



Forum Proves OR To Be A Powerful Tool for Real-Life Messes

by Elise del Rosario

The 2019 ORSP technical forum held last September 28, 2019 filled the Ateneo de Manila University Leong Hall with professionals eager to hear recent application updates and students wanting to hear how their OR subject is relevant to real life in the Philippines.

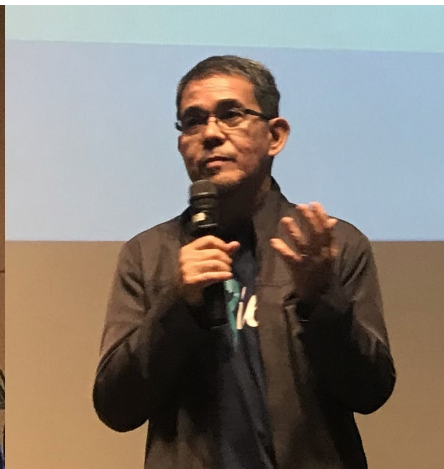
The four-hour forum was opened by ORSP Director Malu de Guzman U who introduced ORSP Past President **Francis Miranda**. An Asia Pacific Director for Research, Data Science and Quality at GfK Asia who possesses over 20 years' experience in OR and Analytics, Miranda went through Market Research applications that showed how OR has helped optimize such marketing activi-

ties as loading a pallet and a truck, configuring a sales force, displaying products on a store shelf, executing price promotions and estimating total market size based on a sample. He went through each problem type, a general formulation, and outcome of the applications.

The second speaker, founder and CEO of Cyber Optimus Philippines Inc and Director of the Computer Science and Graduate Programs in IT Education at the Asia Pacific College **Ernesto Boydon** presented the overall framework on which his company, Pinoy Biznet has been built: its paradigms, strategies, and implementation trajectory towards creating a global marketing platform. In the pro-

cess, he shared some experiences and lessons from his more than 30 years of experience in the IT field, capping his presentation with a song, which was a hit with his audience.

Rex Briones followed, this time talking about the most well-known company where OR practice is alive and continuously creating value, the San Miguel Corporation. As a veteran OR analyst of 15 years, Briones talked about a representative sample of facilities planning applications among the multifarious businesses of SMC, namely, the beer, feeds and packaging industries. In contrast to the mathematical programming tools used in these projects, his fourth example touched on a



From left to right: Francis Miranda shows how mathematical formulations translate to better marketing of products; Ernesto Boydon's experience and lessons in setting up a business resonates with students; Rex Briones discusses some applications among the wide array of OR applications in San Miguel.

traffic simulation methodology that is being applied in an SMC infrastructure project. With their long trip to the forum still fresh in their minds, the students paid particular attention to how OR could potentially help traffic woes.

While everyone braces up for traffic, disaster can only be dealt with by preparedness and mitigation. OR is still active in this area, as presented by the fourth speaker, a former President of SVI Technologies and Sr. VP of Home Development Mutual fund, among others. **Vic Reventar** was also past



Vic Reventar explains how OR figures in humanitarian logistics, especially during the Ondoy catastrophe. He also discusses how to access optimization tools in the cloud for free.

ORSP president and currently Lecturer at the Department of Quantitative Methods and Information Technology Department at the John Gokongwei School of Management at the Ateneo de Manila University. He started his talk with facts about the 12 to 16 tropical cyclones entering the Philippine area of responsibility, with an average of 2-3 cyclones per month from June to December. He then related how OR tools have been developed to mitigate, prepare and respond to the aftereffects of typhoons. Crucial in this effort is the preparation and distribution of relief goods to those who have been affected and displaced by the disaster. He demonstrated how the use of OR tools can greatly facilitate the proper design and structure of supply chain, the acquisition, storage, assembly, as well as the timely distribution of relief items (called family packs) at a time when quick response is key. Apart from this talk, he also shared with the students some open source optimization resources available in the cloud and how they could access them.

The afternoon put together the collective experience of speakers spanning more than 100 years of

OR work. It was key to helping the audience realize the powerful tool that OR is. This learning was punctuated with raffle draws won by more than 20 participants, major prizes being three P5,000 vouchers donated by Informatics. ORSP Directors Malu U, Jacky Chan and Elise del Rosario moderated the proceedings.

