



IEOM Society International

August – Happenings

2019 Volume 4, Issue 4

Industry 4.0 and Engineering Education Speaker Opportunities for the Toronto Conference :

We are looking for speakers who can provide presentations on Industry 4.0, Internet of Things (IoT), artificial intelligence (AI), big data, iCloud, cybersecurity, modeling, simulation & visualization, industrial automation, integrated systems, manufacturing execution systems and related topics. If you are available to present on these topics, please provide a biography, photo (head shot) and the title of your presentation. The Society will include this information in the conference program. If you are unable to present, please consider recommending someone who may be available to speak.

NSF Student Travel Support Funding Now Available: to attend the 2019 IEOM North American Conference in Toronto, Canada, October 23-25. The National Science Foundation award supports conference registration, shared lodging and a portion of the travel expenses for graduate and undergraduate full-time students who are attending a United States college or university. Students may apply for funding by completing the application on the following link:

<http://ieomsociety.org/toronto2019/student-travel-support/>.

Congratulation to Professor Mbohwa

The IEOM Society congratulate - Prof. Charles Mbohwa for being appointed as a Pro-Vice Chancellor of the University of Zimbabwe. We are very proud of our distinguished member of the IEOM Global Council in receiving this recognition of professionalism. We wish Dr. Charles Mbohwa the best in his new position.

Rome Conference Planning Committee Meeting

The IEOM 2020 Rome Conference Preplanning Meeting was held on July 30. The 4th European Conference will be held on July 22-24, 2020. The venue is the Civil and Industrial Engineering College at, Sapienza - University of Rome, <http://www.ieomsociety.org/rome2020/>

Planning committee meeting participants: Dr. Patrick Dallasega (Free University of Bozen-Bolzano), Dr. Matteo Mario Savino (University of Sannio), Dr. Riccardo Patriara (Sapienza University of Rome), Dr. Mario Fagnoli (Italian Ministry of Agriculture and Sapienza University of Rome), Prof. Don Reimer (IEOM Society and Adjunct Prof. of LTU), Prof. Massimo Tronci (Sapienza - University of Rome), Prof. Mara Lombardi (Sapienza-University of Rome) and Dr. Ahad Ali (Lawrence Technological University, USA and IEOM Society)

Thank you Team Pilsen for hosting an outstanding European Conference

The Third European International Conference on Industrial Engineering and Operations Management (IEOM) in Pilsen, Czech Republic was held on July 23-25. This unique international conference provided the opportunity for academics, researchers, scientists and practitioners to exchange ideas to bridge the gap between the Industrial Engineering and Operations Management theory and its application to solve the most current problems and challenges faced by 21st century organizations. The event helped foster networking, collaboration and a joint effort among the conference participants to advance the theory and practice to identify major trends in Industrial

Engineering and Operations Management. The conference also provided the participants with an excellent opportunity to network with leading scholars and practitioners.

The Pilsen conference activities included the plant tours: BMW Plant, Regensburg, Germany, the Siemens Digital Factory Tour in Amberg, Germany and Skoda Transportation. These experiences provided an excellent opportunity to experience world class manufacturing at its best!

The IEOM Society Global Council would like to express our deep appreciation to Chair of the Organizing Committee Dr. Jiri Tupa, Vice Dean for Faculty Strategy and Development of Electrical Engineering of the University of West Bohemia, Czech Republic, Professor Jose Arturo Garza-Reyes, Conference Co-Chair, University of Derby, UK and Professor Vikas Kumar, Conference Co-Chair, University of the West of England, Bristol, UK for their dedication and commitment that made the Pilsen event an overwhelming success. Dr. Al and Professor Reimer would thank Dr. Tupa for his warm cordial hospitality during our visit to Pilsen.

Photos of the Pilsen Conference are available on the following link::

<https://photos.app.goo.gl/Q6z1gbJjt5ArT9PD9>

Join us in Toronto – it our next event!

