

CONFERENCE PROGRAM



ICAE International
Conference on
Applied
Engineering

ICAESS International
Conference on Applied
Economics and
Social Science

2022



Host :
Politeknik Negeri Batam

Sponsored By :
BP Batam

Batam, Indonesia
October, 5th 2022



Conference Program

ICAE International Conference on Applied Engineering **ICAESS** International Conference on Applied Economics and Social Science **2022**

Organized by



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Keynote Speakers



Keynote Speakers

Prof. Yusep Rosmansyah,
S.T., M.Sc., Ph.D



Information Technology
Research Division (KKTI)
School of Electrical
Engineering and
Informatics (STEI)
Institut Teknologi
Bandung (ITB)

Dr Hj Mohammad Nabil
Almunawar



Associate Professor
School of Business and
Economics
Universiti Brunei
Darussalam

Ashwani SINGH, PhD



Global R&D Director
Telemecanique Sensors

General Program



General Program

08.30 - 09.00 AM	Registration
09.00 - 09.30 AM	Opening Ceremony
09.30 - 10.15 AM	Keynote Speaker Session 1 Prof. Yusep Rosmansyah, S.T., M.Sc., Ph.D (School of Electrical Engineering and Informatics (STEI) Institut Teknologi Bandung (ITB))
10.15 – 10.30 AM	Break
10.30 – 11.30 AM	PARALLEL SESSION 1 (ICAE & ICAESS)
11.30 – 11.45 AM	Polibatam Project Based Learning Video
11.45 – 12.40 PM	Lunch Break
12.40 – 01.25 PM	PARALLEL SESSION 2 (ICAE & ICAESS)
01.25 – 01.40 PM	Q & A Session
01.45 – 02.30 PM	Keynote Speaker Session 2 Assoc. Prof. Dr. Hj. Mohammad Nabil Almunawar (School of Business and Economics Universiti Brunei Darussalam)
02.30 – 03.15 PM	Keynote Speaker Session 3 Ashwani Singh, Ph.D (Global R&D Director Telemecanique Sensors)
03.15 – 03.30 PM	ICAE-ICAESS 2022 Back-Stage!
03.30 – 03.45 PM	Best Poster and Paper Announcement
03.45 – 04.00 PM	Closing Ceremony and Group Photo

ICAE Session



Schedule of Parallel Session ICAE 2022

Room Zoom	Time	Name	Affiliation	Title	
Moderator: Nur Sakinah Asaad,S.T.,M.T					
1A.	10.15 - 10.30	Mohamad Johan Arifin	Politeknik Elektronika Negeri Surabaya, Indonesia	Ultrasound Portable Integration for Segmentation Heart Disease in Health Care Kiosk	
		Riyanto Sigit	Politeknik Elektronika Negeri Surabaya, Indonesia		
		Taufiq Hidayat	Faculty of Medicine, Airlangga University, Indonesia		
		Tita Karlita	Electronic Engineering Polytechnic Institute of Surabaya, Indon		
	10.30 - 10.45	Riwinoto Riwinoto	Batam State Polytechnic, Indonesia	Analysis Optimization of Game "X" Performance on the Android Platform	
		William Tan	Politeknik Negeri Batam, Indonesia		
	10.45 - 11.00	Kero Baganet	Polibatam, Indonesia	User Experience Analysis on Application Simulation "HEALTHY LIFESTYLE AT HOME" Based on Virtual Reality	
		Riwinoto Riwinoto	Batam State Polytechnic, Indonesia		
	11.00 - 11.15	Annisa Florentia	Batam State Polytechnic, Indonesia	Usability Analysis: Virtual Reality-Based Lathe Machine Operation Simulation Application	
		Riwinoto Riwinoto	Batam State Polytechnic, Indonesia		
	Break				
	13.15 - 13.30	Tania Milda Grasella	Batam State Polytechnic, Indonesia	User Experience Evaluation of Virtual Reality-Based for LAN Cable Crimping Simulation Application	
		Riwinoto Riwinoto	Batam State Polytechnic, Indonesia		
	13.30 - 13.45	Lin Prasetyani	Politeknik Manufaktur ASTRA, Indonesia	Denso RC7M Robot Integration with PLC Based on Device-Net Communication in a Visual Line of Automotive Industry	
		Mada Jimmy Arifianto	Politeknik Manufaktur ASTRA, Indonesia		
Moderator: Fitriyanti Nakul, S.Pd.,M.Si					
2A	10.15 - 10.30	Asy Syifaur Roisah Rufaida	Universitas Gadjah Mada, Indonesia	Lexicon-Based Sentiment Analysis Using Inset Dictionary: A Systematic Literature Review	
		Adhistya Erna Permanasari	Universitas Gadjah Mada, Indonesia		
		Noor Akhmad Setiawan	Universitas Gadjah Mada, Indonesia		
	10.30 - 10.45	Hanif Naufal Arif Sunarko	Gadjah Mada University, Indonesia	Comparative Analysis of Masked and Unmasked for Face Recognition Using VGG Face and MTCNN	
		Risanuri Hidayat	Gadjah Mada University (UGM), Indonesia		
		Rudy Hartanto	Gadjah Mada University, Indonesia		
	10.45 - 11.00	Oktavianto Gustin	Politeknik Negeri Batam, Indonesia	WebGIS Distribution of Boarding House Locations (Case Study: Around Politeknik Negeri Batam Campus)	
		Karisma Pratama Ramadhan	Politeknik Negeri Batam, Indonesia		
	11.00 - 11.15	Oktavianto Gustin	Politeknik Negeri Batam, Indonesia	WebGIS Mapping the Distribution of Batam Island Main Bus Stops	
		Yulia Yulia	Politeknik Negeri Batam, Indonesia		
	Break				
	13.15 - 13.30	Oktavianto Gustin	Politeknik Negeri Batam, Indonesia	Mapping Land Field in Kampung Tua Nongsa Using NRTK Method Based on PTSL Activites	
		Alfin Alpredo Pelawi	Politeknik Negeri Batam, Indonesia		
	13.30 - 13.45	Oktavianto Gustin	Politeknik Negeri Batam, Indonesia	Mapping of Changes in the Marine Physical Properties of the Batam Island	
		Doli Prasetiyo	Politeknik Negeri Batam, Indonesia		

Room Zoom	Time	Name	Affiliation	Title
		F. V. Astrolabe Prasetya	Politeknik Pertanian Negeri Samarinda, Indonesia	
Moderator: Budiana, S.Si., M.Si				
3A	10.15 - 10.30	Oktavianto Gustin	Politeknik Negeri Batam, Indonesia	Mapping the Suitability of Land Use to the Regional Spatial Plans in Batam City
		Priecilla Hidayat	Politeknik Negeri Batam, Indonesia	
		Dewi Nur Indah Sari	Politeknik Negeri Banjarmasin, Indonesia	
	10.30 - 10.45	Ahmadi Irmansyah Lubis	Politeknik Negeri Batam, Indonesia	Classification of Alzheimer Disease from MRI Image Using Combination Naïve Bayes and Invariant Moment
		Swono Sibagariang	Politeknik Negeri Batam, Indonesia	
		Noper Ardi	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Shibajee Nath	Nottingham University Malaysia, Malaysia	Voltage Oriented Control for Electric Vehicle Regenerative Power Regulation
		Aaruththiran Manoharan	University of Nottingham Malaysia Campus, Malaysia	
		Mumtaj Begam Kasim Rawthar	University of Nottingham Malaysia Campus, Malaysia	
	11.00 - 11.15	Sartikha Sartikha	Politeknik Negeri Batam, Indonesia	Optimization of Genetic Algorithm for Urban Traffic Light Schedule Problem
		Noper Ardi	Politeknik Negeri Batam, Indonesia	
		Ahmadi Irmansyah Lubis	Politeknik Negeri Batam, Indonesia	
	Break			
	13.15 - 13.30	Ayu Ahadi Ningrum	Universitas Muhammadiyah Banjarmasin, Indonesia	Implementation of Wireless Sensor Network for Automatic Duck Egg Hatching Machine
		Windarsyah Windarsyah	Universitas Muhammadiyah Banjarmasin, Indonesia	
		Ihdalhubbi Maulida	Universitas Muhammadiyah Banjarmasin, Indonesia	
		Finki Dona Marleny	Universitas Muhammadiyah Banjarmasin, Indonesia	
	13.30 - 13.45	Diono Diono	Politeknik Negeri Batam, Indonesia	Application IOT (Internet of Things) Technology for Heat Input Variable in the FCAW (Flux Core Arc Welding) Welding Process: Studied at PT. NOV Profab Batam
		Adlian Jefiza	Politeknik Negeri Batam, Indonesia	
		Jhon Purba	Politeknik Negeri Batam, Indonesia	
		Sumantri Lukitto	Politeknik Negeri Batam, Indonesia	
		Illa Aryeni	Politeknik Negeri Batam, Indonesia	
		Fadli Firdaus	Politeknik Negeri Batam, Indonesia	
		Muhammad Jaka Wimbang Wicaksono	Politeknik Negeri Batam, Indonesia	
		Mohamad Alif Dzulfikar	Politeknik Negeri Batam, Indonesia	
Moderator: Muhammad Jaka Wimbang Wicaksono, S.T., M.T.				
	10.15 - 10.30	Eko Rudiawan Jamzuri	Politeknik Negeri Batam, Indonesia & National Taiwan Normal	Object Detection and Pose Estimation Using Rotatable Object Detector DRBox-v2 for Bin-Picking Robot
		Agristia Riski Pinandita	Politeknik Negeri Batam, Indonesia	
		Riska Analia	Politeknik Negeri Batam, Indonesia	
		Susanto Susanto	Politeknik Negeri Batam, Indonesia	

Room Zoom	Time	Name	Affiliation	Title
4A	10.30 - 10.45	Fitriyanti Nakul	Politeknik Negeri Batam, Indonesia	Staging Time Evaluation of Transfer Molding to PMC Process Towards Delamination on IC Package
		Afandi Kelana	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Arif Febriansyah Juwito	Politeknik Negeri Batam, Indonesia	Design a Prototype Monitoring System and Data Logging for 3-Phase Electrical Systems
		Diono Diono	Politeknik Negeri Batam, Indonesia	
		Miftahul Jihad	Politeknik Negeri Batam, Indonesia	
	11.00 - 11.15	Riska Analia	Politeknik Negeri Batam, Indonesia	The Graphical User Interface for Controlling Delta Robot Movement Through G-Code
		Susanto Susanto	Politeknik Negeri Batam, Indonesia	
		Eko Rudiawan Jamzuri	Politeknik Negeri Batam, Indonesia & National Taiwan Normal	
	Break			
	13.15 - 13.30	Mira Chandra Kirana	Politeknik Negeri Batam, Indonesia	Motion Graphic Sosialisasi Pencegahan Wabah Covid-19
		Mahmudi Mahmudi	Politeknik Negeri Batam, Indonesia	
		Muhamad Sahrul Nizan	Politeknik Negeri Batam, Indonesia	
	13.30 - 13.45	Yogy Pratama	Politeknik Negeri Batam, Indonesia	Localization System on Wheel Robot Soccer
		Hendawan Soebhakti	Politeknik Negeri Batam, Indonesia	
		Senanjung Prayoga	Politeknik Negeri Batam, Indonesia	
		Budiana Budiana	Politeknik Negeri Batam, Indonesia	
Moderator: Ryan Satria Wijaya, S.Tr.T., M.Tr.T.				
5A	10.15 - 10.30	Muhammad Zainuddin Lubis	Politeknik Negeri Batam, Indonesia	Study of the Physical Condition of the Waters of the Kabil-Batam Port, Indonesia Based on Hydro-Oceanography
		Muhammad Ghazali	Politeknik Negeri Batam, Indonesia	
		Wenang Anurogo	Politeknik Negeri Batam, Indonesia	
		Pratiwi Dwi Wulandari	CV. Tizen Construction, Indonesia	
	10.30 - 10.45	Churun In Layyinah	Politeknik Elektronika Negeri Surabaya, Indonesia	Heart Condition Classification Using Deep Learning as A Diagnosing Helper
		Riyanto Sigit	Politeknik Elektronika Negeri Surabaya, Indonesia	
		Tita Karlita	Electronic Engineering Polytechnic Institute of Surabaya, Indonesia	
		Taufiq Hidayat	Faculty of Medicine, Airlangga University, Indonesia	
	10.45 - 11.00	Muchammad Fajri Amirul, Nasru	Politeknik Negeri Batam, Indonesia	Rig Implementation Using Duik Bassel Plugin in 2d Animation "Terjebak Hoaks"
		Anis Rahmi	Politeknik Negeri Batam, Indonesia	
		Sandi Prasetyaningsih	Politeknik Negeri Batam, Indonesia	
		Umi Kalsum Nasution	Politeknik Negeri Batam, Indonesia	
		Sepnita Indriyani	Politeknik Negeri Batam, Indonesia	
		Harfina Nur Rizky	Politeknik Negeri Batam, Indonesia	
		Desy Leviana	Politeknik Negeri Batam, Indonesia	

Room Zoom	Time	Name	Affiliation	Title
	11.00 - 11.15	Susanto Susanto	Politeknik Negeri Batam, Indonesia	Improving the Stereo Distance Measurement Accuracy on the Barelang-FC Humanoid Robot
		Riska Analia	Politeknik Negeri Batam, Indonesia	
		Eko Rudiawan Jamzuri	Politeknik Negeri Batam, Indonesia & National Taiwan Normal	
	Break			
	13.15 - 13.30	Rahel Yulianti	Politeknik Negeri Batam, Indonesia	Obstacle Avoidance System Using LIDAR on Robot Turtlebot3 Burger
		Faiz Albar Risi	Politeknik Negeri Batam, Indonesia	
		Hendawan Soebhakti	Politeknik Negeri Batam, Indonesia	
		Yeni Riska Pratiwi	Politeknik Negeri Batam, Indonesia	
	13.30 - 13.45	Dwi Amalia Purnamasari	Politeknik Negeri Batam, Indonesia	Introducing ESMADI, Android-Based Learning Application with Prototyping Model
		Alena Uperiati	Politeknik Negeri Batam, Indonesia	
		Satriya Bayu Aji	Politeknik Negeri Batam, Indonesia	
Moderator: Nanta Fakhri Prebianto, S.ST., M.Sc				
6A	10.15 - 10.30	Rina Yulius, RY	Politeknik Negeri Batam, Indonesia	Design and Implementation of A Mobile-Based Refrigerator Reminder App
		Diyah Karmila Sari	Politeknik Negeri Batam, Indonesia	
	10.30 - 10.45	Amirul Mu'minin	Politeknik Negeri Batam, Indonesia	The Effects of the Addictive Effects of Online Games Among US in Terms of Computer-Mediated Communication (CMC) in the Young Generation
		Anis Rahmi	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Wenang Anurogo	Politeknik Negeri Batam, Indonesia	Waters Quality Assessment on Physical-Chemical Parameters Using Remote Sensing Technologies: Criteria for Total Suspended Solids and Waters Transparency
		Muhammad Zainuddin Lubis	Politeknik Negeri Batam, Indonesia	
		Muhammad Ghazali	Politeknik Negeri Batam, Indonesia	
	Break			
	13.15 - 13.30	Muchammad Fajri Amirul, Nasru	Politeknik Negeri Batam, Indonesia	Transmedia Storytelling Website-Based Children's Learning
		Sandi Prasetyaningsih	Politeknik Negeri Batam, Indonesia	
		Anis Rahmi	Politeknik Negeri Batam, Indonesia	
		Muhammad Taufan Perdana	Politeknik Negeri Batam, Indonesia	
	13.30 - 13.45	Yeni Riska Pratiwi	Politeknik Negeri Batam, Indonesia	Autonomous Navigation System Using Indoor GPS on Turtlebot Burger Robot
		Hendawan Soebhakti	Politeknik Negeri Batam, Indonesia	
		Rahel Yulianti	Politeknik Negeri Batam, Indonesia	
		Faiz Albar Risi	Politeknik Negeri Batam, Indonesia	
Moderator: Muhammad Prihadi Eko Wahyudi, S.T., M.T.				
	10.15 - 10.30	Faiz Albar Risi	Politeknik Negeri Batam, Indonesia	Auto Parking System with LIDAR and Reflective Tape for Turtlebot3 Burger Robot
		Hendawan Soebhakti	Politeknik Negeri Batam, Indonesia	
		Yeni Riska Pratiwi	Politeknik Negeri Batam, Indonesia	

