4th South American Conference on Industrial Engineering and Operations Management

Lima, Peru

Host Universities

JW Marriott Lima

May 8-11, 2023
Welcome to the 4th South American Conference on Industrial Engineering and Operations Management in Lima, Peru

To All-Conference Attendees:

On behalf of the IEOM Society International, we would like to welcome you to the 4th South American International Conference on Industrial Engineering and Operations Management, May 8-11, 2023, hosted by Universidad Ricardo Palma, Universidad Nacional de Ingeniería (UNI) and Pontificia Universidad Católica del Perú (PUCP). The venue is JW Marriott Hotel Lima. This unique international conference provides a forum for academics, researchers, and practitioners from many industries to exchange ideas and share recent developments in the fields of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. There were more than 200 papers/abstracts submitted from 34 countries. After a thorough peer-review process, more than 150 have been accepted for presentation and publication. The program includes many cutting-edge topics in industrial engineering and operations management.

This conference will address many of the issues concerning the continuous improvement of quality and service. The IEOM Society is delighted to have the following keynote speakers at the 4th South American Conference:

1. Dr. Elio Iván Rodríguez Chávez, Rector, Universidad Ricardo Palma
2. Dr. Wester Zela, Professor and Director of the UNI AI Laboratory, National University of Engineering (UNI), Lima, Peru
3. Dr. Ivan Gariay, Associate Professor, Industrial Engineering and Management Systems, University of Central Florida
5. Dr. Domingo González, Vice President for Administration at Pontificia Universidad Católica del Perú (PUCP)
6. Eduardo Herrera, CEO, Celepsa, Lima, Peru
7. George Reinoso Vasquez, Plant Optimization Manager – Peru Plant, Goodyear Tire & Rubber Company, Callao, Peru
8. Dr. Tania Cristina D'Agostini Bueno, CEO, Instituto de Governo Eletrônico, Inteligências e Sistemas – i3G, Brazil
9. Carolina Carbone Moane, Client Experience Manager, Mibanco, Peru
10. Alberto Valle, Country Business Unit Manager – Factory Automation, Siemens, Lima, Peru
11. Ing. Esp. Roberto Giordano, Decano de la facultad de ingeniería, Universidad de FASTA, Argentina
12. Dr. Miguel Ángel Gómez Martínez, Departamento de ingeniería, Universidad de Guanajuato, Guanajuato, Mexico
13. Luis Felipe Turbides, Director of IT, Optimization and Projects, DP World Callao, Peru
14. Professor Edward J. Williams, Educator at University of Michigan – Dearborn and Senior Technical Specialist at PMC
15. Dr. Neyara Radwan, Associate Professor, Mechanical Engineering, Faculty of Engineering, Suez Canal University, Egypt & Associate Professor & the Quality Assurance Officer for the PhD program, King Abdulaziz University, Saudi Arabia
16. Professor Eldon G. Caldwell Marin, Professor, Industrial Engineering Department, University of Costa Rica

At this conference, the IEOM Society will hold its Global Engineering Education session. It will feature distinguished speakers who will discuss workforce readiness and engineering education challenges and opportunities. The IEOM Industry Solutions will showcase will also be held and feature major topics including IoT, AI, data analytics, iCloud, cybersecurity, automation, digital manufacturing, and industry best practices. The IEOM Global Supply Chain and Logistics will address the global logistic challenges due to the pandemic. Panel sessions have been planned: Global Engineering Education, Supply Chain, Women in Industry and Academia, Lean Six Sigma and Diversity & Inclusion sponsored by Ford Motor Company.

The IEOM Society would like to express our deep appreciation to our sponsors, university partners, organization partners, exhibitors, authors, reviewers, keynote speakers, panelists, track chairs, advisors, the local committee, and the many volunteers who have given so much of their time and talent to make this unique international conference an overwhelming success.

Our conference host, URP, UNI and PUCP, would like to extend a warm welcome to all participants.

Our very best wishes to all of you for a successful and memorable event.
### Organizing Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Dr. Lauro Enciso</td>
<td>Professor</td>
<td>Universidad Nacional de San Antonio Abad del Cusco</td>
<td>Cusco, Perú</td>
</tr>
<tr>
<td>Juan Carlos Quiroz-Flores</td>
<td>Research Professor / Administrative coordinator</td>
<td>Universidad Peruana de Ciencias Aplicadas (UPC)</td>
<td>Lima, Peru</td>
</tr>
<tr>
<td>Claudia León Chávarri</td>
<td>Full Time Professor</td>
<td>Universidad Peruana de Ciencias Aplicadas (UPC)</td>
<td>Surco, Peru</td>
</tr>
<tr>
<td>Franklin Cordova-Buiza</td>
<td>Research Professor</td>
<td>Universidad Privada del Norte (UPN)</td>
<td>Lima, Peru</td>
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<tr>
<td>Elena Espinoza Ríos</td>
<td>Facultad de Ingeniería Arquitectura</td>
<td>Universidad Continental, Universidad Continental</td>
<td>Peru</td>
</tr>
<tr>
<td>Dr. Carlos Raymundo</td>
<td>Research Professor / Administrative coordinator</td>
<td>Universidad Peruana de Ciencias Aplicadas (UPC)</td>
<td>Lima, Peru</td>
</tr>
<tr>
<td>Dr. José Antonio Larco</td>
<td>Director – Ingeniería Industrial</td>
<td>Universidad de Ingeniería y Tecnología – UTEC</td>
<td>Lima, Peru</td>
</tr>
<tr>
<td>Hugo Chacón Moscoso</td>
<td>Director de la Escuela Profesional de Ingeniería</td>
<td>Universidad de San Martín de Porres</td>
<td>Peru, Lima</td>
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### Hosts

- Pontificia Universidad Católica del Perú
- Universidad de Ingeniería y Tecnología – UTEC
- Universidad Continental
- Universidad Nacional de San Antonio Abad del Cusco
- Universidad Peruana de Ciencias Aplicadas (UPC)
- Universidad Privada del Norte (UPN)

### Partner Universities

- UTEC
- UPC Universidad Peruana de Ciencias Aplicadas
- Universidad Continental
- USMP
- UNSAAC
Conference Overall Program

All Times are Peru Time

Monday, May 8, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 1 - Virtual</th>
<th>Room 2 - Virtual</th>
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<th>Room 5 - Virtual</th>
<th>Room 6 - Virtual</th>
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<tbody>
<tr>
<td>8:00 am</td>
<td>Undergraduate Student Paper Competition</td>
<td>Competitions (FYP, Simu, HF, Poster)</td>
<td>Competitions (HS, Grad Paper)</td>
<td>Engineering Management</td>
<td>IoT and II</td>
<td>Case Studies</td>
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<tr>
<td>10:00 am</td>
<td>Supply Chain and Logistics Competition</td>
<td>Supply Chain Management</td>
<td>Lean Six Sigma Manufacturing</td>
<td>Industry 4.0</td>
<td>Case Studies</td>
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<tr>
<td>12:00 pm</td>
<td>Online Keynote I: Professor Edward J. Williams, Educator at University of Michigan – Dearborn, Statistics/Simulation Consultant and Senior Technical Specialist at PMC, Dearborn, Michigan, USA – Room 1</td>
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<tr>
<td>12:40 pm</td>
<td>Online Keynote II: Dr. Neyara Radwan, Associate Professor, Mechanical Engineering, Faculty of Engineering, Suez Canal University, Egypt &amp; Associate Professor &amp; the Quality Assurance Officer for the PhD program, King Abdulaziz University, Saudi Arabia – Room 1</td>
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<td>1:20 pm</td>
<td>Online Keynote III: Professor Eldon G. Caldwell Mann, Professor, Industrial Engineering Department, University of Costa Rica – Room 1</td>
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<td>2:00 pm</td>
<td>Reliability Competition – Room 1</td>
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<td>4:00 pm</td>
<td>Six Sigma Competition – Room 1</td>
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<td>6:00 pm</td>
<td>Production Planning and Control Competition – Room 1</td>
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Tuesday, May 9, 2023

