

ORSP NEWSLETTER

Official Publication of the Operations Research Society of the Philippines

January 2007

2007 Board Tackles February Conference

Right after their election last December 11, the new set of officers buckled down to work and continued preparations for the ORSP 20th Anniversary Celebration and National Conference slated for February 16 at the Quezon Ballroom of the Makati Shangri-la. (See related article on this page.)

Only two new directors were elected into the Board, namely: **Romulo Pizaña** and **Genaro Cuaresma**. R. Pizaña is currently Professor at the University of the Philippines Extension Program in Pampanga and graduated from the University of the Philippines both for his undergraduate and graduate degrees in Mathematics - Operations Research. On the other hand, G. Cuaresma is the assistant Professor & Director, Institute of Mathematical Science & Physics and is also a UP Math alumnus of the graduate and undergraduate programs.

They join the old hands in the Board led by **Elise del Rosario** who is one of

ORSP's founding members and Past Presidents. She served as ORSP Corps Chair and is the current President of the International Federation of Operations Research Societies (IFORS).

Alleli Domingo is an Associate Professor, Institute of Mathematical Sciences and Physics at UP Los Banos. She earned her MS in Mathematics from the University of Melbourne in Australia. **Ma. Lourdes de Guzman U** holds a PhD in Industrial Engineering from Purdue University. She served as a faculty member at UP Diliman and Ateneo and worked as a supply chain analyst and software consultant in the electronics industry.

Agnes Grace Perez is manager of the Operations Research Department at San Miguel Corporation. (See related story on page 6.). She obtained her MS in Management Science from the Imperial College of Science and

(continued on page 5)

NEDA, CHED Execs To Keynote Conference

Socio-Economic Planning Secretary and NEDA Director General **Romulo L. Neri** will be the Keynote Speaker of the ORSP National Conference and 20th Anniversary Celebration. He will share with OR enthusiasts how quantitative methods become relevant in governance. On the other hand, Commission on Higher Education Executive Director **William C. Medrano** will discuss the equally important issue of the state of OR, Technical and Engineering education in the Philippines. Their discussion will set the stage for the ensuing panel discussions that will follow throughout the day.

Panel discussions have been scheduled to allow prominent OR practitioners and academicians to share their views and exchange ideas with the audience.

The first panel on the role of OR in Governance and Industry will feature past ORSP presidents JC Mercado, Vic Reventar, Noli Macalalag as they talk about their experiences in designing and implementing OR systems in the telecoms, finance and manufacturing business sectors. Wilson Tiu and Edwin Pineda will give applications they have worked on in relation to governance. This panel will be wrapped up by N. Ravichandran of the Indian Institute of Management as he talks about Implementation Issues of OR Systems in industry.

The second panel is premised on the observation that it is rare that students cite Operations Research as their favorite subject. The panelists share their views on the reason for this, as well as the environment in which OR is taught in their schools. They share statistics on student performance in OR, problems encountered, as well as practices that work and don't work in the teaching of OR. Participating in this panel are past and present ORSP Board members from Ateneo, De La Salle, UP and Mapua.

(continued on page 6)



New ORSP Board pose with Conference Committee members (L to R): Bryan Gobaco, Dennis Cruz, Malu de Guzman U, Elise del Rosario, Dennis Beng Hui (ORSP Corps Chair), Bob Baylon, Agnes Perez, Beng Manalang (Conf Comm), Alleli Domingo and Richard Li (Conf Comm) In photo inset are: (L to R): Genaro Cuaresma, Aura Matias, Romy Pizaña and Rex Robielos

Supply Chain Management Main Feature of General Assembly



Forum resource speakers share their expertise (Clockwise from top): Augusto Argüelles, Dante Briones, Juan Carlos Marcelo, Jeremy Sim, Francis Miranda and Daniel Belbis.

ORSP held its first Technical Forum & General Assembly for 2006 at the Astoria Plaza, Pasig City, on June 21, 2006. The theme was “O.R. in Logistics, Distribution, and Supply Chain Management,” and the 50 attendees were an interesting mix of practitioners of OR, or supply chain management, or both. Emceed by ORSP Directors **Aura Matias** and **Bob Baylon**, the all-day event started at 9 a.m. and ended after 5 p.m. It was packed with seven presentations, the ORSP president’s report, and the induction of new ORSP members.

