ., Korea) , Jae Young Jung(Jeonju Univ., Korea) , Hyang Ji Jung(Jeonju Univ., Korea), Eun Jeong Heo(Jeonju Univ., Korea) , Jin Kyu Ko(Jeonju Univ., Korea), Jung Keun Cho(Jeonju Univ., Korea)

In this study, the results of assessing the chest images obtained by the changes in mAs, kVp and SID quantitatively represented high PSNR of SID 180 cm, 120 kVp and 3.2 mAs in common in the CR and DR systems. In DR system, the quality of image shows clear differences by the exposure condition depending on the presence of AEC. Particularly, since DR system has marginal condition that represents the difference if the quality of image is good or bad, the study on the optimum exposure condition should be made by equipment.

07. W-21-07_Associations between Physical Activity, Stress, Interpersonal Relationship and Quality of Life in University Students

Mi Hyun Joo(Jeonju Univ., Korea)

The purpose of this study was to analyze the associations between physical activity, stress, interpersonal relationships, and the quality of life in university students. A convenience sampling method was used to select a total of 400 university students. The data from 337 questionnaires which had passed a final error detection procedure were analyzed. The students were given explanation about the purport of the research before data collection; then, those who consented to participation in the research were asked to give a written consent and complete the questionnaire. The Korean short-form version of the International Physical Activity Questionnaire (IPAQ) was used to measure physical activity and, on the basis of scoring, divide the respondents into three groups: low (n=105), moderate (n=112), and high groups (n=120). The Socio-Psychosocial Well-Being Index (PWI) was used to measure stress. An interpersonal relationship inventory was used to measure interpersonal relationships. A revised version of WHOQOL-BREF was used to measure the quality of life. The respondents' general characteristics included age, sex, grade, smoking, alcohol drinking, number of breakfasts per week, and activity of daily living. When age, sex, grade, smoking, alcohol drinking, number of breakfasts per week, and activity of daily living were corrected to determine the associations between physical activity, stress, interpersonal relationships and the quality of life, the PWI scores were significantly lower in the high and moderate groups than in the low group ($P<0.05$) and the scores for interpersonal relationships were significantly higher in the high group than in the low group ($P<0.05$). No statistically significant difference was found in the QOL index among the physical activity groups.

In this study, physical activity was significantly associated with stress and interpersonal relationships in university students.

08. W-21-08_Analysis of Slogan by Utilizing Symbol Marks in Jeollabuk-do Municipalities and Rhetorical Technique

Kyoungcho Choi(Jeonju Univ., Korea), Jung-Hae Park(Jeonju Univ., Korea)

Every municipalities in Korea have represented and introduced their regions by making and highlighting some characters, slogans, or symbol marks which symbolize the characteristics of their regions. Not to make an image civilization disaster, they must fill these characters into symbol marks which are full of symbolic impression. Therefore this study has organized slogans and symbol marks of fourteen primary local authorities and one metropolitan authority in Jeollabuk-do Province, summarized usage states of slogans, symbol marks, and characters of each authorities, and analyzed the meanings of slogans based on the frame of slogan analysis. Furthermore, it has proposed further follow-up researches.

09. W-21-09_Development of Taekwondo Ranking Model Based on Google Pagerank Algorithm

Bong-Seok Kim(Jeonju Univ., Korea)

The purpose of this study is to develop a ranking model for Taekwondo players based on google pagerank algorithm and to verify the validity of the developed ranking model. To achieve the purpose this study, 2856 Taekwondo players(male : 1950, female : 901) in 6 competitions(G2, G4, G5 levels; totle 5438 games) registered to KTA(Korea Taekwondo Association) in 2015 were chosen as research subjects. The concepts of Accuracy by table of specification, Sensitivity, Specificity, Lol(Loss of Information) was applied for verify the validity of the developed ranking model. And presented to win-losing model based on each ranking difference, calculate the classification accuracy and AUC by ROC curve.

