

# ORSP NEWSLETTER

March 2004

## Bayani Fernando Urges OR Community to Help Government



*BF receives Plaque of Appreciation from ORSP President Vic Reventar*

The annual ORSP General Assembly meeting held last October 8, 2003 at the Manila Peninsula Hotel was keynoted by the honorable MMDA chairman Bayani Fernando who spoke about the role of Operations Research in good governance. He recognized the need for operations research tools, not only in solving the country's traffic and garbage collection problems, but also in utilizing the resources of various government agencies better. He reiterated that the government can use the help of OR people who have the understanding and will to implement scientific solutions to governance problems. Productivity, he said, has to be increased at minimum cost if the Philippines is to move forward. He pointed out that Filipinos have no word for "productivity." Known to many as BF, he has a bachelor's degree in Mechanical Engineering from the

Mapua Institute of Technology. He was a three-term city mayor of Marikina, former Secretary of DPWH, and currently the Chairman of Metro Manila Development Authority.

Other meeting highlights included the traditional annual report of ORSP President Vic Reventar. Reventar reported on the society's accomplishments for the year 2002 and the first half of the year 2003. These accomplishments include a project for the private sector on optimizing the daily cash replenishments and cash to maintain in various ATM's of the Bank of the Philippine Islands (BPI). On the public sector side, he reported on the ORSP Corps project which sought to optimize power generation by Napocor plants and independent power producers. This project was completed and presented to Napocor

*continued on page 8*

## Del Rosario Keynotes Int'l Symposium on Productivity

Elise del Rosario, Chair of ORSP Corps, keynoted the International Symposium on Emerging Strategies for Improving Productivity, Quality and Reliability in Kolkata, India on December 12, 2003. Celebrating its 30<sup>th</sup> anniversary, the Indian Association for Productivity, Quality and Reliability organized the Conference. Del Rosario talked about the impact of OR on Quality and Productivity. Through cases, she showed how Operations Research had been used to pursue productivity in the area of distribution and how the discipline has been used to come up with quality decisions in the area of production, logistics and public utilities. She also cited how OR has become an important tool for improvement in the re-engineering of processes. She drew from her vast consulting experience in the private and public sectors.

Emphasis of the three-day Conference was modern innovative and efficient methods for improvements in current processes, specifically, IT-enabled methodologies and statistical tools and techniques. Other speakers from Italy, Japan, US, and India, along with more than 200 delegates, participated in the symposium.



*Del Rosario delivers OR talk before productivity, quality, and reliability experts in Kolkata*

# ORSP Corps Celebrates Fourth Year

(excerpts from the talk given by Elise del Rosario during the General Assembly meeting)

November 24, 2003 marked the fourth year that ORSP Committee on OR for Public Service (ORSP Corps) was launched to move closer to the ORSP long-term mission of helping in nation-building through the use of OR. In its four years, the ORSP Corps has completed five projects, namely, Privatization of the Manila North Harbor, Assessment of the Bureau of Customs shift to the Transaction Value System, Assessment and Streamlining of the Data Capture at the Bureau of Customs, Selection and Deployment of Quick Count Facilities for the Namfrel, and Optimization of Power Dispatch in the Luzon Grid.

The objective of the **Privatization of the Manila North Harbor Project** under the auspices of the Department of Trade and Industry is to determine the financial impact of contracting one versus two operators for the development and operation of the Manila North Harbor. Started in December 1999, the project was completed in eight months, most of which was spent in data gathering, researches, and the NPV analysis of alternatives. The results showed the economic feasibility of both a single and two operators for the North Harbor. Included in the analysis were sensitivity of results to changes in assumptions on capital expenditure, variable costs, market size, and other factors such as the absence or presence of auxiliary facilities. Results of the study were cited once by DTI and later by the Coalition on Ports Modernization in their press releases. ORSP Corps was invited to testify in a congressional hearing on the matter. This study was undertaken by Elise del Rosario and Wilson Wy Tiu and

presented to DTI Secretary Mar Roxas and the then-NEDA Chair Felipe Medalla.

When this first project was at its winding up stages, the group was again requested by DTI to look into the concern of the business sector regarding the impending **shift of the Bureau of Customs from the SGS to the Transaction Value system of imported goods** valuation. Factual basis for the concerns were researched through interviews and research by Elise del Rosario and JC Mercado. Among other specific measures, the use of valuation process was

transactions with emphasis on the control aspects of the data entry process which provides inputs to the automated BOC system. Along with the documentation was the objective of recommending procedural, personnel and personnel-related measures to streamline operations. Through the use of simulation, information flow and analysis, equipment and flow process redesign, the group recommended specific procedural control measures supported by re-lay out of facilities, introduction of new equipment, and reduction of personnel. The results showed significant savings while



*Audience listens attentively as ORSP Corps Chair del Rosario reports on Corps activities during the General Assembly meeting*

recommended to the multi-sectoral Economic Mobilization Group organized by the DTI.