Almost five hundred participants comprised of students and professors from UST, University of Makati, Holy Angel University, De La Salle University-Dasmariñas, Quezon City Polytechnic University, UP Los Baños, Malayan Colleges Laguna, Mapua, Mondriaan Aura College, St. Dominic College of Asia, Colegio de San Juan de Letran Calamba, San Sebastian College-Recoletos de Cavite, UP Diliman and professionals from companies such as Maynilad Water Services Inc., Social Security System, Rare-job Philippines, Inc. and Lockton Philippines Insurance and Reinsurance Brokers, Inc. found the technical forum very informative and gave it a very good feedback. A lot of students came to ask questions and had fun taking turns at having their pictures taken on stage way after the forum was over. ♦



Audience absorbs wealth of information presented prior to the snack and raffle that followed.

12th Conference Highlights OR Contributions to Public Service

by Janni Boydon

The 12th annual ORSP National Conference held last November 23, 2018 at the Eastwood Richmonde Hotel, Quezon City was themed “Raising the Bar for Public Service”. The event attracted 110 participants coming from both the industry and the academe, all of whom eagerly awaited an answer to their question of whether OR can be applied to the public sector.

The event had four plenary speakers sharing experiences and insights on how Operations Research had helped in the efficiency and effectiveness of the systems they work with and how it has contributed to better public service.

Celine Pialago, current Spokesperson and Assistant Secretary of



Celine Pialago of MMDA admits to the difficulty of implementing well-thought out plans.

the Metro Manila Development Authority, gave a quick run through of the 7 mandates of MMDA and what they are doing particularly to improve operations. She emphasized that analysis on MMDA operations are ongoing but there is really a need for leadership and political will to actualize the change people want to see.

This was also one of the points



Rizaldy Capulong, amid success at providing the correct investment decisions through scientific methods, still emphasizes the important role of top management in successful project implementation.

made by **Rizaldy Capulong**, Executive Vice President and Head of the Investments Sector for the Social Security System. In his work, he combines operations



Angelo Tanchoco goes over techniques and applications of OR in the media sector.

research and actuarial science to optimize the benefits received by SSS contributors considering also all associated risks. While briefly delving into the mathematics behind investment decisions, among others, he showed how results of studies translate into actions which benefit the organization. To one of the questions from the audience, he replied that leadership plays a huge role in getting scientific methods applied and implemented in the public service sector.

Angelo Ramon A. Tanchoco, consultant at ABS-CBN, dwelt on the theoretical and practical parts of applying operations research in media services. His extensive discussion included various techniques applicable to this industry.



A fully-engaged audience listens to the plenary speaker as they get ready to ask their questions.

Paper presentations in two parallel sessions covered OR in Public Service and OR in Business Optimization. Both sessions had numerous attendees with papers belonging to fields ranging from logistics, risk management, inventory theory, finance, system dynamics, cooperative models, manufacturing, quality management, to analytics. These papers highlighted efforts to incorporate operations research in public service and business optimization, some with proven results.

The last plenary speaker was Dr. **Leorey Marquez**, DOST Balik-



Balik-Scientist Leorey Marquez shows how goal programming using Excel can easily be applied to help in the resettlement of informal settler families in Quezon City.

Scientist and Senior Research Scientist with the Natural Hazards Modelling Group at the Commonwealth Scientific and Industrial Research Organization, Australia. His talk was about the application



Francis Miranda keeps OR professionals updated on technical trends and industry shifts.

of goal programming to support decisions in optimizing the resettlement of informal settler families in Quezon City. The model he presented was comprehensive and complete with in-depth analysis of possible alternatives. Many participants were delighted to learn how Solver could be used to do goal programming in Excel.

Finally, a technology update was given by **Francis Z. Miranda** specifically on digital trends in the research industry. The update explained how the industry is shifting from digitized to being digital, from subscription-based solutions to customized solutions, and the use of new technologies such as Artificial Intelligence, Virtual and Augmented Reality, Chatbots, Blockchain, and more.

During the Business meeting, President Shella Tan-Mariscal went



Participants get to choose the papers they want to listen to during the parallel sessions, of which one is shown above.