Session 4-E

01. W-32_01_The Comparative Study for Statistical Process Control for Software Reliability Model based on Inverse Rayleigh and Rayleigh Distribution

Hee-Cheul Kim(Namseoul Univ., Korea)

In this arena, SPC (Statistical process control) is a technique of procedure running through performance of statistical analysis, which involves and contains the defining, measuring, controlling, and refining of the processes. The proposed process about encompasses assessment used to the parameter of the mean value function. Hence, the mean value functions of inverse Rayleigh and Rayleigh distribution in order to develop appropriate mean control chart were considered. In this paper, a control mechanism, established on time among failures observations using inverse Rayleigh and Rayleigh distribution property, was planned which is created on Non Homogeneous Poisson Process (NHPP).

02. W-32_02_A Performance Valuation for NHPP Software Reliability Model depend on Weibull-Type Distribution

Tae-Hyun Yoo(Namseoul Univ., Korea)

In this task, the reliability software reliability model, depend on Weibull and extended Weibull distribution, Weibull extension distribution that controls the distribution of several life style from the administration of software product testing, was planned. The software failure model was based on infinite failure non-homogeneous Poisson process model and the parameter calculation using maximum likelihood estimation was complemented. As distinct cases, the model valuation based on the mean square error and coefficient of determination aimed at the powerful model was accompanied. Using this investigation, the software schemer can be able to help when used as basic information of the software produce.

03. W-32_03_The Spiritual wellbeing: its Associations with stress coping strategies, resilience of nursing students

Kyung-Sook Kim(Namseoul Univ., Korea)

This study was to examine correlation and to measure level of spiritual wellbeing, resilience, stress coping strategies among university students. Spiritual welling of subjects was investigated as a point of 3.81 point. It was found that there was a statistically significant difference in spiritual wellbeing depending on the religious affiliation ($F=15.679$, $P<.001$). Additionally, spiritual wellbeing was significantly correlated with resilience ($r=.437$, $p<.001$), stress coping strategies ($r=.153$, $p<.05$). The present study means that nursing students' spiritual wellbeing could be reinforced by resilience and stress coping strategies.

04. W-32_04_The compliance on hand washing related respiratory care among clinical nurses

Miok Kim(Dankook Univ., Korea), Kyung-Sook Kim(Namseoul Univ., Korea)

This study was attempted to determine the nurses' hand washing compliance related to respiratory care. Data were analyzed using descriptive statistics. The mean of compliance of hand washing was 2.81(ranging 1-3). Regarding hand washing before and after caring the site of tracheostomy was 2.90 point and 2.94 point, respectively. The hand washing before wearing gloves was 2.62 point. The compliance of hand washing before wearing gloves was relatively low and the highest compliance was hand washing after caring the site of tracheostomy. Thus, education or surveillance should be centered on practices with low performance.

05. W-32_05_A Study on the Improvement of the Capacity Enhancement Ability of Providing One Community Service through Conservation Education

HEE TAE CHUNG(Namseoul Univ., Korea)

In recent years, Korea has been experiencing low fertility, changes in population structure due to aging, Changes in family structure due to appearance, increased participation of women in economic activities, There are new social risks such as demands. For this social environment change.

06. W-32_06_A Study on Character Region Extraction Using MCT Feature

Seok-Woo Jang(Anyang Univ., Korea)

In this paper, we propose a new algorithm for accurately extracting character regions from an input image using geometrical features. The proposed algorithm first detects candidate character areas based on MCT features. The algorithm then extracts real character areas after deleting non-character regions with geometrical features. Experimental results show that the proposed algorithm can robustly extract character regions from an input image.