The morning session opened with **Augusto A. Argüelles’** talk entitled “*Supply Chain Management: Overview and Outlook*”, fittingly setting the stage for subsequent presentations and discussions. Prof. Argüelles, who teaches at the Graduate School of Business and the Center for Continuing Education at the Ateneo de Manila University, gave several definitions of supply chain management and placed it within the context of the Philippine enterprise. He talked about how it has evolved within Philippine companies, and its future role in enhancing the existing cooperation with vendors, logistics providers, customers and all players. He was followed by **Elise del Rosario**, ORSP President and founding member, and President-elect of the International Federation of Operations

Research Societies (IFORS). Del Rosario’s presentation, entitled “*Achieving Supply Chain Excellence through OR*,” showed how OR tools may be used to address the complexities of three types of supply chain decisions: the strategic (such as long-term supplier arrangements, facilities location), the tactical (such as sourcing strategy, salesman assignment), and the operational (such as demand forecasting, production scheduling, inventory planning) and the operational (such as demand forecasting, production scheduling, inventory planning). The last speaker for the morning was **Jeremy Sim**, Product Manager for Supply Chain Intelligence of SAS Asia Pacific, whose talk was entitled “*Supply Chain Intelligence*.” In this age of rapid innovation and globalization, enhancing both the effectiveness and efficiency of overall supply chain operations is a critical component in a company’s ability to compete successfully. He presented how SAS can deliver a critical advantage to a company by helping it turn data into knowledge, and deliver performance-driving insights that seamlessly and profitably link supply with demand.

Lunch was followed by the **ORSP General Assembly** consisting of two parts: the President’s report and the

induction of new members. ORSP President Elise del Rosario detailed the activities and achievements of the past year, notably the hosting of the APORS (Asia Pacific Operational Research Societies) Conference in January 2006, the three technical forums in July, September, and December 2005, and increased membership. She also talked about the upcoming 20th ORSP anniversary celebration. This was followed by the introduction of five new members of ORSP, and their oath-taking which was led by ORSP Director **Rex Robielos**.

The afternoon session consisted of four presentations, starting with “*The Role of eCommerce in Supply Chain Management*” by **Dante M. Briones**, President, Chief Operating Officer, and Member of the Board of Directors of BayanTrade. He showed how eCommerce technology allows parties in the supply chain to interact more efficiently by facilitating online purchasing, updates, and feedback without time and place boundaries, thereby playing an important role in the success of supply chain management through collaboration and integration. eCommerce likewise allows buyers and suppliers to penetrate the international market and go global. **Francis Z. Miranda** followed with his talk entitled “*A Model to Determine the Optimal Location, Number and Configuration of Manufacturing Facilities Over Several Periods*.” He presented a methodology for strategic facilities location using a linear programming model to optimize the number of manufacturing facilities in a given geographical area over a pre-determined period of years. Ensuring that a company has adequate capacity to meet current and forecasted demand, while minimizing operating and distribution costs, can provide the distinct edge over its competitors.

This was followed by “*Fast, Focused, and Flexible*,” presented by **Juan Carlos B. Marcelo**, Supply Chain Manager - Operations Strategy, Ice Cream & Chilled Products at Nestle Philippines, Inc.

Fast, focused, and flexible is exactly how a supply chain should work to lead

in the food and beverage business where product freshness is critical. Though there are simulation and optimization techniques in use, Mr. Marcelo highlighted the role of the OR community in helping his industry address many more supply chain management complexities. The last presentation was entitled “*The Logistics Challenge: Faster, Better, Cheaper*” by **Daniel C. Belbis**, Logistics Head at General Milling Corporation and 2nd Vice-President of Philippine Institute of Supply Management (PISM). He talked about how companies today, driven by increasing customer demands, fierce competition, and shrinking margins, are realizing that each is part of an interdependent network that must work together to meet customer demand in the most cost-effective way. He gave many examples of how logistics is evolving to help companies achieve a competitive advantage by becoming faster, better, cheaper. After this last presentation, ORSP Director **Ma. Lourdes de Guzman U** brought the Forum to a close.

Judging from participant evaluation, the Forum was very successful in providing good value to those who attended. ♦



(Above from top): A. Chiu; R. Tan explain environmental implications of man’s activities and how OR can help. Audience listens intently.