4th North American IEOM Toronto Conference October 23-25, 2019

It will be at Holiday Inn Toronto International Airport. This event can be found on the following website: www.ieomsociety.org/toronto2019/. Keynote Speakers are:

- Jatin Nathwani, Ph.D., P.Eng, Professor and Ontario Research Chair in Public Policy for Sustainable Energy, Executive Director, Waterloo Institute for Sustainable Energy (WISE), Faculty of Engineering and Faculty of Environment, Fellow, Balsillie School of International Affairs (BSIA), University of Waterloo, Waterloo, Ontario, Canada
- Shalabh Bakshi, Director, Digital Enterprise and MindSphere, Digital Factory Division, Siemens Canada Limited, Oakville, Ontario, Canada
- Ahmad K. Elshennawy, Ph.D., Professor and Executive Director of The UCF Quality Institute, Department of Industrial Engineering and Management Systems, University of Central Florida (UCF), Orlando, Florida, USA
- Jeffrey Jones, Plant Manager, Etobicoke Casting Plant, Fiat Chrysler Automobiles, Ontario, Canada
- Dr. Gursel Suer, Professor, Industrial and Systems Engineering, Ohio University, Athens, Ohio, USA
- Andrew K.S. Jardine, PhD, P.Eng., CEng, FCAE, FIIE, FISEAM (Hon.), Professor Emeritus, Industrial Engineering, Department of Mechanical and industrial Engineering, Founding Director of the Centre for Maintenance Optimization & Reliability Engineering (C-MORE), University of Toronto, Canada
- Peter Merrill, President, Quest Management Inc., Canada
- Sean Congdon, Vice President of Manufacturing, Linamar Machining & Assembly Americas, Linamar Corporation, Guelph, Ontario, Canada
- Samir Elhedhli, PhD, P.Eng, Professor, Department of Management Sciences, Faculty of Engineering, University of Waterloo, Waterloo, Ontario, Canada
- Mr. Todd Deaville, Director of Engineering and R&D, Magna International Inc.
- Eric Ayanegui, CPMM, CRL, Director Operations Engineering, Cintas Corporation, Houston, Texas, USA

Lean Six-Sigma Green Belt Training Available at Toronto Conference

Lean Six-Sigma Green Belt Workshop at the 4th North American IEOM Toronto Conference, Friday, October 25, 2019, SPEAKER: Dr. Saso Krstovski, MBB, Lean Manufacturing Coach /Six Sigma

Master Black Belt, Van Dyke Transmission Plant Michigan, Ford Motor Company:
<http://ieomsociety.org/toronto2019/lean-six-sigma-workshop/>

STUDENT AND PROFESSIONAL CHAPTERS

What is happening in your chapter? Let us know and we will let others know in the IEOM Society community. Your chapter can share your story on: info@ieomsociety.org. If your university does not have an IEOM Society Student Chapter or an IEOM Professional chapter in your city, region or country its easy to complete the process on this link:: <http://ieomsociety.org/ieom/chapters/>.

Welcome to our newest IEOM Society Student Chapters

IEOM Student Chapter at Shipbuilding Institute of Polytechnic Surabaya, Indonesia:
<http://ieomsociety.org/ieom/ppns/>

IEOM Student Chapter at Bangladesh Institute of Management (BIM): is established -
<http://ieomsociety.org/ieom/bim/>

IEOM Student Chapter Activities

IEOM ZAG Student Chapter, Egypt has launched a new website. You are encouraged to check it out. <https://ieomzag.wixsite.com/home>

New University Partners –

The IEOM Society International is actively seeking universities to join our organization as a partner. If your university is not an IEOM Society University Partner, please consider doing so. The annual University Partner membership is \$1,000. As a member, your university logo will appear in all IEOM Society conferences programs including our annual, African, European, North American Asian, South American conferences. Other benefits of University Partners can be found on the IEOM Society website: <http://ieomsociety.org/ieom/university-members/>.