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<tr>
<th>Time</th>
<th>Room 1 - Ballroom at JW Marriott Hotel</th>
<th>Room 2 Onsite</th>
<th>Room 3 Onsite</th>
<th>Room 4 Onsite</th>
<th>Room 5 Virtual</th>
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</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Strategies for Writing &amp; Publishing Research Articles Workshop</td>
<td>Industry 4.0 Panel</td>
<td>Global Engineering Education I - Plenary</td>
<td>Undergraduate Student Paper Competition</td>
<td>Optimization</td>
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<tr>
<td>10:00</td>
<td>Welcome Address – Dr. Elio Iván Rodríguez Chávez, Rector, Universidad Ricardo Palma - Ballroom at JW Marriott Hotel</td>
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<tr>
<td>10:20</td>
<td>Keynote I: Dr. Wester Zela, Professor in undergraduate and postgraduate programs, Director of the UNI AI Laboratory, National University of Engineering (UNI), Lima, Peru</td>
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<tr>
<td>11:00</td>
<td>Keynote II: Ivan Garibay, Associate Professor, Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA - Director, UCF Artificial Intelligence and Big Data Initiative and Director, Master of Science in Data Analytics</td>
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<td>12:20</td>
<td>Keynote IV: Dr. Domingo González, Vice President for Administration, Professor of Engineering Department, Pontificia Universidad Católica del Perú (PUCP), Lima, Peru</td>
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<td>1:00</td>
<td>Lunch Break</td>
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<tr>
<td>2:00</td>
<td>Six Sigma Certification Workshop</td>
<td>Lean Six Sigma Panel</td>
<td>Global Business Management I – Plenary</td>
<td>Competitions (Undergrad Research, SCM and Simulation)</td>
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<tr>
<td>4:00</td>
<td>Women in Industry and Academia (WIA) Panel</td>
<td>Global Business Management II – Plenary</td>
<td>Competitions (MS Thesis, LSS, Grad Paper)</td>
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Wednesday, May 10, 2023

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<th>Time</th>
<th>Room 1 – Ballroom at JW Marriott Hotel</th>
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<th>Room 5 Online</th>
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<tr>
<td>8:00</td>
<td>Resume Writing &amp; Career Planning Workshop</td>
<td>Project Management Panel</td>
<td>SCM and Operations Research</td>
<td>Global Data Analytics I - Plenary</td>
<td>Applied Statistics</td>
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<tr>
<td>10:00</td>
<td>Conference Chair Remarks</td>
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<td>10:20</td>
<td>Keynote V: Eduardo Herrera, CEO,Celepsa, Lima, Peru</td>
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<tr>
<td>11:00</td>
<td>Keynote VI: George Reinoso Vasquez. Plant Optimization Manager – Peru Plant, The Goodyear Tire &amp; Rubber Company, Callao, Peru</td>
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<td>11:40</td>
<td>Keynote VII: Tania Cristina D’Agostino Bueno, CEO, Instituto de Gobierno Electrónico, Inteligencias e Sistemas – I3G, Florianópolis, Santa Catarina, Brazil</td>
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<tr>
<td>12:20</td>
<td>Keynote VIII: Carolina Carbone Moane, Client Experience Manager, Mibanco, Peru</td>
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<td>1:00</td>
<td>Lunch Break</td>
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<td>2:00</td>
<td>Toyota Kata Workshop</td>
<td>Data Science Panel</td>
<td>Industry Solutions and Industry 4.0 I - Plenary</td>
<td>Global Data Analytics I - Plenary</td>
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<td>4:00</td>
<td>The Secret Sauce for Toyota Production System</td>
<td>Global Engineering Education Panel</td>
<td>Industry Solutions and Industry 4.0 II - Plenary</td>
<td>Global Data Analytics I - Plenary</td>
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<td>6:00</td>
<td>Diversity and Inclusion Panel sponsored by Ford Motor Company</td>
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Thursday, May 11, 2023

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<th>Room 1 – Ballroom Onsite at JW Marriott Hotel</th>
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<th>Room 5 Online</th>
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<tr>
<td>8:00</td>
<td>Project Management Workshop: Leading with Emotional Intelligence</td>
<td>Optimization</td>
<td>Global Supply Chain and Logistics I - Plenary</td>
<td>Lean Six Sigma I - Plenary</td>
<td>HF and Healthcare</td>
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<td>10:00</td>
<td>Conference Chair Remarks</td>
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<td>11:00</td>
<td>Keynote X: Esp. Roberto Giordano, Decano de la facultad de ingeniería, Universidad de FASTA, Argentina</td>
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<td>11:40</td>
<td>Keynote XI: Miguel Ángel Gómez Martínez, Departamento de ingeniería, Universidad de Guanajuato, Guanajuato, Mexico</td>
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<td>12:20</td>
<td>Keynote XII: Luis Felipe Turbides, Director of IT, Optimization and Projects, DP World Callao, Peru</td>
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<td>1:00</td>
<td>Lunch Break</td>
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<tr>
<td>2:00</td>
<td>Innovation and Entrepreneurship Workshop</td>
<td>Supply Chain and Logistics Panel</td>
<td>Six Sigma and AI</td>
<td>Lean Six Sigma II - Plenary</td>
<td>Engineering Education</td>
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<tr>
<td>4:00</td>
<td>Technical Presentations</td>
<td>Global Supply Chain and Logistics II - Plenary</td>
<td>Lean Six Sigma II - Plenary</td>
<td>Operations Management</td>
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Awards Ceremony and Dinner Buffet
7:00 – 10:00 pm, May 11, 2023 – JW Marriott Hotel Lima
Keynote Speakers
Tuesday, May 9, 2023

Conference Welcome and Opening: Tuesday, May 9, 2023, 10:00 – 10:20 am

Dr. Elio Iván Rodríguez Chávez
Rector
Universidad Ricardo Palma
Lima, Peru

Keynote I (Day 1 Opening): Tuesday, May 9, 2023, 10:20 – 11:00 am

Dr. Wester Zela
Professor in undergraduate and postgraduate programs
Director of the UNI AI Laboratory
National University of Engineering (UNI)
Lima, Peru

Wester Zela is Professor at the National University of Engineering (UNI) in undergraduate and postgraduate programs and Director of the UNI AI Laboratory. He graduated from UNI as an Systems Engineering, holds a Master in Financial and Economic Analysis from the Complutence (Spain) and Master in Software Engineering from the University of Oxford (UK), and a PhD in Computer Science – Artificial Intelligence from the Polytechnic University of Madrid (Spain), and He holds a certification in Ignite Full Time program at Stanford University (USA). Dr. Zela is a Senior Executive with more than 22 years of experience in Digital Transformation, leading various companies in several countries (Peru and Europe) working in various markets and industries, such as Consulting, Banking, Telecommunications, Education and pharmaceuticals. Dr. Zela was Artificial Intelligence and Data consultant at the PCM (Peru), he led the creation of the National AI strategy. Dr. Zela belongs to AI connect programs a group of AI experts around the world organized by Atlantic Council and US Department. Dr. Zela is a CEO and Founder of Troomes.com.

Keynote II: Tuesday, May 9, 2023, 11:00 – 11:40 am

Dr. Ivan Garibay
Associate Professor, Industrial Engineering and Management Systems
University of Central Florida, Orlando, Florida, USA
Director, UCF Artificial Intelligence and Big Data Initiative
Director, Master of Science Program in Data Analytics

Dr. Ivan Garibay is an Associate Professor at the Department of Industrial Engineering and Management Systems, University of Central Florida. He is the Director of UCF Artificial Intelligence and Big Data Initiative, Director of Master of Science Program in Data Analytics, and the Director of the Complex Adaptive Systems Laboratory. He is also the Founding Director of the UCF I-Corps program. His interests lie in studying complex socio-technical systems such as social media and artificial social intelligence. He received Ph.D. in Computer Science and M.S. in Computer Science from University of Central Florida, P.E. in Electronic Engineering (Titulo Professional) and B.S. in Electronic Engineering from Ricardo Palma University, Peru.

Keynote III: Tuesday, May 9, 2023, 11:40 am – 12:20 pm

Bernardo Rubinstein
Partner
McKinsey & Company
Peru

Bernardo leads McKinsey’s Heavy Industries Practice in Latin America. He spends most of his time helping clients transform themselves so they can produce more output, at a lower cost in a sustainable way. Bernardo graduated as a Production Engineer from the Universidad Simón Bolívar in Caracas, Venezuela, and holds an MBA from the Massachusetts Institute of Technology’s Sloan School of Management.
Keynote IV: Tuesday, May 9, 2023, 12:20 – 1:00 pm

**Dr. Domingo González**
Vice President for Administration
Professor of Engineering Department
Pontificia Universidad Católica del Perú (PUCP), Lima, Peru

Professor of Engineering Department of the Pontificia Universidad Católica del Perú (PUCP). Industrial Engineer from PUCP, Master and Doctor in Industrial Engineering from Pontifical Catholic University of Rio de Janeiro. He was Director of the Center for Development and Innovation of PUCP. He was president and founder of Peruvian Association of Incubators (PERUINCUBA). He was former Head of Engineering Department of PUCP and president of the Latin American Association for Technology Management (ALTEC). His current research interests are innovation and operations management, interorganizational planning, innovation, and entrepreneurial systems. He is Vice President for Administration at PUCP.

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**Wednesday, May 10, 2023**

Keynote V: Wednesday, May 10, 2023, 10:20 – 11:00 am

**Eduardo Herrera**
CEO
Celepsa
Lima, Peru

Eduardo Herrera is the CEO of Celepsa, a Peruvian company dedicated to power generation, a hydroelectric company of the UNACEM group, committed to accelerate the decarbonization of Peru, aligned to the SDGs. Celepsa has sustainable DNA, so they not only produce 100% renewable energy, but they also work in the development of the communities in the zone of influence.