Second Forum Focuses on Environment

In line with its mission of bringing to light different ways OR may support nation building, ORSP focused on the environment as the subject of the November 18 technical forum. Entitled “*Operations Research and Sustainable Development*”, it highlighted environmental issues and possible OR applications to help resolve them. The forum was one of the best-attended so far, with 130 participants --- students and faculty from ten universities, as well as professionals from private industry and government agencies. Everyone gathered at the New York Function Room of the Astoria Plaza in Pasig City, and the event started at 2 p.m.

The forum opened with a welcome address by ORSP Vice President and emcee Agnes Perez.

This was immediately followed by the first presentation, entitled “*The Industry and the Sustainable Development*”, by **Dr. Anthony SF Chiu** of the Industrial Engineering Department at de la Salle University – Manila. Dr. Chiu started his sustainable development career as part of the UNDP PRIME project in the Philippines from 1999 to 2001, and evolved as an international cleaner production and eco-industrial development (EID) advocate and specialist. He has authored several UNEP/UNIDO/DANIDA/IGES publications and trained EID to about 50 governments and their corresponding industrial stakeholders.

It was an eye opener to learn just how much waste the present world generates every day, every minute! His slides showing the “stuff” typical households accumulate in different parts of the world also gave the audience a jolt. Since the late 1990s, “cleaner production”, now coined “sustainable development”, has been promoted by UNEP/UNIDO to raise awareness and address concerns about unsustainable patterns of consumption and production. Dr. Chiu’s presentation aimed to project the new Sustainable Development scenario wherein Sustainable Consumption and Production (SCP) would provide new venue for system optimization opportunities. The SCP program would need intensive support from technological

breakthrough, logistical techniques, social interaction, and ruling policies.

The brief open forum that followed provided an opportunity for discussion between Dr. Chiu and his audience. The subsequent short break was followed by the second presentation, entitled “*The Role of MS/OR Techniques in Environmental Problem-Solving*” by **Dr. Raymond R. Tan** of the College of Engineering, de la Salle University – Manila. Dr. Tan is and has been involved in several projects and fellowships here and abroad on his research areas on life cycle assessment, process integration and pinch analysis, and environmental informatics, to name a few. He is presently the Director of the Graduate School, College of Engineering at DLSU-Manila. Dr. Tan discussed recent trends in environmental engineering which have been characterized by increased emphasis on preventive strategies, as opposed to the traditional approach of treatment and control of pollutants after they have already been formed by industrial processes. This shift in emphasis is based on the use of computational techniques to optimize the planning of activities or the design of systems, in such a way that inherent effects on the environment are reduced through improved efficiency. He then showed an example of how OR techniques, specifically the transportation problem formulation and fuzzy linear programming, may be applied to optimize the reuse of water for industrial resource conservation. Other problems in optimizing system planning and design may be handled with the use of multi-criteria decision making, pattern recognition, neural networks, and rough sets.

After Dr. Tan’s talk and the subsequent open forum, ORSP Secretary Alleli Domingo summarized significant points from both presentations. Again, the audience evaluation proved that the event was well worth attending which was, a very rewarding feedback for its organizers. Elise del Rosario then closed the forum with farewell remarks and an announcement on the much-awaited 20th anniversary celebration was greeted with a cheer. ♦

Campus Highlights

ORSP Student Chapters Hold A Simplex Affair

by Nikki Yu

Last August 5, 2006, the Federation of ORSP Student Chapters held its annual acquaintance party dubbed "A Simplex Affair," the event was held at UP Diliman's Balay Kalinaw from 6:30 to 9:30 p.m. It was well-attended, with 60 participants coming from this year's different student chapters – UP Diliman's IE Club and CIEM, De La Salle University, Ateneo de Manila University, University of Sto. Tomas, Mapua Institute of Technology, UP Los Banos, and Adamson University.

Mr. Rex Aurelius Robielos, ORSP Student Chapter Adviser, delivered the opening remarks. Group dynamics prepared by Ateneo, UP IE Club, and UP CIEM bolstered camaraderie among the different members of the student chapter, as they got to know each other better while having fun as well. A sumptuous buffet dinner was also served. To top it off, UP Los Banos representative entertained all those present with her beautiful rendition of "I Love You, Goodbye" and "Through the Fire". With the cooperation of the various student chapters, the party was indeed a huge success. ♦

Overheard at left: "I still have to get a hang of this algorithm. It's certainly more complex than simplex!"



Above: Beauty, brawn and brains: A look at the future OR practitioners and academicians



Student Certificates presented to (below, from top): UP Diliman, DLSU-Lipa, DLSU - Manila. (Editor's note: could not locate picture of Ateneo de Manila & Adamson receiving their certificates.)