A. Tanchoco receives his Plaque of Appreciation from Board Member Vic Reventar.

through the activities for the year and ended by inducting into membership those that were present,



President Shella Mariscal inducts new members to ORSP.

namely: Mariaangela Obviar, Gabriel Villareal and Leonard Cuento.

At the end of the conference, participants were given real-life insights and perspectives from those in the front-line of OR in the public sector. Indeed, OR has a lot of potential to achieve more in the realm of public service. ♦



Board Members Elise del Rosario, Vic Reventar, Dennis Beng Hui, Shella Mariscal and Malu de Guzman-U get together for a photo at the end of the last session.

ORSP Represented at 30th EURO Conference in Dublin



E. del Rosario begins her talk on OR Consulting by going through her extensive background in consulting for both the private and public sectors.

The 30th European Conference on Operational Research, EURO XXX, was held in University College Dublin (UCD), Ireland from 23rd to 26th June 2019 while a satellite event, the EURO Working Group on OR for Development was held at the same venue days earlier on June 20. Significant for ORSP was the presence of two Filipinos in the Conference, Elise del Rosario and Milagros Baldemor.

EURO was held in six buildings of the UCD campus which was home to the 50 streams where 2,400 participants coming from 70 countries presented their work. The wide range of topics discussed could be gleaned from plenary talks on ethics and governance (Ulrike Reisach), the history of the travelling salesman problem (William Cook), Robust Optimization (Dick Den Hertog), Women in OR, among others.

The EURO Working Group on Practice of OR had several Making an Impact sessions, participated in by E. del Rosario on OR consulting, where she delivered a well-received talk entitled *OR at Your Service*.

Invited to present in the stream of OR in Governance, she delivered her paper entitled *OR in Governance: Developing Country Experiences and Lessons*. E. del Rosario was also asked to be part of the Jury of OR in Ethics competition. The purpose of this award is to distinguish outstanding work by OR researchers and practitioners promoting ethical dimensions in OR-based studies. The award was won by the contributions from Peru and Germany. She also chaired a session on OR for Development.

Having been the Chair of the EURO Working Group on OR for Development from 2012 to 2017, E. del Rosario also helped organize the satellite event held days before on June 20. With the theme *Renewable: Energy, Health and Sustainability*, the Workshop encouraged a lot of discussions and exchange of ideas, made possible by the limited number of participants. This annual Workshop aims to promote the importance of Operational Research in improving the lives of people in developing and developed countries.

A useful reminder for ORSP members is that they belong to the international OR community, the International Federation of Operational Research Societies (IFORS) and in it, ORSP forms part of the Asia Pacific Regional grouping (APORS) while EURO is the grouping of national societies in Europe. Other regional groupings are North America (NORAM) and South America (ALIO). ♦



Organizers and participants of the EWG ORD 2019 show their certificates after the day-long intensive Workshop. In photo are (from l to r): Jaime del Rosario, Adewoye Olabode, Zilla Sinuany-Stern, Gerhard-Wilhelm Weber, Lorena Pradenas, Aparajita Bannerjee, Carla Henriques, Nina Kajiji, Elise del Rosario, Gordon Dash, Milagros Baldemor, M. Teresa Ortuño, Hua Jin, Begoña Vitoriano, Bo Li, Phillips Obasohan.

FUSION Shows the Way To Business and Innovation Through OR

by Alona Moncada

The ORSP Student Federation Congress was held last March 29, 2019 at the Palacio de Manila with the theme *FUSION: Integrating Operations Research Towards Business and Innovation*. Inspired by the 9th Sustainable Development Goal: Industry, Innovation and Infrastructure, the theme came out of the Student Federation's effort to deliver a better understanding of how Operations Research can drive innovation.

Even the choice of the venue was an innovation, since it was the first time that the Congress was held outside of affiliates' schools. More than twenty-seven (27) school organizations and over 600 attendees participated in making the congress serve as a platform for collaboration among youth and professionals in contributing to nation building through Operations Research. The Congress was hosted by Arrem Christian Jusi and Ariel Salvador, Jr.