International Journal of Industrial Engineering & Operations Management (IJIEOM) –

The forthcoming Inaugural Issue of IJIEOM has been published and is available online: <http://www.ieomsociety.org/journals/issues/>. The IEOM Society would like to express our deep appreciation to the Editor of IJIEOM, Jose Arturo Garza-Reyes, Professor of Operations Management and Head of the Centre for Supply Chain Improvement at the College of Business, Law and Social Sciences, University of Derby, UK the Editorial Review Board and to the authors who have submitted their research papers to the IJIEOM for publication. Submissions are still open and we encourage you to complete your document and submit it as soon as possible.
<https://mc04.manuscriptcentral.com/ijieom>

Future IEOM Society Conference and Symposiums

1st GCC (Gulf Cooperation Council) IEOM Conference

Riyadh, Saudi Arabia, November 26-28, 2019

Venue: Prince Sultan University

Website: www.ieomsociety.org/gcc2019/

2nd International Conference – on Industrial and Mechanical Engineering and Operations Management

Dhaka, Bangladesh, December 12-13, 2019

Venue: Bangladesh Institute of Management (BIM)

<http://ieomsociety.org/ieom/imeom-2019/>

The Second South American IEOM Conference

Sao Paulo, Brazil, April 14-16, 2020

www.ieomsociety.org/brazil2020/

IEOM Lima Symposium on Industry 4.0, Logistics 4.0 and Lean Six Sigma

Lima, Peru, May 27-28, 2020

Venue: Pontifical Catholic University of Peru (PCUP), Lima

<http://ieomsociety.org/ieom/peru2020/>

Symposium Chair:

- Dr. Cesar Augusto Stoll Quevedo, Associate Professor, Department of Industrial Engineering, Pontificia Universidad Catolica Del Peru (PUCP), Lima
- Rafael Schermann, Country Manager, Peruvian German Technology, Lima, Peru and SIEMENS PLM Solutions Partner

Advisor

- Leonardo Wilinski, Siemens PLM Software, VP South America Channel, Siemens PLM Software

Partners and Sponsors

- Pontifical Catholic University of Peru, Lima
- Universidad Nacional de San Antonio Abad del Cusco) (UNSAAC)
- Siemens PLM

10th year celebration in Dubai – 10th Annual International Conference will be at the Hyatt Regency Dubai during March 10-12, 2020. ASQ Middle East Africa is a partner organization. Plan ahead for our 10th year celebration in Dubai – www.ieomsociety.org/ieom2020/.

4th European IEOM Conference - Rome, Italy, July 22-24, 2020

Venue: Faculty of Civil and Industrial Engineering, Sapienza – University of Rome

<http://ieomsociety.org/rome2020/>

Emirates Airlines Partnership

The IEOM Society is pleased to announce that Emirates Airlines is our partner for the Dubai 2020 Conference next March. This partnership provides an excellent opportunity for our participants to travel to Dubai. Our members are encouraged to take this advantage while flying to Dubai for IEOM 2020. Emirates has provided a special code our website.

3rd IEOM European Awards Recipients – Pilsen, Czech Republic, July 23-25, 2019**IEOM Leadership Award**

- Dr. Miroslav Holeček, Rector, The University of West Bohemia, Pilsen, Czech Republic

IEOM Distinguished Educator Awards

- Prof. Josef Basl, Department of Industrial Engineering and Management, Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Prof. Felicita Chromjakova, Professor, Department of Industrial Engineering and Information Systems, Tomas Bata University, Zlin, Czech Republic

IEOM Distinguished Industry Achievement Awards

- Dipl. Ing. Wolfgang Weissler, CEO Digital Factory & Process Industries and Drives, SIEMENS Czech Republic
- Petr Nekolný, VALEO, Nymburk, Czech Republic
- Roman Žák, Chairman of the Board, Aimtec, Pilsen, Czech Republic
- Tomáš Vondrák, Plant Manager, Continental, Czech Republic

