

Program

April 18–19, 2024, Fr. Michael Richartz Conference Center and SAFAD Building

Theme: **Sustainable Futures: USC@75 and Beyond**

Day 1: April 18, 2024

Master of Ceremonies: **Brenette L. Abrenica**

Director, Office of External Relations and Internationalization

Plenary session 1

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| 7:30 a.m. | Registration | |
| 8:30 a.m. | Opening ceremony
Invocation
Philippine National Anthem
USC Hymn
Welcome remarks | Fr. Jesuraj Anthoniappen, SVD
Vice President for Academic Affairs |
| 9:00 a.m. | State of the University address | Fr. Francisco Antonio T. Estepa, SVD
University President |
| 9:30 a.m. | Health break | |
| 10:00 a.m. | Keynote 1
Role of higher education in a sustainable future | Maria Luz C. Vilches
Vice President for Higher Education
Ateneo de Manila University |
| 11:00 a.m. | Panel discussion
Cebu's outlook for the future | Hon. Jennifer C. Bretaña
Regional Director, National Economic
Development Authority Region VII

Riella Mae Christa B. Guioguio
Chief Operating Officer
Ramon Aboitiz Foundation, Inc.

Melanie C. Ng
Area Vice President for the Visayas,
Philippine Chamber of Commerce and
Industry |
| 11:30 a.m. | Open forum
Awarding of certificates | |
| 12:00 n.n. | Lunch break | |
| 1:00 p.m. | Opening of posters and exhibits
Poster and exhibitors session | |

Parallel session 1: Technology and Innovation (SDGs 9, 11)

Venue: Fr. Michael Richartz Conference Center

Moderator: **Francis Dave C. Siacor**, USC Department of Chemical Engineering

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| 1:30 p.m. | A1: Design of three detention ponds in USC TC for flood mitigation and runoff water utilization | <u>Mary May D. Villacampa</u> , Kyla Jin D. Malaque, Ken Abraham C. Tagalog, Ricardo L. Fornis*
Department of Civil Engineering
University of San Carlos |
| 1:45 p.m. | A2: GIS-based landslide prone area mapping and susceptibility analysis influenced by nine intrinsic and extrinsic causative factors of Brgy. Agsungot and Brgy. Guba | <u>Jeremiah D. Auman</u> , <u>Manuel Iam Paolo L. Tipgos</u> , Raf-ter Shan B. Abejo, Kathrina Marie M. Borgonia*
Department of Civil Engineering
University of San Carlos |
| 2:00 p.m. | A3: Identification and web mapping of seaweed, seagrass, and coral in coastal areas using YOLOV7 | <u>Elmo B. Ranolo</u> , Archival J. Sebial, Angie C. Canillo*
Department of Computer, Information Sciences, and Mathematics, University of San Carlos |
| 2:15 p.m. | A4: Comparing Gregory-Newton interpolating forward polynomial and developed adaptive step-size one-at-a-time (OAT) model by estimating exchange rate volatilities between Philippine and foreign currencies | <u>Anna Lorraine E. Espiloy</u> , Elmer S. Poliquit*
Department of Computer, Information Sciences, and Mathematics, University of San Carlos |
| 2:30 p.m. | A5: Multi-network based approach for drug repurposing | <u>Ronan Jasper Reponte</u> , <u>Joshua Rodriguez</u> , Gerard D. Ompad*
Department of Computer, Information Sciences, and Mathematics, University of San Carlos
School of Statistics, University of the Philippines Diliman |
| 2:45 p.m. | Open forum and presentation of certificates | |
| 3:00 p.m. | Health break | |
| 3:15 p.m. | A6: Automated blast cell detection for acute lymphoblastic leukemia using a stacking ensemble of convolutional neural networks | <u>Wayne Matthew A. Dayata</u> , Sabrinah Yonell Yap, Christine D. Bandalan*
Department of Computer, Information Sciences, and Mathematics, University of San Carlos |
| 3:30 p.m. | A7: A study on the parameterization of functional electrical stimulation signals | <u>Danica Marie A. Dumalagan</u> , Klyle Alexandre T. Luchavez, Jun Niel T. Paquibot, Clyde Matthew Y. Condor, Luis Gerardo S. Cañete Jr.*
Department of Computer Engineering
University of San Carlos |
| 3:45 p.m. | A8: A study of pet dog bark classification based on lightweight deep learning | <u>Dione S. Duero</u> , Philip Virgil B. Astillo*
Department of Computer Engineering
University of San Carlos |
| 4:00 p.m. | A9: Optimizing supermarket navigation: Machine learning for dynamic shopping list sorting | <u>Johnfil L. Initan</u> , Vincent D. Abella, Jake Mark M. Perez, Philip Virgil B. Astillo, Luis Gerardo S. Cañete Jr.*
Department of Computer Engineering
University of San Carlos |