Right after completion of the second project in September 2000 came the request from the Philippine Chamber of Commerce and Industry to **assess and streamline its data capture project within the Bureau of Customs**. This was an extensive project that required a bigger team, consisting of Elise del Rosario, Dennis Beng Hui and analysts Michael Don Naranjo, Michael Tuason and Joyce Yang. The group was tasked with documenting

eliminating control problems. These results were presented to the PCCI and BOC management.

JC Mercado, meanwhile did his part for the aborted plan of the Namfrel to prepare for the quick count. Over the period December into March 2002, he devised and ran programs that determined the **optimum allocation of computer equipment**, given the various capabilities of computers available for the activity. Even if the Namfrel was not given permission to execute the plan, the exercise served to open the eyes of other people on the

*Continued on page 7*

## APORS Exec Comm for Manila as site of Regional Conference in '06

During the meeting of the Asia Pacific Operations Research Societies (APORS) Executive Committee on December 9, 2003 at the Hotel Grand Inter-Continental in New Delhi, Manila was voted as the next site of the APORS meeting. APORS is the regional grouping within the IFORS (International Federation of Operational Research Societies), of national societies in the Asia Pacific region. The meeting was attended by Elise del Rosario, in her capacity as IFORS VP and representing ORSP, Nyu Ka Jin, representing Malaysia (MSORSM), M. Ramnohan Rao of India (ORSI), Toshi Ibaraki of Japan (ORSJ), Sung Joo Park of Korea (KORMS), and Saleh Wasimi from Australia (ASOR). Others present were IFORS President Paolo Toth from Italy and outgoing APORS President and Secretary, S.P. Mukherjee and Tatsuo Oyama, respectively. Other member countries not represented in the meeting were: Hong Kong, China, Singapore, and New Zealand.

The first APORS Conference was first held in Korea in 1988. Succeeding triennial meetings were held in China, Japan, Australia, Singapore, and for 2003, in India. This year around 600 delegates attended the 4-day conference with the theme OR: Emerging Paradigms for information Technology. Conference streams, mostly on the theoretical, rather than applied area, included around 300 paper presentations on the following topics: Convex and Non-Convex Optimization, Simulation, Queueing Theory and Applications, Inventory Management and EOQ models, Combinatorial Optimization, Multi-Criteria Hierarchical Optimization and Goal Programming, Sequencing and Scheduling, Mathematical Programming, Neural Networks and Artificial Intelligence, Logistics and Transportation Problems, and Supply Chain Management. Also included were E-Commerce and Analysis and Design of Algorithms.

*continued on page 7*



APORS Exec Comm (from left) in Delhi: Rao (ORSI), Wasimi (ASOR), Ibaraki (ORSJ), Oyama (ORSI-APORS), Del Rosario (ORSP), Toth (IFORS), Park (KORMS), Nyu (MSORSM)

## ORSP Holds Christmas Party

ORSP held its Christmas Party last December 18, 2003 at the del Rosario home in Acropolis. The traffic was not too heavy and people came to the party to eat, drink and play games. Board members were joined by Mar Castaño and several San Miguel Corporation OR Department analysts.

A delicious buffet dinner was served, along with bottles of wine provided by the hosts. We discovered the "rosy" effect the wine had on Richard Li. Elise del Rosario apologized for the "budget-constrained" buffet but all of the attendees were more that satisfied with the spread.

The traditional exchange of gifts was turned into a game – the gifts were passed around, and after a random number of passes, Bing del Rosario would say STOP, and the first person to raise his/her hand would keep the gift he or she was holding. It was an exercise in Decision Analysis. It took several passes before all the gifts were distributed, and it became a challenge to decide which gift you will bid for before other people claimed it.

Finally, several very competitive games were played that seemed to have been designed for OR people. Numerous prizes were awarded to the winning teams. The first game was called Proverbs. Games master Bing read a phrase that represented a proverb and teams would guess what proverb he was referring to. The team of Agnes Perez, Elise, Mar Castaño,

*continued on page 7*

# OR: A FactOR to Success

By: Ivy Frances Edrosolan

This year's OR student congress has again brought in students from different universities, colleges, and guests from the mother chapter. The big event was held on February 21 at UP Diliman NISMED, the same venue as last year's congress, which housed more than 300 participants from member and non-member schools of the student chapter.

University followed by the team of De La Salle University. Mr. Geoffrey Chua of ADMU, Mr. Dennis Cruz of DLSU and Ms. Marlene Gutierrez of UPD formed the panel of judges.

The program began with a series of talks led by Mr. Dennis Beng Hui who talked about OR and Farm Management. Shortly after the open

forum, Madeline Bandera and Joy Bibit presented a thesis on the Integrated Decision Support System for the Sydney Coordinated Adaptive Traffic System (SCATS) for MMDA-TEC. This research holds the distinction of being a DLSU gold medal thesis awardee. A brief background on the SCATS system was discussed followed by the operations involved as well as the players in traffic management. The study developed an integrated decision support system to provide structure, consistency, and quantitative basis for the strategic levels of control. Finally Mr. Ronald Po presented his group's research, which won second place in the 2002 ORSP Student Paper Writing Contest, the Car Maintenance Policy for Nissan Car Lease Philippines. Unfortunately, a paper writing contest was not held this year.