07. W-32_07_Analysis of Back-door Type Private Network for Application on Web-server Management System

Hyun-Chang Lee(Kongju Nat'l Univ., Korea), Kyu-Tae Lee(Kongju Nat'l Univ., Korea),
Jong-Eon Lee(Kongju Nat'l Univ., Korea), Min-Young Kim(Baekseok Univ., Korea)

In this paper, application requirements of back-door type Private Network are analyzed for Web-server management system. The contents are provided using virtual host of http daemon which separates the connection from the external network and the internal network. Therefore, administrator can manage the web-server using web-browser without a separated daemon or an encryption module. In addition, administrator can test the contents in the same position as general user by connecting with the external network address.

08. W-32_08_Design and Analysis of Logic Level Display Circuit in Logic Lab Unit

Hyun-Chang Lee(Kongju Nat'l Univ., Korea), Kyu-Tae Lee(Kongju Nat'l Univ., Korea),
Jong-Eon Lee(Kongju Nat'l Univ., Korea), Seo-Ik Kang(Kongju Nat'l Univ., Korea)

The requirements of protection condition of logic lab unit is introduced and analyzed in this paper. Then, fault detection and diagnosis system in logic lab unit is proposed based on a microprocessor. The proposed method can detect four statuses that logic-low, logic-high, high-voltage, and open circuit of input terminal. Also, for the protection from high voltage, a logic display circuit is designed with increased allowable voltage. As a result, the proposed method can provide great convenience with time saving during the experiment.

09. W-32_09_Analysis of Adding Loop function in the PSSI (Pseudo-Server-Side-Include) Technique

Hyun-Chang Lee(Kongju Nat'l Univ., Korea), Won-Shik Na(Namseoul Univ., Korea),
Min-Young Kim(Baekseok Univ., Korea), Seo-Ik Kang(Kongju Nat'l Univ., Korea)

The PSSI has security of CGI and compatibility of SSI. In this paper, PSSI loop is proposed based on PSSI and loop function for improvement. The proposed method can be implemented by using tags that mark the start of repetition and end of it in the web-document. Thus, the time and errors involved in source documents can be reduced. Also, the appearance of the web-page can be improved by removal of unnecessary content.

10. W-32_10_Health Status, Serum Status, Smoking Motivation, and Behavior of College Students with Smoking Cessation Intention

Hee-Jeong Kim(Namseoul Univ., Korea)

This study was conducted to investigate the health status, blood status, smoking motivation, and smoking behaviors of college students who were enrolled in a smoking cessation clinic. A total of 90 subjects were surveyed from March 1, 2017 to April 15, 2017. The methods used were t-tests and ANOVA tests for general statistics (including mean and standard deviation frequency). The relationships among smoking motivation, smoking behavior, and stress were confirmed through correlation. The CO₂ concentration was 4.81 ± 2.56 , and the stress was 5.30 ± 1.98 on the NRS scale from 1 to 10. The most effective stress relievers were drinking alcohol (32.7%), tobacco usage (28.7%), and exercise (21.8%). The blood pressure of the subjects was 137.75 ± 15.82 mmHg systolic and 76.79 ± 9.35 mmHg diastolic, respectively. Also, AST was 22.88 ± 15.72 IU/L, ALT was 26.24 ± 15.64 IU/L, and γ -GTP appeared as 37.74 ± 46.68 IU/L. Hemoglobin was 15.16 ± 1.14 , Hematocrit was 44.63% ($\pm 3.05\%$), and Platelet was $280.66 \pm 51.00 \times 10^3/\mu\text{L}$. Stress was positively and significantly correlated with smoking motivation–emotion and smoking behavior. Smoking behavior was significantly associated with stress, smoking motivation–emotion, smoking motivation–stimulation, and smoking motivation–body weight.

Session 5-E

01. W-33_26_Development of autodetection for self-protection device based IoT

Bong Seok Kim(Gwangju Univ., Korea)

Self-protection device based IoT which not only is informed approaching a dangerous person by alarm and vibration using a device attached sensor in case of sensing the people's approaching but catches danger through smartphone application to take a picture and images included time and location is developed in this study.