- 4:15 p.m. A10: Energy resiliency of a microgrid for a hospital with electric charging station for EVs
 Carlito S. Baco Jr., Michael Lochinvar S. Abundo, Isabelo A. Rabuya*
 Department of Electrical and Electronics Engineering, University of San Carlos
- 4:30 p.m. Open forum and presentation of certificates

Parallel session 2: Health and Innovation (SDGs 3, 9)

Venue: SAFAD Theater

Moderator: **Norielyn N. Abalos**, USC Department of Biology

- 1:30 p.m. B1: 3D-printing bone, muscle, and pancreatic tissues using red seaweed-derived hydrogels
 Rommel G. Bacabac
 USC MBG Center for Tissue Engineering and Biological Soft Materials
- 1:45 p.m. B2: Yearly variations of the genetic structure of *Aedes aegypti* mosquitoes in the Philippines
 Frances E. Edillo
 Mosquito Research Laboratory, Department of Biology, University of San Carlos
- 2:00 p.m. B3: Temperature, season, and latitude influence development-related phenotypes of Philippine *Aedes aegypti*: Implications for dengue control amidst global warming
 Rhoniell Ryan Ymbong, Frances E. Edillo,* Alyssa Angel Bolneo, Ric Jacob Hernandez, Bianca Louise Fuentes et al.
 Mosquito Research Laboratory, Department of Biology, University of San Carlos
- 2:15 p.m. B4: Empowering a city: A model case for plastic circularity in the Philippines
 Jeanie T. Orate, Maria Kristina O. Paler,* Marie Touchon, Martin W. Skov, Evelyn B. Taboada
 SEAMaP Project, University of San Carlos School of Ocean Sciences, Bangor University
- 2:30 p.m. B5: Unplanned self-change from methamphetamine addiction
 Glenn G. Glarino
 Department of Psychology
 University of San Carlos
- 2:45 p.m. Open forum and presentation of certificates
- 3:00 p.m. Health break
- 3:15 p.m. B6: Development of in situ nasal gel formulation of Loratadine using mucoadhesive gellan gum: Characterization and in vivo pharmacokinetics
 Stan Matthew S. Taylaran, Genia T. Villacanas, Gerard Lee L. See*
 Department of Pharmacy
 University of San Carlos
- 3:30 p.m. B7: Preparation and characterization of atenolol orodispersible film using *Corchorus olitorius* leaf mucilage as disintegrant
 Junnin Gay L. Garay, Gerard Lee L. See*
 Department of Pharmacy
 University of San Carlos
- 3:45 p.m. B8: Effect of extraction conditions on the phenolic content and antioxidant activity of Philippine arabica green coffee beans
 Ronie O. Lusaes, Kent Nicole A. Andalahao, Erron Marc A. Hallarsis, Therese Ann B. Rivera, Allyssa Kym P. Romeo, Camille Kaye P. Superlativo, Camila Flor Y. Lobarbio*
 Department of Chemical Engineering
 University of San Carlos

4:00 p.m.	B9: Immobilization of cellulase in low-methoxyl pectin from mango peels	<u>Paolo Joshua B. Olango</u> , Renzylle Reenice A. Alba, Evannah June L. Duhaylongsod, Camila Flor Y. Lobarbio* Department of Chemical Engineering University of San Carlos
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4:15 p.m.	Open forum and presentation of certificates
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Parallel session 3: Quality Education (SDG 4)