- Christof Spiegel, Senior Vice President & General Manager at Eaton, Bonn, North Rhine-Westphalia, Germany
- Grant Liversage, Managing Director, Pilsen Urquell Brewery, Prague, Czech Republic

IEOM Outstanding Researcher Awards

- Dr. Jrjung Lyu, Professor, Department of Industrial Management Science, National Cheng Kung University, Tainan, Taiwan
- Dr. Sascha Gierlings, Leitender Wissenschaftler bei Fraunhofer-Institut für Produktionstechnologie IPT, Aachen, North Rhine-Westphalia, Germany
- Taesu Cheong, Associate Dean (Research), College of Engineering; Principal Professor, Department of Smart Manufacturing and Associate Professor, School of Industrial Management Engineering, Korea University, Seoul, South Korea

IEOM Young Researcher Award

- Dr. Antonio Sartal, Researcher (Operations Research and Management), University of Vigo, Spain

IEOM Woman in Industry and Academia Award

- Ing. Denisa Hrušecká, Ph.D., Head of Department, Department of Industrial Engineering and Information Systems, Faculty of Management and Economics, Tomas Bata University in Zlín, Czech Republic

IEOM Teaching Excellence Awards

- Dr. Josep Llach, Professor, Department of Business Administration and Product Design, University of Girona, Campus Montilivi, Girona, Spain
- Victor Gomez Frias, Profesor de Administración de Empresas and Director of International Master in Business and Public Policy (MIEPP), Universidad Politécnica de Madrid, Madrid, Spain
- Prof. Mauro Mancini, Associate Professor, Department of Management, Economics and Industrial Engineering, Politecnico di Milano, Italy

IEOM Global Engineering Education Awards

- Assoc. Prof. Milan Edl, Dean, Faculty of Mechanical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Dr. António Grilo, Associate Professor with Habilitation, Head of the Department of Mechanical and Industrial Engineering at FCT NOVA, Director of UNIDEMI and Director of the PhD Program in Industrial Engineering, UNIDEMI- Research Centre hosted by the Department of Mechanical and Industrial Engineering (DEMI), of NOVA School of Science and Technology of Lisbon Nova University, Campus da Caparica, Portugal

IEOM Distinguished Service Awards

- Dr. Jiří Tupa, Vice Dean for Strategy and Development, Faculty of Electrical Engineering, University of West Bohemia, Pilsen, Czech Republic
- Professor Jose Arturo Garza-Reyes, Ph.D., Professor of Operations Management, Head of the Centre for Supply Chain Improvement, College of Business, Law and Social Sciences, University of Derby, UK
- Dr. Vikas Kumar, Professor of Operations and Supply Chain Management, Director of Research and Scholarship, Bristol Business School, University of the West of England (UWE), Bristol, UK

IEOM Outstanding Service Award

- Ing. Tomas RERICHA Ph.D., University of West Bohemia, Pilsen, Czech Republic

IEOM Outstanding Student Leadership Awards

- Andrea Benesova
- David Fremr
- David Kalas
- Iveta Pangracova
- Jaroslav Hornak
- Jiri Hlina
- Jiri Navratil
- Karel Krupicka
- Martin Hirman
- Michal Svehla
- Pavel Stahl
- Tomas Rericha

UNDERGRADUATE STUDENT PAPER COMPETITION**1st Place:**

ID 004 Improving Forecasting Accuracy to reduce Variability of Customer Service Level
Bernardo Villarreal, Mónica Balderas, Andrea Araiza and Mariana Pena, Universidad de Monterrey, San Pedro Garza García, México.