ORSP Board Director Christian John Immanuel S. Boydon, Assistant Professor in the University of the Philippines – Department of Industrial Engineering and Operations Research, keynoted the event

by highlighting the potential of OR in solving business problems and engendering innovation. The main topics of the event were discussed by experts in the business solutions industry. Alberto L. Villegas, Jr., Founder and General Manager of Core Enabler Business Process Solutions Inc., talked about how OR and optimization work together to enable one to start a business. Elisier M. Fantillo, a consultant in Kaizen Management Systems, Inc., discussed how trends of innovation are used for business. Felix C. Veroya, Process Excellence Manager of HGST Philippines Corp., discussed how OR is used in business management.

The event also featured talents from Adamson University, the Kaizen Singing Company who serenaded the crowd with their heartfelt songs at lunch. Meanwhile, officers led by Sarah Belison, showcased their talent in dancing by leading the crowd in the event tradition called the "ORSP Dance Craze". Representatives from different universities also showcased their dancing skills and were given prizes. The event was closed by

Rizaldy Capulong, the Executive Vice President of the SSS Loan Department.

Meanwhile, March 16 marked the day of the case study and quiz bee competition. Expertise on a wide range of OR topics. e.g., transportation, allocation, decision analysis, queuing, inventory models, were called to the fore both by the contestants and the audience. The case study competition was judged by ORSP members Alleli Ester C. Domingo, Rozano Santos, and Rizaldy Capulong while the quiz bee was emceed by quizmaster Eldrick Foñollera. Judges for the quiz bee were ORSP members Ma. Shella Mariscal, Juanito Chan, and Nestley Sore.

Winners of the case study competition were Adamson University, Southern Luzon State University, Mapua University and De La Salle University. Four, instead of three awards were given to the top competitors courtesy of competition judge Rizaldy Capulong. The top three places for the quiz bee competition, on the other hand, were bagged by: UP Diliman (1st), De La Salle University (2nd) and Ateneo De Manila University (3rd).



Speakers (l to r) Christian Immanuel S. Boydon, Alberto L. Villegas, Jr., Elisier M. Fantillo, and Felix C. Veroya draw on their experiences to show student congress participants how OR plays a role in starting a and innovating in business.



Student Federation Launches Sports Fest 2019

by Brian Espiritu



TIP-QC. emerges as Men's Basketball Champion.

June 30, 2019 was the National Sports Fest 2019 of the Operations Research Society of the Philippines - Student Federation. Held at the Amoranto Sports Complex, Quezon City, the event was participated in by the following affiliates: TIP-QC, QCPU, PATTS, Adamson University, Colegio de San Juan de Letran Manila, University

of Batangas Main Campus, and Bulacan State University.

This activity, according to ORSP-SF President, Alona Moncada, aims to create strong bonds among the affiliates apart from encouraging teamwork, determination, and the sportsmanship. Basketball and badminton were

the featured sports. Winners were for Men's Basketball Champion - Technological Institute of the Philippines QC; 2019 ORSP-SF Men's Singles badminton- Quezon City Polytechnic University; and the Mixed Doubles Champion - Adamson University. The organizers hope that this event will be the start of a new tradition. ◆



Photo shows one of the key strokes in the badminton competition.

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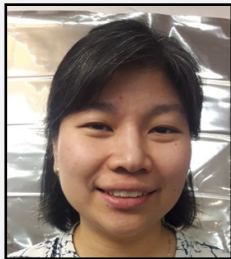
Fusion Shows the Way...

Overall, the event was very enriching for the OR majors. Was the congress able to ignite fire and inspire the participants to use the full potential of OR especially in business and innovation? The organizers, led by Alona Moncada (ORSP-SF President) and Andrea Jane Manrique (ORSP-SF Executive Vice President and Congress Over-all Head) hope it did! ◆

From the President *Marie Shella T. Mariscal*

Bringing OR Closer to You

The 12th National Conference last November brought together key players in the OR world who shared



their experiences and insights on how OR has contributed to better public service. Topics ranged from: the 7 Mandates of MMDA to improve operations, how OR in combination with Actuarial Science, optimizes the benefits an SSS contributor receives, applications of OR in media services, and the relevance of goal programming in optimizing resettlement of infor-

mal settlers in Quezon City. This was further enriched by a digital trend in the research industry technology update.

On the other hand, the **Student Congress** focused on integrating OR in business and innovation. Over 27 school organizations listened to what experts had to say on this. Of course, the much-awaited annual Case Study and Quiz Bee competitions formed part of the congress.