Venue: SAFAD Lecture Room

Moderator: **Rolando V. Obiedo**, USC School of Education

1:30 p.m.	C1: Research on teacher education for sustainable development: A systematic review towards curriculum integration and teaching practice	<u>Enriqueta D. Reston</u> Department of Teacher Education University of San Carlos
1:45 p.m.	C2: Cultivating student civic scientific literacy for sustainable development through employing inquiry-based instructional units	<u>Katrina Jhoanne M. Santos</u> , Marilou R. Gallos* Department of Teacher Education University of San Carlos
2:00 p.m.	C3: Pre-service science teachers' self-efficacy beliefs and instructional preparedness in teaching junior high school physics in a spiral progression approach	<u>Ricky R. Salem</u> , Monell John F. Cañizares* Department of Teacher Education University of San Carlos
2:15 p.m.	C4: Examining the self-efficacy, teaching belief, and attitude towards use of technology: Basis for a sustainable mentoring plan for pre-service teachers	<u>Lowell M. Gabunilas</u> , Rolando V. Obiedo* Department of Teacher Education University of San Carlos
2:30 p.m.	Open forum and presentation of certificates	
2:45 p.m.	Health break	
3:00 p.m.	C5: Senior high school teachers' readiness in promoting sustainability of K-12 learning environment	<u>Glenn A. Tenefrancia</u> Department of Teacher Education University of San Carlos
3:15 p.m.	C6: Developing a holistic and integrated ecoliteracy learning module in the light of the Catholic faith	<u>Sr. Girlie M. Lopez, SFIC</u> , Levy Lanaria* Department of Teacher Education University of San Carlos
3:30 p.m.	C7: Advancing teacher professional development: Harnessing technology-embedded scientific inquiry (TESI) for sustainable teaching and learning among in-service science teachers through mobile devices	<u>Cara Luz Buar</u> , Rolando V. Obiedo* Department of Teacher Education University of San Carlos
3:45 p.m.	C8: Creating a sustainable professional learning community: Empowering science teachers in indigeneous communities through tailored development program	<u>Judy Mae L. Castillo</u> Department of Teacher Education University of San Carlos
4:00 p.m.	Open forum and presentation of certificates	
4:30 p.m.	End of Day 1	

Day 2: April 19, 2024

Master of Ceremonies: **Brenette L. Abrenica**
Director, Office of External Relations and Internationalization

Plenary session 2

- 7:30 a.m.

Registration
- 8:00 a.m.

Welcome to Day 2
- 8:15 a.m.

Plenary lecture 1

The role of universities in promoting sustainable development

Leena James

Professor of Sustainability Management and Head, SDG Cell Christ Univeristy (Bangalore, India)

Jyothi Kumar

Professor and Dean Bannerghatta Campus Christ University (Bangalore, India)
- 8:45 a.m.

Plenary lecture 2

Sustainability through internationalization and mobility: The Tuning Asia Southeast and CALOHE Asia projects as exemplars

Richard R. Jugar

Full Professor, USC Department of Teacher Education
Special Advisor to the Executive Director, ASEAN University Network
- 9:15 a.m.

Open forum
- 9:45 a.m.

Health break

Parallel session 4: **Business and Economic Growth (SDG 8)**
Venue: Fr. Michael Richartz Conference Center
Moderator: **Maria Wilvenna A. Añora**, USC Department of Business Administration

- 9:55 a.m.

D1: Climate-smart agriculture information sources and dissemination pathways used by smallholder farmers in the Province of Batangas

Analiza D. Resurreccion
Research Management and Coordination Office, De La Salle Lipa, Batangas
- 10:10 a.m.

D2: Sustainable dining practices among food establishments in Cebu, Philippines

Cecil S. Gantalao, **Vicente S. Maravilla Jr.**,* **Myrla Mercedes B. Gidayawan**, **Demetrio S. Anticuando**, **Kriszia Dimpsy S. Bastasa**, **Cris Edren L. dela Peña**, **Ava Mella D. Zapanta**
Department of Hospitality and Tourism University of San Carlos

