

# ORSP NEWSLETTER

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June 2008

## “OR Successes and Struggles in the Real World” Turns Out a Success



(L-R) ORSP President Alleli Domingo presents Norman Lapid and Jonathan Catane with certificates of appreciation

Entitled *Operations Research in the Real World*, the first 2008 Technical Forum was held last April 19 in cooperation with Ateneo de Manila University. On hand to welcome the participants was the chair of the Quantitative Methods and Information Technology at the John Gok-

ongwei School of Management of the ADMU, **Angelo Ramon Tanchoco**. ORSP members, guests, and members from the seven student chapters filled the Escaler Hall of Science Education Complex to learn from the discussions of noted OR practitioners and academicians who gathered for the event.

Introduced by Board Director Malu de Guzman-U was first speaker **Norman Lapid**, Management Associate of the Operations and Technology Department at the Citi Markets and Banking group of Citibank, who talked on *Testing the Implications of Product Line Expansion on a Conveyor Loading System using Simulation*. He tackled the importance of

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## IFORS celebrates 50 years in Sandton, South Africa

Members of ORSP are invited to the 18th Triennial Conference of the International Federation of Operational Research Societies (IFORS) which will be hosted by the Operations Research Society of South Africa (ORSSA). The theme of the conference is *Operational Research: developing communities, managing the connections amongst them*. This is the first time that an IFORS conference will be hosted on the African continent since its initiation in 1957.

The conference will be held at the Sandton Convention Centre in Sandton, South Africa from 13 -18 July 2008 and will bring operational researchers from around the globe together. An intensive scientific programme covering the full spectrum of OR topics await the participants. The Conference Organising and Programme Committees represent countries from all five continents, bringing the research, applications and perspectives of their areas to this truly international forum.



Sandton, South Africa readies a big welcome to IFORS delegates

ORSP's past president and founding member, **Elise del Rosario**, will preside over this Triennial Meeting. ■



ELAVIO delegates during their tour in Pachacamac

## IFORS Grants Peru Scholarship to ORSP Rep Denis Cagape



Delegates from all over the world at the opening of the event in Lima Center

International Federation of Operational Research Societies (IFORS) chose Filipino Denis Cagape from a batch of applicants to join the Summer School organized under the auspices of the Latin American Association of Operations Research Societies Summer School for Young Scholars (ELAVIO). The ELAVIO Summer Institute was held in Lima, Peru, from February 04 to 08, 2008.

The primary objective of the program is to promote scientific exchange and networking opportunities between senior and young scholars. Every year, ELAVIO gathers young scholars and researchers in the field of Operations Research for short-courses, tutorials, discussion panels and lectures on a wide-array of topics in advanced operations research given by senior researchers. In its 13<sup>th</sup> year, advanced topics discussed include advanced facilities location modeling, multi-criterion decision making, heuristics and metaheuristics, data mining, stochastic processes and mathematical programming. Among the distinguished speakers were Prof. Horacio Hideki (Brazil), Dra. Luciana Buriol (Brazil), Prof. Andres Medaglia (Colombia), Prof. Nelio Pizolatto, Prof. Hector Cancela (Uruguay) and Prof. Carlos Cotta. New researches also were presented by the delegates coming from other countries, mostly from South America. ELAVIO has become a venue for the involvement of international scholars in the initiation of future research work. ■

## Technical Forums

### OR Successes...

*continued from front page*

considering how new product introductions must not only be analyzed from the marketing angle but also from the perspective of how it can utilize or complement existing logistical and operational systems. To do this, Lapid presented a dynamic animated simulation model with user-adjustable model parameters developed for a cement company. He showed how the use of a modeling software provided the logistics team with a practical and reusable OR tool for testing, viewing, and presenting to management a wide range of loading and product switching policies given their large set of uncertain and changing operational constraints.

With an interesting title, *OR: The Secret Ingredient to Enterprise Decision Making (Why OR is the hidden key to making informed decisions with less risk and better outcomes)*, **Jonathan Catane**, Principal Consultant for Manufacturing of SAS Philippines shared how various enterprises all over the world select decision variables to achieve their objectives while obeying constraints through the use of OR. He cited the importance of sorting through all factors and information available in order to identify strategies that will produce success for business initiatives of the entire organization. He gave examples of how companies ensure that planned strategies optimize: resource allocation and management; production and inventory planning; product mix and blending; staffing allocations; distribution, routing, scheduling and traffic flow; supply chain management and optimization; capital budgeting, asset allocation and portfolio selection; and identification of the best customer-offer-channel combinations given budgets and other constraints. He also introduced to the audience the OR tools available for doing all these through analytical business solutions from the SAS software.