Room Zoom	Time	Name	Affiliation	Title
7A		Rahel Yulianti	Politeknik Negeri Batam, Indonesia	
	10.30 - 10.45	Mohamad Nasyir Tamara	Politeknik Elektronika Negeri Surabaya & EEPIS, Indonesia	System Design of Warehouse Management AGV for Packages Sorting in Supporting Industry of E-Commerce
		Abdurahman Dwijotomo	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Budiana Budiana	Politeknik Negeri Batam, Indonesia	Study of Corrosion Rate at Aluminum Duralumin with YCbCr Filter Method
		Nibras Fitri Zuhra	Politeknik Negeri Batam, Indonesia	
		Dylla Tri Kusuma P	Politeknik Negeri Batam, Indonesia	
		Putri Rahmatika Viani	Politeknik Negeri Batam, Indonesia	
		Muhammad Lathief Ansarullah	Politeknik Negeri Batam, Indonesia	
	Break			
	13.15 - 13.30	Daniel Pamungkas	Politeknik Negeri Batam, Indonesia	K-NN with Frequency Domain Features for Identify Fingers Movement
	13.30 - 13.45	Anggi Pratiwi	Politeknik Negeri Batam, Indonesia	The Influence of Emotional Intelligence, Availability of Information Technology, Application of E-Learning, Class Size, and Machiavellism on Accounting Student Online Learning Outcomes
		Alfonsa Dian Sumarna	Politeknik Negeri Batam, Indonesia	

ICAESS Session



Schedule of Parallel Session ICAESS 2022

Room Zoom	Time	Name	Affiliation	Title
Moderator: Jessica Olifia				
8B	10.15 - 10.30	Rika Pramita	Polytechnic State of Batam, Indonesia	The Effect of Emotional Intelligence and Learning Behaviour on the Level of Understanding Accounting Student in Batam State Polytechnic
		Doni Putra Utama	Politeknik Negeri Batam	
	10.30 - 10.45	Putri Nadya Agustini	Politeknik Negeri Batam, Indonesia	Factors That Affect Stock Prices in LQ 45 Indexed Companies
		Alfonsa Dian Sumarna	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Danis Akmal Bin Jemizan	Politeknik Negeri Batam, Indonesia	The Effect of Enterprise Risk Management (ERM) on Firm Value in Manufacturing Companies Listed on BEI (2014-2020)
		Diah Amalia	Politeknik Negeri Batam, Indonesia	
	11.00 - 11.15	Rahayu Rahayu	Politeknik Negeri Batam, Indonesia	Financial Performance Analysis of Stock Return in Infrastructure, Utility, and Transportation Sector Companies in the Indonesia Stock Exchange
		Irsutami Irsutami	Batam State Polytechnic, Indonesia	
	Break			
	13.15 - 13.30	Ayu Garnis Nabila	Politeknik Negeri Batam, Indonesia	The Influence of Income Level, Perception of Tax Sanctions, Perception of Law and Tax Enforcement, Perception of Tax Justice and Perception of Transparency and Accountability on Individual Taxpayer Co
		Diah Amalia	Politeknik Negeri Batam, Indonesia	
	13.30 - 13.45	Afrido Rizki Akbari	Politeknik Negeri Batam, Indonesia	PBL Assessment Application Development Based on Microsoft Access
		Ropi Mardian	Politeknik Negeri Batam, Indonesia	
		Citra Dewi	Politeknik Negeri Batam, Indonesia	
		Alfonsa Dian Sumarna	Politeknik Negeri Batam, Indonesia	
		Arif Darmawan	Politeknik Negeri Batam, Indonesia	
	13.45 - 14.00	S Sulaksono Adi Wibowo	Politeknik Negeri Batam, Indonesia	The Influence of Working Capital Management on the Profitability of Manufacturing Companies
		Rizky Aulia Ryalvin	Politeknik Negeri Batam, Indonesia	
Moderator: Rizka Destiana				
9B	10.15 - 10.30	Nur Noviyo Ismareny	Politeknik Negeri Batam, Indonesia	The Influence of Company Internal Factors on Accounting Information System Performance
		Dedi Kurniawan	Politeknik Negeri Batam, Indonesia	
		Rusda Irawati	Batam State Polytechnic & Management Bussiness, Malaysia	
	10.30 - 10.45	Dewi Fortuna	Politeknik Negeri Batam, Indonesia	The Effect of Institutional Ownership, Free Cash Flow (FCF), and Profitability on Dividend Policy on Registered Basic and Chemical Manufacturing Companies on the Indonesia Stock Exchange
		Irsutami Irsutami	Batam State Polytechnic, Indonesia	
	10.45 - 11.00	Tiara Milenia	Politeknik Negeri Batam, Indonesia	The Effect of Financial Literacy, Financial Access and Growth on Micro Business Financial Management in Batam City
	11.00 - 11.15	Suharyono Suharyono	Politeknik Negeri Bengkalis, Indonesia	Analysis of the Effect of Corporate Governance on Corporate Sustainability Performance
		Riska Laili Romanza Hs	Politeknik Negeri Bengkalis, Indonesia	
	Break			
	13.15 - 13.30	Rika Rahmahwati Sani	Politeknik Negeri Batam, Indonesia	Effect of Working Capital Efficiency, Liquidity and Leverage Against Profitability
		Vina Kholisa Dinuka	Politeknik Negeri Batam, Indonesia	
	13.30 - 13.45	Fenisiya Erawati	Politeknik Negeri Batam, Indonesia	The Effect of Profitability, Capital Structure, and Company Size on Company Value in the Transportation and Logistics Sector Listed on the Indonesia Stock Exchange for the 2016-2020 Period
		Bambang Hendrawan	Politeknik Negeri Batam, Indonesia	
	13.45 - 14.00	Ega Oktavia Kusuma	Politeknik Negeri Batam, Indonesia	The Effect of Information Technology Advancement, Management Participation, and Work Motivation on Employee Performance at PT Cladtek Bi-Metal Manufacturing Indonesia
		Winanda Wahana Warga Dalam	Politeknik Negeri Batam, Indonesia	

Room Zoom	Time	Name	Affiliation	Title
Moderator: Yosi Handayani				
10B	10.15 - 10.30	Novia Vetty Syahbandar	Politeknik Negeri Batam, Indonesia	Factors Affecting Profitability in Manufacturing Sector Companies Listed on IDX Δ
		Nanik Lestari	Politeknik Negeri Batam, Indonesia	
	10.30 - 10.45	Farah Nurul Azizah	Politeknik Negeri Batam, Indonesia	Analysis Feasibility Study for Opening Branch Office of PT BPR Kepri Bintan in Batam City
		Arniati Arniati	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Jihan Alfidilla	Politeknik Negeri Batam, Indonesia	Stock Valuation Using Discounted Cash Flow and Relative Valuation Methods
		Winanda Dalam	Politeknik Negeri Batam, Indonesia	
	11.00 - 11.15	Niken Savira	Politeknik Negeri Batam, Indonesia	THE EFFECT OF PRODUCT QUALITY AND SERVICE QUALITY ON CUSTOMER SATISFACTION IN BPKB AR-RUM FINANCING (Study on Sharia Pawnshops at Carina Tanjung Uncang Park, Batu Aji)
		Sinarti Sinarti	Politeknik Negeri Batam, Indonesia	
	Break			
	13.15 - 13.30	Rifda Taufaila	Politeknik Negeri Batam	Factors Affecting Taxpayer's Compliance in Fulfilling Its Obligation (Empirical Study on Taxpayer Personal Persons Registered at KPP Pratama Batam Selatan)
Wika Arsanti Putri		Politeknik Negeri Batam, Indonesia		
13.30 - 13.45	Mohammad Dzulfikri Daroni	Polibatam University, Indonesia	Comparison of Financial Performance of Manufacturing Industry Companies During Covid-19 Pandemic	
13.45 - 14.00	Hasmira Paramitha Aqila	Batam State Polytechnic, Indonesia	The Effect of Capital Market Training and Online Trading System on Student Interest in Investing in the Capital Market	
	Ria Anggraini	Politeknik Negeri Batam, Indonesia		
	Dwi Kartikasari	Universiti Brunei Darussalam, Indonesia		
Moderator: Sugeng Riyadi				
11B	10.15 - 10.30	Frilyan Juanda Adios	Politeknik Negeri Batam, Indonesia	The Impact of the Short Film "Cita-Cita di Pasir Panjang" on the Effectiveness of Public Awareness for Paying Taxes
		Rina Yulius, RY	Politeknik Negeri Batam, Indonesia	
		Fandy Neta	Politeknik Negeri Batam & GIT Academy Indonesia, Indonesia	
	10.30 - 10.45	Rika Zahara	Politeknik Negeri Batam, Indonesia	The Effect of Attitude and Motivation on Students' Entrepreneurship Interest
		Muhammad Ramadhan Slamet	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Arwika Mugi	Batam State Polytechnic, Indonesia	THE EFFECT OF LEADERSHIP STYLE, TRUST IN BOSS, AND JOB SATISFACTION ON EMPLOYEE PERFORMANCE (Case Study on Manufacturing Companies in Batamindo Industrial Park Area)
		Irsutami Irsutami	Batam State Polytechnic, Indonesia	
	11.00 - 11.15	Kishor Baburao Dalve	MGM University Aurangabad, India	Study of Business Management Opportunities with Special Reference to Agro-Tourism in Maharashtra State
		PravinKumar Govind Shastri	M G M University Aurangabad, India	
	Break			
13.15 - 13.30	Bambang Hendrawan	Politeknik Negeri Batam, Indonesia	Effect of Cash Flows from Operating Activities, Investment Activities, and Funding Activities on Liquidity Level of Infrastructure Sector Companies Listed on the Indonesia Stock Exchange	
	Daiyana Putri Nurfat Aulia	Politeknik Negeri Batam, Indonesia		
13.30 - 13.45	Dessy Nathalia Hutagaol	Batam State Polytechnic, Indonesia	The Influence of the Use Social Networking Sites (SNS) and Work Stress on Employee Performance	
13.45 - 14.00	Linda Setyaningsih	Politeknik Negeri Batam, Indonesia	The Influence of Korean Wave, Brand Ambassador and Price on Purchase Intention at Tokopedia	
	Muhammad Ramadhan Slamet	Politeknik Negeri Batam, Indonesia		
Moderator: Mia Syafrina				
	10.15 - 10.30	Ayu Puspitasari	Politeknik Negeri Batam, Indonesia	The Influence of Price, Product Quality, and Product Design on Repeat Purchase Decision of Emina Brand Cosmetic Products in Batam City
		Kurnia Erika Binti Murad	Politeknik Negeri Batam, Indonesia	
	10.30 - 10.45	Alga Trio Razaq	Politeknik Negeri Batam, Indonesia	The Effect of Innovation, Promotion and Service Gojek on Purchasing Decisions
		Rahmat Hidayat	Politeknik Negeri Batam, Indonesia	

Room Zoom	Time	Name	Affiliation	Title	
128	10.45 - 11.00	Cantyka Trisandy	Polytechnic State of Batam, Indonesia	The Influence of Service Quality and Price on Customer Satisfaction on Gojek Users at Batam State Polytechnic	
		Doni Putra Utama	Politeknik Negeri Batam & Batam Centre Jl Ahmad Yani Tlk Tering		
	11.00 - 11.15	Tiara Wati	Batam State Polytechnic, Indonesia	Analysis of Factors Affecting Customer Loyalty EL Hana Aesthetic Center Batam	
		Shinta Wahyu Hati	Politeknik Negeri Batam, Indonesia		
	Break				
	13.15 - 13.30	Syarifah Mayasari	Politeknik Negeri Batam, Indonesia	The Competence of Machining Engineering Skills of SMK Negeri 6 Batam and Its Relevance to the Implementation of PKL (Field Work Practices) on Readiness to Enter the Workforce	
		Ayu Puspitasari	Politeknik Negeri Batam, Indonesia		
	13.30 - 13.45	Alvin Pratama Nasution	Politeknik Negeri Batam, Indonesia	Effectiveness of Online Single Submission Implementation in Business Licensing Services at the Directorate of Goods Traffic Services and Investment in Batam City	
		Yosi Handayani	Politeknik Negeri Batam, Indonesia		
	13.45 - 14.00	Andi Erna Mulyana	Politeknik Negeri Batam, Indonesia	How Talent Management, Motivation, and Career Development Affecting the Employee Performance at PT Excelitas Technologies Batam?	
Nur Fitri Arpiani		Politeknik Negeri Batam, Indonesia			
Moderator: Yulinda Tarigan					
138	10.15 - 10.30	Annisa Aqidatul Izzah	Politeknik Negeri Batam, Indonesia	Workload Analysis on Seeu.co Photo Studio in Batam City	
		Hajan Hidayat	Politeknik Negeri Batam, Indonesia		
	10.30 - 10.45	Andi Erna Mulyana	Politeknik Negeri Batam, Indonesia	Measurement of Material Supply Chain Performance Using SCOR Method	
		Ricky Nova Hamid Hamid	Politeknik Negeri Batam, Indonesia		
	10.45 - 11.00	Teguh Widodo	Politeknik Negeri Bengkalis, Indonesia	Implementation of Business Integration Strategy in the Retail Sector of Grocery Store to Increase Sustainable MSMEs Business Competitiveness Through the SRC Business Partnership Network Program	
		Erma Domos	State Polytechnic of Bengkalis, Indonesia		
		Suharyono Suharyono	Politeknik Negeri Bengkalis, Indonesia	Factors Affecting Millennial Generation's Online Shopping Interest	
		Melinda Intan Ayu Faradilla	Politeknik Negeri Batam, Indonesia		
		Sinarti Sinarti	Politeknik Negeri Batam, Indonesia	Break	
	13.15 - 13.30	Hummayyah Ade Lestari	Politeknik Negeri Batam, Indonesia		Factors Affecting Students of the Accounting, Managerial Accounting & Business Administration Study Program of the Batam State Polytechnic Doing Impulsive Buying at Shopee E-Commerce During the Covid
		Muslim Ansori	Politeknik Negeri Batam, Indonesia		
	13.30 - 13.45	Gina Yulita	Batam State Polytechnic, Indonesia	The Effect of Selling Price and Distribution Channel on the Sales Volume of Internet Cards and Vouchers at PT Hunindo Jaya Sejati	
		Wika Arsanti Putri	Politeknik Negeri Batam, Indonesia		
13.45 - 14.00	Jefri Oktoriana Simanjuntak	Politeknik Negeri Batam, Indonesia	E-Commerce Service Quality, E-Customer Satisfaction and Loyalty: Modification of E-Servqual Model		
	Mega Mayasari	Politeknik Negeri Batam, Indonesia			
Moderator: Afriyanti Hasanah					
148	10.15 - 10.30	Dina Rosiana, BintiRosli	Politeknik Negeri Batam, Indonesia	Analysis Patterns of Sea Distribution and Marketing Margins of Sea on Terong Island, Belakang Padang District, Batam City	
		Shinta Wahyu Hati	Politeknik Negeri Batam, Indonesia		
	10.30 - 10.45	Rahmat Hidayat	Politeknik Negeri Batam, Indonesia	Analysis the Influence of Work Environment, Work Facilities and Work Discipline on Employee Performance at Pt. Xyz	
		Uswatun Dwi Sahara Jufri	Politeknik Negeri Batam, Indonesia		
	10.45 - 11.00	Sekar W Prasetyaningtyas	Binus Business School, Binus University, Indonesia	Impact of Power Diversity on Employee Proactivity and Job Performance: Case from Education Counselor Unit in Jakarta's Private University	
	11.00 - 11.15	Kurnia Fitriani	Politeknik Negeri Batam, Indonesia	Analysis of the Delivery Process of Garuda Indonesia Cargo Goods in Batam	
		Andi Erna Mulyana	Politeknik Negeri Batam, Indonesia		
Break					