Eduardo has vast experience leading companies in the construction, banking, and finance sectors. He is a member of L+1, a network of business and institutional leaders that drives sustainable development, inspiring its transformation as agents of change; and REF, an international Organization of best-in-class Business Leader. He is an Industrial Engineer from PUCP and has a master's degree in finance from London Business School.

Keynote VI: Wednesday, May 10, 2023, 11:00 – 11:40 am

**George Reinoso Vasquez**
Plant Optimization Manager – Peru Plant
The Goodyear Tire & Rubber Company
Callao, Peru

Keynote Title: “Operational Excellence as an axis for Sustainable Development”
Main objective: To show how the application of the Operational Excellence methodology help to achieve the Sustainable Development Goals (SDGs) from the industry approach and contribution to society

Chemical Engineer from the National Engineering University (UNI), with a Master’s degree in Industrial Engineering with a mention in Operations Management from the Graduate School of the Pontifical Catholic University of Peru (PUCP), Doctoral student in Business Administration from the School of Business from the Pontifical Catholic University of Peru (CENTRUM PUCP). Member of the College of Engineers of Peru (CIP163165) and current Secretary of the Chemical Engineering Chapter – College of Engineers of Peru. With more than 13 years of experience in the tire industry, he has developed in the areas of Quality, New Product Development, Lead Auditor in ISO standards for Quality, Environment. Production Specialist, Manufacturing Team Leader and currently Plant Optimization Manager where he develops the Operational Excellence methodology at the Goodyear Peru Company. He also works as a part-time Professor for the School of Industrial Engineering at Cesar Vallejo University.

Keynote VII: Wednesday, May 10, 2023, 11:40 – 12:20 pm

**Dr. Tania Cristina D’Agostini Bueno**
CEO, Instituto de Governo Eletrônico, Inteligências e Sistemas – i3G
Florianópolis, Santa Catarina, Brazil

Tania Cristina D’Agostini Bueno is First Vice President & Treasurer 2017-2019 of IFEES. She is Director of Technology for MR Predictions S.A., President of the Institute for Electronic Government and Intelligence and Systems – i3G, and Founding Member. Tania received a nomination to “Who’s Who in Science and Engineering 2008-2009” and “Who’s Who in the World 2007.” She completed her PhD and Master’s degree in Production Engineering from Federal University of Santa Catarina in 2005 and 1999. In 2008, she did a specialization in Software Engineering with UML, in Senai/CTAI, Florianópolis/SC. She coordinated many projects, some of them international: Ontolegis, Onjtouris, TECLIN (UNESCO Chair), and MGov2. Tania has published 93 papers in conference proceedings, has written nine book chapters and has published two books. She participated in the development of 10 software products (five are patented and two are in the registration process), two processes or techniques, and 31 other items of production technique. She has participated in 18 research projects and coordinated six of them.
Keynote VIII: Wednesday, May 10, 2023, 12:20 – 1:00 pm

Carolina Carbone Moane
Client Experience Manager
Mibanco
Peru

Carolina Carbone is Client Experience Manager at Mibanco, the bank specialized in microfinance of Credicorp Group, with the purpose of transforming the lives of Peruvian entrepreneurs through financial inclusion, empowering them and accompanying them in their path of progress. She has more than 12 years of experience in consulting, digital product development and customer experience (CX). She has a bachelor degree in economics from Universidad del Pacifico and an MBA from IESE Business School.

Thursday, May 11, 2023

Keynote IX (Day 3 Opening): Thursday, May 11, 2023, 10:20 – 11:00 am

Alberto Valle
Country Business Unit Manager – Factory Automation
Siemens, Lima, Peru

Graduate of the Executive Master's Degree in Marketing and Sales from ESADE Barcelona Business School, Spain. He has developed successful business plans for technology firms and has collaborated with their positioning in the country through a disruptive value proposition oriented to the user experience. In addition, he has been trained abroad by American and European companies that have contributed to his education and knowledge of best practices in these regions. He has completed several studies among which stand out: Higher Program on Internet of Things and Industry 4.0 at the Institute of Digital Economy of ESIC Business & Marketing School in Madrid, Spain, International Sales PADE at ESAN Business School, Master's Degree in Control and Automation Engineering at the Pontificia Universidad Católica del Perú; as well as various trainings given by major technology manufacturers. He has developed professionally in Peruvian companies specializing in sales, marketing and innovation. He is currently responsible for the Factory Automation Business Unit for Siemens Peru and Bolivia and also leads the global Digital Enterprise initiative for both countries. Its collaboration with educational institutions for transfer of technological know-how is constant, as it is part of the objectives it has with society. He is currently developing Digitalization and Industry 4.0 projects in the industrial sector and advising companies on these technological changes and how they can take advantage of technology for the success of their business.

Keynote X: Thursday, May 11, 2023, 11:00 – 11:40 am

Ing. Esp. Roberto Giordano
Decano de la facultad de ingenieria
Universidad de FASTA, Argentina

Systems Engineer from the National University of the Center of the Province of Buenos Aires. Specialist in Technology and Innovation Management from the National University of Mar del Plata. Doctoral student in Science and Technology from the National University of Cuyo. Dean and Full Professor of the Faculty of Engineering of the FASTA University, undergraduate and postgraduate, and Adjunct Professor of the Faculty of Engineering of the National University of Mar del Plata, undergraduate. Researcher at the Forensic Computer Technology Research and Development Laboratory, Attorney of the Supreme Court of Justice of the Province of Buenos Aires, FASTA University and General Pueyrredon Municipality. He has more than 100 papers published in scientific journals, journals and reports from scientific societies, proceedings and proceedings of national and international conferences in 13 countries; especially, in the field of Engineering Education, Technological Development and Innovation, Computer Forensics, and Infections Associated with Health Care. He has been an exhibitor of technical papers and a guest speaker at more than 150 national and international conferences. He has chaired and participated in juries and thesis committees and undergraduate and postgraduate projects and academic-scientific committees of national and international congresses and forums. He has obtained 24 national and international awards and recognitions; among them, the Ibero-American Academic Merit Distinction of the Ibero-American Association of Engineering Teaching Institutions ASIBEI (Jamaica, July 2019) and the Latin American Academic Merit Medal of the Latin American and Caribbean Consortium of Engineering Institutions LACCEI (Buenos Aires, July 2020) He was Founding President of the Ibero-American Network of Universities and Institutes with Research in Law and Informatics – CIIDDI Network, Founding Member of the University Network of Embedded Systems – RUSE, Founding Member of the University Network of Forensic Informatics – UNIF Network, Founding Member of the Association of Information Technology and Communication of Mar del Plata – ATICMA, Founding Member of the Matilda Latin American Open Chair and Women in Engineering and Founding Director of the Argentine Magazine of Engineering – RADI.
Dr. Miguel Ángel Gómez Martínez  
*Departamento de ingeniería*  
*Universidad de Guanajuato*  
Guanajuato, Mexico

Dr. Miguel Ángel Gómez Mtz. Born in Salamanca Gto., He graduated as an Electrical Engineer from the Faculty of Mechanical, Electrical and Electronic Engineering (FIMEE) of the University of Gto in 1998. He obtained a Master’s degree in Sciences from the Technological Institute of Morelia in the area of electrical systems. in 2001, and the degree of Doctor of Science in Electrical Engineering at the Universidad Michoacana de San Nicolás de Hidalgo in 2006. His areas of interest are: The stability and simulation of Highly Non-linear systems applying the theory of bifurcations and chaotic processes., Analysis and design of Renewable Electric Energy Sources, Optimization of industrial processes and Energy quality. He has also collaborated as a professor and researcher at the Morelia Technological Institute (ITM), at the Center for Professional Studies of Salamanca (CEPSA), at the Universidad Michoacana de San Nicolás de Hidalgo (UMSNH), at the Superior Technological Institute of the South (ITSUR), at the internationally, he is a member of the IEEE since 2002 and is a member of the SIN (National System of Researchers) level I Reparaciones Industriales de Salamanca (RIDESA) S.A. De C.V. He also has several publications in journals and conferences both nationally and internationally, he is a member of the IEEE since 2002 and is a member of the SIN (National System of Researchers) level I.

Luis Felipe Turbides  
*Director of IT, Optimization and Projects*  
*DP World Callao, Peru*

Luis F. Turbides is a Systems Engineer from the Pontificia Universidad Catolica Madre y Maestra (PUCMM) of the Dominican Republic. He also holds an MBA in International Business from Long Island University in USA and is currently enrolled in the MBA in Business Intelligence and Data Analytics of the Universidad del Pacifico in Peru. He has been in the Port Operations business for over 25 years and more than 20 years with DP World. He has held various positions in the Operations area in Dominican Republic, Peru, Brasil and United Kingdom. Currently Luis is responsible for the Information Technology Department of DP World Peru, The “Muelle Bicentenario” implementation (the expansion project of the Terminal Sur of the Callao Port) and the optimization of processes and synergies between DP World Callao and DP World Logistics in Peru.