Their talks were followed by a lively open forum that among others, suggested some extensions of the model presented by Lapid as well as queries directed at Catane about the implementation experiences of the SAS users of OR. ■

## Panel on OR Consulting: Sharing Successes and Struggles



*Presenting the accumulated 100 years of OR Consulting : (L-R) Agnes Perez, Elise del Rosario-Lead Panelist and Moderator, Ramon Angelo Tanchoco, Alexander Hipolito, Vicente Reventar III, Marlene Gutierrez, Rex Robielos and Bryan Gobaco*

Those who wanted to hear more about the OR implementation experiences were not disappointed as the session that followed dealt exactly with this area. Entitled *OR Consulting: Sharing Successes and Struggles*, the panel was moderated by current International Federation of Operational Research Societies (IFORS) President, **Elise del Rosario**. In her words, the panel is composed of distinguished OR practitioners whose collective internal and external consulting experience in OR total one hundred years.

**Angelo Ramon Tanchoco** started off the panel by citing how soft systems methodologies can help structure and diagnose the problems that clients bring to the consultant. Echoed by all the succeeding speakers, availability of data for use was singled out as the major problem faced by the OR consultant working in the Philippines. He also touched on the task of every consultant to educate but not alienate the client who may not be familiar with OR.

Internal consulting experiences were shared by the next speaker, **Rex Robielos**, Section Manager of Operations

Research Group at Analog Devices General Trias and a Faculty Member of the School of Industrial Engineering and Engineering Management at Mapua Institute of Technology. He shared how the OR Department at ADGT, despite being a little bit over a year, has earned a reputation in the company such that important projects are being sent to the OR group for validation. He cited having a breakthrough project in an environment with 800 machines, 3000 employees and 5000 skus to optimize helped a lot in achieving this stature. He credits this success to four key success factors: top management support, having the right analysts around, the availability of resources and data.

Next to speak was **Agnes Perez**, OR manager of what could be considered an OR institution in the Philippines. The history shared by the speaker of the 37-year old OR group within San Miguel Corporation was rich with lessons from which other internal OR groups can benefit. Among other aspects, Perez touched on the advantage of an internal OR consulting group and the importance

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*Participants seem to like what they see of OR in the Real World*

## Technical Forums

### Panel on OR Consulting...

of an organizational location of an OR group that allows access to senior management-sponsored projects; enables a system view of issues; and enables critical-mass staffing levels. She mentioned threats to group survival that include: poor marketing of services, competition from other resources, and staff reduction pressures.

Other experiences of an internal OR group were shared by the current Operations Research Manager of KFC – Mr. Donut Philippines, **Marlene Gutierrez**. While emphasizing key ingredients for a successful OR applications to include executive level support availability of data and IT support, she also highlighted the importance of an articulate, confident and competent OR consultant. She related the success of a project that resulted in savings as well as a project that resulted in valuable lessons for use in succeeding projects.

Armed with his wealth of experience on external OR consulting, past ORSP President, **Vicente Reventar III** gave tips on harnessing the valuable free resource in the internet that is available for use by every OR consultant. Armed with his experience as SVP of Pag-ibig and President of SVI Technologies, Reventar successfully provided OR consulting services to companies without internal OR groups. His two main messages to the audience are ways to be more effective when presenting results to senior management and to utilize open-source software and OR optimization servers (ASP).

The Vice Chairperson of the Department of Industrial Engineering at De La Salle University-Manila, **Bryan Gobaco** then drew on his experience working with large-scale models to warn OR consultants about the pitfalls of non-linearities, a large number of integer variables, the need for enormous amounts of data, and the dangers of promising the client what cannot be delivered. He then concluded that one of the main factors that could lead to a sustained and consistent use of OR is when the models could be embedded into decision support systems that could be deployed for use in organizations.