10:25 a.m.	D3: Assessing the Environmental, Social, and Governance (ESG) scores and firm characteristics of non-financial publicly listed ASEAN companies	<u>Eleanor D. Paclijan</u> ,* Lea Angelica O. Minoza, Shania Angela E. Moya, Lord Francheska B. Real, Caroline M. Tam, Challoner A. Matero Department of Accountancy University of San Carlos
10:40 a.m.	D4: Stock return effects of carbon disclosures in ASEAN countries	Shealtiel Edams A. Miano, Aubrey Jane Y. Quiapo, Kyle Nicholas P. Taganas, Rogelio II N. Talaba, <u>Challoner A. Matero</u> * Department of Accountancy University of San Carlos
10:55 a.m.	Open forum and presentation of certificates	
11:00 a.m.	D5: Securities and Exchange Commission sustainability reporting compliance of selected Philippine publicly-listed property sector companies	<u>Aron Keith Andrade</u> , Klaus Odell Aquino, Shari Stacey Bacalso, Denn Vladimyr Castro, Anrho William Escalante, Kate Danica Luag, Lyka Tejada, Marissa Baldecir* Department of Accountancy University of San Carlos
11:15 a.m.	D6: Philippine economic growth 1990–2022: An investigation of the Kaldor's first and second laws	<u>Geo T. Durano</u> , Julius P. Relampagos* Department of Economics University of San Carlos
11:30 a.m.	D7: PointView: A unified index for Cebu's hotel and restaurant industries	<u>Andrea Claire M. Baulita</u> , T-jay A. Abunales, Gerard D. Ompad* Department of Computer, Information Sciences, and Mathematics, University of San Carlos School of Statistics, University of the Philippines Diliman
11:45 a.m.	D8: A critical value chain mapping and analysis of bioplastics in the Philippines	<u>Francis Dave C. Siacor</u> ,* Lorraine Claire C. Uy, Ma. Kristina O. Paler, Noel Peter B. Tan SEARCA Project, University of San Carlos CANMEET, University of San Agustin
12:00 n.n.	Open forum and presentation of certificates	

Parallel session 5: OPS symposium: Early precedents to adolescent outcomes: Factors in childhood that influence well-being in adolescence and beyond (SDGs 1, 2, 3, 4, 5)

Venue: SAFAD Theater

Moderator: **Maria Fiscalina A. Nolasco**, Office of Population Studies Foundation, Inc., University of San Carlos (USC OPS)

9:55 a.m.	E1. Study overview and session concept note	Judith B. Borja USC OPS
10:10 a.m.	E2. Early exposure to child work/labor and school performance	Francisco M. Largo USC Department of Economics
10:25 a.m.	E3. Early learning and other childhood conditions associated with human capital formation in adolescence	Jan Lorenzo G. Alegado University of the Philippines Cebu

10:40 a.m.	E4: Childhood red flags associated with poor mental health conditions in adolescence	Delia E. Belleza USC Department of Psychology
10:55 a.m.	Open forum and presentation of certificates	
11:00 a.m.	E5: Tracing the pathways to adolescent pregnancy	<u>Nanette L. Mayol</u> , Judith B. Borja USC OPS
11:15 a.m.	E6: Child and household characteristics that define adolescent values	Judith B. Borja USC OPS
11:30 a.m.	E7: Early determinants of sexual orientation and gender identity expression in adolescence	<u>Zona Hildegarde S. Amper</u> , Marjory E. Dino, Sonny A. Bechayda USC OPS, USC Center for Social Research and Education
11:45 a.m.	E8: Synthesis: Policy implications	Alejandro N. Herrin USC OPS
12:00 n.n.	Open forum and presentation of certificates	

Parallel session 6: Built Environment (SDG 11)

Venue: SAFAD Lecture Room

Moderator: **Hermie Ray O. Oplado**, School of Architecture, Fine Arts, and Design

9:55 a.m.	F1: Application of workplace environmental psychology theory through local sense of design for the proposed Cebu City Police Office Headquarters at Camp Sotero Cabahug, Gorordo, Cebu City	<u>John Brix Cruza</u> , Julla D. Derecho* Department of Architecture University of San Carlos
10:10 a.m.	F2: Improving Ormoc City's public open spaces setting: A descriptive case study of Veteran's and Centennial Park in Ormoc City, Leyte	<u>Bhea Jasille G. Torres</u> , Neil Andrew Menjares* Department of Architecture University of San Carlos
10:25 a.m.	F3: An aesthetic and eco-spiritual critique of <i>Saulog: Encounter, Pilgrimage, Transformation</i>	Genesis B. Bedio Department of Fine Arts University of San Carlos
10:40 a.m.	F4: Diverse textile applications: Based on the inventory of locally endemic raw fiber plant materials	<u>Jemmalyn Borces</u> ,* Mary Felma Aliño, Bea Therese Bajarias Department of Fine Arts University of San Carlos
10:55 a.m.	Open forum and presentation of certificates	