Professor Edward J. Williams  
*Educator at University of Michigan – Dearborn*  
*Statistics/Simulation Consultant and Senior Technical Specialist at PMC*  
Dearborn, Michigan, USA

Edward J. Williams holds a master’s degree in mathematics (University of Wisconsin, 1968). From 1969 to 1971, he did statistical programming and analysis of biomedical data at Walter Reed Army Hospital, Washington, D.C. He joined Ford Motor Company in 1972, where he worked until retirement in December 2001 as a computer software analyst supporting statistical and simulation software. After retirement from Ford, he joined PMC, Dearborn, Michigan, as a senior simulation analyst. Also, since 1980, he has taught classes at the University of Michigan, including both undergraduate and graduate simulation classes. He is a member of the Institute of Industrial Engineers (IIE), the Society for Computer Simulation International (SCS), and the Michigan Simulation Users Group (MSUG). During the last several years, he has given invited plenary addresses on simulation and statistics at conferences in Monterrey, México; Istanbul, Turkey; Genova, Italy; Rīga, Latvia; and Jyväskylä, Finland. He served as a co-editor of Proceedings of the International Workshop on Harbour, Maritime and Multimodal Logistics Modelling & Simulation (2003), a conference held in Rīga, Latvia. Likewise, he served the Summer Computer Simulation Conferences of 2004, 2005, and 2006 as Proceedings co-editor. He was the Simulation Applications track coordinator for the 2011 Winter Simulation Conference. A paper he co-authored with three of his simulation students won “best paper in track” award at the Fifth International Conference on Industrial Engineering and Operations Management, held in Dubai, United Arab Emirates, in March 2015. The last several years he has served as co-chair of the Vendor Track at the Winter Simulation Conference.
Online Keynote II

Monday, May 8, 12:40 – 1:20 pm – Virtual Room 1

Dr. Neyara Radwan
Associate Professor, Mechanical Engineering, Faculty of Engineering
Suez Canal University, Egypt
&
Associate Professor & the Quality Assurance Officer for the PhD program
King Abdulaziz University, Saudi Arabia

Dr. NeyaraRadwan is working as an associate professor in two universities in two different countries Egypt & Saudi Arabia. Beside her academic tasks, she worked with many Quality Accreditation bodies such as; ABET, AMBA, AACSB. She was the Quality Assurance Officer for the Master program in King Abdulaziz University from 2017 – 2019. Now, she is the Quality assurance officer for the Ph.D. program from 2019 till now. Dr. Neyara has many international projects contribution and published many papers in high notched journals. Moreover, she is serving as an editorial board member in many international journals. She also serving as a reviewer in many outstanding international journals. She is an international speaker. She participated as a Keynote Speaker as well as a session chairperson in more than 60 international conferences/workshops/Webinars all over the world. Dr. Neyara is an active member in many international academic communities such as Member of Executive Committee for Academic Accreditation (AMBA) for MBA and EMBA Programs in Economic & Administration Faculty, King Abdualaziz University, 2017 and Country-Director-Egypt in ASIA AFRICA DEVELOPMENT COUNCIL, Sustainable Peace and Development, 2018. Her research interest in the field of Sustainability, Digital Transformation, Renewable Energy, Solid waste management, Recycling, Optimization and Supply chain management.

Virtual Keynote III

Monday, May 8, 1:20 – 2:00 pm – Virtual Room 1

Professor Eldon G. Caldwell Marin, Ph.D., Sc.D, Dr.Ed. – IEOM President-Elect
Professor, Industrial Engineering Department
Engineering School
University of Costa Rica
San Jose, Costa Rica

Eldon Caldwell is full professor/Cathedraticus of the University of Costa Rica, Central America; member of the IEOM Society Academy of Fellows and member of the IEOM Society Global Council. Also, he has been recognized by the IEOM Society with the “Outstanding Service Award” for his career of over 30 years as an educator, researcher and promoter of development of industrial engineering and as “Distinguished Professor” by IEEE Computer Society, USA.

Dr. Caldwell earned his B.Sc. and Master degree in Industrial Engineering at University of Costa Rica and he earned a Master degree in Service Marketing, as well in Financial Analysis at Interamerican University of Puerto Rico; M.Sc. Health Management Systems at UNED, Costa Rica and a M.Sc. Operations Management at ITESM, México. Finally, he earned three doctoral degrees: 1-Ph.D. in C.Sc. / Industrial Engineering, Autonomous University of Central America; 2- Ph.D. (Sc.D.) in Robotics and Automation, University of Alicante, Spain; and 3-Ph.D. (Dr. Ed.) in Education at the University of Costa Rica, developing the “Theory of Socio-educational Exergy-Anergy and Entropy”.

He is author of many scientific articles and two books: “Marketing of Social Products & Services”, UCR Publications; and “Lean Manufacturing: Fundamentals and techniques for cycle time reduction”, Kaikaku Ins. Press, USA.

Dr. Caldwell served as Director of Industrial Engineering Department at Engineering School of University of Costa Rica, Operations Manager at MASECA, CA; Lean Manufacturing Project Manager at Eaton Corp. Costa Rica, General Manager at Quirós & Cia-Bandag Inc. and General Manager at Lean Systems Intl., USA. He has more than 30 years of experience as advisor and consultant in Operations Management, Lean Manufacturing and Lean Logistics at Interamerican Bank for Development, WHO, UN, World Wide Bank, Coca-Cola, Ministry of Health, Costa Rica, Honduras, Panamá, Costa Rican Institute for Electricity, RTC-Perú, Young Electrical Signs, Nevada, USA, AirCare Inc., Reno, Nevada, Plan International-Honduras, Bournes Co., DOLE Co. and many others. In addition, Dr. Caldwell currently serves as Director of the Central America Robotics and Industry 4.0 Challenge Contest (ROBOTIFEST) and General Manager at Kaikaku Institute Latin America.
May 9, 2023

Strategies for Writing and Publishing Research Articles
Tuesday, 8:00 – 9:30 am – Ballroom (Onsite)

Dr. Mario Chauca
Advisor reviewer vice-rectorate of research and
Researcher Professor at Ricardo Palma University
Santiago de Surco, LI 15039, PERU
Researcher of the RENACYT-CONCYTEC
Executive Committee Member IFEES (2019-2021)
Past Director Kenshu Kiokay del Peru-AOTS
Past Steering Committee Member IEEE MWSCAS

Mario Chauca is Executive Committee Member IFEES (2019-2021), was a Director of the AOTS-Kenshu
Kiokay-Peru (2010-2014), member of the technical committees since 2010, invited by the University of
Washington IEEE, in 2010 joined the Steering Committee of the IEEE-MWSCAS, and has participated in more than 30 committees in the
European Union, Asia, Africa, America and Australia. All event proceedings are indexed in Scopus, journals and others database. Chauca was
participant as speaker and Chair Session at WEE2019-Chennai (India), IEM2019-Toronto (Canada), WEEF2018-Albuquerque (USA),
ICIMA2018-Penang (Malaysia), WEEF2017-Kuala Lumpur (Malaysia), CONeGOV2016-Florianopolis (Brazil), ISIT2014,17-Guanajuato
(Mexico), MWSCAS2010-Washington (USA), JALIO2009-Mar del Plata (Argentina), CONIELECOMP2007,9,10-Puebla (Mexico), SIE2004-
Santa Clara (Cuba). He obtained a scholarship from the AOTS Tokyo (Japan), from the NIPA and Ministry of Science, ICT and Planning of the
Future of Korea Seoul (Korea). He is a Consultant in Information and Communication Technologies, he was consultant in the project of United
Nations-Inter-American Development Bank-Congress of the Republic of Peru and the Ministry of the Interior of Peru. He is a researcher by
RENACYT-CONCYTEC in the Peruvian Government, adviser first award paper CONEIMERA2018, adviser of the First General Award Project
for more than 5000 projects in the contest from the Romero Group, adviser for first projects in congress INTERCON, CONEIMERA, and was
nominated for the Graña y Montero Prize for Research in Peruvian Engineering. Nominated Peruvian Research Southern Prize 2019 and
nominated research award 2018 MEXICO. As author and advisor of papers he has more than 50 letters of acceptance, served organizer of
international academic events, editor of proceedings, and advisor to the IEE chapters at the National University of Callao and the Ricardo
Palma University. He teaches at the postgraduate and undergraduate level, with 30 years of experience. He graduated as an Electronic Engineer
from Ricardo Palma University in Lima Peru, obtained his Master’s Degree in Business Administration with a mention in “Business Management”
and his Doctorate in Education from San Luis Gonzaga National University.

