15th National Conference Highlights OR and Analytics as Versatile Tools in a Data-Driven World

Emphasizing the versatility of Operations Research, the 15th National Conference of the Operations Research Society of the Philippines (ORSP) took the theme of *Operations Research and Analytics: Empowering Decision-Making Across Industries and Sectors.* It took place on November 8, 2024, at the traditional venue, Eastwood Richmonde Hotel in Quezon City. The event attracted 182 participants from top organizations, including San Miguel Corporation, Bain & Company, GfK Philippines, Labrador Company, and leading universities such as Ateneo de Manila, De La Salle University-Manila, De La Salle-Lipa, University of the Philippines-Diliman, University of the Philippines-Los Baños, University of Santo Tomas, Eastern Visayas State University, and Our Lady of Fatima University.

Conference Chair Francis Miranda welcomes participants.

The conference was opened by Conference Chair Francis Miranda, followed by the keynote from the Deputy Executive Director of the Department of Science and Technology Ninaliza Escorial, entitled *Evolving DOST-PCIEERD's Approach and Processes for Enhancing Efficiency in Research Funding.* She discussed how the Philippine Council for Industry, Energy, and Emerging Technology Research and Development relies on data analytics to enhance its Grants-In-Aid (GIA) Program. The presentation highlighted how data-driven approaches are applied throughout the project lifecycle—from topic scoping and proposal evaluation to project monitoring and impact assessment—helping identify challenges and improve decision-making. By adopting digital tools, analytics, and streamlined processes, PCIEERD has improved the efficiency and effectiveness of funding decisions, fostering a more dynamic and impactful research ecosystem.

The next plenary session led by Jase Nathaniel Tiojanco, Senior Account Executive for Critical Infrastructure at Microsoft Philippines, addressed the topic *Empowering Organizations with Unified Data and Generative AI*. The speaker emphasized the difficulty of unlocking the full potential of organizational data due to information silos and lack of skills in extracting meaningful insights from this data. Pointing to Generative AI as an emerging powerful solution, he showed how Microsoft tools make these technologies accessible to a broader audience.

DOST's Escorial shows how Analytics has improved decision making for its Grants-In-Aid program.

The third plenary, serving to close the conference, was delivered by Michelle Alarcon, President of the Analytics and Artificial Intelligence Association of the Philippines (AAP). She provided an insightful overview of the growing analytics and AI ecosystem in the Philippines, highlighting the synergy between ORSP and the rapidly advancing AI landscape. Her talk underscored the importance of collaboration in shaping the future of analytics and AI in the country and how AAP has continued to play a role in addressing these challenges, hopefully, together with ORSP.

M. Alarcon touches on the Analytics and AI Ecosystem of the Philippines.

The afternoon parallel sessions featured a wide range of research papers addressing various aspects of OR and analytics. Issues tackled, among others, include: Workforce optimization using a goal programming-based mathematical model to address the scheduling challenges faced by call centers; a decision support system to enhance training scheduling in power plants thus improving overall reliability; and examining strategies for managing airport passenger queues and improving plant utilization through process bottleneck analysis.
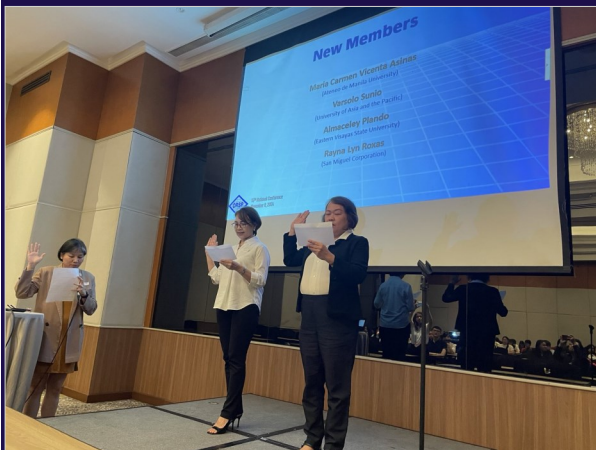
In the agri-products and consumer health sector, studies showcased machine learning techniques for assessing cantaloupe ripeness, shelf life, and nutritional content, as well as a real-time monitoring system for milk quality in dairy farming. Additionally, a session on predictive analytics discussed inventory management

Participants listen intently to the plenary talks in the packed ballroom of the Eastwood Richmonde.

strategies to reduce stock outs and highlighted how supply chain integration can boost firm performance in the Philippine apparel industry.

The healthcare-focused session presented machine learning applications for early diagnosis of rubeola, rubella, and cataract formation, while another session tackled the optimization of physical space in logistics and healthcare facilities, showcasing layout reconfigurations to improve worker efficiency and reduce customer wait times. These parallel sessions demonstrated how OR and Analytics are revolutionizing different industries by enhancing efficiency, decision-making, and performance across various sectors. It also presented an opportunity for students and young professionals to connect with and get feedback on their work from industry leaders. All participants gained valuable insights into how OR and analytics are being applied in the workplace as well as a view of OR/Analytics tools essential for better decisions.

ORSP President Mariscal (L) inducts into ORSP two new members, Rayna Lyn Roxas and Almaceley Plando.

ORSP President Shella Tan-Mariscal presented the association's activities in the business meeting that followed the parallel sessions. This also included the induction of new members present during the conference, namely, Maria Carmen Vicenta Asinas, Varsolo Sunio, Almaceley Plando, and Rayna Lyn Roxas. Members stayed till the end when prizes from the conference sponsors, San Miguel Corporation, Gurobi Optimization, Mister Donut, Tokyo Tokyo, KFC, Motolite, and Adamson University were raffled off.

Judging from the submitted feedback forms, the conference was a success, with participants expressing high satisfaction. The event provided valuable insights into how operations research and analytics are shaping decision-making processes across various sectors. With contributions from a diverse set of industries, the conference underscored the power of analytics in improving efficiencies, promoting innovation, and empowering organizations to thrive in the modern data-driven world.◆

Everyone poses for a photo after the Closing Session.