L-R: Prof Iris Martinez, Geoff Chua, Prof Lowell Lorenzo, Bernice Tan, Jennifer Cruz, Carmela Pato, Joelito Aborquez, Norman Lapid, Dennis, Richard, Marlene Gutierrez, Prof. Teresa Abaya

*Action, speed, and wit.* The OR congress, entitled, FactOR, relived the zeal and excitement as the 14<sup>th</sup> Annual OR Quiz Contest showcased the afternoon program. The prestigious, sought-after quiz bee was participated in by 7 schools, all members of the student chapter, namely: DLSU, ADMU, UP Diliman, UP Los Baños, Letran Calamba, UST and Mapua. Of course, it was never complete without the cheers of the audience in the midst of the mind-boggling, challenging OR questions. On top of it is the decision and announcement of the final three winners of the contest. Undoubtedly, UP Diliman brought home the bacon as they took the lead and answered the questions seemingly without effort. Runner up was last year's defending champion Ateneo De Manila



L-R: Ateneo Coach Alyson Yap, Board Director Geoffrey Chua, Timothy Teng, Joanna Bochoe, Kenneth Chua, Daniel Lee, Marco Co, Board Director Dennis Cruz, Board Director Marlene Gutierrez



L-R: Richard Li, Geoff Chua, Jocelyn Tan, Janet Jill Uy, Wilfredo Kabiling, Julius Lim, Dennis Cruz, Bryan Gohaco, Marlene Gutierrez, Eric Sty

## CALL FOR PARTICIPANTS

### IFORS 2004 WORKSHOP FOR OR TEACHERS IN DEVELOPING COUNTRIES

July 19 – 21, 2004

Holiday Inn, Ortigas Center, Philippines

If you are a new or experienced OR teacher who is eager to:

- bring your skills up to date and enhance your effectiveness;
- learn about available resources for teaching OR in a developing country setting; and
- exchange ideas with peers and noted experts in the field;

then this workshop is for you!

The Workshop will include lectures and case discussions on content, resources, and teaching techniques, with emphasis on their application to development issues. International faculty experienced in the teaching of OR will conduct the sessions.

## CALL FOR PRESENTATIONS

Paper presentations and tutorials on effective OR teaching methods and use of cases in a developing country setting are invited. Deadline for abstracts is on April 30. Notification of acceptance will be sent on May 20.

For details, visit the workshop site at <http://www.orsp.org.ph/Conference/index.htm>, or contact the Operations Research Society of the Philippines at:

Telephone : (632) 633-1353

Fax : (632) 637-0039

Email : [secretariat@orsp.org.ph](mailto:secretariat@orsp.org.ph)

## Workshop Speakers

**Erhan Erkut**

University of Alberta School of Business, Canada

Dr. Erkut teaches two large introductory courses (300+ students) as well as smaller electives such as management consulting and distribution management. Dr. Erkut is the founder and the first president of INFORM-ED (INFORMS Forum on Education), and the Founding Editor-in-Chief of INFORMS Transactions on Education. His research interests are the transportation of hazardous materials and

the location of undesirable facilities. Dr. Erkut is also the Director of his faculty's Centre for Excellence in Operations, an outreach unit which establishes research partnerships with local organizations.

**Subhash Datta**

Management Development  
Institute, India

He has a number of books to his credit and published more than 40 articles in refereed national and international journals. He has developed a number of DSS models on resource management for decentralized planning for the district administration. He has research interest in the following areas: Production and Operations Management, DSS and Decentralized Planning Decision-Making.

**Moshe Sniedovich**

University of Melbourne,  
Australia

His research areas include dynamic programming, composite concave programming, branch and bound, water resources planning, and interactive computing and modelling. He is heavily involved with OR/MS education, including the development of educationally rich, interactive web-based OR/MS modules (see the tutOR and the IFORS tutORial projects). A current pet project is the development of an online encyclopedia for OR/MS, a long-term IFORS project known as IOE. He has significant experience in curriculum development for mathematically-oriented undergraduate and graduate OR/MS programs.

# Workshop Registration Form

## 2004 IFORS Workshop for OR Teachers in Developing Countries July 19-21, 2004 Manila, Philippines

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Nickname for Badge \_\_\_\_\_

University/Organization \_\_\_\_\_

Department \_\_\_\_\_

Position Title \_\_\_\_\_

Address  Office  Home \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Special Requirements, if any \_\_\_\_\_

### PAYMENT DETAILS

	ORSP Member	Non-ORSP Member
On or before May 15	P9,000	P9,750
After May 15	P9,750	P10,500

1. Payment may be deposited directly to: Operations Research Society of the Philippines, Account No. 0201-0409-06, Bank of the Philippine Islands (Pasig-Ortigas Branch). Please fax the deposit slip with your registration form.
2. You may also make a check payable to Operations Research Society of the Philippines (do not abbreviate) and send it with your registration form to our office address shown below.
3. Membership inquiries may be made at our office.