Room Zoom	Time	Name	Affiliation	Title
	13.15 - 13.30	Tri Anggraini	Batam State Polytechnic, Indonesia	Student Learning Satisfaction and Its Effect on the Desire to Continue Learning Using the Online Method
		Muhammad Ikhlash	Politeknik Negeri Batam, Indonesia	
	13.30 - 13.45	Srimelati Anjelina Sinaga	Batam State Polytechnic, Indonesia	The Effect of Financial Knowledge, Financial Attitude, and Personality on Financial Management Behavior on Small Medium Micro Business Actors in Batam City
		S Sulaksono Adi Wibowo	Politeknik Negeri Batam, Indonesia	
	13.45 - 14.00	Dian Mulyaningtyas	Institute Teknologi 10 Nopember & Politeknik Negeri Batam, Indo	The Influence Covid 19, Competition, Price and Service Quality on Purchase Decisions at PT Melvin Prima Perkasa (Freight Forwarding)
		Erika Agustina	Politekhnik Negeri Batam, Indonesia	
Moderator: Desi Ratna Sari				
15B	10.15 - 10.30	Dian Mulyaningtyas	Institute Teknologi 10 Nopember & Politeknik Negeri Batam, Indo	Analysis of Logistics Performance on the Supply of Goods from Distribution Centers to All JOMTEA BRAND BEVERAGE OUTLETS in BATAM AND TANJUNG PINANG CITIES
	10.30 - 10.45	Dian Mulyaningtyas	Institute Teknologi 10 Nopember & Politeknik Negeri Batam, Indo	The Influence of Consumer Complaints, Handling Satisfaction, and Service Quality on Customer Loyalty with Repurchase Interest as Moderating Variables at Fygalery Jakarta Online Store
		Indah Kurnia Sari	Politeknik Negeri Batam, Indonesia	
	10.45 - 11.00	Cut Windiani	Politeknik Negeri Batam, Indonesia	The Influence of Work Environment, Work Culture, and Incentives on Employee Performance at PT Kemet Electronics Indonesia
		Ria Anggraini	Politeknik Negeri Batam, Indonesia	
		Hanna Tinambunan	Illinois State University, USA	
	11.00 - 11.15	Nur Rahmah Andayani	Politeknik Negeri Batam, Indonesia	The Influence of Problem Handling, Commitment, Trust, and Communication on Customer Loyalty at Rural Banks
	Break			
	13.15 - 13.30	Nur Rahmah Andayani	Politeknik Negeri Batam, Indonesia	The Influence of Price, Promotion, and Product Quality on Purchasing Decisions for Batam Batik Products at Dekranasda Batam
	13.30 - 13.45	Lydia Putri Puspitasari	Politeknik Negeri Batam & Batam, Indonesia	Analysis of the Effect of Inventory, Operational Audit and Internal Control on Warehousing Management at PT Internasional Asia Prima Sukses
		Fandy Bestario Harlan	Politeknik Negeri Batam, Indonesia	
13.45 - 14.00	Rizki Putri Kastulani	Politeknik Negeri Batam, Indonesia	Consumer Satisfaction Analysis of Scarlett Whitening Products Through Brand Image, Price, Product Quality, and Digital Marketing Factors	
	Maryani Septiana	Politeknik Negeri Batam, Indonesia		

ICAE Abstracts



Analysis Optimization of Game "X" Performance on the Android Platform

Riwinoto Riwinoto (Batam State Polytechnic, Indonesia); William Tan (Politeknik Negeri Batam, Indonesia)

Abstract. The preliminary research entitled "Game Prototype Performance Analysis on The Android Platform" stated that the game "X" (The name was disguised for development purposes), was not optimized very well. The game needs to be researched further to improve the process of optimization and to find the result based on the conclusion from the preliminary research, which states that the frame from the result of the analysis should reach 60 fps. In this research, there will be many different types of prototype results, with each of them having different types of optimization. There are the scripting process, garbage collection, and rendering. This research focuses on performance which improves the speed of the game and from the result of the research, there will be 4 revisions for having an optimized state of performance that can be used for further development.

User Experience Analysis on Application Simulation "HEALTHY LIFESTYLE AT HOME" Based on Virtual Reality

Kero Baganet (Polibatam, Indonesia); Riwinoto Riwinoto (Batam State Polytechnic, Indonesia)

Abstract. Health at home is very important to implement some families do not really apply health or clean living rules at home. At this time, there are problems that can be explained with technology, one of which is by providing content with a realistic visual concept which is also called Virtual Reality (VR). VR technology is also used in several fields such as gaming, health simulation, simulation in the field of education and others. –Therefore, the author decided to analyze an application that aims to educate virtual reality-based on healthy living rules at home. The author wants to know the level of user experience of healthy living applications at home. For the method of this user experience itself, the author decides to use the TCSD (Task Centered System Design) method. TCSD is a method that is included in Human Computer Interaction (HCI). This method has four stages, namely Identification, User-Centered Requirements Analysis, Design through Scenario and System Evaluation. And at the final stage in the TCSD method is the walkthrough evaluate stage which will be carried out to evaluate user usability. The evaluation is carried out with one of the usability methods, namely heuristic evaluation. Based on the results of research analysis and testing carried out on healthy living simulation applications at home as applications that educate about the importance of healthy living at home, with the heuristic calculation method, an average value of 0.81 has been obtained with a rating of "Cosmetic" which means there are problems but these problems are not too important to fix. And it can be concluded that the healthy living simulation application at home is acceptable with low usability problems.

Usability Analysis: Virtual Reality-Based Lathe Machine Operation Simulation Application

Annisa Florentia and Riwinoto Riwinoto (Batam State Polytechnic, Indonesia)

Abstract. Virtual Reality (VR) can be used in any field, not least in practical simulations and training. The lathe operation simulation application is one example of the use of VR technology in the field of manufacturing mechanical engineering. In this study using the Post-Study System Usability Questionnaire method to analyse usability testing on the lathe VR simulation application. Research conducted on students of Manufacturing Mechanical and Welding Engineering, Batam State Polytechnic will produce data related to the level of system quality in the application. The results of the usability evaluation get a value above the average with each component of System Usefulness (2.2), Information Quality (2.2), Interface Quality (2.4) and Overall (2.23) getting a good category.

User Experience Evaluation of Virtual Reality-Based for LAN Cable Crimping Simulation Application

Tania Milda Grasella and Riwinoto Riwinoto (Batam State Polytechnic, Indonesia)

Abstract. Virtual reality is currently growing rapidly, marked by the emergence of various products in various sectors, especially in the educational sector. Batam State Polytechnic has developed virtual reality-based learning products, one of the products is a simulation application of LAN cable crimping. This simulation is made in such a way as to represent the working procedure of LAN cable crimping practicum module. The simulation application of "LAN cable crimping" has to be measured to determine its usability level. This study was conducted using the system usability scale to find out whether the usability rate has met the standard or not by testing the simulation product and filling out questionnaires. The questionnaire contains 10 questions following the system usability scale instrument. This study resulted in several conclusions: (1) Based on the system usability scale (SUS) score, the adjective rating of the "LAN crimping cable" was "good" (B) with a final score of 74. (2) The simulation was acceptable and respondents also commented that the simulation helped in understanding the LAN cable crimping process, although they had never done it directly.

Denso RC7M Robot Integration with PLC Based on Device-Net Communication in a Visual Line of Automotive Industry

Lin Prasetyani and Mada Jimmy Arifianto (Politeknik Manufaktur ASTRA, Indonesia); Pengki Mulyanto (Politeknik Astra, Indonesia)

Abstract. An automotive company that manufactures pistons integrates a DENSO-type robot into an existing control system. The visual process of controlling and checking the product quality control has the purpose gets a good product. Previously, the process was carried out conventionally through the eyes of Manpower. The visual inspection carries out by utilizing the robots they have. The desired goal is to reduce cycle time on the Visual line. Therefore, the author and the engineering maintenance team decided to replace the system on the visual line using a robot through integration with the existing HMI control system. The integration of this robot supports an auto-visual inspection scheme with the help of the Device-Net control system communication. After doing the trial process, the result is that the cycle time drops to +- 36%. This research paper applies to an automotive company in which cycle time is something critical point. The decreasing of cycle time becomes something urgent in a production process

WebGIS Distribution of Boarding House Locations (Case Study: Around Politeknik Negeri Batam Campus)

Oktavianto Gustin and Karisma Pratama Ramadhan (Politeknik Negeri Batam, Indonesia)

Abstract. Politeknik Negeri Batam is the only public university in Batam City, Riau Islands Province. Many students come from within the city and outside the city to continue their education in college. So it requires a temporary place while studying. Searching in various print media, seeing the words "Accept Boarding" affixed to the front of the boarding house owner's house, or asking people who know. This is a challenge for students to find temporary housing around campus. By utilizing webGIS technology the purpose of this research is to produce a webGIS for the distribution of boarding house locations that can be accessed via the internet. WebGIS can display information that is equipped with the location of the boarding house and the route of the trip. Making webGIS using data collection methods, data processing, results, and analysis with Likert's method by utilizing Leaflet JavaScript Library technology. Application testing is done by paying attention to functionality and usability testing. In testing the functionality, it can be said that webGIS was successful in by expected results. While the usability test from several 40 respondents obtained the results of usability testers with an average answer score of $MI < X MI + 1.5 SDI$, namely $25.5 < 30.732.7495$, which means that the average answer score is in the "decent" category. it can be said that the webGIS application for the distribution of the location of this boarding house is included in the "appropriate" category.

WebGIS Mapping the Distribution of Batam Island Main Bus Stops

Oktavianto Gustin and Yulia Yulia (Politeknik Negeri Batam, Indonesia)

Abstract. People in the city of Batam as well as local and foreign tourists who want to travel, especially in the city of Batam, find it difficult to know the location, position and location of the bus stop. Although so far there are google maps that provide information on the availability of road facilities, but for some places, google maps has not provided information about bus stops. Another way is needed to provide information on the location of bus stops in the city of Batam, not only through information obtained from city bus officers. People do not know about the existence of the bus stops on Batam Island, because of the lack of spatial information about the location of the bus stops on Batam Island. A media is needed to provide information and the location of the bus stops on Batam Island. The initial step taken by the researcher was collecting data in the form of data information such as the coordinates of the bus stop. Then carry out a site survey by taking coordinates or points from the location of each Batam Island bus stop, and proceed with data processing until the goal of this research is achieved in the form of WebGIS distribution of Batam Island shelters.

Mapping Land Field in Kampung Tua Nongsa Using NRTK Method Based on PTSL Activites

Oktavianto Gustin and Alfin Alpredo Pelawi (Politeknik Negeri Batam, Indonesia)

Abstract. Measurement and mapping of land parcels is a series of activities in carrying out land registration, this activity can be carried out by various methods, such as: photogrammetric methods, remote sensing, terrestrial and other methods. Complete Systematic Land Registration or commonly called PTSL is a program from the government in the land sector in the form of land dispute resolution or land certificate activities simultaneously in one work area and carried out by collecting data simultaneously. At the same time, data collection can reduce the risk of land and property rights disputes, both within the community and with the government. By measuring land registration using the RTK method with INA-CORS BIG as the base, the results of this measurement produce a Land Plane Map (PBT), where the target of the measurement is 1,500 parcels of land. PTSL 2021 Kampung Tua Nongsa with a measurable area of 1,591 fields.

Mapping of Changes in the Marine Physical Properties of the Batam Island

Oktavianto Gustin and Doli Prasetyo (Politeknik Negeri Batam, Indonesia); F. V. Astrolabe Prasetya (Politeknik Pertanian Negeri Samarinda, Indonesia)

Abstract. Batam Island is one of the islands in the Riau Archipelago which is rich in natural resources, especially mangroves and coral reefs, these two aspects are very influential on changes in the ecosystem found in the sea, but there are several locations of mangroves and coral reefs that have been damaged by human and natural causes, namely, Some of the physical properties of seawater include sea surface temperature, salinity, and total suspended sediment. Therefore, a study was conducted that aims to determine changes in the area of mangroves and coral reefs on Batam Island by utilizing Landsat 8 image recording in 2017 and 2021. So that changes in mangroves, coral reefs, and physical properties of sea water can be known from the results of this study.

Mapping the Suitability of Land Use to the Regional Spatial Plans in Batam City

Oktavianto Gustin and Priecilla Hidayat (Politeknik Negeri Batam, Indonesia); Dewi Nur Indah Sari (Politeknik Negeri Banjarmasin, Indonesia)

Abstract. Land use is a tangible manifestation of the impact of human activities on the earth's surface. If the population increases and activity increases, a region's land use patterns may change. Batam city is one of the cities that attract immigrants and has the potential for rapid growth and development. In the arrangement of land use that is not appropriate, it will urge natural space to change function, so that a regional spatial plan is needed that is regulated by laws and regulations related to the Regional Spatial Plan / Spatial Pattern obtained from BP Batam. This study aims to map land use and determine the suitability of land use that occurs in Batam City in 2021 based on interpretation of Landsat-8 satellite imagery in 2021 by digitization on-screen and overlay. The method used in this study used the Multispectral Maximum Likelihood classification method. The Results of this study provide information in the form of land cover maps, land use maps with classifications totaling 12 classes in accordance with the class III classification set by Malingreau consisting of airports, lakes, forests, industries, ponds, open land, sea, mangroves, ports, plantations, settlements and land use suitability maps with appropriate area of 76608.97 Ha and area not in accordance with 25560.74 Ha to spatial plan Batam City Area.

Classification of Alzheimer Disease from MRI Image Using Combination Naïve Bayes and Invariant Moment

Ahmadi Irmansyah Lubis, Swono Sibagariang and Noper Ardi (Politeknik Negeri Batam, Indonesia)

Abstract. This study examines the classification of Alzheimer's disease. Alzheimer's is a memory disorder in an older person caused by degeneration of the central nervous system, which results in memory impairment and can cause death. Early detection of Alzheimer's can also be done based on image processing using magnetic resonance imaging (MRI) type images. Therefore, in this research, we use a feature extraction process to extract the characteristics of Alzheimer's disease that appear on MRI images using Moment Invariance and use the Naïve Bayes classification method to classify classes from images based on normal images, very mild disturbances, mild disturbances, and disturbances. Medium from brain images in the classification of Alzheimer's disease. The classification stage consists of several stages such as image acquisition, preprocessing (grayscale), segmentation (canny edge detection, threshold), feature extraction using Invariant Moment, and image classification using Naïve Bayes. Based on the testing of the method proposed in this research, the results obtained for the accuracy of classifying Alzheimer's disease in this study are 94%.

Optimization of Genetic Algorithm for Urban Traffic Light Schedule Problem

Sartikha Sartikha, Noper Ardi and Ahmadi Irmansyah Lubis (Politeknik Negeri Batam, Indonesia)

Abstract. Congestion is a major problem at urban traffic light intersections. One of the problems is the uneven distribution of vehicles at traffic light intersections, even though the portion of green duration at traffic light intersections is the same. Must present an adjusted deduction based on the number of vehicles at each intersection. In addition to optimizing the green duration, if you only consider one intersection, it will cause other problems such as congestion at the next connected intersection so that the required parameters are used for coordination between the initial intersection and the next connected intersection. In this research, optimization was carried out by giving weight to each parameter based on real vehicle data passing through the route at 11 intersections in Yogyakarta. At 11 intersections, 9 traffic light intersections were taken which will make the optimal green duration based on the parameters of the initial flow, destination flow and trip duration for traffic light coordination between the initial traffic light intersection and the next connected traffic light intersection. Next, the fitness function is formulated and then processed using a genetic algorithm. In the Genetic Algorithm optimization process, chromosomes are the green duration of 9 traffic light intersections which will then be processed with the genetic algorithm stages. The result is 9 optimal green durations based on the initial flow, the destination flow and the duration of the trip. The green duration adjusts the weights with maximum accuracy and reduces the vehicle travel duration from 44-64 seconds per one traffic light and a total of 419 seconds at 9 traffic intersections from the optimized data.