Operations Research in Governance: Theme of Mapua Conference

by Lizie L. Punto

Operations Research / Management Science (OR/MS) as a decision-making tool used in optimizing profit by allocating the resources effectively with the use of mathematical algorithms is one of the specializations in the Industrial Engineering program.

With the objective of illustrating the use of OR not only in profit maximization, the Mapua Institute of Technology IE Graduating Class Karush-Kuhn-Tucher Group sponsored the seminar entitled Operations Research in Governance last May 13, 2006. The video clip of PGMA's Opening Speech during the APORS meeting held last Jan. 16-18, 2006 at Dusit Hotel, Makati opened the seminar.

The president's speech showed she was knowledgeable in the use and the limitations of OR. She did mention that she took OR courses as she was taking her PhD. The President of the Philippines was followed by another lady president, this time of ORSP, Ms. Elise del Rosario. She discussed the role of OR in nation building. Throughout her talk, she conveyed through examples how valuable OR/MS is in optimizing limited government resources as well as bringing in an objective methodology that could help limit undue political influences. In the end, the audience was able to relate OR and how it could be used to improve the plight of the marginalized sectors of society. ♦

ORSP Formally Recognizes Chapters

Student Chapters were formally handed their ORSP membership certificates during the Environment Forum held last November 18. ORSP Director Rex Robielos and ORSP President Elise del Rosario awarded to the representatives of Ateneo de Manila University, Colegio de San Juan de Letran, De La Salle University-Lipa, De La Salle University-Manila, Mapua Institute of Technology, Adamson University, Tarlac State University, University of Santo Tomas, University of the Philippines Diliman, and University of the Philippines Los Baños their certificates of ORSP membership. ♦



Director for Student Chapters R. Robielos with President E. del Rosario present certificates to (top-down): Mapua Institute of Technology, UP Los Baños, University of Santo Tomas and Tarlac State University

Batangas State University Highlights SCM

Within the vicinity of the Batangas port is the Batangas State University in Alangilan. Perhaps because the Batangas port has been a bustling distribu-



Students from Batangas State University listen intently to the lecture

tion center that has accommodated a huge number of passenger and international cargo traffic, the BSU students belonging to the Junior Philippine Institute of Industrial Engineers had chosen what for them was a very relevant topic: *Supply Chain Management*. This was the topic that ORSP President Elise del Rosario was asked to tackle in the August 24 seminar of the Industrial Engineering students held at the Audio Visual Room of the Engineering Building at the Batangas State University Alangilan campus.

Del Rosario explained that the factors that make supply chain management difficult can best be handled by OR. OR has the precise tools to address decisions that involve conflicting considerations of: push-pull strategy, centralization/decentralization of the network, keeping sufficient inventory vs. expediting, arm's-length transactions/supply chain alliances/ pure outsourcing, make-or-buy strategies for procurement, generic vs. highly-differentiated product design, and minimum cost vs. maximum service level.

She also cited OR tools that have been used in these cases, such as: statistical analysis, decision analysis, heuristics, exact optimization methods, simulation, and expert systems. She illustrated how the selection of the appropriate tool must consider the type of decision to be made and the trade off between accuracy and timeliness.

Her talk was followed by an open forum and closing remarks by faculty and new ORSP member Angelita Pagcali-wagan. ♦

2007 Board Tackles Feb..

(continued from page 1)

Technology and a PhD candidate at Columbia University School of Business.

Dennis Cruz is Assistant Professor of Industrial and Management Engineering at De la Salle University from where he obtained both his graduate and undergraduate degrees in Industrial Engineering. Named as one of 2004's "The Outstanding Women in the Nation's Service" (TOWNS) in the field of Industrial Engineering, **Aura Matias** is the Chairman and Professor of the Department of Industrial Engineering and Operations Research of the University of the Philippines. She earned her Ph.D. at Purdue University.

Bob Baylon is Dean, School of Professional and Continuing Education (SPACE), Chairperson of Career Development Program and a PhD candidate in Business Administration at De La Salle University. He obtained his BS in Accountancy, Master in Business Administration, and MS in Computational Finance from DLSU. **Bryan Gobaco** currently serves as Assistant Professor at De La Salle University from where he also obtained his BS and MS Degrees in Industrial and Management Engineering.