The 2019 **Technical Forum** was a huge success, with the ADMU Leong Hall filled to capacity with participants wanting to know more about *OR: A Powerful Tool for Real-Life Problems*. Speakers from industry, though only scratching the surface of possible applications, did well to show the poten-

tials of OR in addressing problems of business, government and society.

The **ORSP Committee on Public Service** had been called on several assignments to help with optimization of public services. It could thus be said that the year was marked by efforts at bringing OR closer to people who need them most, by focusing on experiences at providing OR solutions to problems all around us.

The association could only continue to do its work with your support. We are urgently in need of people who could contribute to a lively exchange of ideas and who would be willing to work to further the objectives of ORSP. Don't hesitate to get in touch, if you think you've got what it takes! ◆

Welcome New Members!

This newsletter issue welcomes new members who have joined the ORSP Family.

From the **Academe** are: **Ruevan Alboro**, Instructor at Bataan Peninsula State University; **Glenda Marie Balitaan**, Instructor at De la Salle Lipa; **Cheryl Barredo**, Associate Professor at Western Mindanao State University; **Leila Benito**, Technical Associate to the VPAA, College of Nursing at Western Mindanao State University; **Gilbert Calosa**, Lecturer at De La Salle Lipa; **Mary Ellen Camarillo**, Associate Professor at Cebu Technological University; **Alexander Carrascal**, Professor 1 at Polytechnic University of the Philippines; **Allemar Jhone Delima**, Instructor at Surigao State College of Technology; **Ma. Emmie Delluza**, Assistant Professor at Catanduanes State University; **Wilson Gan**, Vice President for Academics at Enderun Colleges; **Gerwynne Savina Gascon**, College Instructor at De La Salle Lipa; **Frederick Halcon**, Lecturer at Chiang Kai Shek College; **Armie Ibay**, Instructor at Western Philippines University; **Melanie Lear**, Faculty at Western Mindanao State University; **Maria Tavita Lumintac**, Associate Professor at Surigao State College of Technology; **Ma. Nissa Montecillo**, Jr. Specialist at Social Security System; **Janus Pansacala**, Instructor at Western Mindanao State University; **Dean Ashton Plamenco**, Instructor at University of the Philippines-Diliman; **Durwin Santos**, Head of Quantitative Methods and Operations Management Section at Enderun Colleges; and **Emelie Tan**, Faculty at Western Mindanao State University.

From the **Industry** sector are **Alexander Oros**, Operations Supervisor at Stealth Monitoring (UCIT Phil. Inc.), **Rizaldy Capulong**, Executive Vice President, Investments Sector

at Social Security Systems, **Andrei Triz Patupat**, Junior OR Analyst at San Miguel Corporation, **Mari Michelle Chiong**, Junior OR Analyst at San Miguel Corporation and **Jonathan Ventura**, Global Supply Chain Analytics Senior Manager at Dyson.



Ruevan Alboro



Glenda Marie Balitaan



Cheryl Barredo



Leila Benito



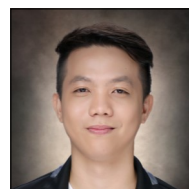
Gilbert Calosa



Mary Ellen Camarillo



Alexander Carrascal



Allemar Jhone Delima



Ma. Emmie Delluza



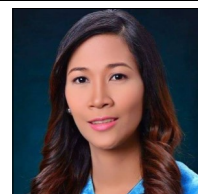
Wilson Gan



Gerwynne Savina Gascon



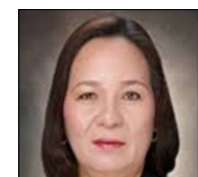
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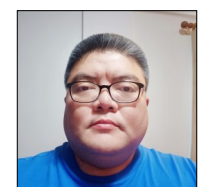
Ma. Nissa Montecillo



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Emelie Tan



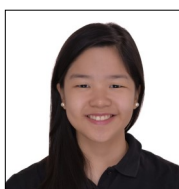
Alexander Oros



Rizaldy Capulong



Andrei Triz Patupat



Mari Michelle Chiong



Jonathan Ventura

ORSP wishes one and all a very Merry Christmas and a Happy New Year!