Application IOT (Internet of Things) Technology for Heat Input Variable in the FCAW (Flux Core Arc Welding) Welding Process: Studied at PT. NOV Profab Batam

Diono Diono, Adlian Jefiza, Jhon Purba and Sumantri Lukitto (Politeknik Negeri Batam, Indonesia); Illa Aryeni (Batam State Polytechnic, Indonesia); Fadli Firdaus (Batam State Polytechnic Indonesia, Indonesia); Muhammad Jaka Wimbang Wicaksono (State Polytechnic of Batam, Indonesia); Mohamad Alif Dzulfihar (Politeknik Negeri Batam, Indonesia)

Abstract. In the oil and gas sector, the welding process plays an important role in the construction, operation and maintenance phases. At this time, the construction industry has undergone many changes, especially changes in the technology sector. The construction industry, especially the metal fabrication industry related to welding, also experienced the impact of these changes. One of the changes is integrating welding machines with IOT (Internet of Things). This integration makes it easier for personnel including welders, supervisors, welding engineers and management to analyze data from the welding machine. The data from this welding machine can be used as a reference for the quality of welding results, production efficiency and the ability of the welder's performance to produce a good welding result according to the expected standard. In this final project prototype, the integration of FCAW (Flux Core Arc Welding) welding machine with IOT (Internet of Things) uses several components including ESP32-32S as a microcontroller, voltage sensor (voltage), HSTS023R current sensor (amperes), speed sensor Infrared Optocoupler LM393 (travel speed), MySQL database management system (database management system), ThingSpeak website application media and Blynk software application to monitor welding data variables via the internet in real time (real time). It is hoped that this prototype can represent a Heat Input data that can be analyzed from a welding product so that it meets quality, safety and efficiency standards as well as productivity

Voltage Oriented Control for Electric Vehicle Regenerative Power Regulation

Shibajee Nath (Nottingham University Malaysia, Malaysia); Aaruththiran Manoharan (& University of Nottingham Malaysia Campus, Malaysia); Mumtaj Begam Kasim Rawthar (University of Nottingham Malaysia Campus, Malaysia)

Abstract. Electric Vehicles have been designed to address the increased carbon emissions made by fossil fuel-powered vehicles. On the other hand, electric vehicles have a longer battery charging time and shorter driving range. The use of regenerative braking systems (RBS) can help solve these problems. To ensure effective regenerative energy storage, it is crucial to regulate the regenerative power using a power electronic system. This paper proposes the use of a three-phase voltage source converter (VSC) and controller. Mathematical model of the plant system is analyzed and used to synthesize the controller for the VSC. Voltage oriented control (VOC) method is used. It consists of two loops: the outer voltage and the inner current loop. Initially, the conventional VOC method was used, however, found to perform poorly because of high overshoot and instability; thus, an improved version of the controller is presented to overcome the issues. Feedback to the voltage loop PI controller and a different set of PI controller parameters was formed. The system was simulated in MATLAB/Simulink environment to evaluate the performance. The proposed VSC show improved overshoot by 70% and steady-state time by 55%, contributing to better efficiency of the regenerative system. With this, the range and life-cycle of an EV can be increased by achieving greater amount of recovered kinetic energy from the RBS.

Localization System on Wheel Robot Soccer

Yogy Pratama, Hendawan Soebhakti, Senanjung Prayoga and Budiana Budiana (Politeknik Negeri Batam, Indonesia)

Abstract. Wheeled robot soccer is a robot designed to play soccer. In Fact, the robot must be able to play like humans in wheeled robot soccer competition. The wheeled robot soccer is divided into several parts such as striker robot, defender robot and kipper robot. The striker robot is a robot that has the task of being able to score goals against the opponent's goal and the defender robot has the task of guarding the defense area. While the kipper robot is to guard the goal so that gold does not enter the goal. The positioning of robot is one of the most important things in the manufacture of automatic robots. Robots had to know their position and the opponent robot position. One way to find out how far the robot moves is by using a rotary encoder equipped with a gyroscope. Nevertheless, this method is easily affected by the environment like slips condition. As a result of slip, error position will be generated. To correct error position, another sensor, the camera mounted on the robot, is needed that is not affected by the previous reading,

Object Detection and Pose Estimation Using Rotatable Object Detector DRBox-v2 for Bin-Picking Robot

Eko Rudiawan Jamzuri (Politeknik Negeri Batam, Indonesia & National Taiwan Normal University, Taiwan); Agrestia Riski Pinandita, Riska Analia and Susanto Susanto (Politeknik Negeri Batam, Indonesia)

Abstract. This research aims to identify and estimate the object's pose to support bin-picking robot perception. In this research, we proposed the usage of the ArUco marker as a visual landmark of the detection area. Furthermore, the image of the detection area is processed by rotatable object detector DRBox-v2 to get the object's position and orientation in the camera frame. In the final process, the resulting DRBox-v2 position and orientation are transformed into a two-dimensional world coordinate as the final estimated pose. Based on the experimental result, the object detection yields an Average Precision (AP) of 0.54 while a threshold score of 0.5 is used. As the pose estimation result, the proposed method yields an average position error of 0.21 cm and a maximum position error of 0.28 cm. For the orientation error, the system achieves a maximum orientation error of about 1.23 degrees with an average orientation error of 0.58 degrees. This research contributes to the possibility of camera usage and end-to-end deep learning detector supporting bin-picking research.

Staging Time Evaluation of Transfer Molding to PMC Process Towards Delamination on IC Package

Fitriyanti Nakul and Afandi Kelana (Politeknik Negeri Batam, Indonesia)

Abstract. Moisture-induced delamination is one of the reliability concerns in electronic packaging. This work evaluates moisture absorption changes by the staging time approach during the transfer molding to the post molding curing (PMC) process and the impact of moisture changes on the delamination of the integrated circuit (IC) packages. These experimental results can be used as a recommendation to determine the limit of staging time in line production properly and how this method can prevent interfacial delamination on packages during the reflow process. The package reliability were observed by perform SAM visual inspection.

Design a Prototype Monitoring System and Data Logging for 3-Phase Electrical Systems

Arif Febriansyah Juwito, Diono Diono and Miftahul Jihad (Politeknik Negeri Batam, Indonesia)

Abstract. Electrical energy is one of the basic needs in life today, but in its utilization, several problems can cause losses in the electricity system, one of the causes is nontechnical shrinkage that often occurs on the customer's side in the form of electricity theft. Therefore, innovation is carried out using IoT (Internet of Things) in order to easily monitor the parameters of electricity magnitude. In this study, a stage of collecting parameters of the amount of electricity was proposed. The electric power observation method uses a voltage sensor (ZMPT101B) and a current sensor (SCT-013-000). Arduino Nano microcontrollers are used in measurement systems and the Wemos D1 Mini is used as a link to internet connections over WiFi networks. Measurement data is sent and stored to the MySQL Database in the form of a data logger. The media used is a Website-based GUI. The results showed that remote monitoring using a GUI can be done, where this tool can send parameters of electricity measurement to the GUI with a period every 10 minutes.

Improving the Stereo Distance Measurement Accuracy on the Barelang-FC Humanoid Robot

Susanto Susanto and Riska Analia (Politeknik Negeri Batam, Indonesia); Eko Rudiawan Jamzuri (Politeknik Negeri Batam, Indonesia & National Taiwan Normal University, Taiwan)

Abstract. Distance estimation is essential in developing humanoid soccer robots. Accurate distance measurement can minimize an error while the robot is maneuvering, chasing a ball, or passing the ball to the proponent robots. Currently, stereo vision and feature matching is the conventional method to estimate the distance. Distance is estimated based on the disparity value between detected features on the stereo image. However, the matching process needs high cost computationally. Furthermore, the estimated distance based on feature matching is less accurate. Therefore, in this work, we proposed the distance estimation based on the object coordinates detected using the YOLOv3. Additionally, we add a linear regression algorithm to improve the measurement accuracy. We did several experiments to verify this proposed method in real-time applications. As a result, our proposed method successfully improves the distance measurement accuracy.

Motion Graphic Sosialisasi Pencegahan Wabah Covid-19

Mira Chandra Kirana, Mahmudi Mahmudi and Muhamad Sahrul Nizan (Politeknik Negeri Batam, Indonesia)

Abstract. There are many ticketing employees who do not know about prevention to break the chain of the covid-19 outbreak, and the current information delivery is effective in informing ticketing employees. The implementation of the covid-19 socialization video aims to provide information that is packaged in an attractive manner following technological developments so that it is easily accepted by recipients of information. As for the background of this research because the introductory media or promotional media used are in the form of videos by making videos in the form of information on how to prevent them from breaking the chain of the Covid-19 outbreak. This motion graphic video is aimed at ticketing employees who don't know about the information on preventing the Covid-19 outbreak. The motion graphic on the video to socialize the prevention of the covid-19 outbreak was made using the Villamolina development methodology. In this study, the product was then analyzed by an EPIC model to determine the effect and effectiveness of the covid-19 epidemic prevention socialization video. The results of the analysis using the EPIC Model parameters are: (1) Empathy dimension 3.92, (2) Persuasion 4.02, (3) Impact 4.07, (4) Communication 4.11, so the motion graphics on the promotional video CGV E-Card members are declared effective as a promotional medium. The communication dimension is a more dominant factor among other factors. The motion graphics that have been made produce MP4 format videos with a duration of ± 3 . With a short duration and dense material, so it can be easily understood and understood. Keywords- motion graphic, covid-19 outbreak prevention socialization, Sars.

Introducing ESMADI, Android-Based Learning Application with Prototyping Model

Dwi Amalia Purnamasari, Alena Uperiati and Satriya Bayu Aji (Politeknik Negeri Batam, Indonesia)

Abstract. Communication is one of the most important components in everyone's daily interaction, including people with hearing and speech impairment. They use sign language as a medium of communication. There are two sign languages in Indonesia, which are Indonesian Sign Language (BISINDO) and Indonesian Sign Language System (SIBI). Sign language can help the communication between two or more parties that have difficulties doing exchange through spoken words. Sign language is not limited to people with hearing and speech impairment. It can also be used by children that have no problem with hearing and speaking. The communication hurdle experienced by children and people with speech and hearing impairment requires special attention. Their language and communication skills can be developed through various special facilities and programs that suit their needs. The success of overcoming the obstacle of speech and hearing impairment depends on the kind of program they undertake. Most of them prefer to learn while playing. Electronic Smart Application for People with Disabilities (ESMADI) is an application that can help users to learn SIBI in an easy, interesting, and exciting way, anytime and anywhere. This application integrates various learning features, such as images, sounds, and videos to ensure an enjoyable learning experience. The method used in designing this application was the prototyping method to facilitate easier development of ESMADI in accommodating users' needs.

Study of the Physical Condition of the Waters of the Kabil-Batam Port, Indonesia Based on Hydro-Oceanography

Muhammad Zainuddin Lubis, Muhammad Ghazali and Wenang Anurogo (Politeknik Negeri Batam, Indonesia); Pratiwi Dwi Wulandari (CV. Tizen Construction, Indonesia)

Abstract. The Kabil-Batam Liquid Bulk Port is a special port that serves the distribution of processed Crude Palm Oil (CPO) products or palm oil located in Kabil Village, Nongsa District, Batam City, Riau Islands, Indonesia. The research by looking at the hydro-oceanographic conditions in these waters aims to determine the physical condition of Kabil Port. The purpose of this study is to determine the condition of the Kabil port in terms of depth, tidal type, distribution of sea surface currents, and wind direction and speed. The data used in this study are bathymetry, tidal, and wind data in 2020. The results of the processing show that the waters of Kabil Harbor have a depth ranging from -1.0 m to -17.0 m LWS with mixed tidal types tending to double daily. In this type, in one day there are two high tides and two low tides. Based on the modeling of ocean currents, it is found that the direction of the surface ocean currents is irregular and divided into two directions, namely one towards the south and one towards the north. The movement of currents in Kabil waters tends to be weak due to the movement of the velocity from 0 - 1 m/s. The distribution of wind speed and direction for 15 days shows that in the waters of the Kabil-Batam CPO port, Indonesia is more dominated to the north with the highest speed or dominant value of 3.50 - 5.50 m/s at 44.0%. Based on the description, it can be concluded that the physical condition of the Kabil port using hydro-oceanography is still stated in terms of depth, tides, currents, and winds because the depth of the Kabil port can still be anchored. In addition, the current and wind speed at the port of Kabil do not have extreme values.

The Effects of the Addictive Effects of Online Games Among US in Terms of Computer-Mediated Communication (CMC) in the Young Generation

Amirul Mu'minin and Anis Rahmi (Politeknik Negeri Batam, Indonesia)

Abstract. One of the trends of today's young generation is playing together through online games, one of which is Among Us by gamers. This game has become the object of research because it provides CMC (Computer-mediated Communication) features, namely via Chat and Voice Chat privately or in groups that are played in multiplayer. This game has received reviews from 5,260,338 players. Through the Voice Chat feature online game CMC communication takes place in the form of voice chat and text chat to provide a sensation of presence to players that trigger the pleasure of playing games. The purpose of this research is to describe things that affect online game addiction by CMC communication on online game features. The research design method is the Abductive approach, by describing and combining quantitative research containing content that makes the game addictive and qualitative in the form of questions containing player reviews totalling 60 players. From the results of this study, it turns out that in Among Us games there is a Computer-mediated Communication CMC that makes gamers addicted, namely the presence factor in the form of the presence of other players, group communication, there is a map space (location) that gathers virtually, there is communication in gameplay Game features voice chat, good communication in playing the role of the game, the privacy of player identity is maintained and there is anonymous communication.

Waters Quality Assessment on Physical-Chemical Parameters Using Remote Sensing Technologies: Criteria for Total Suspended Solids and Waters Transparency

Wenang Anurogo, Muhammad Zainuddin Lubis and Muhammad Ghazali (Politeknik Negeri Batam, Indonesia)

Abstract. Waters territory is an area that has a large enough natural resource potential. This region has undergone many changes in function to be able to provide benefits and a large contribution in improving the community's economy, but economic activities that convert aquatic land into industrial areas, tourism, and settlements have caused a fairly severe deterioration in waters quality. Some parameters determining the quality of waters include Total Suspended Solid (TSS), and Water Transparency. The development of remote sensing is increasingly rapid making this technology more effectively used for wide coverage areas. This research aims to analyze the concentration level of TSS distribution and waters transparency by using remote sensing data. The results of data processing showed the range of suspended solids in the research area ranged from 9,706 to 16,193 mg /L, and the range of waters transparency is from 3.6536-4.8278 m. The results of the waters quality index processing data from this research based on parameters used are classified into 3 classes; high waters quality, moderate waters quality, and low waters quality. Waters quality in this research which has low waters quality and moderate waters quality is around the island, while most of the results have high waters quality.

K-NN with Frequency Domain Features for Identify Fingers Movement

Daniel Pamungkas (Politeknik Negeri Batam, Indonesia)

Abstract. Prosthetic hands, which make daily chores easier, are one of the improvements brought about by quick technology advancements. The study and use of technological, therapeutic, and diagnostic principles concerning human activity are known as biomechanics, and it has led to the development of new technology, such as electromyography (EMG). Human muscles contracting or relaxing produce EMG signals, which are signals. This study tries to pinpoint the human finger's opening and closing motion as detected by the Myo Armband sensor. To receive signals from the EMG, the Myo Armband sensor is attached to the subject's right hand's forearm. FFT will be used to transfer the collected data to the frequency domain, and 70% of the EMG signal data will then be used as training data to determine the outcomes of each movement. 30% of the EMG signal data will be used to test the training results, which will then be K-Nearest Neighbor-classified. K-Nearest Neighbor classification techniques used in the study yielded a percentage of correct readings of 73.3%.

Obstacle Avoidance System Using LiDAR on Robot Turtlebot3 Burger

Rahel Yulianti, Faiz Albar Risi, Hendawan Soebhakti and Yeni Riska Pratiwi (Politeknik Negeri Batam, Indonesia)

Abstract. The Burger series Turtlebot3 Robot is a standard platform from Robotics Corporation's ROS used as a learning medium and as a prototype in project delivery robots. This Robot Turtlebot3 Burger is used as a learning medium in the application of the system delivery robot. In this research, it was developed a Turtlebot robot can be controlled manually and automatically. An automatic controller can work based on location predetermined coordinates. In an automatic controller, The Turtlebot auto also features an obstacle avoidance system. The obstacle avoidance system is one of the behaviors that allow the Turtlebot to move freely without collision. The sensor that used for this system is Light Detection and Ranging (LiDAR). LiDAR is a remote technology that uses the property of scattered light to find the distance and information of an object from the intended target. LiDAR used is 360 Laser Distance Sensor LDS-01. LiDAR will be processed on Raspberry then LiDAR data will be included in the obstacle avoidance method so that the level of success will be higher. This research resulted in the success rate of the obstacle avoidance system. Expected This obstacle avoidance system will help the Turtlebot to avoid collision with an object when going to the specified waypoint position.