Six Sigma Certification Workshop
Tuesday, 2:00 – 6:00 pm – Ballroom (Onsite)

Speaker: Dr. Ahad Ali, Lawrence Technological University, Southfield, Michigan, USA

Six Sigma Certification Topics

Six Sigma Fundamentals

Define
Project Charter, Pareto Chart, Process Maps,
SIPOC, Matrix Diagrams, Critical to Quality
(CTQ) Metrics, and DPMO

Measure
Process analysis, Probability, Statistics and
Distribution, Data collection and analysis,
Gage Repeatability and Reproducibility
(R&R), Process capability, X-Bar Charts, Run
Charts, Moving Average Charts, EWMA
Charts, Attribute Charts, Takt Time,
Standardization, Spaghetti Diagrams, and
Setup Reductions

Analyze
Value Stream Map, Hypothesis Testing
Goodness of fit test, Regression Analysis
Cause & Effect Diagrams, Scatter Diagrams
ANOVA, Confidence Interval

Improve
Lean Tools to reduce NVA: 5S, Kaizen,
Seven Zeros, TPS Principles, FMEA, and
Simulation, Design of Experiments (DOE)
Statistical Process Control (SPC), Analysis of
Variance (ANOVA), Solutions Validation

Control
Control Plan, SPC, Tracking, DFSS

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4th South American IEOM Conference
Dr. Ahad Ali
Associate Professor
Director of Bachelor of Science in Industrial Engineering
Director, Master of Science in Industrial Engineering
Director of Smart Manufacturing and Lean Systems Research Group
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International

Dr. Ahad Ali is an Associate Professor and Director of Bachelor of Science in Industrial Engineering and Master of Science in Industrial Engineering at the Lawrence Technological University, Michigan. Dr. Ali is the Director of Smart Manufacturing and Lean Systems Research Group. He earned B.S. in Mechanical Engineering from Khulna University of Engineering and Technology, Bangladesh, Masters in Systems and Engineering Management from Nanyang Technological University, Singapore and Ph.D. in Industrial Engineering from University of Wisconsin-Milwaukee. Dr. Ali is the Executive Director of IEOM Society and Conference Chair of the Sixth International Conference on Industrial Engineering and operations Management, Kuala Lumpur 2016. He advised six doctorate students in Doctor of Engineering in Manufacturing Systems. Dr. Ali has published journal and conference papers. He was past President of IIE Lean Division. Dr Ali has done research projects with Chrysler, Ford, DTE Energy, Delphi Automotive System, GE Medical Systems, Harley-Davidson Motor Company, International Truck and Engine Corporation (ITEC), National/Panasonic Electronics, and Rockwell Automation. His research interests include quality, reliability, six sigma, manufacturing, simulation, optimization, scheduling, maintenance, e-manufacturing, lean, CAE and GD&T and. He is a member of ASEE, IEEE, IEOM, INFORMS, and SME.

May 10, 2023

TOYOTA KATA Workshop

TOYOTA KATA: THE SECRET SAUCE FOR TOYOTA PRODUCTION SYSTEM

Wednesday, 2:00 - 6:00 pm – Ballroom (Onsite)


Retired U.S. Naval Aviator
CEO of Process Whisperer® Consultants LLC, Greeneville, Tennessee, USA
ASQ certified Six Sigma Black Belt and A PMI certified PMP®

Dave is a retired U.S. Naval aviator and currently CEO of Process Whisperer® Consultants LLC. He teaches LSS classes for TMG Inc of Newport News, VA. Prior to TMG, Dave was a Six Sigma and Productivity Consultant for the University of TN Center for Industrial Services. Dave is a “Kata Geek” and also an ASQ certified Six Sigma Black Belt. He is active in ASQ Sections and the ASQ Lean Enterprise Division Communications. In addition to ASQ, he also holds Black Belt Certification through Rolls-Royce and Northrop Grumman. He is a seasoned ASQ International Team Excellence Awards (ITEA) Judge. Dave is also currently on the Lean Division Board with the Institute of Industrial and Systems Engineers (IISE). Dave is on the Conference Advisory Committee for ASQs 2019 L&SS Conference in Phoenix as well as the Conference Committee for the IISE Engineering 2018 Lean Six Sigma Conference in Atlanta. A PMI certified PMP®, Dave also holds Lean Bronze Certification (LBC) through the SME/ASQ/AME/Shingo Institute Alliance and he holds three Master’s Degrees in management related fields. In addition to ASQ, PMI and IISE, Dave is also a member of the Society of Manufacturing Engineers (SME), the Association of Manufacturing Excellence (AME) and the American Production and Inventory Control Society (APICS). Dave lives in Greeneville TN.

Workshop Details

Kata in the Classroom (KiC) workshops are based on Mike Rother’s “Toyota Kata” methodology and that Scientific Thinking is a life skill. It’s the basis for creativity and successfully pursuing seemingly unattainable goals. KiC demonstrates a teachable skill that anyone can learn — by combining a simple scientific striving pattern with practice routines called Kata – to help you learn meta-cognitive strategies. Many view Toyota Kata as the “secret sauce” of the Toyota Production System (TPS). Mike Rother wrote “Toyota Kata” to explain the secrets of TPS improvement sustaining methodology. How do we prepare for the future when we don’t know what the future will bring? We can’t predict how to get from A to B… we’re stumped and overwhelmed, there are time constraints and economic pressure. Dave Harry will share the “secret sauce” with IEOM and Lima Area University students through an intense hands-on “Kata in the Classroom” workshop. Be prepared to move fast!

Prizes:
Each round table will be used for a team. Local university can form teams to complete. Dave is very kind to provide some prizes with gift cards.
Resume Writing and Career Planning Workshop
Thursday, 8:00 – 10:00 am - Ballroom (Onsite)

Speaker:

Dr. Christopher Harris
Associate Professor of Computer Science
University of Northern Colorado
Greeley, Colorado, United States

Dr. Christopher Harris is an Associate Professor of Computer Science in the School of Mathematical Science at the University of Northern Colorado. Previously, he taught at the State University of New York in Oswego and has nearly 20 years of work experience as a technical strategist at companies including the World Bank, Northrop Grumman, Raytheon, E! Entertainment Television, and AT Kearney. He served as the General Manager at Advisa Group, a technology consultancy based in Beijing, China. Professor Harris received his PhD in Information Science at the University of Iowa, an MBA from the Anderson Graduate School of Management at UCLA, his Masters in Computer Science from Virginia Tech, and his Bachelor’s in Computer Engineering from the University of South Florida. Professor Harris' research areas include applying machine learning and artificial intelligence to business, agriculture, human resources, and manufacturing, ensuring fairness in machine learning algorithms, and applications involving blockchain and smart contracts.

Innovation and Entrepreneurship Workshop
Thursday, 2:00 – 6:00 pm – Ballroom (Onsite)

Workshop Facilitator: Professor Don Reimer, Lawrence Tech, MI, USA

Each team will develop an idea to solve an engineering problem that may have commercial potential. They will develop a business plan using the business model canvas. Teams will compete for prizes with best ideas and best commercial potentials. Students need to bring their laptops. Innovation and Entrepreneurship Workshop – A hands-on interactive learning experience. This workshop has been designed to encourage participants in a hands-on interactive learning experience on the development of the entrepreneurial mindset.

Topics:

- Idea Generation
- Opportunity Recognition
- Ventura Creation
- Value Creation
- Understanding and working with the Business Model Canvas as a validation tool
- Identifying “Customer Segments” and the “Customer Archetype”
- Introduction to the Business Planning Process
- Presentation and Recognition (Prizes)

Join us for an exciting and interactive learning experience on how to make your dream a reality.

Professor Donald M. Reimer
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA
Director, Membership and Chapter Development, IEOM Society

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in the College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs’ Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs’ Organization Faculty Advisory Council and is a member of the American Society of Engineering Education. He has operated his own consulting company – The Small Business Strategy Group for 23 years. He published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.
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Zygmunt OLINSKI, University of Warsaw, Poland
Zygmunt OLINSKI, University of Warsaw, Poland

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4th South American IEOM Conference
Plenary Speakers

39th IEOM Global Engineering Education

Global Engineering Education I
May 9, Tuesday, 8:00 – 9:30 am – Meeting Room 3 (Onsite)

8:00 am - 8:20 am (Tuesday, May 9)

Dr. Julián Arellana
Dean, College of Engineering
Associate Professor, Department of Civil and Environmental Engineering
Universidad del Norte, Barranquilla, Colombia


8:20 am – 8:40 am (Tuesday, May 9)

Rony Martín Cabrera Donayre
Jefe de Laboratorios Festo en PUCP
Peru

8:40 am – 9:00 am (Tuesday, May 9)

Mag. Luis Alberto Zuloaga Rotta
Decano
Facultad De Ingenieria Industrial Y De Sistemas
Universidad Nacional de Ingenieria
Av. Túpac Amaru 210, Rimac 15333
Lima, Perú

9:00 am – 9:20 am (Tuesday, May 9)

Juan M. Gutierrez Cardenas
University Lecturer, Universidad de Lima
ABET Program Evaluator for the CAC
Lima, Peru

Title: Undergraduate Research: A Success Story at UL-CIS (Universidad de Lima-Systems Engineering Career)

Juan Gutiérrez-Cárdenas is an Associate Professor and former Undergraduate Research Coordinator in the Faculty of Engineering at Universidad de Lima. He holds a Higher Diploma in Computer Science from the University of the Witwatersrand, a M.Sc. in bioinformatics from the University of Helsinki, and a Ph.D. in Computer Science from the University of South Africa. His research interests include machine learning applied to bioinformatics, computer science education, and computer security. Over the past 10 years, he has actively
participated in the standardization, curricular guidelines, and accreditation of computer science and related careers from various universities in Peru. He is also an ABET program evaluator for the CAC and a member of the Peruvian Computer Society. Prof. Gutiérrez advocates for undergraduate research and has supported students in publishing peer-reviewed articles in his field of study. He is a part of the Senior Editorial Board for the Journal of Information Systems Education and acts as a reviewer for the Heliyon journal and the ACM ITCISE conference. He has been recognized as a researcher at level 4 by Renacyt.