This was in turn, dealt with in full by the

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*Panelists talk about on their journeys in the world of OR practice.*

next speaker **Alexander Hipolito**, qualified by more than 10 years experience in supply chain consulting and solution implementation using SAP APO, i2, as well as specialized Optimization technologies such as CPLEX and Xpress-MP. After explaining the capabilities of supply chain software with embedded OR solutions, he went into the lessons learned, opportunities to explore as well as threats to defend against. He suggests building end-user expertise in interpreting optimizer results as a key to success in this area.

It can be said that the speakers, who all happened to be past or present ORSP Board members, catered to the whole audience, as they addressed questions relevant to practitioners who may have faced similar challenges; enlightened academicians whose main interest is to make classroom lessons more relevant to actual practice; as well as encouraged (or maybe discouraged?) students who are contemplating on careers in OR consulting. It was therefore no wonder that people stayed on even as the discussion went past the scheduled end by two hours. This is the reason why instead of giving her talk, **E. del Rosario** summarized the proceedings and turned over the floor to ORSP President **Alleli Domingo** who gave out tokens for the speakers and bid the participants goodbye, at least for this forum. ■

## IFORS turns 50 *from back page*

ence, recognizes exemplary work in the application of OR to address issues of development. With the help of EURO, IFORS has initiated several activities, including sponsoring conferences and scholarships in the African continent in an effort to address the lack of organized OR activity in the area.

### IFORS Website

The IFORS website <http://www.ifors.org>, includes information about local and international conferences, activities of member societies, updates on IFORS committee activities, links to national societies and regional groupings, the IFORS newsletter, and educational and training material. As part of fostering excellence in OR education, the website includes OR Educational Resources, aimed at making available online, high quality educational material such as case studies, methodological readings and algorithms. One component of this project is tutORial, which contains a collection of interactive web-based tutorial modules on generic OR topics. The IFORS website has been given a new look in 2007 by its webmaster, Moshe Sniedovich.

### Young Scholars Program

Started in 2000, IFORS has continually provided scholarship funds for participants to join summer institutes and workshops as part of the regional activities. **Denis Cagape** was the first young scholar from the Philippines to have been sent to ELAVIO. On the other hand, 10 young scholars were sponsored by IFORS during the APORS conference in Manila.

### Presidents

The initial structure of IFORS did not require there to be a President. The affairs of the Federation were to be administered by a 'foster' society for every three-year period. The initial foster society was the Operational Research Society (ORS) in the UK, followed by ORSA which took over as foster society for 1962-1964, with Philip Morse appointed as Secretary. Note that ORSP's own **Elise del Rosario** serves as its first woman president. ■

Period	President	Period	President
1959-61	Sir Charles Goodeve (UK)	1993-95	Heiner Muller Merbach (Germany)
1962-64	Philip Morse (USA)	1996-98	Jacques Lesoume (France)
1965-66	Marcel Boiteux (France)	1999-01	Bill Pierskalla (USA)
1967	Charles Saizmann (France)	1992-94	Brian Haley (UK)
1968-70	Ales Lee (Canada)	1995-97	Peter Bell (Canada)
1971-73	Ame Jensen (Denmark)	1998-2000	Andres Weintraub (Chile)
1974-76	Takehiko (Bill) Matsuda (Japan)	2001-03	Paolo Toth (Italy)
1977-79	David Hertz (USA)	2004-06	Thomas Magnanti (USA)
1980-82	Roger Colclutt (UK)	2007-09	Elise del Rosario (Philippines)

## Student Chapter News

### Student Chapters Focus on The Use of OR in the Production and Manufacturing Quest for the Business Bottomline

by: Priscilla Mae Trinidad



Numbering 450, participants of the Congress fill the UST Auditorium

March 1 saw the Albertus Magnus Auditorium in the College of Education, University of Sto. Tomas filled to the rafters by students from the ten student chapter members who participated in the National OR Student Congress 2008. With the theme *The OR Quest for the Business Bottom Line: Application in Production and Manufacturing*, the whole-day event kicked off with a short welcome from ORSP Director Malu de Guzman, followed immediately by ORSP Paper Writing Competition presentations. ■

#### Miranda and Martinez Show OR Impact on the Bottomline

Students saw the workings of OR in industry through the two speakers of the Congress. **Francis Miranda** opened the seminar series with a talk on OR applications in Zeullig Pharma, where he is Operations Manager. The presentation focused on three applications of OR, namely capacity planning, layout improvement and facilities location. The second talk was conducted by **Iris Ann Martinez**, Assistant Professor in UP Diliman and PhD candidate in the University of Tokyo. The talk of Ms. Martinez on *IE, OR and Culture Manufacturing* got many students curious, as was evident in the questions asked after the talk. ■



Francis Miranda of Zeullig Pharma shows off his plaque of appreciation from Alleli Domingo (ORSP President) and Rex Robioelos (Student Chapter Chair) as 1st speaker. Iris Ann Martinez with ORSP President after her talk.