Autonomous Navigation System Using Indoor GPS on Turtlebot Burger Robot

Yeni Riska Pratiwi, Hendawan Soebhakti, Rahel Yulianti and Faiz Albar Risi (Politeknik Negeri Batam, Indonesia)

Abstract. The Burger series Turtlebot3 robot is a standard platform of ROS robotic cooperation that is used as a learning medium and as a prototype in project robot delivery. This robot has been modified with the addition of LiDAR sensor functions as obstacle avoidance and auto parking as well as the addition of indoor GPS components. This prototype will be used as a medium for delivering goods from a store to a specific production line in a Company. In this study, an autonomous navigation system was created so that the robot can run according to the point and mission of the robot by utilizing Indoor GPS. So that the robot can move properly without any interference from the obstacle, a system is created to help the robot move to avoid the obstacle that utilizes LiDAR sensors that will detect the obstacle and then issue a decision to avoid the obstacle. After the robot completes its mission, it can return to the home base position autonomously using reflective tape as a reference. The expected results of all research conducted are that the robot can run autonomously to the destination point and avoid obstacles and return to the parking station position properly. Keywords- Turtlebot3, autonomous, Indoor GPS, obstacle, LiDAR, auto parking, reflective tape

Auto Parking System with LiDAR and Reflective Tape for Turtlebot3 Burger Robot

Faiz Albar Risi, Hendawan Soebhakti, Yeni Riska Pratiwi and Rahel Yulianti (Politeknik Negeri Batam, Indonesia)

Abstract. The Turtlebot3 Burger Robot is a standard platform of ROS Robotic cooperation which is used as a learning media also as a prototype in a delivery robot project. This robot has been modified with the addition of the LiDAR sensor for obstacle avoidance and auto parking as well as the addition of an indoor GPS component for robot localization and navigation. This prototype will be used as an item shipper from the store to a certain production line in a company. In this research, an autonomous navigation is made so that the robot can move according to the robot's point and mission by utilizing Indoor GPS. So that the robot can move properly without interference from the obstacle, an obstacle avoidance system is made by utilizing the LiDAR sensor which will detect the obstacle and then make a decision to avoid the obstacle. After the robot completes its mission, the robot can return to the home base position autonomously using reflective tape as a reference. The expected result of this research is that the robot can run autonomously to the destination point, avoid obstacles and return to the parking station position properly

System Design of Warehouse Management AGV for Packages Sorting in Supporting Industry of E-Commerce

Mohamad Nasyir Tamara (Politeknik Elektronika Negeri Surabaya & EEPIS, Indonesia); Abdurahman Dwijotomo (Politeknik Negeri Batam, Indonesia)

Abstract. The e-commerce industry has used a lot of goods sorting technology using AGV (Automated Guided Vehicle). Goods are moved automatically using an autonomous system can increase the effectiveness and efficiency of the process. Industry is always thinking about it. The benefits of Sorting AGV are felt when a large number of goods (thousands to millions) must be delivered in a matter of days. For that we need an adequate autonomous AGV system that has the features to handle the job. This research focuses on mechanical design with mechanization that can support the entire system and the application of AGV motion control so that it can run well from varying loads. For the need for fast movement and ease of control, the Differential Drive Mobile Robot (DDMR) model was chosen which is equipped with a flipping mechanism to drop the load. PID control as movement control is applied for stable speed under varying load conditions

Rig Implementation Using Duik Bassel Plugin in 2d Animation "Terjebak Hoaks"

Muchammad Fajri Amirul, Nasrullah (Politeknik Negeri Batam, Indonesia); Anis Rahmi, Sandi Prasetyaningsih, Umi Kalsum Nasution, Sepnita Indriyani, Harfina Nur Rizky and Desy Leviana (Politeknik Negeri Batam, Indonesia)

Abstract. 2D animation is the process of creating the illusion of moving images from a large collection of objects. This requires the process of giving bones (rigging) which is intended to help create poses and movement of objects without having to draw one by one (frame by frame). The process of rigging has been applied to the character's body in the 2D animation "Terjebak Hoaks" using the Duik Bassel plugin. Duik Bassel is a special computer program (plugin) that is used in After Effects applications as rigging automation in motion creation. The rig technique using the Duik Bassel plugin helps animators when creating character poses, reduces complexity, minimizes pose and object motion time, and still gets the same number of frames when compared to making animation in the traditional way (frame by frame). The icon in the Duik Bassel user interface can be recognized by the user because it is in the form of a human bone image. The aim of this project is to produce a 2D public service animation video in .mp4 format entitled "Terjebak Hoaks". This video will later become a medium for ICT Watch to broadcast information about digital literacy related to how to reduce the spread of hoax news through the website s.id/cekhoaks.

Study of Corrosion Rate at Aluminum Duralumin with YCbCr Filter Method

Budiana Budiana, Nibras Fitri Zuhra, Dylla Tri Kusuma P, Putri Rahmatika Viani and Muhammad Lathief Ansarullah (Politeknik Negeri Batam, Indonesia)

Abstract. Corrosion is a process of damage to metal materials that occurs due to the reaction of the metal with the surrounding environment. Corrosion can threaten structural safety, life safety, environmental protection, and economic development. The cost that must be incurred to carry out corrosion testing according to seal for life reaches \$276 B. Based on these problems, a tool is needed that can determine corrosion phenomena such as corrosion rate. The Corrosion rate is a measure of how fast or slows a corrosion process is on a certain surface area and at a certain time. Corrosion test equipment is made using the principle of image technology with the YCbCr Color Filter method to detect corroded material surfaces. This corrosion test equipment has been successfully tested on Aluminum material with a size of 1.8 cm x 2.8 cm with the results showing that Aluminum is corroded after the 3rd day.

Transmedia Storytelling Website-Based Children's Learning

Muchammad Fajri Amirul, Nasrullah (Politeknik Negeri Batam, Indonesia); Sandi Prasetyaningsih, Anis Rahmi and Muhammad Taufan Perdana (Politeknik Negeri Batam, Indonesia)

Abstract. Interest in reading children in Indonesia is still very low. Even though there has been a lot of socialization about the importance of reading books, Indonesian children's interest in reading is still very low at only 0.01% based on a survey from the United Nations Educational Scientific and Cultural Organization (UNESCO). Developments and growing technology encourage people to take advantage of technology, especially in the field of multimedia. This gives researchers the idea to create an application based on digital media which is a story application using the concept of transmedia storytelling. This application aims to provide new pleasure in reading stories, because this application involves audience participation so that users can determine their own storyline. Coupled with audio, text, and 2D animated visuals, children will be interested in reading stories via smartphones, tablets or laptops.

Design and Implementation of A Mobile-Based Refrigerator Reminder App

Rina Yulius, RY and Diyah Karmila Sari (Politeknik Negeri Batam, Indonesia)

Abstract. Food waste is a serious problem in Indonesia due to a growth in population numbers. Private households have been identified as key actors in food waste generation. This study aims to develop a mobile app named 'Freeze Reminder' as a tool used for preventing the decay of food ingredients that have forgotten to be processed because they are in storage. The application is developed using The Prototyping Model of SDLC. The quantitative data through a survey were conducted to examine the acceptance of The Freeze Reminder using UEQ. The results of the study verify that The Freeze Reminder app is transforming the access and delivery of food waste reducing.

Heart Condition Classification Using Deep Learning as A Diagnosing Helper

Churun In Layyinah and Riyanto Sigit (Politeknik Elektronika Negeri Surabaya, Indonesia); Tita Karlita (Electronic Engineering Polytechnic Institute of Surabaya, Indonesia); Taufiq Hidayat (Faculty of Medicine, Airlangga University, Indonesia)

Abstract. Heart is one of the most vital organ. One of its roles is to pump blood so that the blood can circulate through the body and then receive it after the blood passed the lungs for cleaning. Unfortunately, heart disease is one of the most deadly disease in the world. One of many tools to support heart disease examination is echocardiography. Echocardiography shows the heart's left ventricular movement so that doctors can see whether the patient is experiencing ischemia or infarction. Sadly, the examination results depend on the doctors' experience and accuracy. Hence, in this study, a system with the ability to classify human heart conditions based on left ventricle movement are developed. The methods used in the system include optical flow Lucas-Kanade to track heart cavity movement. The features that will be extracted from the process are distance and direction. Distance feature will be calculated using Euclidean distance formula and direction feature will be calculated according to the points' angle using cosine triangle formula. And at final, after all the feature obtained, the classification will be done using deep learning method. The tracking and feature extraction process is done successfully. The classification process obtained 71,43% accuracy.

The Graphical User Interface for Controlling Delta Robot Movement Through G-Code

Riska Analia and Susanto Susanto (Politeknik Negeri Batam, Indonesia); Eko Rudiawan Jamzuri (Politeknik Negeri Batam, Indonesia & National Taiwan Normal University, Taiwan)

Abstract. This research aims to develop a Graphical User Interface (GUI) to control the delta robot using the G-Code command in real-time. The proposed mechanical design of the delta robot adopts a parallel arm mechanism. As primary controller, the Arduino Uno has been chosen as a bridge to translate the joint command from the computer to the robot stepper motor. Furthermore, we proposed the G-Code command to control the delta robot end effector. The system interface was carried out using the C# programming language and the .NET frameworks. As G-Code translation, we proposed an inverse kinematics equation derived from a trigonometric to decode command into joint movement. Finally, the experiment has been carried out in real-time to verify our interface. As an experimental result, the proposed system successfully translates the G-Code command into end effector movement.

Implementation of Wireless Sensor Network for Automatic Duck Egg Hatching Machine

Ayu Ahadi Ningrum, Windarsyah Windarsyah, Ihdalhubbi Maulida and Finki Dona Marleny
(Universitas Muhammadiyah Banjarmasin, Indonesia)

Abstract. Due to the development of IoT-based technology, it is easier to exchange data between devices on a massive scale. Its application has expanded to all sectors. One of them is in the field of animal husbandry. In duck egg hatching, seeds are one of the keys to success. Efforts can obtain excellent sources are to using an automatic incubator. In this study, we tried to combine the technology of combining WSN concept and updating the technology of the conventional duck egg hatching process. This study uses a DHT11 sensor, a sound sensor, and a Servo Motor, which can automatically produce a duck egg incubator and be monitored in real time on the website. Based on the results of this study was able to create a hatching process of 87%. We tested this device in the summer and the rainy season. It expects to reduce the risk of failure of the duck egg hatching process

Comparative Analysis of Masked and Unmasked for Face Recognition Using VGG Face and MTCNN

Hanif Naufal Arif Sunarko (Gadjah Mada University, Indonesia); Risanuri Hidayat (Gadjah Mada University (UGM), Indonesia); Rudy Hartanto (Gadjah Mada University & Electrical Engineering and Information Technology Departmen, Faculty of Engineering Gadjah Mada University, Indonesia)

Abstract. Face recognition is a system that is widely used in various fields such as security, attendance system, and other fields. Currently Covid-19 is still a major problem around the world and almost everyone is protecting themselves with masks. This is a problem for the face recognition system. This happen because most of the faces are covered by masks so that face recognition system will be difficult to recognize the face. This paper will do a comparison between a dataset without a mask and a mixed dataset. This study was conducted to find out how the effect of the dataset used on the accuracy of face recognition system either with masks or without masks and to find out how well the performance of face recognition with different dataset. VGG Face and MTCNN are used to detect and recognize faces based on landmarks. This study compares the level of accuracy, level of precision and level of sensitivity. The result shows that using a mixed dataset containing masked and unmasked faces will increase the accuracy rate from 86.7% to 93.3%. For the level of precision increased from 87.7% to 93.5%. And the Sensitivity level increased from 86.7% to 93.3%.

Lexicon-Based Sentiment Analysis Using Inset Dictionary: A Systematic Literature Review

Asy Syifaur Roisah Rufaida, Adhistya Erna Permanasari and Noor Akhmad Setiawan (Universitas Gadjah Mada, Indonesia)

Abstract. A lexicon-based sentiment analysis method necessitates using a lexicon dictionary during the analysis process. The Inset (Indonesia Sentiment) lexicon dictionary is one of the Indonesian language's most extensively used lexicon dictionaries. This Systematic Literature Review aims to determine the latest trend of lexicon-based sentiment analysis using Inset dictionaries. The findings of this study provide an answer to the following research question: RQ1: What are the most popular domains discussed in sentiment analysis studies using the Inset dictionary? RQ2: What data sources are used in sentiment analysis studies using the Inset dictionary? RQ3: What are the most common pre-processing techniques used in sentiment analysis studies using the Inset dictionary? The literature review resulted in selecting seventeen papers for a detailed study. The findings show that in the last five years, most sentiment analysis research using Inset focused on the health domain (RQ1) and then responded to the following research questions (RQ2 and RQ3). The study also contained some additional observations from completed research.

Ultrasound Portable Integration for Segmentation Heart Disease in Health Care Kiosk

Mohamad Johan Arifin and Riyanto Sigit (Politeknik Elektronika Negeri Surabaya, Indonesia); Taufiq Hidayat (Faculty of Medicine, Airlangga University, Indonesia); Tita Karlita (Electronic Engineering Polytechnic Institute of Surabaya, Indonesia)

Abstract. One of the problems in health is detecting heart beat. Heart disease is number one death factor according to the data gathered by WHO. Patient of heart disease can experience sudden pain that need fast handling so that nothing fatal happen. The problem being highlighted in this research is about heart disease checkup service, where a patient have to go to a special ultrasound room to check their heart, it's hard to do for a critical heart disease patient. Ultrasound portable could be the solution for this problem, because this device is equipped with other good feature to help doctor diagnose a patient. The first step is ultrasound portable will be used to take heart video data. Ultrasound portable is a portable device so it sends the data through wireless communication, so the smartphone used as receiver have to be connected in 1 same wifi connection as the ultrasound portable. And then the video made in smartphone will be sent to PC using usb communication. After the data received there will be preprocessing and segmentation process. In the preprocessing there is 2 step that is median filtering and high boost filtering, and from these preprocessing step it will produce an image that's free from noise and enhanced image. From preprocessing's output it will be processed with segmentation process, in this segmentation there are 3 steps which are region filtering, collinear and triangle method. The output of segmentation process can obtain contour line from heart cavity with an accuracy of 70%, which will be used to track the heart. With this research it will ease the user to observe the condition of the heart without having to go to specific place.

ICAESS Session



The Influence of Emotional Intelligence, Availability of Information Technology, Application of E-Learning, Class Size, and Machiavellism on Accounting Student Online Learning Outcomes

Anggi Pratiwi and Alfonsa Dian Sumarna (Politeknik Negeri Batam, Indonesia)

Abstract. This study was conducted with the aim of knowing whether emotional intelligence, availability of information technology, application of e-learning, class size and machiavelli's have an effect or not on online learning outcomes for accounting students. This research was obtained from a survey that involving by 225 respondents from all Batam Polytechnic students majoring in business management class 2018 and 2019 with study programs D4 management accounting and D3 accounting using quantitative methods and primary data. The data obtained were analysed using multiple linear regression analysis. The findings of this study show that the variables of emotional intelligence, application of e-learning, and class size have a significant effect on online learning outcomes for accounting students, while availability of information technology and Machiavelli's have no effect on online learning outcomes for accounting students.

Factors That Affect Stock Prices in LQ 45 Indexed Companies

Putri Nadya Agustini and Alfonsa Dian Sumarna (Politeknik Negeri Batam, Indonesia)

Abstract. The increase and decrease in stock prices on the Indonesia Stock Exchange (IDX) was caused in addition to the fluctuating demand or purchases and offers and sales, also influenced by several other financial variables. The purpose of this study is to determine and test the influence of independent variables proxied on net profit margin, common size, price book value, price earning ratio, and debt to equity ratio on the dependent variable, namely stock price. This quantitative research uses secondary data (financial statements) on LQ45 companies for the 2017-2020 period with purposive sampling techniques of 140 data and processed using SPSS software. The result of this study is that only the PBV variable has a significant effect on the stock price. Meanwhile, the variables of net profit margin, common size, price earning ratio, and debt to equity ratio have an insignificant effect on stock prices. All independent variables simultaneously have a significant effect on stock prices. This research model states that 66.1% of dependent variables affect stock prices.