### Global Engineering Education II

May 9, Tuesday, 4:00 – 5:40 pm – Meeting Room 3 (Onsite)

4:00 pm – 4:20 pm (Tuesday, May 9)

**Mag. José Antonio Taquia Gutiérrez**  
Researcher at IDIC – Scientific Research Institute – Universidad de Lima  
Professor at Engineering Faculty – Universidad de Lima  
Member of Industry 4.0 and applied analytics research group  

José Antonio Taquia Gutiérrez is a Doctoral candidate from Universidad Nacional Mayor de San Marcos and holds a Master of Science degree in Industrial Engineering from Universidad de Lima. He is a member of the School of Engineering teaching courses on predictive analytics, and research methodology. He has a vast experience on applied technology related to machine learning and industry 4.0 disrupting applications, leading research groups about this topic. In the private sector he was part of several implementations of technical projects including roles as an expert user and in the leading deployment side. He worked as a senior corporate demand planner with emphasis on the statistical field for a multinational peruvian company in the beauty and personal care industry with operations in Europe and Latin America. Mr. Taquia has a strong background in supply chain analytics and operations modeling applied at different sectors of the industry. Expert developer of machine Learning, business analytics, and applications programming using R, Java, and Python. In his research portfolio are prototypes related to “Stimulation of Numerical Skills in Children with Visual Impairments Using Image Recognition”, “Design of a predictive models to plan humanitarian logistic responses”, “Design and implementation of an automatic control system based on motors and sensors to maintain the position of a horizontal platform”. He had participated in EU-LAC Young Scientists’ Network Days 2022, XXII Annual Research Seminarium GIES 2021, among others research events. He leads an Industry 4.0 and predictive analytics research group using these methods for the Research Institute at Universidad de Lima. His main research interests are on statistical learning, predictive analytics, industry 4.0 and engineering education.

4:20 – 4:40 pm (Tuesday, May 9)

**Frank Ronald Huaricacha Chuco**  
Bachelor in Systems Engineering, Co-founder SofFix and EcoFIIS  
Big data engineer at BWIT partner Interbank  
National University of Engineering (UNI), Lima, Peru  

*Data Analytics, Cloud and Automation*

Frank Huaricacha is Big Data Engineer at BWIT who develops real-time solutions in the AWS cloud for Interbank using the agile Scrum methodology. He has certifications in artificial intelligence in Microsoft (IA 900), cloud fundamentals in Azure (AZ 900) and data analysis with Power BI (DA 100), he is a data analyst and developer of analytical solutions with more than 5 years of experience in Digital Transformation and process automation, leading various projects in the banking sector. Frank Huaricacha is a consultant of digital transformation solutions, process automation and data analytics for national companies and startups, he is also a co-founder of SofFix (consulting program) and EcoFIIS (environmental sustainability program of the National University of Engineering).

4:40 pm – 5:00 pm (Tuesday, May 9)

**Dr. Mario Chauca**  
Advisor reviewer vice-rectorate of research and  
Researcher Professor at Ricardo Palma University, PERU  
Researcher of the RENACYT-CONCYTEC  
Executive Committee Member IFEES (2019-2021)  
Past Director Kenshu Kiokay del Peru-AOTS & Past Steering Committee Member IEEE MWSCAS  

Mario Chauca is Executive Committee Member IFEES (2019-2021), was a Director of the AOTS-Kenshu Kiokay-Peru (2010-2014), member of the technical committees since 2010, invited by the University of Washington IEEE in 2010 joined the Steering Committee of the IEEE-MWSCAS, and has participated in more than 30 committees in the European Union, Asia, Africa, America and Australia. All event proceedings are indexed in Scopus, journals and others database. Chauca was participant as speaker and Chair Session at the Global Engineering Education II conference May 8-11, 2023 in Lima, Peru. Mario Chauca has a vast experience on applied technology related to machine learning and industry 4.0 disrupting applications, leading research groups about this topic. In the private sector he was part of several implementations of technical projects including roles as an expert user and in the leading deployment side. He worked as a senior corporate demand planner with emphasis on the statistical field for a multinational company in the beauty and personal care industry with operations in Europe and Latin America. Mr. Taquia has a strong background in supply chain analytics and operations modeling applied at different sectors of the industry. Expert developer of machine Learning, business analytics, and applications programming using R, Java, and Python. In his research portfolio are prototypes related to “Stimulation of Numerical Skills in Children with Visual Impairments Using Image Recognition”, “Design of a predictive models to plan humanitarian logistic responses”, “Design and implementation of an automatic control system based on motors and sensors to maintain the position of a horizontal platform”. He had participated in EU-LAC Young Scientists’ Network Days 2022, XXII Annual Research Seminarium GIES 2021, among others research events. He leads an Industry 4.0 and predictive analytics research group using these methods for the Research Institute at Universidad de Lima. His main research interests are on statistical learning, predictive analytics, industry 4.0 and engineering education.

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4th South American IEOM Conference
Plenary Speakers
9th IEOM Global Business Management

Global Business Management and Global Project Management I
Tuesday, May 9, 2023 – 2:00 – 3:45 pm – Room 4 (Onsite)

2:00 – 2:20 pm, Tuesday, May 9
Dr. Carlos Raymundo
Research Professor / Administrative coordinator at the Research Office
Universidad Peruana de Ciencias Aplicadas
Lima, Peru

2:20 – 2:40 pm, Tuesday, May 9
Juana Miranda Cuadros
Operational Excellence Manager Lima & WACAM
Mondelēz International
Lima, Peru

2:40 – 3:00 pm, Tuesday, May 9
Rocio Angeles-Boza
Quality Assurance Management, Continuous Improvement (Lean Thinking, Lean-Six sigma)
Quality Assurance Manager – International Perú
Pacific Coast Producers
California, Estados Unidos
Peru

3:00 – 3:20 pm, Tuesday, May 9
Professor Avid ROMAN-GONZALEZ
CEO & Founder Business on Engineering and Technology S.A.C. (BE Tech)
Full Professor, Universidad Nacional Tecnológica de Lima Sur
Director, Research Institute, Universidad Nacional Tecnológica de Lima Sur
Director, Electronics and Telecommunication Engineering Department, Universidad Nacional Tecnológica de Lima Sur
Professor, Universidad Peruana Cayetano Heredia
Professor, Universidad de Ciencias y Humanidades
Distinguished Lecturer, AESS IEEE
Senior Member IEEE

Avid ROMAN-GONZALEZ is CEO & Founder at Business on Engineering and Technology S.A.C. (B.E. Tech). Full professor at National Technological University of South Lima (UNTELS). Distinguished Lecturer IEEE AESS, IEEE Senior Member. Electronic engineer from the National University San Antonio Abad of Cusco. Systems engineer from the Andean University of Cusco. Received his M.Sc. Degree in industrial and human automatic, from the Université Paul Verlaine de Metz – France, and he received his Ph.D. Degree in image and signal processing from TELECOM ParisTech. He was a postdoctoral fellow at Universidad Peruana Cayetano Heredia. His work experience includes research at the French Space Agency (CNES) and German Aerospace Center (DLR), university teaching (UNSAAC, UAC, UNI, UPCH, UCH and UNTELS), consulting engineer at CONIDA, SPECTRUM, EGEEMSA, etc. He has participated as keynote speaker and jury of projects in various academic events. He has many internationally published papers. His areas of interest are Signal and image processing, biometrics, artificial intelligence, human automation, bioengineering, industrial automatic, control, and aerospace technology.
Global Business Management and Global Project Management II
Tuesday, May 9, 2023, 4:00 – 5:45 pm – Room 4 (Onsite)

4:00 – 4:20 pm, Tuesday, May 9, 2023

**Dorian Florea**
Assistant Professor of Marketing
CENTRUM Católica Graduate Business School
Lima, Peru

Title: The importance of customer education in industrial services

Dorian Florea is an Assistant Professor of Marketing at CENTRUM Católica Graduate Business School. He is a Ph.D. in Marketing from The Bucharest University of Economic Studies, Romania. His research is focused on B2B relationships, especially how firms develop new capabilities by leveraging their business network. In his most recent paper, Dorian studies the equifinal configurations of causal conditions that make a knowledge-intensive business service provider to be fully willing to educate a customer firm. His work has been published in premier academic journals such as Industrial Marketing Management and Journal of Business & Industrial Marketing and has been presented at leading conferences such as American Marketing Association Academic Conference, European Marketing Academy Conference, Industrial Marketing Management Summit, and Frontiers in Service.