#### UP Diliman Bets Win Paper Competition

Declared winner of the 2008 ORSP Paper Writing Competition awardee was the University of the Philippines paper entitled *A Linear Programming Model for Strategic Site Planning Applied to Philippine Retail Industries* authored by Jameson Tanliao, Kris Garrido, Leah Rodaje and Karissa Chavez. The winner was proclaimed by this year's board of judges composed of Dr. Aura Matias, Dr. Malu de Guzman, and Agnes Perez. A cash prize of P3,000.00 solicited by ORSP President, Alleli Domingo from Atty. Ma. Victoria D. Sarmiento was awarded to the winner.

Presented from the John Gokongwei School of Management, Ateneo de Manila University, were two papers, namely: *The Outsourcing Solutions Corporation (OSC)* by Clark Jefferson Cue, Kimmee Rae Pineda, and Joan Cybil Yaowo and *Operations Research Applications for Operational Challenges at Festival Supermall* by Anton Bautista, Charisse Borromeo, Clark Cue, Gavin Sison and Joan Yao. The two other entries were from De La Salle University Manila were: *An Integer Stochastic Programming Mode 1 with Multiple Goals for Obtaining a Shortest Route in a One Starting and Destination Point Network* by E. M. dela Cruz, J. C. Dy, E. Javier, J. C. Ko, K. Lee and *Planning the Biofuel Logistics in the Philippines* by Alvin John Chua, Amado Miguel de Jesus and Denise Mae Pangilinan.

The intense paper competition was followed by an equally intense dance number from the members of the UST – ORSP Student Chapter. Following are the abstracts of the five papers presented. ■

## Paper Abstracts

### A Linear Programming Model for Strategic Site Planning Applied to Philippine Retail Industries

By: Jameson Tanliao, Kris Garrido, Leah Rodaje and Karissa Chavez - UP Diliman

In a dynamic marketing environment, the choice of location for retail firms is crucial because it normally involves large capital investment and greatly affects the potential growth of the business. The complexity of the environment is increased by the behavioral patterns of consumers. This study focuses on such behaviors to determine their effect on the location strategies.

The research study aims to modify the Maximum Capture Model (MAXCAP) that identifies the most optimal locations for retail outlets that will maximize the area of coverage or minimize the average distance to the service given that a number of competitors exist in a certain geographical area. Modifications in the said model are established in order to determine the attributes other than location that needs to be included in the MAXCAP model to suit the Philippine local market. The study focuses on the selection of optimal site locations considering both distance and non-distance factors with reference to potential consumer zones that have already been identified. The model applies only to Philippine-based retail industries.

A survey was conducted to elicit from Filipino buyers attributes that they feel are important in choosing a retail store. Ease of moving around the store and availability of imported products were identified as the two most important attributes preferred by the respondents. These variables together with distance were applied into the Multiplicative Competitive Iteration Model (MCI). The model provided estimation of the parameter that accounts for the probability that customers at a certain zone will shop at a specified store location.

The results from the validation proved the usefulness and effectiveness of the model. The Excel worksheet created can actually be used to automatically solve

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## Student Chapter News

### Paper Abstracts

any modified MAXCAP model. The main model however is constrained to 10 nodes and 5 simultaneous existing retail stores. Further development of the model will be needed to accommodate more variables.

#### ALIGN: The Outsourcing Solutions Corporation

By: Clark Jefferson Cue, Kimmee Rae Pineda, and Joan Cybil Yaowo - ADMU

The Outsourcing Solutions Corporation (OSC) is a rapidly-expanding advanced business process outsourcing firm composed of about 3,500 employees doing work in the fields of HR, Accounting, Legal, and Healthcare, offering transcription, payroll, bookkeeping, & data verification services, amongst others. The company has managed to remain successful because of its commitment to efficiency and good service, and as such its top management would like to find a way to better utilize employee-time. The primary task was to find a way to better staff OSC's Document Processing unit over hourly intervals, by assigning them to the project groupings. The project groupings are those that exhibit complementary demand behavior. That is, the group is searching for products whose order patterns run countercyclical to each other; thus creating a more-or-less constant demand, which will ensure that employees are also constantly working.