The Effect of Enterprise Risk Management (ERM) on Firm Value in Manufacturing Companies Listed on BEI (2014-2020)

Danis Akmal Bin Jemizan and Diah Amalia (Politeknik Negeri Batam, Indonesia)

Abstract. The purpose of this study is to determine the effect of enterprise risk management (ERM) on firm value by using control variables consisting of firm size, ROA, and managerial ownership. The data in this study uses the annual reports of manufacturing sector companies listed on the IDX in 2014-2020. The analytical technique used is multiple linear regression analysis using the SPSS application. The results of this study show that ERM, Firm size, and ROA has a significant positive effect on firm value, and managerial ownership has a negative but not significant effect on firm value

Financial Performance Analysis of Stock Return in Infrastructure, Utility, and Transportation Sector Companies in the Indonesia Stock Exchange

Rahayu Rahayu (Politeknik Negeri Batam, Indonesia); Irsutami Irsutami (Batam State Polytechnic, Indonesia)

Abstract. Research purpose to analyze the effect of partial and simultaneous financial performance on stock returns in companies engaged in the infrastructure, utilities, and transportation sectors in the Indonesian Stock Exchange. The variables of this study include the dependent variable which is represented by debt to equity ratio, return on assets, and total asset turnover (TATO) then the independent variable is stock return. The study was conducted using a descriptive quantitative, approach by taking data from the company's annual report with a saturated sample, which means that all existing samples are used as research objects. The number of samples used was 87 with the selection of samples using the purposive sampling method for 27 companies that had issued financial statements for 3 (three) consecutive years namely 2019, 2020, and 2021. Data analysis techniques data was carried out by classic assumption test, to testing hypothesis used multiple linear regression analysis with the help of SPSS 25.0. Based on the test result of statistical analysis partially ROA and TATO variables affect stock returns and DER variables have no effect on stock returns. Simultaneous test results show that the three variables have effect on return share in companies sector infrastructure, utilities, and transportation in the Indonesian stock exchange.

The Influence of Income Level, Perception of Tax Sanctions, Perception of Law and Tax Enforcement, Perception of Tax Justice and Perception of Transparency and Accountability on Individual Taxpayer Co

Ayu Garnis Nabila and Diah Amalia (Politeknik Negeri Batam, Indonesia)

Abstract. This study was conducted to know whether income levels, perceptions of tax sanctions, perceptions of law and tax enforcement, perceptions of tax justice and perceptions of transparency and accountability affect ITP compliance at KPP Pratama Batam Selatan. This research was conducted on 401 respondents from non-employee ITP registered at KPP Pratama Batam Selatan in 2021 using quantitative methods and primary data. The data obtained were analyzed using multiple linear regression analysis. The findings of this study are income level variables, perceptions of law and tax enforcement, and perceptions of transparency and accountability have a significant effect on the results of ITP compliance at KPP Pratama Batam Selatan. In contrast, the variables of tax sanctions and perceptions of tax justice have no significant impact on ITP compliance at KPP Pratama Batam Selatan.

PBL Assessment Application Development Based on Microsoft Access

Afrido Rizki Akbari, Ropi Mardian, Citra Dewi, Alfonsa Dian Sumarna and Arif Darmawan (Politeknik Negeri Batam, Indonesia)

Abstract. This research has the objectives of implementing PBL assessment that is carried out digitally by utilizing applications related to the PBL assessment application, making application prototypes that are easy to use in PBL assessments and testing application prototypes. This study uses a qualitative descriptive analysis method with data collection through interviews and research related to PBL assessment for course audits. The method for making application prototypes uses the SDLC method using Microsoft Access-based applications. The results of this study indicate that the prototype of the SIP-MB application is in accordance with the tests carried out such as; Black Box Testing, White Box Testing, Usefulness Analysis of the developed Application.

The Influence of Working Capital Management on the Profitability of Manufacturing Companies

S Sulaksono Adi Wibowo and Rizky Aulia Ryalvin (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine the effect of cash turnover, account receivable turnover, inventory turnover, and working capital turnover on company profitability. The population in this study is manufacturing companies which are listed in the Indonesia Stock Exchange for the 2016 - 2020 period. The number of samples used is 38 companies which are selected by using purposive sampling technique. This study uses secondary data. The data analysis technique which used is double regression analysis by using SPSS 20 program. The result of this study is showing that inventory turnover has significant effect on company profitability, while cash turnover, account receivable turnover, and working capital turnover has insignificant effect on company profitability.

The Influence of Company Internal Factors on Accounting Information System Performance

Nur Noviya Ismareny and Dedi Kurniawan (Politeknik Negeri Batam, Indonesia); Rusda Irawati
(Batam State Polytechnic & Management Bussiness, Malaysia)

Abstract. This study aims to examine the effect of user technical skills, training and education programs, user involvement, and top management support on the performance of accounting information systems. The research population is the SAP application users in the office staff at the PEM Plant in one of the manufacturing companies in Batam City. The total respondents in this study were 39 respondents. This study uses a quantitative approach. The method of collecting data is through surveys by distributing questionnaires through google form. Before conducting the research, a pilot test was conducted which was distributed to 30 students who were already working. The result of the research is that the user's technical ability has a positive effect on the performance of the AIS. While training and education programs, user involvement, and top management support have no effect on the performance of the AIS.

The Effect of Institutional Ownership, Free Cash Flow (FCF), and Profitability on Dividend Policy on Registered Basic and Chemical Manufacturing Companies on the Indonesia Stock Exchange

Dewi Fortuna (Politeknik Negeri Batam, Indonesia); Irsutami Irsutami (Batam State Polytechnic, Indonesia)

Abstract. This study aims to analyze and examine the effect of institutional ownership, free cash flow (FCF), and profitability on dividend policy in manufacturing companies in the basic and chemical sub-sector listed on the Indonesia Stock Exchange (IDX) for the period 2017 - 2020. Institutional ownership is proxied by INST, free cash flow with FCF, profitability with Return On Assets (ROA), and dividend policy with Dividend Payout Ratio (DPR). The research was conducted using a descriptive quantitative approach by taking data from the company's annual report. This study uses non-probability sampling. The sampling technique in this study used purposive sampling. So that, This study has a sample of 64 data with a total of 16 manufacturing companies in the basic and chemical industry sub-sectors that meet the research criteria within 4 years. The data analysis technique was carried out using the classical assumption test, while the hypothesis testing used multiple linear regression analysis with the help of SPSS 25.0. The results of the analysis show that institutional ownership partially has no effect on dividend policy, free cash flow (FCF) has no effect on dividend policy, while profitability variables affect dividend policy.

The Effect of Financial Literacy, Financial Access and Growth on Micro Business Financial Management in Batam City

Tiara Milenia (Politeknik Negeri Batam, Indonesia)

Abstract. This research aims to test the influence of financial literacy, financial access and growth on the financial management of Micro Enterprises in Batam City. This research uses a descriptive Quantitative method. The object of this study is Micro Enterprises registered with the Office of Cooperatives and Micro Enterprises in 2017 - 2021. The data collection technique in this study was by distributing questionnaires, namely by determining samples using probability sampling techniques. The results of this study are that the variables of financial literacy and growth have a significant effect on the financial management of Micro Enterprises in Batam City while the variables of financial access do not have a significant effect on the financial management of Micro Enterprises in Batam City.

Analysis of the Effect of Corporate Governance on Corporate Sustainability Performance

Suharyono Suharyono and Riska Laili Romanza Hs (Politeknik Negeri Bengkalis, Indonesia)

Abstract. This research was conducted to prove how significant the influence between corporate governance on corporate sustainability performance. This research includes data from 2010 to 2020. Primary and secondary industries are chosen because they are considered to have a significant impact on environmental, social, and economic problems because they operate in processing and are directly related to natural resources. The research sample is primary and secondary sector companies with complete data for each research variable. Hypothesis testing in this study using multiple regression analysis. The results show that partially managerial ownership and institutional ownership have a significant effect on corporate sustainability performance. Meanwhile, the audit committee, the size of the board of commissioners, and environmental performance have no significant effect on corporate sustainability performance. However, simultaneously corporate governance has a joint influence on corporate sustainability performance.

Effect of Working Capital Efficiency, Liquidity and Leverage Against Profitability

Rika Rahmahwati Sani and Vina Kholisa Dinuka (Politeknik Negeri Batam, Indonesia)

Abstract. The purpose of this study is to determine how leverage, liquidity, and working capital efficiency affect the company's profitability. This population is used to search for reports on infrastructure businesses listed on the Indonesia Stock Exchange from 2017 to 2021 in this study using a quantitative methodology. A total of 185 samples, or 37 companies, were collected using a purposive sampling strategy. To access secondary data in the form of financial reports for businesses, data collection is done by collecting data that has been archived in the database. Statistical descriptive analysis, estimating model selection (Chow, Hausman, and range multiplier test), classical assumption test (multicollinearity, heteroscedasticity, and panel data regression), and hypothesis testing is used to analyze the data (coefficient of determination test and partial test). The results of this study indicate that Working Capital Efficiency (Working Capital Turnover) and Liquidity (Current Ratio) have no significant positive effect on Profitability (Return On Investment). This research also found that leverage (debt to equity) had a significant negative effect on profitability (return on investment).

The Effect of Profitability, Capital Structure, and Company Size on Company Value in the Transportation and Logistics Sector Listed on the Indonesia Stock Exchange for the 2016-2020 Period

Fenisiya Erawati and Bambang Hendrawan (Politeknik Negeri Batam, Indonesia)

Abstract. Companies that can increase their assets in generating profits can be described from the company value. The corporation profit results can be a company's feasibility standard. Knowing and analyzing the effect of the independent variable and the dependent variable either partially or simultaneously is the research objective. Sampling technique using purposive sampling. The study used 11 companies as samples, totaling 51 data collected over a 5 year period. In this study, panel data regression was the technique of data analysis with the E-views 12 application program. This study provides results including profitability has a positive and insignificant effect on company value, capital structure has a negative and insignificant effect on company value, company size has a negative and significant effect on company value, and profitability, capital structure, and company size simultaneously have a positive and significant effect on company value.

The Effect of Information Technology Advancement, Management Participation, and Work Motivation on Employee Performance at PT Cladtek Bi-Metal Manufacturing Indonesia

Ega Oktavia Kusuma and Winanda Wahana Warga Dalam (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine the effect of advances in information technology, management participation, and work motivation on employee performance at PT Cladtek Bi-Metal Manufacturing Indonesia. The administrative and managerial sections are the most important part in the process to determine the company's performance. Employee performance can be improved through the use of information technology, management participation, and work motivation. The population in this study includes employees working in the fields of production, engineering, research and development, document control, projects, procurement and logistics, finance, IT, Epicor software, QC/QA, HSE, and human resource development. The research sample amounted to 150 respondents, selected using purposive sampling method. Using primary data obtained through the distribution of questionnaires. The data analysis technique used is the classical assumption test and hypothesis testing. The results of this study indicate that advances in information technology, management participation and work motivation have a positive and significant effect on employee performance. Key words: Technology Advances, Management Participation, Motivation, Employee Performance

Factors Affecting Profitability in Manufacturing Sector Companies Listed on IDX

Novia Vetty Syahbandar and Nanik Lestari (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine the factors that affect the company's profitability. This study uses quantitative methods, the population used is the financial statements of manufacturing companies listed on the Indonesia Stock Exchange for the 2015-2019 period. The sampling technique in this study is a non-probability sampling technique by using purposive sampling. Data collection is done by data collection techniques archive in the database to obtain secondary data in the form of financial statements taken from the company's financial statements. The data analysis used is Descriptive Statistical Analysis, Determination of Capital Estimates (Chow Test and Hausman Test), Classical Assumption Test (Multicollinearity, Heteroscedasticity, and Panel Data Regression), Hypothetical Testing (Coefficient of Determination Test and Partial Test). The results of this study indicate that Firm size (FS), Leverage (DER), Liquidity (CR) and Sales Growth (SG) have no effect on profitability while Working capital and company efficiency affect profitability.

Analysis Feasibility Study for Opening Branch Office of PT BPR Kepri Bintan in Batam City

Farah Nurul Azizah and Arniati Arniati (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to analyse the business feasibility in the plan to establish a new branch office of PT BPR Kepri Bintan by focusing on the potential and feasibility aspects in accordance with the provisions of the Financial Services Authority of the Republic of Indonesia. The data used in this study is secondary data originating from reports the Central Statistics Agency of Batam City, Bank Indonesia in the form of economics reports in Batam City, the Financial Services Authority in the form of statistics on publication reports of Rural Banks and laws or regulations that support secondary data information and primary data in the form of structured interviews by the government. The findings of this study, in the feasibility study for the establishment of PT BPR Kepri Bintan when viewed from the potential and feasibility aspects, it was found that the BPR was feasible to be established.

Stock Valuation Using Discounted Cash Flow and Relative Valuation Methods

Jihan Alfidilla and Winanda Dalam (Politeknik Negeri Batam, Indonesia)

Abstract. This research aims to determine the intrinsic value of stocks in the property and real estate sector listed on the Indonesia Stock Exchange using Discounted Cash Flow (DCF) method with Free Cash Flow to Firm (FCFF) approach and Relative Valuation (RV) method with PBV and PER approaches. The samples of this research were MTLA, JRPT, DMAS, CTRA, MKPI, and PPRO. Data used were historical financial data from 2015-2019 to calculate the historical financial performance of each company and projected from 2020-2024. The result found that by using the DCF-FCFF method, MTLA, JRPT, DMAS, and CTRA shares were undervalued in all scenarios. MKPI and PPRO shares were overvalued in all scenarios. Meanwhile, by using the Relative Valuation method, MTLA were undervalued by 7.82%, JRPT were undervalued by 32.97%, DMAS were undervalued by 67.85%, CTRA were undervalued by 32.45%, MKPI were overvalued by -47.69%, and PPRO were undervalued by 33.78%.

THE EFFECT OF PRODUCT QUALITY AND SERVICE QUALITY ON CUSTOMER SATISFACTION IN BPKB AR-RUM FINANCING (Study on Sharia Pawnshops at Carina Tanjung Uncang Park, Batu Aji)

Niken Savira and Sinarti Sinarti (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine the effect of product quality and service quality on customer satisfaction. This study uses a quantitative approach. The sample used as many as 54 respondents obtained by customers of Ar-rum BPKB Pegadaian Sayriah Taman Carina Tanjung Uncang Batu Aji using the slovin formula. Analysis of the data used is Multiple Linear Regression Analysis, the test is done by t test. The results of this study indicate that product quality has no significant effect on customer satisfaction, while service quality has a positive effect on customer satisfaction.

Factors Affecting Taxpayer's Compliance in Fulfilling Its Obligation (Empirical Study on Taxpayer Personal Persons Registered at KPP Pratama Batam Selatan)

Rifda Taufaila (Politeknik Negeri Batam); Wika Arsanti Putri (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine factors that affect the compliance of individual taxpayers registered at KPP Pratama Batam Selatan. The variables used are tax understanding and taxpayer awareness of taxpayer compliance. The research approach uses quantitative methods, namely using multiple linear regression analysis, t-test, and t-test of two independent samples. In multiple linear regression using three models that are used to compare the effect of gender on taxpayer compliance. The number of samples used were 100 samples, namely 50 samples of male and 50 female taxpayers. Data were collected using a questionnaire consisting of 24 statement items. The results of the study with a significance level of 10% indicate that the understanding of taxation has a positive effect on taxpayer compliance in all regression models, taxpayer awareness has a positive effect on taxpayer compliance in the regression model of all taxpayers, and male taxpayers. Third hypothesis which stated that female taxpayers were more obedient than male taxpayers, was rejected.

Comparison of Financial Performance of Manufacturing Industry Companies During Covid-19 Pandemic

Mohammad Dzulfikri Daroni (Polibatam University, Indonesia)

Abstract. The purpose of this study is to compare the financial performance of the manufacturing industry during the Covid-19 pandemic. The sample consisted of 43 customer good in list BEI based on the Slovenian formula. The analytical techniques used in this study include the use of the Normality Test and Paired Sample T Test analysis technique. The results showed that the EPS, ROA, QR and TQR variables did not have a significant difference before and after the covid-19 pandemic.

The Effect of Capital Market Training and Online Trading System on Student Interest in Investing in the Capital Market

Hasmira Paramitha Aqila (Batam State Polytechnic, Indonesia); Ria Anggraini (Politeknik Negeri Batam, Indonesia); Dwi Kartikasari (Universiti Brunei Darussalam, Indonesia)

Abstract. The purpose of this research is to determine whether capital market training and online trading systems affect students' interest in investing in the capital market. This study uses a quantitative approach and primary data sources obtained from questionnaires filled out by 225 respondents from Batam State Polytechnic students majoring in Business Management, Managerial Accounting and Applied Business Administration study programs, batch 2018 and 2019 who have participated in the Capital Market School program. Data were analyzed using multiple linear regression analysis. The results of this research indicate that the variables of capital market training and online trading systems have a significant positive effect on student interest in investing in the capital market. And others results indicate that the variables of capital market training and online trading systems simultaneously have a significant positive effect on student interest in investing in the capital market.