Parallel session 7: Politics, Governance, and Society (SDG 16)

Venue: SAFAD Lecture Room

Moderator: **Grace Magalzo-Bualat**, Department of Political Science

11:00 a.m.	G1: Politics and process: An analysis on international non-governmental organizations (INGOs) transnational campaign advocacies in the Philippines	<u>Christian Elson D. Homez</u> , Ma. Patricia Olga T. Valles, Kezaiah N. Castro, Joanna Marie Fuentes-Baroman* Department of Political Science University of San Carlos
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| 11:15 a.m. | G2: Challenges and prospects: The role of immediate duty-bearers in CICL diversion | <u>Emmanuelle Glyde R. Suycano</u> ,
<u>Geoanne Alyzandra L. Estrada</u> ,
<u>Izabella Aña T. Guidicelli</u> , <u>Marlouize E. Villanueva*</u>
Department of Political Science, College of Law, University of San Carlos |
| 11:30 a.m. | G3: Unseen, unheard: Shaping birth registration policies for the invisible people of Mandaue City through deprivation narratives | <u>Toni Gayle S. Go</u> , <u>Ronan Colin C. Co</u> , <u>Czaree Cassidy dG. Pospia</u> ,
<u>Owen O. de la Victoria*</u>
Department of Political Science
University of San Carlos |
| 11:45 a.m. | G4: Disciplinary rationalization and career preparations: The case of tracking qualifying assessment in the University of San Carlos Department of Political Science, Cebu City | <u>Rejene T. Lakibul</u>
Department of Political Science
University of San Carlos |
| 12:00 n.n. | Open forum and presentation of certificates | |
| 12:30 p.m. | Lunch break | |
| 1:30 p.m. | Poster and exhibitors session | |

Plenary session 3

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| 2:00 p.m. | <div style="background-color: #90EE90; padding: 5px;"> Panel discussion
 Navigating the future with A.I.: Challenges and opportunities </div> Hon. Frederick DC. Amores
Regional Director, Department of Information and Communications Technology Region VII

Michelle P. Banawan
Program Director, B.S.B.A. and Data Science, Asian Institute of Management | Adonis Durado
Assistant Professor, Ohio University, U.S.A.

Gregg Victor Gabison
Country Manager, Ray Business Technologies

Prospero C. Naval Jr.
Professor of Artificial Intelligence, Department of Computer Science, University of the Philippines Diliman |
| 2:30 p.m. | Open forum | |
| 2:45 p.m. | Health break | |
| 3:00 p.m. | Keynote 2
The Blue Economy from the perspective of the government's maritime transport sector | Hon. Elmer Francisco U. Sarmiento
Undersecretary for Maritime Department of Transportation |
| 3:30 p.m. | Keynote 3
Embracing Blue Economy as a strategy towards achieving the Sustainable Development Goals for the Philippines | Michael Lochinvar S. Abundo
Chief Executive Officer
OceanPixel Pte. Ltd. (Singapore) |

4:00 p.m. Open forum
4:30 p.m. Closing ceremony
Recognition of sponsors and exhibitors
Awarding of best papers
Invitation to 5th SEECON/Blue Economy Conference
Invitation to URC 2025
5:00 p.m. End of URC 2024

Posters

P1: A proposed interior renovation in Baptist Theological College to enhance its physical conditions: A mixed method approach

Leeian Ashley T. Yap, Julla D. Derecho*

Department of Architecture, University of San Carlos

P2: Adaptability and flexibility of the design studio learning spaces of the College of Architecture and Allied Discipline of Eastern Visayas State University for post-pandemic process

Veronica L. Arong, Adrian P. del Monte*

Department of Architecture, University of San Carlos

P3: Assessment and evaluation of the indoor lighting environment in Lecture Room 3 of the Architecture Building at Palawan State University-Main Campus

Argie T. Tenorio, Robert B. Malayao*

Department of Architecture, University of San Carlos

P4: Home as a microcosm of culture: A sequential explanatory study on the Filipino culture of filling up space (*horror vacui*) in the living room interiors of middle-class Cebuano households in Cebu City, Philippines

Abigail Mae Y. Kintia,* Jyle Mariz Maraton, Marjury E. Dino

Department of Architecture, University of San Carlos

Department of Anthropology, Sociology, and History, University of San Carlos

P5: Interior redesign for the refectories of the Immaculate Heart of Mary Seminary in Tagbilaran City, Bohol using space syntax theory