The objectives of the study are: (1) to determine which projects would be best paired to each other to ensure that each employee will have a somewhat constant supply of work to do at any given hour interval; (2) to group the projects in such a way that different groups represent different demand schedules where management can select specific products from different groups to be cross-posted; and (3) to assess the effectiveness of such alternatives. A Visual Basic program was designed to identify which accounts should best be paired by specifying a certain cutoff percentage of correlation between two accounts. The lower the correlation between the two accounts, the better a match they were considered to be. Beyond product matching, clustering many products with similar demand

curves was also looked into.

In the end, the group found that there were very few accounts that were negatively correlated. For most cases, there was some degree of positive correlation, which implies that perhaps cross-posting is but one of the many ways by which the company may improve its staffing procedures. The exploration of an hourly shifting procedure or a diversification of the company's account/order portfolio was recommended.

#### Operations Research Applications for Operational Challenges at Festival Supermall

By: Anton Bautista, Charisse Borromeo, Clark Cue, Gavin Sison and Joan Yao - ADMU

This study deals with two major operational problems of Festival Supermall in Alabang, Muntinlupa City. First, a queuing and an integer programming model is developed in order to find the optimal schedule for tenant deliveries to the Mall. The effect of assigning specific delivery window schedules was investigated. Second, proper placement for security cameras is determined through the triangulation and orthogonal heuristics for solving art gallery problems.

#### An Integer Stochastic Programming Model with Multiple Goals for Obtaining a Shortest Route in a One Starting and Destination Point Network

By: E. M. dela Cruz, J. C. Dy, E. Javier, J. C. Ko, and K. Lee - DLSU Manila

This study takes into consideration a probabilistic version of the classical shortest path problem whereby for each point of a given network, it is a must for the proponents to choose a probability distribution over the set of succeeding points so as to reach a certain point of destination with an objective function of minimizing the total time to be consumed as well as the expected cost. In this paper, the aim is to come up with a solution

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ORSP Board Members at the Congress: (clockwise): Dennis Cruz, Bryan Gobaco, Rex Robielos, Alleli Domingo, Malu De Guzman-UI, Carol Gica (ORSP Secretariat), Agnes Perez, Richard Li and Dennis Beng Hui

that would give the traveler the shortest and the most economical means of traveling from a specific point to the other. The proposed model was tested using a hypothetical example.

#### Planning the Biofuel Logistics System in the Philippines

By: Alvin John Chua, Amado Miguel de Jesus and Denise Mae Pangilinan - DLSU Manila

The recently passed Philippine Biofuels Act requires the mandatory blending of bioethanol and biodiesel into all gasoline and diesel products sold in the country. This paper uses a four-echelon supply chain that minimizes total cost. It discusses transportation policy decisions to minimize transport costs, while considering finite processing plant throughput capacities and expansion options, demand for biofuels across the various geographic provinces of the country and crop production capacity (and estimated crop availability) per province. The solution of this model determines the optimal flow of biofuels between the various demand and supply points in the supply chain and the appropriate levels of expansion for processing plants. Transportation costs were delivered from geographic information system data. ■



Paper Competition authors and presenters receive their certificates of participation.

## Student Chapter News

### ADMU is 2008 OR Quiz Bee Champion



Eight participating schools try different techniques to answer questions dished out by QM Richard Li

Not even the hearty lunch sponsored by Shakey's dulled the excitement of the event that was to come, the Annual OR Quiz. Eight schools participated this year namely, Adamson University, Ateneo de Manila University, De La Salle University – Manila, Mapua Institute of Technology, Tarlac State University, University of Sto. Tomas, University of the Philippines – Diliman and University of the Philippines – Los Baños. The very capable Richard Li from De La Salle University, was once again Quiz Master of the event.