The Impact of the Short Film "Cita-Cita di Pasir Panjang" on the Effectiveness of Public Awareness for Paying Taxes

Frilyan Juanda Adios and Rina Yulius, RY (Politeknik Negeri Batam, Indonesia); Fandy Neta (Politeknik Negeri Batam & GIT Academy Indonesia, Indonesia)

Abstract. Indonesia is one of the developing countries where very intensive development in all fields can occur due to taxes. The research entitled The Impact of the Short Film Cita-Cita di Pasir Panjang on public awareness effectiveness in paying taxes tells of people who live on the far coast from settlements and are still obedient to paying taxes. This film is designed to influence public awareness about taxes for the nation and state. This study uses a Likert scale method for data collection. It uses two more ways, namely Aiken V and student T-test, to validate the results of this short film and whether it impacts the community. "Cita di Pasir Panjang" is quite effective in motivating public awareness to pay taxes.

The Effect of Attitude and Motivation on Students' Entrepreneurship Interest

Rika Zahara and Muhammad Ramadhan Slamet (Politeknik Negeri Batam, Indonesia)

Abstract. Creating an interest in entrepreneurship can be started in college through entrepreneurship courses and other entrepreneurship programs. Factors that can influence interest in entrepreneurship include attitudes and motivation. The purpose of this study was to identify whether attitudes have a significant influence on student interest in entrepreneurship and identify whether motivation has a significant influence on student interest in entrepreneurship. This study uses quantitative and data collection methods using surveys by distributing questionnaires to 182 Batam State Polytechnic students who have received basic accounting and entrepreneurship materials. The results of this study indicate that the attitude variable has a significant positive effect on students' interest in entrepreneurship, and motivation has a significant positive effect on students' interest in entrepreneurship.

THE EFFECT OF LEADERSHIP STYLE, TRUST IN BOSS, AND JOB SATISFACTION ON EMPLOYEE PERFORMANCE (Case Study on Manufacturing Companies in Batamindo Industrial Park Area)

Arwika Mugi and Irsutami Irsutami (Batam State Polytechnic, Indonesia)

Abstract. This study aims to determine and empirically prove the effect of leadership style, trust in superiors, and job satisfaction on employee performance. This study uses primary data in the form of questionnaires and data collection using purposive sampling method. This research was conducted in the Batamindo Industrial Park area with a total population of 250 employees and using the Slovin formula obtained 165 employees as samples. Data analysis used in the form of multiple linear regression, t test (partial) and F test (simultaneous). The statistical test of this research uses the SPSS version 22 application program. The results of this study indicate that leadership style has a positive effect on employee performance, trust in superiors has a positive effect on employee performance, and job satisfaction has an effect on employee performance and simultaneously leadership style, trust in superiors, and job satisfaction has a significant positive effect on employee performance.

Study of Business Management Opportunities with Special Reference to Agro-Tourism in Maharashtra State

Kishor Baburao Dalve (MGM University Aurangabad, India); PravinKumar Govind Shastri (, India & M G M University Aurangabad, India)

Abstract. After Covid-19 India observing V-shaped recovery, this is positive sign for Agro-Tourism and Agri-business industry. Covid-19 pandemic influenced the management of demand and supply of agri-processed goods. In sustainable business like Agro-Tourism farmer provide amenities and services to tourists similar to past simpler era and get additional income from them. Both positive and negative impacts made by pandemic on Agro-Tourism. This research paper attempt to identifying the challenges and opportunities for Agri-business and Agro-Tourism after pandemic. All these points I discussed here in research paper with graphical chart presentation of related data to above topic.

Effect of Cash Flows from Operating Activities, Investment Activities, and Funding Activities on Liquidity Level of Infrastructure Sector Companies Listed on the Indonesia Stock Exchange

Bambang Hendrawan and Daiyana Putri Nurfat Aulia (Politeknik Negeri Batam, Indonesia)

Abstract. This research is purposed to analyze how investment cash flow, operating cash flow, and funding cash flow influenced liquidity for the infrastructure companies that are listed on Indonesia Stock Exchange by partial or simultant. This research population consist of 34 infrastructure companies which listed in Indonesia Stock Exchange from 2017 - 2022. The sampling technic used is non probability sampling with purposive sampling method, so the sample obtained were 30 companies. The research method used was panel data analyzes that combine with cross section and time series data. The result of this research showed that operating cash flow, investment cash flow, and funding cash flow were not significantly influenced liquidity for the infrastructure companies in partial either simultaneously.

The Influence of the Use Social Networking Sites (SNS) and Work Stress on Employee Performance

Dessy Nathalia Hutagaol (Batam State Polytechnic, Indonesia)

Abstract. This study aims to examine the effect of the use of Social Networking Sites (SNS) and also work stress on employee performance in the company. This research is quantitative research, with the type of explanatory research. Methods of data collection using primary data with a survey technique using a questionnaire. Sampling was carried out by purposive sampling, with the sample being students of the Managerial Accounting Study Program of the Batam State Polytechnic Business Management Department from the Evening Regular class, class 2018 - 2021. The data analysis method used was the multiple linear regression analysis methods. The test results show that there is a positive effect of the use of Social Networking Sites (SNS) on employee performance, and there is also no negative effect of work stress on performance.

The Influence of Korean Wave, Brand Ambassador and Price on Purchase Intention at Tokopedia

Linda Setyaningsih and Muhammad Ramadhan Slamet (Politeknik Negeri Batam, Indonesia)

Abstract. This study was conducted to examine the significant effect of the Korean wave (a popular culture phenomenon originating from South Korea), brand ambassadors and price on purchase intention. This study uses quantitative methods. The population in this study are Korean lovers (a group of people who like things related to Korean culture such as drama, music, food, and so on) who use Tokopedia. The data collection used is a questionnaire. The number of samples used is based on the Lemeshow formula, which is 100 samples. The sampling technique was carried out non-randomly using purposive sampling technique. The analysis technique used is multiple linear regression analysis. The results of this study indicate that the variable that has a significant positive effect on purchase intention is price, while the variables that do not have a significant effect on purchase intention are Korean wave and Brand Ambassador.

The Influence of Price, Product Quality, and Product Design on Repeat Purchase Decision of Emina Brand Cosmetic Products in Batam City

Ayu Puspitasari and Kurnia Erika Binti Murad (Politeknik Negeri Batam, Indonesia)

Abstract. The purpose of this study is to determine whether price, product quality, and product design partially and simultaneously influence the purchase decision of Emina cosmetics. This study uses explanatory research through a quantitative approach. Data collection techniques in this study used a questionnaire. The population in this study are users of Emina products in the city of Batam. The sampling technique in this study used a purposive sampling technique. The number of samples in this study was 100 respondents. The data analysis method of this research is multiple regression analysis. The results of this study indicate that partially price, product quality, and product design have a significant effect on the decision to buy Emina products. The results also show that simultaneously price, product quality, and product design have a significant effect on the decision to buy Emina's products

The Effect of Innovation, Promotion and Service Gojek on Purchasing Decisions

Alga Trio Razaq and Rahmat Hidayat (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to find out whether factors from Innovation, Promotion, and Services affect the Purchasing Decisions of Gojek users in Batam City. The Non Probability Sampling - Purposive Sampling technique was used for sampling in this study. The number of samples was determined using the Lemeshow Formula, which was 100 respondents. The data in this study were analyzed using Multiple Linear Regression Analysis. This research model is supported by determinant coefficients, t-test and F test. Results in the study show that innovation variables do not have a significant effect on purchasing decisions while promotion and service variables have a significant effect on purchasing decisions and simultaneously innovation, promotion, and service influence purchasing decisions. Furthermore, the hypothesis in this study is supported statistically.

The Influence of Service Quality and Price on Customer Satisfaction on Gojek Users at Batam State Polytechnic

Cantyka Trisandy (Polytechnic State of Batam, Indonesia); Doni Putra Utama (Politeknik Negeri Batam & Batam Centre Jl Ahmad Yani Tlk Tering KecBatam Kota Kota Batam Kepulauan Riau, Indonesia)

Abstract. This study aims to examine the extent to which service quality and price influence customer satisfaction on Gojek users in Batam Polytechnic State. The population of this research is active students majoring in Business Management majoring in Accounting, Managerial Accounting, Applied Business Administration, and International Trade Logistics for the 2018 and 2020 class of employees at the Batam State Polytechnic. The total respondents are 100 students. This study uses a quantitative approach and data collection methods through surveys by distributing questionnaires through Google Form. The results of this study prove that Service quality has a significant positive effect on customer satisfaction, Price has a significant positive effect on customer satisfaction, and Service quality and price have a significant positive effect on customer satisfaction.

Analysis of Factors Affecting Customer Loyalty EL Hana Aesthetic Center Batam

Tiara Wati (Batam State Polytechnic, Indonesia); Shinta Wahyu Hati (Politeknik Negeri Batam, Indonesia)

Abstract. This study examines the analysis of factors that affect customer loyalty EL Hana Aesthetic Center Batam. 900 customers of EL Hana Aesthetic Center Batam is the total population of this study and a sample of 90 respondents. The purposive sampling method is a sampling technique used. In this study, data was collected through questionnaires (questionnaires) to respondents via google forms scanned through the QR Code Scanner. Using quantitative methods with EFA techniques. This research found that there are 2 factors that influence Customer Loyalty at EL Hana Aesthetic Center Batam, namely the first factor is the service factor and the second factor is market coverage and price. The total variance of the extracted factors is 79.763%, so the results of the research formed can explain the factors that influence customer loyalty at EL Hana Aesthetic Center Batam by 79.763%, and the rest is influenced by other factors.

The Competence of Machining Engineering Skills of SMK Negeri 6 Batam and Its Relevance to the Implementation of PKL (Field Work Practices) on Readiness to Enter the Workforce

Syarifah Mayasari and Ayu Puspitasari (Politeknik Negeri Batam, Indonesia)

Abstract. This research was conducted in order to find out how the process of implementing PKL (Field Work Practice) students at SMK Negeri 6 Batam and the effect on existing skills at school to be applied during the Implementation of PKL (Field Work Practices) in order to prepare themselves to enter the world of work. This study uses a quantitative approach to the correlation method. Collecting data by distributing questionnaires to students of SMK Negeri 6 Batam and the Industry Party with sampling technique using saturated sampling technique. The results of the distribution of questionnaires show that the implementation of PKL (Field Work Practice) students of SMK Negeri 6 Batam is carried out to hone students' competency skills. Influence in Machining Engineering Skills Competence is needed in the world of work because these two things are interrelated, Skill Competencies are chosen as a provision for students to achieve careers and the future. The world of work becomes a role as a forum that accepts talented people with expertise in certain fields. The results of the study prove that Machining Engineering Expertise Competence with the implementation of PKL (Field Work Practice) has a significant and significant influence on readiness to enter the world of work.

Effectiveness of Online Single Submission Implementation in Business Licensing Services at the Directorate of Goods Traffic Services and Investment in Batam City

Alvin Pratama Nasution and Yosi Handayani (Politeknik Negeri Batam, Indonesia)

Abstract. The purpose of this study is to find out all kinds of obstacles that occur in the application of an electronic-based system, namely the Online Single Submission (OSS) system in several companies in Batam City and to provide improvements to the previous system along with the opinions of investors regarding the business licensing system. Data collection uses descriptive methods with a qualitative approach by taking data related to the problems to be studied so that problems can be described descriptively and later data collection is in the form of direct questions by system users (OSS), especially companies in Batam City. The results of the discussion on the lack of training or socialization provided by the central agency and regional agencies because there are still many corporate investors who are still confused about the use of electronic-based systems for business licensing.

How Talent Management, Motivation, and Career Development Affecting the Employee Performance at PT Excelitas Technologies Batam?

Andi Erna Mulyana and Nur Fitri Arpiani (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to discover how the implementation of talent management and the role of HR in increasing employee motivation and career development at PT Excelitas Technologies Batam and to find out the influence of talent management, motivation and career development on employee performance at PT Excelitas Technologies Batam. This research uses a mixed approach with a concurrent embedded model, where the research is carried out simultaneously between qualitative and quantitative. The qualitative method was carried out by in-depth interviews in the form of semi-structured interviews with the sampling technique using purposive sampling technique while quantitative research using multiple linear regression analysis with sampling technique using saturated sampling technique. The results of the interview show that the implementation of talent management at PT Excelitas Technologies Batam is based on a system that exists in the ODC/DMS. The implementation of talent management at PT Excelitas includes the process of selecting, developing, and also maintaining human resources for the development process in the company. The role of HR in increasing motivation and career development of employees at PT Excelitas Technologies Batam is as a facilitator of programs held by the company and ensuring that their implementation reaches employees. The results of the study prove that talent management, motivation and career development have a positive and significant influence on employee performance at PT Excelitas Technologies Batam partially and simultaneously.

Workload Analysis on Seeu.co Photo Studio in Batam City

Annisa Aqidatul Izzah and Hajan Hidayat (Politeknik Negeri Batam, Indonesia)

Abstract. The purpose of this study is to analyze the work of photographers, videographers, and editors, to find out the amount of working time required by the workforce at the Seeu.co photo studio in Batam City and to determine the optimal amount of manpower requirements in accordance with needs on photo studio Seeu.co. This study uses a descriptive type of research. The workload analysis technique used is work sampling. Work sampling determines the number of observations of work activities in the form of machines, processes, and workers. With this method, researchers measure work using a stop-watch tool as a direct measurement of work. The results of this study based on observations that have been made, it is known that the workload of the workers at the Seeu.co photo studio in Batam City exceeds the normal workload, which is 409%. By knowing the workload that exceeds the normal limit, it takes 5 workers so that the work can be carried out optimally and minimize the perceived workload so that it is not too excessive so that it exceeds the normal limit.

Measurement of Material Supply Chain Performance Using SCOR Method

Andi Erna Mulyana and Ricky Nova Hamid Hamid (Politeknik Negeri Batam, Indonesia)

Abstract. The purpose of this study is to measure performance of material supply chain to determine the direction of improvement in the fulfillment of worker needs. The measurement of Material Supply Chain Performance variables is carried out based on the 5 core processes of the SCOR model and is described in each variable dimension and presented in the form of Key Performance Indicators (KPI). The result of this research is that the total value of each dimension is plan 69.93, source 65.00, make 65.49, deliver 53.28, and return 53.28 which are included in the category average. So that total performance value supply chain is 61.40 which is included in the category average. However, there are still several performance indicators that fall into the categories average (50-70), marginal (40-50), and poor (<40) which are priorities for improvement. These improvements are given based on the implementation of best practices in the SCOR model.

Implementation of Business Integration Strategy in the Retail Sector of Grocery Store to Increase Sustainable MSMEs Business Competitiveness Through the SRC Business Partnership Network Program

Teguh Widodo (Politeknik Negeri Bengkalis, Indonesia); Erma Domos (State Polytechnic of Bengkalis, Indonesia); Suharyono Suharyono (Politeknik Negeri Bengkalis, Indonesia)

Abstract. The long-term goal of the research is the realization of sustainable empowerment of MSMEs in the Grocery Store Retail Sector, especially the map of MSMEs conditions during the transition from the pandemic to the endemic of Covid 19 in Bengkalis District. Method of achieving goals to describe what is understood by research subjects. Researchers use additional data from observations of related MSMEs. Especially regarding the development of competitiveness after conducting business integration through the SRC network program. Furthermore, analyzing data and information through descriptive and content analysis to get conclusions. On the other hand, the market opportunities for local consumers that should have been taken up by MSMEs in the Grocery Store Retail Sector cannot be utilized properly because there are still limitations that MSMEs in the Grocery Store Retail Sector which have not implemented the concept of a business integration strategy through a business partnership network program. Through business integration among MSME actors in the Grocery Store Retail Sector in the SRC Business Partnership Network Program, business actors get many benefits, both economic and non-economic.

Factors Affecting Millennial Generation's Online Shopping Interest

Melinda Intan Ayu Faradilla and Sinarti Sinarti (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to examine the factors that influence the online shopping interests of the millennial generation. This research uses quantitative methods and collects its data using questionnaires spread through google forms. A total of 150 samples with purposive sampling method. The data processing technique uses the SPSS Version 20 program with multiple linear regression analysis. this research shows that attitudes have a significant effect on online shopping interests. Price has a significant effect on online shopping interests. Trust has a significant effect on online shopping interests. Subjective norms have a significant effect on the interest in online shopping.