2nd Place:

ID 007 Increase Plant Productivity Using an OEE Approach: An Application
Mariana Molina-Barrientos, Teresa Verduzco & Bernardo Villarreal, Departamento de Ingeniería Universidad de Monterrey, San Pedro Garza García, Nuevo León, México

UNDERGRADUATE RESEARCH COMPETITION**1st Place:**

ID 508 Design, Fabrication and Testing of a 3D Printer
Mohamad Hasan Bin Tasneem and Gamal Talal, Mechanical and Industrial Engineering Department, College of Engineering, Sultan Qaboos University, Sultanate of Oman

2nd Place:

ID 131 A Scalable Approach for Vehicle Routing Problem with Reinforcement Learning
C.Y. Lo and C.K. M. Lee, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University Hong Kong, China

3rd Place:

ID 127 Assessment of Wind Farm Allocation Criteria
Mawadda M. Samkari and Abdulaziz T. Almaktoom, Department of Operations and Information Management, Effat University, Kingdom of Saudi Arabia

GRADUATE STUDENT PAPER COMPETITION**1st Place:**

ID 531 Tools and Leadership Qualities for Change Implementation
Lukas Vaclavik, CPD & Strategic Management, College of Engineering and Technology, University of Derby, UK

2nd Place:

ID 486 Enhance the Thermal Properties of Poly-Propylene Polymer

Nawaf Almohamdi, Department of Mechanical Engineering Yanbu, Industrial College, Yanbu, Zip 46429, KSA

Ashraf M. Alghanmi, Mechanical and Industrial Engineering Department, Yanbu Industrial College, Yanbu, Saudi Arabia

MASTER THESIS COMPETITION

ID 303 A Study of Workforce Assignment Problem in Lean Factory on Machine Tool Industry

JrJung Lyu, Ching-Hsiang Tung and Chia-Wen Chen, Department of Industrial and Information Management, National Cheng Kung University, Tainan, Taiwan

SIMULATION COMPETITION

ID 211 Making the Profitability Paradox of Bad Banks: A System Dynamics Approach

Mahdi Bastan, Sareh Akbarpour and Alimohammad Ahmadvand, Department of Industrial Engineering, University of Eyvanekey, Garmsar, Iran

Hamed Shakouri G., School of Industrial Engineering, College of Engineering, University of Tehran, Tehran, Iran

UNDERGRADUATE POSTER COMPETITION**1st Place**

ID 421 Compressed Air Driven Car

Mohammed Saleh Alrashedi, Mohammad Tarahib Alharbi and Fahad Alhujaili, Department of Mechanical Engineering Technology, Yanbu Industrial College, Yanbu Al-Sinaiyah, Saudi Arabia

2nd Place

ID 508 Design, Fabrication and Testing of a 3D Printer

Mohamad Hasan Bin Tasneem and Gamal Talal, Mechanical and Industrial Engineering Department, College of Engineering, Sultan Qaboos University, Sultanate of Oman

3rd Place

ID 155 Balancing the Workmanship of a Production Line in the Manufacturing Industry of a Personal Care Product

Jackson Generoso, Milton Alexandre Ziehlsdorff and Paulo Henrique Gamba, Department of Production and Systems Engineering, Federal University of Santa Catarina, Brazil

POSTER COMPETITION**1st Place**

ID 231 A New Climate Indicator to Be Used in Prediction of Cooling Energy in Hot and Humid Regions

Mauricio Nath Lopes and Roberto Lamberts, Department of Refrigeration and Air Conditioning, Federal Institute of Santa Catarina (IFSC), São José, SC, Brazil

2nd Place

ID 230 Adoption of Product-Service System and the Potential as a Sustainable Solution: A Literature View in the Fashion Industry

Pedro Seolin dos Santos, Lucila M. S. Campos and Paulo Augusto Cauchick Miguel, Department of Production Engineering and Systems, Federal University of Santa Catarina – UFSC, Florianopolis – SC, Brazil

2nd Place

ID 120 A Review Paper on Algorithms Used For Simple Assembly Line Balancing Problems in the Automotive Industry

Salah Eddine Ayoub El Ahmadi, Laila El Abbadi and Moulay Taib Belghiti, National School of Applied Sciences, Ibn Tofail University, Kenitra, Morocco