Rex Aurelius Robielos is a Faculty Member of the School of Industrial Engineering and Engineering Management at Mapua Institute of Technology. Prior to his appointment as Administrator of the Faculty Development Office of the Institute, he was the IE Subject Chairperson of the School of IE-EMG. He obtained his undergraduate degree in Applied Mathematics from UP Los Baños and his Master of Science in Industrial Engineering from the University of the Philippines Diliman.

The elected ORSP Board of Directors will serve for the years 2007 and 2008. The election was supervised by COMELEC Chair **Dennis Beng Hui**, who serves as Chairman of the Committee on Operations Research for Public Service (CORPS) and Co-Editor of the Philippine Journal of Operations Research. ♦

Driving Performance through OR

Business intelligence provider SAS held a forum on analytic intelligence last May 26, 2006 at The Mandarin Oriental Hotel, Makati City as part of the company's Executive Business Forum series.

Entitled "Beyond Business Intelligence: Driving Performance and Innovation through Analytics", the event tackled the importance of analytics as a competitive business strategy in providing insight to optimize current resources as well as foresight to identify new opportunities and maximize profits. The event focused on how analytics – beyond the query and reporting and OLAP traditionally associated with BI – can truly create value from data already present in companies' operational systems.

Keynote speaker for the forum was Elise del Rosario, President and Founding Member of Operations Research Society of the Philippines, who discussed "Analytics: The Secret to Innovation."

She was followed by SAS VP for Research and Development, Mark Moorman, who provided the audience with insight on "Putting Analytics to

Work for Your Organization." Moorman is a frequent resource speaker on subjects such as business intelligence, enterprise data management, decision-based operations, and other issues at the heart of knowledge-based management.

This by-invitation-only event was attended by executives, strategy leaders and other senior executives from top corporations in the banking, telecommunications, retail, manufacturing, distribution and government sectors. ♦



Elise Del Rosario emphasizes a point during her talk

Corporate OR News

ORSP congratulates Board Director **Agnes Perez** as she assumes the position of Manager of the Operations Research Department of San Miguel Corporation. She takes over **Sam Cruz**, ORSP Board Director from 1994 to 1998. Also in SMC, past ORSP President (1992 - 1994) **Manny Agustin** was appointed acting General Manager and Vice President of San Miguel Information Technology Services (SMITS), Inc. effective November 2006.



Perez

Meanwhile in KFC, ORSP Board Director (2002 - 2004) **Marlene Gutierrez** was appointed Manager of Central Planning while her previous post as Manager of the Operations Research Department was taken over by the IE manager, **Celeste Tiu**.



Gutierrez

NEDA, CHED... (cont. from page 1)

The closing panel with the topic **OR and ORSP – Where to from here?** will feature Dr. William Torres, one of the ORSP founders, past and current board members, current student chapter federation representative, and DOST undersecretary Fortunato de la Peña. In this panel, participants share various perspectives on the successes and failures of Operations Research in the Philippines. They discuss how they think OR could contribute to development and the role that ORSP must play. The afternoon will feature 30 contributed papers in ten tracks, namely: Supply Chain Management; Forecasting; Math Programming; Simulation; DSS; Production Planning; Distribution Management; System Dynamics and Transportation.

The day's program-at-a-glance is shown on page 8, where you will also find registration details. This will be a good opportunity to exchange notes and renew friendships. See you! ♦

Del Rosario Attends 21st OR European Conference in Iceland

Realizing that the well being of future generations can only be ensured if development is sustainable, the Association of European OR Societies adopted the theme of "OR for Better Management of Sustainable Development." E. del Rosario, ORSP President, was the lone representative from the Philippines out of the more than 2000 delegates who participated in the 495 sessions held at 50 meeting rooms in 7 buildings of the University of Iceland from July 2 to 5, 2006.

The theme was evident in the semi-plenary sessions, which included "Sustainable Development in Times of Globalization" by F. Radermacher, "Problem Structuring and Sustainable Development" by J. Rosenhead, and "OR and Fisheries Management", a contribution from Iceland. Previous ORSP visitor Erhan Erkut handled the semi-plenary on "Simulated Optimization". One of the conference highlights was the awarding of the EURO Gold Medal, the highest distinction within OR in Europe which is conferred to a person, who or institution, which has made an outstanding contribution to the science of OR. The medal was awarded to Luk Van Wassenhove, INSEAD Professor of Manufacturing and Operations Management. His recent work on disaster management or "humanitarian logistics" was the topic of his Gold Medal lecture, which was received very enthusiastically.