Factors Affecting Students of the Accounting, Managerial Accounting & Business Administration Study Program of the Batam State Polytechnic Doing Impulsive Buying at Shopee E-Commerce During the Covid

Hummayasyah Ade Lestari and Muslim Ansori (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to test the factors that influence students of the Accounting, Managerial Accounting and Business Administration study program of the Batam State Polytechnic to do impulsive buying on shopee e-commerce during the Covid-19 pandemic. This research uses quantitative methods with data collection techniques using questionnaires distributed through google forms. A total of 173 samples used the purposive sampling method with the slovin formula. The data processing technique uses the SPSS Version 20 program with multiple linear regression analysis. The results of this study found that product quality partially has a significant effect on impulsive buying. Lifestyle partially has a significant effect on impulsive buying. Sales promotion partially has a significant effect on impulsive buying. Product quality, lifestyle and sales promotion simultaneously have a significant effect on impulsive buying.

The Effect of Selling Price and Distribution Channel on the Sales Volume of Internet Cards and Vouchers at PT Hunindo Jaya Sejati

Gina Yulita (Batam State Polytechnic, Indonesia); Wika Arsanti Putri (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine the effect of selling prices and distribution channels on the sales volume of internet cards and vouchers at PT Hunindo Jaya Sejati. This study used the quantitative method with a data collection method using the company's secondary data consisting of selling price time series data, attribution channel data, and monthly sales data for 3 years, the period 2019 - 2021. The analysis technique used is multiple linear regression analysis. The results of this study show that the selling price has a significant positive influence on sales volume, and distribution channels that have a significant positive effect on sales volume of internet cards and vouchers at PT Hunindo Jaya Sejati.

E-Commerce Service Quality, E-Customer Satisfaction and Loyalty: Modification of E-Servqual Model

Jefri Oktorianda Simanjuntak and Mega Mayasari (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to examine the effect of E-Commerce Service Quality on E-Customer Satisfaction and Loyalty. E-Commerce Service Quality is measured using Modified E-Servqual Model which consists of Site Organization, Responsiveness, Reliability, User Friendliness, Personal Need, and Efficiency. The research method used is a quantitative method. The data collection technique used is a survey technique using a questionnaire. The sampling technique uses purposive sampling technique and uses the slovin formula in determining the number of samples. The sample in this study was Batam State Polytechnic Business Management Students with 100 respondents. The results show that E-Customer Satisfaction has an effect on E-Customer Loyalty and the E-Commerce Service Quality variable consisting of responsiveness, reliability, user friendly, personal need, and efficiency has an effect on E-Customer Satisfaction while the variable site organization has no effect on E-Customer satisfaction

Analysis Patterns of Sea Distribution and Marketing Margins of Sea on Terong Island, Belakang Padang District, Batam City

Dina Rosiana, BintiRosli and Shinta Wahyu Hati (Politeknik Negeri Batam, Indonesia)

Abstract. This study plans to analyze the advertising design involved by the Terong Island people group in circulating its ocean grass to the merchant on Terong Island and decide how much showcasing edge between each promoting level utilized. The issues contemplated incorporate inner and outside factors that influence the exhibition of anglers with an end goal to look for kelp like numerous capital avoided and satisfactory climate. The review utilized is a subjective spellbinding examination for promoting and illustrative examples as an equation to work out showcasing edge.

Design of Standard Operational Procedures (SOP) Final Assembly at PT XYZ

Lis Kholifah and Muhammad Ikhlas (Politeknik Negeri Batam, Indonesia)

Abstract. The study report discussed the design of a standard operating procedure (SOP) of the final part of assembly in the PT XYZ. The background of taking this research is that the company does not have a standard of operating procedure (SOP) and therefore is one reason for the decline in production quality because there are no complete and written raw rules to guide employees in the work. The purpose of this research is to design the standard operating procedure (SOP) as an effort to reduce the number of items kokeshi and non conformance (NC). The study uses data that has been analyzed using descriptive methods and data collection methods done by observation techniques, interviews and document inspection. Research uses testing to state that companies require standard operating procedures (SOP) as employee guidelines for carrying out a job as guidelines for working.

Impact of Power Diversity on Employee Proactivity and Job Performance: Case from Education Counselor Unit in Jakarta's Private University

Sekar W Prasetyaningtyas (Binus Business School, Binus University, Indonesia)

Abstract. This study's primary purpose was to investigate the relationship between power distance, employee proactivity, and job performance in university-based organizations, according to the Education Counselor Unit in one of the private university in Jakarta. This study's sample included three individuals with relevant experience working for a university-based organization. This study's information was gathered through qualitative interviews. The data analysis revealed that all variables have an impact on one another. The results from this study revealed that high power distance has a negative impact on employee proactivity and job performance. Employee proactivity also has a significant influence on job performance. Hence, the selected university-based organization should evaluate the organization's power distance culture and employee proactivity, both of which will affect the employee's job performance.

Analysis of the Delivery Process of Garuda Indonesia Cargo Goods in Batam

Kurnia Fitriani and Andi Erna Mulyana (Politeknik Negeri Batam, Indonesia)

Abstract. This study examines the process of shipping cargo through Garuda aircraft and analyzes the satisfaction level of users of Garuda cargo service. The purpose of the study was to determine the process of shipping cargo through Garuda Indonesia aircraft at Hang Nadim Batam Airport, Batam, and to determine the level of service satisfaction of service users. Data collection techniques used in this study were interviews, observation and questionnaires. Respondents in this study there are 5 agents JNT, JNE, TIKI, SI CEPAT, WAHANA. This study uses a descriptive qualitative method, and uses the SCI (Customer Satisfaction Index) method. The results of this study explain how the process of cargo goods sent via air cargo starting from the goods to be sent, cargo agents and inspections by the relevant agencies to the goods to the plane. As well as displaying the level of satisfaction of service users who use air cargo services and showing that shipping goods using Garuda cargo gets a CSI result of 80.58% which is categorized as " Good ".
Keywords: Delivery process, CSI (Customer Satisfaction Index)

Student Learning Satisfaction and Its Effect on the Desire to Continue Learning Using the Online Method

Tri Anggraini (Batam State Polytechnic, Indonesia); Muhammad Ikhlas (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to examine the effect of Information Quality on Satisfaction empirically, System Quality on Satisfaction, Service Quality on Satisfaction, Facilitating Condition on Satisfaction, and Satisfaction on Continuance Intention. The sample in this study was 130 students majoring in business management at the Batam State Polytechnic using the purposive sampling technique and data acquisition would be obtained through distributing questionnaires to active students majoring in business management for the 2018-2021 class. In this study, data analysis was performed using the Partial Least Square (PLS) Analysis tool through software, namely Smart PLS version 3.3.5. The results of this study indicate that the Information Quality has no effect on Satisfaction, the System Quality has a positive effect on Satisfaction variable Service Quality has a positive effect on Satisfaction, the Facilitating Condition has no effect on Satisfaction variable Satisfaction has a positive effect on Continuance Intention in using e-learning.

The Effect of Financial Knowledge, Financial Attitude, and Personality on Financial Management Behavior on Small Medium Micro Business Actors in Batam City

Srimelati Anjelina Sinaga (Batam State Polytechnic, Indonesia); S Sulaksono Adi Wibowo (Politeknik Negeri Batam, Indonesia)

Abstract. This research aims to examine (1) the influence of Financial Knowledge on Financial Management Behavior in Micro, Small and Medium Enterprises in Batam City, (2) the influence of Financial Attitude on Financial Management Behavior in Micro, Small and Medium Enterprises in Batam City, (3) the influence of Personality on Behavior Financial Management for Micro, Small and Medium Enterprises in Batam City, (4) and the influence of Financial Knowledge, Financial Attitude, and Personality on Financial Management Behavior in Micro, Small and Medium Enterprises. The subject of this research is the owner of MSMEs registered with the Batam City Cooperative Service. Prerequisite tests include normality test, linearity test, multicollinearity test and heteroscedasticity test. The information analysis method used is simple linear regression analysis and multiple linear regression analysis. The results of the research show (1) there is a significant positive influence of Financial Knowledge on Financial Management Behavior in Batam City SMEs, (2) there is a significant positive influence on Financial Attitudes on Financial Management Behavior in Batam City SMEs, (3) there is a significant positive influence on Personality towards Financial Management Behavior in Batam City MSME actors, (4) there is a significant positive influence on Financial Knowledge, Financial Attitude, and Personality on Financial Management Behavior in Batam City MSME actors.

The Influence Covid 19, Competition, Price and Service Quality on Purchase Decisions at PT Melvin Prima Perkasa (Freight Forwarding)

Dian Mulyaningtyas (Institute Teknologi 10 Nopember & Politeknik Negeri Batam, Indonesia); Erika Agustina (Politeknik Negeri Batam, Indonesia)

Abstract. The problem that is used as a reference for researchers to conduct research is the problem that exists at PT Melvin Prima Perkasa, namely whether there is a partial and simultaneous influence on the Covid-19, Competition, Price, and Quality of Service on Purchase Decisions at PT Melvin Prima Perkasa (Freight Forwarding) . The purpose of this study was to determine and analyze the partial and simultaneous effect of the Covid-19, Competition, Price, and Service Quality on Purchase Decisions. The population in this study were customers of PT Melvin Prima Perkasa and respondents in this study were customers of PT Melvin Prima Perkasa with a total sample of 72 respondents. The sampling technique here uses the Purposive Sampling-Quota method. In this study, data were collected through questionnaires given directly to respondents. The data analysis method used is descriptive analysis using Multiple Linear Regression, Classical Assumption Test, T Test and F Test with a significance level of 0.05 and the Coefficient of Determination. Partially it is known that the covid 19, price and service quality have a positive influence, while the results simultaneously variable Covid 19, competition, price and service quality have a significant effect on purchasing decisions.

Analysis of Logistics Performance on the Supply of Goods from Distribution Centers to All JOMTEA BRAND BEVERAGE OUTLETS in BATAM AND TANJUNG PINANG CITIES

Dian Mulyaningtyas (Institute Teknologi 10 Nopember & Politeknik Negeri Batam, Indonesia)

Abstract. This research aims to evaluate the performance of logistics systems with logistic scorecards on Jomtea Company for Batam and Tanjung Pinang outlets. This research uses primary and secondary data in the form of conducting interviews with logistics officers and using company-related data such as SOP, Order letters, goods receipts, etc. In this study did not use population and sample because the study used a logistic scorecard in its assessment. Data retrieval techniques in research use observations, interviews, and documentation. Performance system measurements in companies use logistic scorecard measurements with five perspectives. The results of this study are divided into two storage warehouses and several storage facilities depending on temperature and material safety, and 5 elements of scorecard, namely: Business Strategy Orientation Element with a score of 4, Capacity Planning and Implementation Element with a score of 3.7, Logistics Efficiency and Productivity Element with a score of 3.4, Information Technology Implementation Element with a score of 3.3, and Supply Chain Collaboration Element with a score of 3 that measures performance effectiveness and efficiency.

The Influence of Consumer Complaints, Handling Satisfaction, and Service Quality on Customer Loyalty with Repurchase Interest as Moderating Variables at Fygalery Jakarta Online Store

Dian Mulyaningtyas (Institute Teknologi 10 Nopember & Politeknik Negeri Batam, Indonesia); Indah Kurnia Sari (Politeknik Negeri Batam, Indonesia)

Abstract. Knowing the variables of consumer complaints, handling satisfaction, and service quality that determines whether they affect customer loyalty with repurchase interest as a moderating variable at the Fygalery Jakarta online store is the purpose of this study. The method in this study uses quantitative methods with primary data obtained from questionnaires that have been filled out by 100 respondents. Purposive Sampling is a sampling technique that is used with criteria for buyers at the Fygalery Jakarta online store who have made complaints. Descriptive statistical analysis, classical assumption test, multiple linear regression analysis, and interaction test/MRA are analytical techniques of the study. The results of the study prove that consumer complaints, handling satisfaction, and service quality have a significant effect on customer loyalty, and the variable of repurchase interest moderates and strengthens the relationship between consumer complaints, handling satisfaction, and service quality on customer loyalty.

The Influence of Work Environment, Work Culture, and Incentives on Employee Performance at PT Kemet Electronics Indonesia

Cut Windiani and Ria Anggraini (Politeknik Negeri Batam, Indonesia); Hanna Tinambunan (Illinois State University, USA)

Abstract. This study intends to determine whether there is an influence of the work environment, work culture, and incentives on employee performance at PT Kemet Electronics Indonesia. This study uses a quantitative research approach and primary data sources obtained through questionnaires filled out by 45 respondents from employees of the supporting team of PT Kemet Electronics Indonesia. The data obtained were analyzed through multiple linear regression analysis. The findings of this study partially show that the work environment and incentives do not have a significant effect on employee performance, while the work culture variable has a significant positive effect on employee performance. And further findings show that the variables of work environment, work culture, and incentives simultaneously have a significant positive effect on employee performance at PT Kemet Electronics Indonesia.

The Influence of Problem Handling, Commitment, Trust, and Communication on Customer Loyalty at Rural Banks

Nur Rahmah Andayani (Politeknik Negeri Batam, Indonesia)

Abstract. This study's purpose is to determine whether problem-solving, commitment, trust, and communication affect customer loyalty. This study uses primary data obtained from customers of the Banda Raya Rural Bank. The data obtained were analyzed using regression analysis and the results obtained that part, the variables of problem handling, commitment, trust, and communication have a significant effect on customer loyalty, also simultaneously have a significant effect on customer loyalty at Bank Perkreditan Rakyat Banda Raya.

The Influence of Price, Promotion, and Product Quality on Purchasing Decisions for Batam Batik Products at Dekranasda Batam

Nur Rahmah Andayani (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine how the price, promotion, and quality of a product can influence consumers in determining and deciding to purchase Batam batik products at Dekranasda. The target population in this study are consumers who have purchased Batam batik products at the Dekranasda Batam City in the past year. The total respondents were 100 respondents. A quantitative approach is used in collecting data from surveys which use google forms as a medium for filling out questionnaires. This study uses the classical assumption test consisting of a normality test, multicollinearity test, heteroscedasticity test, multiple linear regression test, t-test, and f-test. Based on this research, it is known that price has no significant effect on product purchasing decisions and is inversely proportional to the promotion and product quality which has a significant effect on product purchasing decisions.

Analysis of the Effect of Inventory, Operational Audit and Internal Control on Warehousing Management at PT Internasional Asia Prima Sukses

Lydia Putri Puspitasari (Politeknik Negeri Batam & Batam, Indonesia); Fandy Bestario Harlan
(Politeknik Negeri Batam, Indonesia)

Abstract. In distributor companies, the problem that often occurs at PT Internasional Asia Prima Sukses is the discrepancy in the stock of goods. This is due to lack of accuracy in calculating goods entering the warehousing and lack of re-checking when the goods will be distributed. From the problems faced, an evaluation is needed in the form of an operational audit that will provide recommendations for improvements that must be made. Lack of supervision of employee performance results in not being able to assess the risks faced. Based on this description, this study aims to identify the influence of inventory, operational audits and internal control on warehousing management at PT Internasional Asia Prima Sukses. The study sample consisted of 50 employees involved in warehouse management. This study uses descriptive analysis methods and multiple linear regression. The results showed that simultaneously inventory, operational audits and internal control in warehousing management had a positive and significant effect on warehousing management with a determination efficiency of 0.770. Partially, inventory and operational audits have a positive impact on warehousing management and internal control has a negative influence on warehousing management. This result has implications if PT Internasional Asia Prima Sukses must improve its internal control system.

Consumer Satisfaction Analysis of Scarlett Whitening Products Through Brand Image, Price, Product Quality, and Digital Marketing Factors

Rizki Putri Kastulani and Maryani Septiana (Politeknik Negeri Batam, Indonesia)

Abstract. This study aims to determine the significance of brand image, price, product quality, and digital marketing factors on consumer satisfaction on Scarlett Whitening Products. This study uses a quantitative method with a descriptive statistical approach and multiple linear regression analysis. The technique of collecting data is through a questionnaire with the population of Batam City Community and the number of samples are 100 people. Partially, the brand image and product quality variables have a positive and significant effect on consumer satisfaction, while the price and digital marketing variables have a positive but not significant effect on consumer satisfaction for Scarlett Whitening Products. Simultaneously, the variables of brand image, price, product quality, and digital marketing have a positive and significant effect on consumer satisfaction for Scarlett Whitening Products.



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