02. W-33_27_Development of bracelet type for vessel navigator using near-infrared ray

Bong Seok Kim(Gwangju Univ., Korea)

Bracelet type for vessel navigator using near-infrared ray is developed to make up for the weakness of its conventional instruments. This study will be expected to be good opportunity to boost related research and development for optimizing performance in the medical instrument industry.

03. W-33_28_Development of bicycle device to strengthen safety

Byung-Wuk Oh(Gwangju Univ., Korea)

Bicycle auxiliary device in pedal which is able to improve safety using LED when bikers are riding a bike at night is developed in this study.

04. W-33_30_A Study on installation maintenance guideline through diagnosis of small-scale PV system performance and on-site problems

Hee Chul, Kim(Gwangju Univ., Korea)

As an alternative to global warming, interest in new and renewable energy has soared, and the number of solar power generation systems has been steadily increasing. Research on monitoring systems to manage generation facilities more efficiently has been actively conducted. It is necessary to obtain the result of the operating characteristics of the installed power generation system similar to the detailed knowledge of the environmental data such as the temperature and the irradiation amount of the solar power generation facility. In real time to prevent accidents,

05. W-33_31_A Study on bus safety operation system applying IoT technology

Hee Chul, Kim(Gwangju Univ., Korea)

In order to prevent economic loss, we will lead the advancement of healthcare, wearable, IoT, Augmented reality technology and revitalization of relevant market with the increase of utilization of broadcasting communication infrastructure, science technology and ICT convergence technology. It is used as a starting point of future economic activities and a space for exchanging various information services in simple transportation means. We will improve the bus driver's work environment to strengthen social stability and publicity. In addition, we intend to develop a bus safety operation system applying broadcasting and communication convergence technology by enhancing internal customer satisfaction and prevention of sexual harassment and emotional stability like home.

06. W-33_32_IoT panorama laser lane system

Gul-Won Bang(Gwangju Univ., Korea), Yong-Ho Kim(Gwangju Univ., Korea)

There are safety facilities in road, that is, street light, tubular markers, lanes and raised pavement marker. Lane marking helps driver with safety driving for recognizing the center line, driving space, the distance between cars, and the distance next to car. Lanes for a recurrent reflection by headlamps in automobiles at night are constructed by paint mixed with grains of glass. But the tiny particles of glass containing paint is eliminated by automobiles and is lost function of a recurrent reflection over time. That makes lanes invisible well on rainy days at night. Panorama laser lane system is to irradiate laser beam sequentially to lane on the road. The system for safety guidance function is helping driver to drive safely on a rainy or snowy day at night.

07. W-33_33_A study of the manufacturing process of tubular lead-acid batteries

Youn-Saup Yoon(Gwangju Univ., Korea), Bong-Seok Kim(Gwangju Univ., Korea)

Manufacturing process of tubular positive plates considering characteristic of performance in lead-acid battery is researched to simplify its process in this study. The method of simplified manufacturing process is developed through not only the performance comparison of tubular plate between manufactured method by an existing multi-level process and manufactured by simplified method but also setting up optimum condition of process parameter.

08. W-33_34_Performance Optimization of PEM Fuel Cell by Using Modified Bruggeman Correlation Model

Prakash Thapa(Mokpo Nat'l Univ.,Korea), Gye Choon Park(Mokpo Nat'l Univ.,Korea), Hui Il Chang(Gwangju Univ.,Korea), Hyun Su Jung(Mokpo Nat'l Univ.,Korea), Jeon In Seok(Mokpo Nat'l Univ.,Korea), Jin Lee(Mokpo Nat'l Univ.,Korea)

This paper tries to investigate the sensitivity of the gaseous diffusion to the various exponential value of tortuosity factor m and n . The simulation results shows that the performance of Polymer Exchange Membrane Fuel Cell (PEMFC) is varies with the m and n . At higher current density values, the value of $m=n=1.5$ give the better performance.