Streams included: Adaptive Memory Programming; Advanced Investment Analysis Models and Techniques; Agent-Based Modeling Methods; AI and Neural Networks, Applied Probability; Approximation Algorithms; Auctions; Behavioral and Experimental Economics, Business and Industry OR; Open Source Software; Combinatorial Optimization; Computational Biology and Bioinformatics; Convex Optimization Methods; Cutting and Packing; Data Mining; DEA and Performance Measurement; Decision Support Systems; Decisions for a Sustainable Environment; Distributed Decision Making; Dynamic Programming; Dynamic and Anticipatory Systems; Electricity Markets; Energy;

Environment Planning; Financial Modeling; Generalized Newton Methods; Global Optimization; Graphs; Linear and Non-Linear Optimization; Location Analysis; Maritime Transportation; Marketing; Metaheuristics, Modeling Social Systems; Multicriteria Decision Analysis; Network Optimization; Revenue Management; OR Profession; OR and Strategy; OR Education; OR in Agriculture and Forest Management; OR in Developing Countries; Soft OR; Production and Inventory; Quality Management; Queuing Theory with Applications; Scheduling; OR Software; Supply Chain Management; Systems and Game Theory; Telecom; Transportation and Vehicle Routing

Del Rosario attended the IFORS administrative committee meeting in preparation for taking on the IFORS Presidency in 2007. She also got together with some members of the Asia Pacific regional grouping council to discuss organizational matters. The social program included a welcome reception at the *Perlan*, which sits atop a geothermal water storage tank for the city and affords a splendid view of Reykjavik, as well as a trip to the *Blue Lagoon*. Participants swam in the warm cobalt blue lagoon, which gets its color from the minerals in the water. With the hissing steam in the background and freezing temperature above the water, the swim was truly unbelievable - maybe rivaled only by the impressive breadth and depth of researches and presentations in the four-day conference. ♦



Del Rosario flanked by past IFORS President Peter Bell of Canada and Tom Magnanti, Dean of Engineering, MIT, USA, as they take time out from the IFORS Administrative Committee meeting for a traditional Icelandic dinner buffet.

EXTRA CHRISTMAS CHALLENGE

by Alleli Domingo

The beautiful lawn and the bright *parols* at Bing and Elise del Rosario's house at 2 Acropolis Drive provided a perfect venue for the December 11 ORSP General Assembly and Christmas party. Dinner time provided an opportunity to renew ties with other ORSP members. The evening was enriched by stories swapped, laughter, food, wine and music.

Then the games began. With Bing del Rosario as game master, how could one not have much fun? The first game was an exercise in alertness on literal permutations. It involved three teams which, at their turn to compete, had to re-order sets of 5 scrambled letters and come up with the corresponding 5-letter word at the shortest possible time. The quickest team over all was the one powered by the jumble queen, **Marlene Gutierrez**.

Participants were re-grouped for the next activity. Dubbed "Where in the World?" this informative game was a review of geography, world history and current events. To earn points, the members of each of the three teams had to agree on the answer to questions such as "What is the highest mountain in Africa?" "Which country has the largest Muslim population?"; "What body of water separates the Philippines from Indonesia?" and many other interesting items. If a team gave an incorrect answer, any of the two other teams had the chance to steal the points, at the risk of getting penalized with a negative score in case the alternative answer offered is not right either. The prize was given to **Alleli Domingo's team**, powered by **Malu and Peter U**. Not to be left behind was the team which gained a lot from the travels of **Mar Castano** and the terrorist lands' knowledge of **Bryan Gobaco**.

The third game required individual participation in a modified alphabet recitation. Seated in a circle, the players were given ample time to think of all the letters comprising a phrase like "Merry Christmas". The game master then arbitrarily designated a player to start the alphabet ball rolling clockwise. What complicated that which would otherwise have been so easy as ABC was the stipulation that any letter appearing in the given phrase should be replaced by the sound of "beep". The phrase that took many victims was - you'd never guess it, "Linear Programming"! Every erring player was eliminated, thus reducing the size of the circle, until only **Agnes Perez** and **Richard Li** were left.