Leighanne Gabrielle G. Bersabal, Julla D. Derecho*

Department of Architecture, University of San Carlos

P6: Transformative hospitality: Application of hotelscape and servicescape in the interior renovation of Golden Peak Hotel and Suites in Cebu City

Jan Marie P. Trocino

Department of Architecture, University of San Carlos

P7: A visual identity system for the University of San Carlos *Verbo* publication

Carla Marie Adlawan,* Anton Elijah Lin, Patricia Denise Rafanan

Department of Fine Arts, University of San Carlos

P8: Representation of Zamboanga City and Zamboangueños in selected films from the 1930s to the 2010s: A postcolonial analysis

Aeon Rhys D. Abad

Department of Fine Arts, University of San Carlos

P9: A study on suffixations in online headline posts of The Philippine Star

Alyssa Anne S. de Dios, Jose Antonio C. Dasig Jr., Marie Joy R. Pepito, Karren C. Torrejos, Mary Ann P. Malimas*

Department of Communications, Linguistics, and Literature, University of San Carlos

P10: Teachers' conceptions of socioscientific issues and their placement in the K to 12 science curriculum: Towards education for sustainable development

Katrina Jhoanne M. Santos

Department of Teacher Education, University of San Carlos

P11: Voting patterns in Cebu Province during the presidential and senatorial elections of 2001 to 2022

Gale Paulette O. Macasa, Ameshel Rose N. Cordeta, Rejene T. Lakibul*

Department of Political Science, University of San Carlos

P12: An assessment of the policy intervention of Cebu City government aiding indigenous people vis-a-vis to the Badjao community

Charis Glyn T. Mayam, Rainier Christian P. Grande, Kim B. Jocson, Melbert B. Ople*

Department of Political Science, University of San Carlos

Department of Teacher Education, University of San Carlos

P13: Human rights in rehabilitation: An assessment of the persons deprived of liberty (PDL) welfare and development program in Naval District Jail

Flordemay E. Mollaneda, Enya C. Jugalbot, Contessa Urzula P. Honora, Rejene T. Lakibul*

Department of Political Science, University of San Carlos

P14: Analyzing the strongman's crisis responses: A comprehensive analysis of Rodrigo Duterte's approach to various crises

Claire Anne F. Radoc, Erika Mae A. Alingalan, Abegail I. Estrelles, Giossephe Karl Rallos*

Department of Political Science, University of San Carlos

P15: Implementation of multi-criteria decision making (MCDM) using AHP-TOPSIS in the supplier selection of Watsons Pharmacy in Pajac, Lapu-Lapu City

Kobe Andrei D. Janer, Erich Gel R. Albaran, Phulz G. Caputolan, Sarah Mae S. Sagarino, Angelo O. Burdeos*

Department of Business Administration, University of San Carlos

P16: Evaluating mobile wallets in the Philippines using AHP-TOPSIS: A multi-criteria decision-making approach

Jherald Arellano, Janna Glaiza Fernandez, Eden Padel, Chariz Angelica Recamara, Mariel Anne Villa, Angelo O. Burdeos*

Department of Business Administration, University of San Carlos

P17: Restrained inverse domination in graphs under some binary operations

Wenlin Rose E. Alabastro, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P18: Inverse doubly connected domination in graphs under some binary graph operation

Khaty M. Cruz, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P19: Disjoint perfect domination in graphs

Ma. Elizabeth N. Diapo, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P20: Fair doubly connected domination in graphs under some binary operations

Jan Niño C. Serrano, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P21: Outer-restrained domination in graphs

Celart A. Tuble, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P22: Disjoint perfect secure domination in graphs

Renelyn B. Udtohan, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P23: Inverse fair restrained domination in graphs

Villa S. Verdad, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P24: Secure inverse domination in graphs

Jesica P. Dagodog, Enrico L. Enriquez*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P25: Coronary heart disease prediction through machine learning using non-laboratory risk factors

Hannah Ruth B. Labana, Marc Nathaniel Valeros, Angie M. Ceniza-Canillo*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P26: Utilizing artificial intelligence to predict beta-lactamase inhibitor potency

Jericho Pasco, Sheena Stella Salde, Gerard D. Ompad*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos
School of Statistics, University of the Philippines Diliman