ADMU led the pack during the first round and maintained it this lead for the whole duration of the quiz. The final question of the last round was a battle between ADMU, AdU and UP Diliman. A protest raised on the last question from the UP Diliman camp served to raise the uncertainty of the outcome. Nonetheless, the Board of judges composed of Alleli Domingo, Rex Robiclos and Dennis Cruz decided against the protest, which eventually resulted in the following: UP Diliman in 3<sup>rd</sup> place with 150 points, Adamson University in 2<sup>nd</sup> place with



OR Quiz judges from ORSP: (L-R) Dennis Cruz (Director), Alleli Domingo (President) and Rex Robiclos (Director) take time out from discussing questions raised by contestants



Anton Bautista, Lance Co, John Garret Go, Karlvin Ong and Wilhelm Su of Ateneo de Manila triumphant after being declared OR Quiz 2008 Champion with two Judges: Dennis Cruz and Alleli Domingo



Rene Eduardo Dimaluiat Jr., Rona May Rosario & Christopher Tupaz created history for Adamson University's first ever 2nd-place finish



UP-Diliman clinches 3rd place, here shown with Denis Cagape (Coach), Gijo Mantaring, Angelo Ani, Honeylane Ante, Francis Lee & Philip de Guzman

160. With 180 points under its belt, Ateneo de Manila was proclaimed the 2008 Quiz Bee Champion. The presentation of certificates of participation and awarding of the winners followed the quiz. The winning students from ADMU were Anton Bautista, Lance Co, John Garret Go, Karlvin Ong and Wilhelm Su. Second placers from the Adamson team were Rene Eduardo Dimaluiat Jr., Rona May Rosario, Christopher Tupaz, Marivic Villanueva, Angeline Joy Santos. UP team was composed of Angelo Ani, Gregorio Jacinto Mantarina, Philip Revo de Guzman, Francis Lee, and Honey Lane Ante.

The congress was closed by ORSP Board Director in charge of Student Chapters, Rex Robiclos. He congratulated the student chapter officers who worked hard to ensure a smooth and optimized conference. The record attendance of 450 delegates from the ten ORSP member schools was a testimony to the huge success of the National OR Student Congress! ■

### Christmas '07 signals next decade for ORSP



As with most Christmases since 1998, ORSP's 2007 Christmas party was once again held at Elise and Bing del Rosario's residence in Acropolis, Libis, Quezon City. As

usual, it was a cozy intimate affair, with 16 ORSP members and a handful of spouses in attendance. The del Rosario home, as expected, was gaily decorated with Christmas ornaments, trimmings, and lighted capiz lanterns, contributing to the yuletide spirit floating in the air that night. The earliest bird was none other than Ross Santos, who wanted to make sure he didn't get caught in the heavy December traffic along SLEX and C5. By 6:45 pm, the cocktail portion had informally begun, with small talk and story-swapping merrily lubricated by red wine that host Bing brought out.

Food was catered, as usual, and the guests, which included Mar Castaño, Wilson WyTiu, JC Mercado, Marlene Gutierrez, Vic Reventar, Beng Manalang, Francis Miranda, Alleli Domingo, Aura Matias, Agnes Perez, Malu De Guzman-U, Rex Robledos, partook of the wonderful callos, lasagna, sweet-sauced spare ribs and salad. Also gracing the Christmas dinner were new members Rosalia Gabuya and Jaypy Tenerife from TIP-QC. Terribly missed was the DLSU gang, who had been heretofore regular mainstays of ORSP Christmas parties except for Dennis Beng Hui who made it that night.

In the "main event of the evening", Bing del Rosario once again donned his game show hat and got everyone wondering what games he had come up with for this 2007 Christmas edition. He didn't disappoint, when he started his "win, lose or draw" game. The party participants were evenly divided into two teams – U.P. vs. the Rest of the World. Each team took turns to draw and guess, and within each team, team members took turns in going to the whiteboard. The number of seconds it took each team to guess the drawing was their recorded score and the team winding up with the lowest total after ten turns, won.

## November Technical Forum

# OR in Organizational Management is Alive and Well! *by: Alleli Domingo*

Highlighting the important role of Operations Research in the three essential functions of organizations, the last ORSP forum for 2007 focused on the use of OR in marketing, finance and operations. The *Operations Management Forum* was held on Saturday, November 10, 2007, at the National Engineering Center Audio Visual Room in UP Diliman, Quezon City.

Drawing on his extensive experience with the banking sector, **Vic Reventar** talked about the use of **OR in finance**. A professor of the Department of Quantitative Management and Information Technology at John Gokongwei School of Management of ADMU, showed the current state of OR applications in the Philippine local banking and financial landscape. He discussed the evolution of mathematical modeling methods that have been used to model the portfolio allocation problem and the representation of the asset-liability models in both banking and insurance companies with the help of examples. He also presented the problems and challenges of making OR applications pervasive in this important segment of the Philippine economy.