4:20 – 4:40 pm, Tuesday, May 9, 2023

**Javier Enríquez Vereau**
Project Management Consultant
CEO & Founder, Kecurso, Project Management & Business Solutions
General Manager, PML Executive Institute S.A.C., La Molina, Lima, Peru

Javier Enríquez has around 25 years of experience in the fields of Information Systems and Technology, Mining & Construction Projects, combines a BS of Systems Engineering from Universidad Peruana de Ciencias Aplicadas (UPC) in Lima, Peru, and an MBA in Project Management from Postgraduate European Institute (IEP) in Madrid, Spain. Experience managing ERP & Software development and implementation projects, web development and ecommerce solutions for starting and medium-sized companies, CRM and digital marketing and social media management. Demonstrated ability to lead teams in copper mining construction projects, ensuring all processes and procedures comply with the top regulatory standards. Proficient at improving gold-silver mining operations processes, maximizing recovery, and increasing productivity. Strong dedication to deliver projects on time and within budget. Javier Enríquez has been offering consulting services to many well-recognized companies to help them achieve and stand out with their own products and services and, at the same time, helping people strengthen their technical or professional knowledge and soft skills through dedicated training in English and Spanish.

4:40 – 5:00 pm, Tuesday, May 9, 2023

**Claudia León Chávarri**
Full Time Professor
Carrera de Ingeniería Industrial
Universidad Peruana de Ciencias Aplicadas (UPC)
Monterrico, Santiago de Surco
Peru

5:00 – 5:20 pm, Tuesday, May 9, 2023

**Leonard Panta**
Coordinación Estudiantil - PMI Lima Perú Chapter
Project Manager, Labhility, Trujillo, La Libertad, Peru
5:20 – 5:40 pm, Tuesday, May 9, 2023

Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ  
Chief Executive Officer & Founder  
TP Global Business Consulting, LLC  
Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Adept at reengineering business processes, change management and IT infrastructure with business visions to drive profitability, efficiency, and growth within the organization. Proficient at ensuring all processes comply with regulatory requirements and IT governance practices. Excellent communicator with strong influencing and problem-solving skills. Strong leadership skills and demonstrated ability to lead team members and external business contacts including stakeholders such as consultants, partners and vendors. Demonstrated track record of delivery of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000. He also volunteered in many activities to promote project management and participated of writing PMP exam questions workshop in Dallas, Texas in 2002. Dr. Prensa has helped hundreds of project management professionals to get prepared for the PMP exam. Dr. Prensa has taught project management for several universities in the country, including Virginia Technical University, Grand Canyon University, Colorado Technical University, University of Phoenix and currently teaching for Walden University. With more than 25 years of teaching experience in various formats, face-to-face and virtual. Dr. Prensa has developed techniques to connect with learners and students in the most efficient way. Dr. Prensa has extraordinary people skills, he always puts people first.
Plenary Speakers
38th IEOM Industry Solutions and Industry 4.0 - Plenary

Industry Solutions I
2:00 – 3:45 pm – Meeting Room 3 (Onsite)

2:00 pm – 2:20 pm (Wednesday, May 10)

Dr. Aurelio Arbildo
Professor at Universidad de Lima
Lima, Perú

Title: “From industry 1.0 towards 6.0”

Main objective: To show how the disrupting technologies led to Industry 4.0 as the actual Industry revolution and the solid core on which all of them have been supported.

Aurelio Arbildo holds BS in Chemical Engineering (Universidad Nacional Mayor de San Marcos, Lima), M.Sc. and Ph. D in Nuclear Engineering (The university of New Mexico, USA), Professor at Universidad de Lima since 1997, mainly in Process control and automation as well as Technology Innovation. Was Executive Director of the Peruvian Institute for Nuclear Energy (IPEN) from 2002 to 2007 and General Manager of Sociedad Inducontrol Ingeniería SAC, company devoted to process control and automation, from 2007 to date. Main interests in his field of expertise includes System integration, machine vision, robotics and new industry technologies.

2:20 pm – 2:40 pm (Wednesday, May 10)

Raúl Díaz Parra
Cofounder & Senior Partner
Strategos Consulting Services
Part Time Professor, Universidad de Lima
PhDc in Strategic Management
Lima, Peru

2:40 pm – 3:00 pm (Wednesday, May 10)

Jose Perez Becerra, MSc.
Data Analyst
Adjunct Professor
Universidad de Lima
Lima, Peru

3:00 pm – 3:20 pm (Wednesday, May 10)

Dr. Lauro Enciso
Full Professor of Computing Courses in Informatics Department
Dean of Electrical, Electronics, Informatics & Mechanics Engineering Faculty (FIEEIM)
National University of San Antonio Abad del Cusco, Perú

3:20 pm – 3:40 pm (Wednesday, May 10)

José Antonio Larco
Director – Ingeniería Industrial
UTEC – Universidad de Ingeniería y Tecnología
Lima, Peru
Industry Solutions II
Wednesday, May 10, 4:00 – 5:45 pm – Meeting Room 3 (Onsite)

4:00 pm – 4:20 pm (Wednesday, May 10)

Dr. Christopher Harris
Associate Professor of Computer Science
University of Northern Colorado, Greeley, Colorado, United States

Dr. Christopher Harris is an Associate Professor of Computer Science in the School of Mathematical Science at the University of Northern Colorado. Previously, he taught at the State University of New York in Oswego and has nearly 20 years of work experience as a technical strategist at companies including the World Bank, Northrop Grumman, Raytheon, E! Entertainment Television, and AT Kearney. He served as the General Manager at Advisa Group, a technology consultancy based in Beijing, China. Professor Harris received his PhD in Information Science at the University of Iowa, an MBA from the Anderson Graduate School of Management at UCLA, his Masters in Computer Science from Virginia Tech, and his Bachelor’s in Computer Engineering from the University of South Florida. Professor Harris’ research areas include applying machine learning and artificial intelligence to business, agriculture, human resources, and manufacturing, ensuring fairness in machine learning algorithms, and applications involving blockchain and smart contracts.

4:20 pm – 4:40 pm (Wednesday, May 10)

Mr. Ayush Lal
Senior Mechanical Engineer
Aptiv Corporation
Troy, Michigan, USA

Ayush Lal is a Senior Mechanical Engineer at Aptiv in Michigan, USA. He received his Master's degree in Mechanical Engineering from Michigan Technological University, USA in 2017. His main skills and expertise cover the areas of power electronics, computational fluid dynamics and vehicle electrification. Mr. Lal has worked with automotive giants such as Delphi Technologies (now Borg Warner) and Eaton Corporation in e-mobility in the US. His work has been published in books such as Innovate Toronto.

4:40 pm – 5:00 pm (Wednesday, May 10)

Michael Terrones MsC, PMP
CEO at Peru Green Metals
CTO at INDEXUM
Lima, Peru

5:00 pm – 5:20 pm (Wednesday, May 10)

Eng. Orlando Aquije
SIEMENS – PERU

He is Key Account Sales Professional at the Electrification & Automation Business Unit in Siemens. He is responsible for developing business in protection and automation systems based on RTUs, IEDs, and SCADA. He is also in charge of IoT & Digitalization businesses in Peru based on SaaS, cybersecurity, and data driven. Besides, he has the responsibility to develop business in eMobility charging infrastructure and automation systems for solar utility scale for Colombia and Peru. His interests lie in studying and develop systems in digitalization, automation and data driven. He has received trainings at the Power Academy of Siemens Germany. He has a master in Digital Transformation and Business Development by OBS Business School.