3rd Place

ID 304 Process View on E-Health with Risk Analysis

Michal Švehla and Jiří Tupa, Department of Technologies and Measurement, Regional Innovation Centre for Electrical Engineering (RICE), Faculty of Electrical Engineering, University of West Bohemia

3rd Place

ID 359 Determination of Changes Between Lean Management and Lean 4.0

Andrea Benesova and Jiri Tupa, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Univerzitiní 2732/8, 301 00 Pilsen, Czech Republic

BEST TRACK PAPERS AWARDS – PART I

Big Data

ID 332 Classifying Colon Cancer Tissues Using Probabilistic Principle Components Analysis with the Consistent Information Complexity (CICOMP) in Logistic Regression

Abdulaziz Saud Alkabaa, Department of Industrial Engineering, King Abdulaziz University, Jeddah, Saudi Arabia

Business Management

ID 334 A Method to Measure Logistic Interoperability using Structural Equation Modelling
Sandro Breval Santiago, Department of Administration and Management, Federal University of Amazonas, Manaus, Amazonas, Brazil

Fabiana Lucena de Oliveira, Department of Economics, State University of Amazonas, Manaus, Amazonas, Brazil

Carlos Manoel Taboada Rodriguez, Department of Production and Systems Engineering, Federal of University of Santa Catarina, Florianópolis, Santa Catarina, Brazil

Ileana G. Pérez Vergara, Group Director of New Technologies Research Labor and Management, Universidad San Buenaventura Cali, Cali, Colombia

Decision Science

ID 84 Modelling Interdependencies of Electrical Power Infrastructure by Using ISM-MICMAC Analysis

Hassan Al-Zarooni, University of Sharjah, United Arab Emirates

Hamdi Bashir, University of Sharjah, United Arab Emirates

Energy and Resource Efficiency

ID 68 Application of Multilayer Perceptron Neural Network Model for Predicting Industrial Sector's Energy Consumption

Oludolapo Olanrewaju, Durban University of Technology, Durban, South Africa

Engineering Education

ID 343 Development of Industry 4.0 Virtual Lab for Manufacturing Engineering Education
Kapil Gupta, M Mukhawana and Madindwa Mashinini, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, Johannesburg, South Africa
Arno Louw, Centre for Academic Technologies, University of Johannesburg, Johannesburg, South Africa

Facility Planning

ID 472 Modelling and Mapping University Business Process
Bachtiar H. Simamora, Leader Performance Excellence Research Group, Bina Nusantara University, Indonesia
Natalia Sonata, Bina Nusantara University, Indonesia

Information Technologies

ID 239 Augmented Reality in Industrial Applications: Technologies and Challenges
Adriana Carvalho, Fernando Charrua-Santos and Tânia M. Lima, C-MAST – Center for Mechanical and Aerospace Science and Technologies, University of Beira Interior, UBI, Covilhã, Portugal

Inventory Technology

ID 345 The Inventory Control Analysis of Head Truck Spare Parts with Continuous Review Policy in Container Terminal Company
Yugowati Praharsi and Eko Julianto, Shipbuilding Institute of Polytechnic Surabaya, Surabaya, Indonesia
Hui-Ming Wee, Department of Industrial and System Engineering, Chung Yuan Christian University, Taiwan

Knowledge Management

ID 125 Testing the Effect of Knowledge Management Capabilities on Service Quality
Ahmed M. Attia, OPIM Department, Effat University, Jeddah, KSA
Alaa M. Zibar, OPIM Department, Effat University, Jeddah, KSA

ID 235 Digitalization in Industry 4.0, Knowledge Management

Jiří Mouček, Department of Technologies and Measurement, Faculty of Electrical Engineering, University of West Bohemia, Pilsen, Czech Republic

Professor Donald M. Reimer

Editor - The IEOM Society Newsletter/Happenings

&

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