**Operations management use of OR** was shown through a specific application at the KFC by **Marlene Gutierrez**, Central Planning Manager of KFC-Mister Donut Philippines and part-time lecturer in Industrial Engineering-OR department in the College of Engineering at the UP Diliman. She demonstrated the power of simulation in giving her company the ability to try out approaches and test ideas for improving the speed of service, not just at the counter, but at the back-



*Vicente Reventar III discusses OR in the organizational function of Finance*

room. A pilot store was modeled, with layout taken into consideration. She showed how a simulation model was able to clarify some questions on operational procedures which resulted in the reduction of management requirement, the validation of process flow, the recognition of the need for re-layout of some areas at the backroom, and the revision of batch sizing based on lean or peak periods. The talk not only gave a very vivid picture of the processes in the kitchen but also got many in the audience thinking about dropping by KFC to test their speed of service and have a bite of their chicken.

Professor **Purba Rao**, a Fellow in Management from the Indian Institute of Management, Calcutta, who teaches Advanced Topics in Marketing Research (among others) at the Asian Institute of

Management, talked about the widespread **applications of predictive modeling in marketing management**, such as in identifying customer segments with the highest future sales potential, who will be the most profitable customers, and those who are likely to purchase, again and who would spend the most. She identified three approaches in predictive modeling, namely: heuristic approach, statistical approach and data mining. She used very colorful predictive modeling examples culled from her work both in the Philippines and in India.



*Dr. Purba Rao shares quantitative methods in the area of Marketing*

It was a well-attended forum. The number of walk-in participants saw the organizers trying to fit in 20% more than the capacity of the Audio Visual Room. The three speakers gave the audience an OR tour, as it were, from banking and finance, to food service and on to beauty salons. ■



*Marlene Gutierrez tackles speed of service in her exposition on the Operations function*



*Delegate turn-out tests capacity limit of the NEC Auditorium*

## Christmas '07 ...

Everyone was in stitches with Bing's funny side comments. Clearly, ORSP members are very good with mathematical modelling but have a lot to learn about geography. The second game was a new one for this year – a flash card speed contest, again between UP and the Rest of the World. Each team lined up and the two people in front, one from each team, would try to shout the answer to the flash card ahead of his counterpart. Although relatively easy, the pressure of competition often got the better of normally very sharp and quick individuals as they stut-

tered or froze to problems such as  $125 \div 5$ ,  $13 \times 6$ ,  $22 - 9$ ,  $9 + 24$ , or  $51 \div 3$ . Each participant was given two "lives" and if they lost twice, they left the queue and the person behind him took his place. The game proceeded until no one was left from one side. The final game was "find the words within words" and for this game, it was boys vs. girls. Bing gave out 10-letter words and the challenge was for each team to alternately shout out a new word that was a subset of the original word. Among the words Bing gave out were – "remarkable",

"ridiculous", "subterfuge", "understand" and "refillable". Fittingly, the battle between the sexes ended in a tie. And everyone agreed that they were all mentally exhausted.

And as had been the tradition, the attendees used their mathematical prowess to guess the number of candy balls in the jar, with the closest guessers getting the raffle prizes. Before the group knew it, it was already 11 pm and as usual, it was another Christmas party that they would not forget too soon. ■

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# As ORSP marks 20th, IFORS turns 50

## ORSP joined IFORS in 1990, three years after its inception. What is IFORS?

The first International Federation of Operational Research Societies (IFORS) conference, held in Oxford in 1957, was considered by Maurice Kirby as the fifth defining moment in the history of OR. IFORS officially came into existence in January 1959.