There were seven door prizes, but these were raffled using an estimation scheme. Participants had to guess how many colored jellybeans filled the crystal bowl adorning one of the dining tables. Everyone had the chance to revise his or her initial answer twice—after each of Bing del Rosario's partial counting of the contents of the bowl. The final answers were ranked in terms of minimum deviations from the actual total of 193 jellybeans. **Francis Miranda** gave the closest estimate that entitled him the top prize: USB from Bing del Rosario. Ranking 2nd and 3rd were **Aura Matias** and **Chewey Chiu** who were awarded Tupperware sets from Elise del Rosario. Runners-up were: **Malu U, Dennis Cruz, Richard Li** and **Ross Santos**. They received two shirts and two bags courtesy of **Bong Pangilinan**, who had to leave early because of a lame excuse: "headache from the games!"

Gifts were passed around while Christmas carols ran on CD. When the music stopped, the gift that fell in one's hand was the ORSP Christmas present for 2006. Indeed, there is never a dull moment at ORSP Christmas parties. You get to enjoy every extra cerebral challenge immensely. ♦

Welcome to ORSP

ORSP gained three more new members since June 2006. From the industry sector is **Ismael C. Pangilinan**, Vice President for Operations of Liguigaz Philippines Corporation. He is an Industrial Engineer.

From the academe, ORSP welcomed **Frederick A. Halcon**, Assistant Professor of Business Management & Director of Interdisciplinary Business Studies at De La Salle University; and **Angelita M. Pagcaliwagan**, faculty of IE at the Batangas State University. ♦



(L to R): Bong Pangilinan and Frederick Halcon know they made an optimal decision in joining ORSP.



New members being inducted during the June 21 General Assembly by Director Rex Robielos; (L to R): Ross Santos, Nelson Bool, Catherine Chiu and Nancy Eleria. (Editor's note: The last issue announcement of new members erroneously referred to Catherine Chiu as Catherine Chui. We regret the error.)

Conference Registration Details

	ORSP Member	Others
Early bird (by Feb 1)	2,500	3,500
Regular	3,000	4,000

Reservation/ Payment Methods:

1. Payment may be deposited directly to BDO Account No. 00151 0028 666 under the name of Operations Research Society of the Philippines (please do not abbreviate). Please fax your deposit slip with your registration form.
2. You may also issue a crossed check payable to the Operations Research Society of the Philippines (please do not abbreviate) and bring or mail to the office address below. Your receipts will be ready for pick up during the conference at the latest.
3. You may choose to apply for/renew your membership to avail of the member rates. Please contact the Secretariat office c/o Sheila Paraiso, telefax 02 439 9496 or 02 396-1020; mobile 0927 877 5219; e-mail secretariat@orsp.org.ph / del_rosario@skydsl.com.ph

7:30 – 8:30	Registration		
8:30 – 9:45	Opening Panel Discussion OR Role in Governance and Industry JC Mercado– Telecommunications and IT Vic Reventar – Finance Noli Macalalag – Manufacturing Wilson Tiu – Labor Management Edwin Pineda – Governance N. Ravichandran—OR in Industry: Implementation Issues		
9:45 – 10:00	Break		
10:00 – 11:00	Opening Ceremonies <i>OR and Quantitative Methodologies for Governance</i> Secretary-Socio Economic Planning and NEDA Dir Gen Romulo L. Neri <i>The State of OR, Engineering and Technology Education in the Phils</i> CHED Executive Director Dr. William C. Medrano		
11:00 – 12:00	Panel Discussion OR in Education: The Philippine Setting Aura Matias (UP Diliman) Dennis Beng Hui (DLSU) Alleli Domingo (JP LB) Ramon Angelo Tanchoco (ADMU) Rex Robielos (Mapua)		
12:00 – 1:00	Lunch		
13:00 – 14:00	Supply Chain Management	Forecasting	Mathematical Programming Methods
13:00 – 15:00	Simulation in Production Planning	Decision Support Systems	Student Track
15:00 – 15:15	Coffee Break		
15:15 – 16:15	LP in Production Planning	Distribution Management	
16:15 – 17:15	System Dynamics	Transportation and Delivery	
17:30 – 18:30	Closing Ceremonies Snapshots: ORSP Through the Years– Bob Baylon Panel Discussion OR and ORSP – Where to from here? William T. Torres Raul Rodriguez Agnes Perez Nikki Yu, Pres, Fed of ORSP Student Chapters DOST Undersecretary Fortunato de la Pena		
18:30 – 19:00	Fellowship and Refreshments		

If undelivered, please return to:

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