P27: Sentiment analysis of Filipinos about online classes in the post-pandemic era using machine learning and code switching

James Michael P. Bañes, Oscar L. Cabarron III, Angie M. Ceniza-Canillo*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos

P28: Simulation of venom structures from three *Naja* species and *Ophiophagus* in the Philippines using Deep Learning

Caryl Ann Capao, Bessa Nicole Tamarra, Gerard Ompad*

Department of Computer, Information Sciences, and Mathematics, University of San Carlos
School of Statistics, University of the Philippines Diliman

P29: Security vulnerability awareness to piso wi-fi public network

Jeremy del Castillo, Vincent Joshua Adlaon, Alfonso Miguelle Brazuella, Alvin Joseph Macapagal, Philip Virgil B. Astillo*

Department of Computer Engineering, University of San Carlos

P30: Development and intial testing of lab in a box: A portable and low-cost electronics trainer kit intended for computer engineering students

Louille Glen Benatiro, Luis Gerardo S. Cañete Jr.*

Department of Computer Engineering, University of San Carlos

P31: Attendance monitoring system with real-time facial recognition and RFID integration for USC

Zvi C. Bajan, James Lorenz R. Fuentes, Sebastian Mari Miguel P. Villamor, Luis Gerardo S. Cañete Jr., Antoniette Mondigo-Cañete*

Department of Computer Engineering, University of San Carlos

P32: Development of a reinforcement learning-based adaptive electrode selection method for finger flexion control using functional electrical stimulation

Clyde Matthew Y. Condor, Luis Gerardo S. Cañete Jr.*

Department of Computer Engineering, University of San Carlos

P33: Investigation of sound propagation on an air bladder system

John Vianney C. Mosqueda, Jerald Patrick C. Gregorio, Hentji Czar G. Tome, Van B. Patiluna, Antoniette Mondigo-Cañete*

Department of Computer Engineering, University of San Carlos

P34: C.Scope.AI: A computer controlled microscope for microplastic sample identification using convolutional neural networks

Paul John Toral, Jeff Anthony Bernales, Jhury Kevin Lastre, Philip Virgil B. Astillo, Luis Gerardo S. Cañete Jr.*

Department of Computer Engineering, University of San Carlos

P35: Phytoestrogen property of *Mussaenda philippica* (Rubiaceae) leaf extract in alleviating menopausal depression in 4-vinylcyclohexene diepoxide-induced mouse model

Roselle L. Remulta, Gerard Lee L. See*

Department of Pharmacy, University of San Carlos

P36: Viscoelastic properties of pectin and kappa carrageenan elucidated using multiple particle tracking

Mark Adones Lingaro, Mary Diane Pilapil, Edsel Rheo Belongilot, Ammiel Majan, Lester Geonzon, Rommel G. Bacabac*

MBG Center for Tissue Engineering and Biological Soft Materials, University of San Carlos

P37: Contrasting 3D printability and post-printing behavior of polylactic acid (PLA) ink vs. fibrin-carrageenan bioinks

Zachary Borromeo, Mary Diane Pilapil, Brix Vincent Badon, Martha Antoinette Denaga, Cindy Flores, Rommel G. Bacabac*

MBG Center for Tissue Engineering and Biological Soft Materials, University of San Carlos

P38: Using Arduino and smartphone as combined data acquisition setup for measuring a spring constant

Unofre B. Pili, * Renante R. Violanda, Marcedon S. Fernandez

Department of Physics, University of San Carlos

P39: In vitro anti-tyrosinase activity of selected seaweeds of Cebu

Ladashia Blessiliza B. Po, Angel Lyn Kristin C. Tan*

Department of Chemistry, University of San Carlos

USC-DOST Tuklas Lunas Development Center

P40: Are mangrove ecosystems truly plastic sinks?

Shaira Kyle M. Tagalog, Maria Kristina O. Paler*, Mark Edward M. Walton, Martin W. Skov, Jan G. Hiddink, Evelyn B. Taboada

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P41: Patterns of plastic occurrence during the pre- and post-super typhoon Rai (Odette) event in Olango Island Wildlife Sanctuary (OIWS), Philippines

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P42: Detection of microplastics in *Clypeomorus pellucida* from mangrove ecosystems in Cebu Island, Philippines through fluorescence microscopy analysis

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