### Membership

Within two years of the formation of IFORS, the three founding members, United States (ORSA), United Kingdom (ORS), and France (SOFRO), had been joined by a further seven national societies. Currently, 48 active member societies composed of 30,000 members, make up the IFORS family:

Year	National Society Joining	Year	National Society Joining	Year	National Society Joining
1959	France, UK, USA	1972	Korea	1986	Iceland
1960	Australia, Belgium, Canada, India, The Netherlands, Norway, Sweden	1973	South Africa	1988	Malaysia
1961	Japan	1975	Chile, Finland	1990	Philippines, Poland
1962	Argentina, Germany, Italy	1976	Egypt	1992	Hungary
1963	Denmark, Spain, Switzerland	1977	Turkey	1993	Bulgaria
1966	Greece, Ireland, Mexico	1978	Singapore	1994	Croatia, Czech Republic, Slovakia
1969	Brazil, Israel	1979	Austria	1998	Belarus
1970	New Zealand	1982	China, Portugal	2002	Bangladesh, Colombia, Lithuania
		1983	Hong Kong, Yugoslavia	2007	Slovenia

### IFORS Distinguished Lecture (IDL)

In 1999 IFORS established a special program, called IFORS Distinguished Lectures (IDL), to recognize distinguished OR scholars and analysts and support member societies and regional groupings. **It would be remembered that during the APORS conference in Manila in January 2006, the IDL was Dominique de Werra.**

### Regional Groupings

During the 6th IFORS Conference in Dublin in 1972, the idea of meeting more frequently for European operational research workers was put forward. In 1976, the Association of European Operational Research Societies within IFORS (EURO) was formally constituted. In 1982, the Association of Latin American OR Societies (ALIO) was established. In the succeeding period, IFORS gave its encouragement to the development of a grouping in the Asia-Pacific region, which came into being as the Association of Asian-Pacific OR Societies within IFORS (APORS) in 1985. When, in 1987, the IFORS constitution was changed, NORAM, the Association of North American OR Societies within IFORS, composed of the OR Societies in Canada and the USA, was created.

### Conferences

The table below lists all the conferences all over the world that have so far been held:

City	Country	City	Country	City	Country
1972	Dublin	1990	Athens	2008	Sandton
1969	Venice	1987	Buenos Aires	2005	Hawaii
1966	Boston	1984	Washington DC	2002	Edinburgh
1963	Oslo	1981	Hamburg	1999	Beijing
1960	Aix-en-Provence	1978	Toronto	1996	Vancouver
1957	Oxford	1975	Tokyo/Kyoto	1993	Lisbon

### Publications

The history of *International Abstracts in Operations Research* (IAOR) goes as far back as 1958 when Hugh Miser, then secretary of ORSA, proposed to Sir Charles Goodeve that one of the early items of IFORS business should be the possibility of funding and operating a journal that would bring all "unclassified" OR work to the attention of the worldwide OR community. At present, the IAOR is being restructured to be an online journal which also publishes a paper version.

From the first conference in 1957 up to the Athens Conference in 1990, a volume of *Conference Proceedings* was published. After the 1993 Lisbon conference, the first volume of the *International Transactions in Operational Research* (ITOR) was published.

The current editor of ITO is Carneiro Ribeiro from Brazil.

### Developing Countries

A significant turning point in putting OR for development on the IFORS agenda was the IFORS Conference held in Japan in 1975. This was followed by a call for action at the 1984 IFORS triennial conference in Washington. So far, workshops for teachers of OR in developing countries were held in Ahmedabad (1986), Bombay (1987), Kuala Lumpur (1988), Singapore (1989), and Jakarta (1990).

In December 1992, participants of the first International Conference on OR for Development (ICORD) held in Ahmedabad, India, came out with their recommendations on how OR could best be advanced in developing countries. Successor ICORDs were held in Rio de Janeiro (1996), Manila (1997), Berg-en-dal (2001), Jamshedpur (2005) and Fortaleza (2007). The IFORS Prize, awarded at every triennial conference,

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## ORSP Welcomes New Members

Two new members from the Academe were added to ORSP membership roster as of November 2007.

ORSP welcomes **Dr. Purba Rao**, a full Professor for Graduate School of Business at Asian Institute of Management. She is a balik-ORSP member, having been active back in the ORSP formative years. She gladly accepted the invitation to renew her membership during the forum at which she served as a resource speaker.

A warm welcome too for **Rey Bryan M. Cubero**, Instructor 2 for the Institute of Mathematical Sciences and Physics at the University of the Philippines-Los Baños. ■



Dr. Purba Rao



Rey Bryan Cubero

## Announcement July Technical Forum to focus on OR Education

The ORSP Board is laying out plans for the July technical forum to focus on OR Education. Workshops and talks will feature OR academicians and a balik-scientist as main speakers. The forum will be held at De LaSalle University. The ORSP office will send out the details by mid-June. ■



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