5:20 pm – 5:40 pm (Wednesday, May 10)

Manuela Linares Barbero
MBA, Systems Engineer
University Professor and Researcher
Universidad de Lima
Peru
Plenary Speakers
2nd IEOM Global Data Analytics

Data Analytics / Data Science I
Wednesday, May 10, 8:00 – 9:45 am – Room 4 (Onsite)

8:00 – 8:20 am, Wednesday, May 10, 2023

Omar Rubio Quezada
Coordinador senior de evaluación e impacto
Jefe de práctica del curso Gestión de Organizaciones
Pontificia Universidad Católica del Perú
Lima, Peru

8:20 – 8:40 am, Wednesday, May 10, 2023

Claudia Barrera Acosta
Analista de Mejora de Procesos
BBVA
Lima, Peru

8:40 – 9:00 am, Wednesday, May 10, 2023

Alejandro Latorre Rojas, BSc.
Data Analytics and Engineering Advisor
Senior Analytics Engineer – Favo
Data Analytics Teaching Assistant – Pontifical Catholic University of Peru
Business Strategy Executive Program alumni – Pearson College London

Analytics Engineer with a Bachelor of Science in Industrial Engineer at Pontifical Catholic University of Peru with background in Statistics, Programming and Business Analytics. He was part of the Science & Engineering Faculty Council (2019-2020) where he helped to accelerate the update of the engineering careers’ curriculum. He also has a specialization in Business Intelligence and participated in a hackathon organized by IBS Americas with a team whose obtained 5th place and the opportunity to take an executive program in Business Strategy in Pearson College London (2023, England). During his career, he was a teaching assistant of +3 courses related to Statistics and Data Analytics, and a Data Science Tutor in Coderhouse (one of the largest edtech companies in LATAM). He worked in two of the largest banking companies in Peru (BCP and Interbank) in roles associated to Pricing Analytics and Software Development, but mainly he was part of some retail startup companies such as PedidosYa (food delivery app), Farmauna/Auna (healthtech) and Favo (supermarket e-commerce) playing the roles of Business Intelligence and Data Analyst, Data Scientist and Analytics Engineer.

9:00 – 9:20 am, Wednesday, May 10, 2023

Nicolás Núñez Morales
Professor and Subdirector ProLab
CENTRUM PUCP Business School
Pontificia Universidad Católica del Perú
Lima, Peru
2:00 – 2:20 pm, Wednesday, May 10, 2023

Carlos Amhed Pino Moren
Data Processing Specialist
Ministry of Education, Lima, Peru

Carlos Amhed Pino Moreno, Licenciado en Estadística de la Universidad Nacional Federico Villarreal, con más de 12 años de experiencia en análisis y procesamiento de datos, así como registros administrativos en RENIEC, procesamiento de encuestas sociodemográficas en el INEI, diseño de encuestas, diseño muestral, participación en publicaciones estadísticas y elaboración de modelos predictivos. Trabajo en el Ministerio de Educación, realizando labores de procesamiento de datos, encuestas relacionadas a temas de educación, análisis psicométrico, validación de pruebas de evaluación para los colegios de Alto Rendimiento COAR y participación en trabajos de investigación. Participó en la Metodología del censo 2007 en sus etapas de planificación, operación de campo, procesamiento, análisis de resultados y publicaciones. Así mismo se participó en la elaboración de indicadores y consistencia de datos de la encuesta del ENAPRES 2011, y participación en diversas publicaciones estadísticas del INEI. Participó en Proyectos de investigación en temas de salud, investigaciones sociales, económicas y encuestas de Investigación de Mercado, asesoramiento de Tesis y docente en cursos sobre estadística aplicada a la investigación.

2:20 – 2:40 pm, Wednesday, May 10, 2023

Milagros Huachillo Alvarado
Consultor De Procesos
Estudio Ugaz Zegarra & Abogados Asociados
Peru

System Engineer at National University of Federico Villarreal, with diploma in Quality Management, Project Management., Risk Management. With experience in assessment and implementation of quality management systems, security information management system, data analysis, and customer perception measurement, analysis, and measurement of service quality.

With 15 years of experience in quality management, projects, process improvement, data analysis, management systems, identification, and analysis of stakeholder’s expectations.

She could work in a government, and industries such as: transportation, pharmaceutical and legal sector.

2:40 – 3:00 pm, Wednesday, May 10, 2023

Aracelli Centeno Sanchez
Business Process Manager
Cleaning and Beauty Products
Peru

Bio

Informatics Engineering of University of Ricardo Palma, with specializations in Business Process Management, Risk Management, Project Management and Data Analytics, with master’s in business administration at University of Illinois Urbana Champaign. In 15 years of experience in information analytics, business process, process improvement project. Business Practice Consulting, data analysis, and insight identification and analysis. I have worked in industries such as technology, bank, government, transportation and pharmaceutical. I have been participated in process improvement teams, business, improvement project assessment, I know the business core and I have given recommendations to implement in the short and medium time.

3:00 – 3:20 pm, Wednesday, May 10, 2023

Roberto Inchaustegui Gil
Corporate People & Operations Manager
Intercorp, Peru

Roberto studied Systems Engineering at the University of Lima, I have a master’s degree in technology management from the University of Illinois and I have specializations in Project Management, Change Management, Design Strategy, Agile Development, Product Management, Data Engineering, Big Data & ML. In +16 years of experience, I have worked in technology, data and analytics consulting, focusing on management positions for the last 10 years. I have had the opportunity to learn about several industries such as technology, energy, retail, insurance, and banking. In addition, during my career I lived, worked, and studied in Peru, Brazil, Chile and the United States. I started my career in Analytics at Walmart U.S., where I learned the importance of identifying and activating insights, as well as empowering a data-driven culture. I currently work as Corporate People & Operations Manager at Intercorp Peru, my main objective being to help companies accelerate their digital transformation, designing and implementing optimal operating models for data and analytics areas.
David Allende Quintana  
Leader Data Scientist, Tottus  
Analytical Trainer, DMC Perú  
Analytical Trainer, UTEC - Universidad de Ingeniería y Tecnología  
Lima, Peru

He leads the Tottus Corporate Data Science team at the regional level, solving use cases with data science, government and monetization projects; positively impacting business results. In addition, he has participated and led Data Scientist teams in the financial sector and participated as a Data Scientist in the telecommunications sector. Lecturer in Data science programs at prestigious universities and institutions. Speaker and international consultant in science, government and data monetization projects.

Data Analytics / Data Science III  
Wednesday, May 10, 4:00 – 5:45 pm – Room 4 (Onsite)

Alberto J Donayre-Torres  
Full Time Professor  
UTEC – Universidad de Ingeniería y Tecnología  
Lima, Peru

4:20 – 4:40 pm, Wednesday, May 10, 2023

A. Guillermo Joo Aguayo  
Supervisor de Proyectos de Inversion  
Project Manager  
Petroperú S.A.  
San Isidro, Lima, Perú

4:40 – 5:00 pm, Wednesday, May 10, 2023

Carlos Mariño, Ph.D.  
Director de Investigación  
Profesor, Departamento Académico de Posgrado en Negocios  
Pontificia Universidad Católica del Perú, Lima, Peru

El profesor Mariño es Ph.D. in Industrial & Systems Engineering de la Mississippi State University, EE.UU. Master of Transportation & Logistics Management de la American Military University, EE.UU. Master of Science Engineering Management, California State University, EE.UU. Magister en Administración con mención en Finanzas de la Universidad del Pacífico, Perú, Ingeniero Industrial de la Universidad de Lima, Perú. Data Science and Big Data Analytics Certification del Massachusetts Institute of Technology; Data Science Certification of Harvard Extension School, Harvard University; Stanford Certified Project Manager de Stanford University, EE.UU; y Graduate Certificate Theoretical Statistics, California State University, EE.UU.

5:00 – 5:20 pm, Wednesday, May 10, 2023
Plenary Speakers
18th IEOM Global Supply Chain and Logistics

Global Supply Chain and Logistics I
May 11, 8:00 – 9:45 am – Meeting Room 3 (Onsite)

8:00 am – 8:20 am (Thursday, May 11)
Juan Pablo Briceño
Corporate Planning Manager
Vitapro S.A.
Lima, Peru

8:20 am – 8:40 am (Thursday, May 11)
Christian Ovalle
Technological University of Peru
Perú

Predictive model based on Machine Learning for the Supply Chain and its influence on the logistics management of car sales company

PhD in Systems Engineering from the Universidad Peruana Unión (Peru), Master’s in Systems Engineering with a mention in Direction and Management of Information Technology from the (UPeU-Peru), graduated with a Systems Engineer belonging to the upper third, also He has a Master’s in Research Methodology from (ITAE-Spain), a Master’s in Public Management from (USMP-Peru), currently a Master’s in Data Science from (UTEL-Mexico) and a Master’s in Scientific Research and Innovation from (UPT-Tacna). He has a passion for scientific research,

8:40 am – 9:00 am (Thursday, May 11)
Luis Salas Biondi
Professor of Graduate and Master's Degrees
National University of San Marcos, San Ignacio de Loyola University and Autonomous University of Peru
Operations and Strategic Planning Manager at Corporacion Lon Consultant in Strategic Planning, Production, Supply Chains, Quality Management and Lean

Luis Salas Biondi is Doctor (c) in Administrative Sciences from UNMSM, has a Master's Degree in Business Administration and a Master's Degree in Business Administration from Esan University. He has an International Diploma in Lean Supply Chain Management and an Advanced Senior Management Program in Logistics and Operations from Esan University. Additionally, Specialization in Supply Chain and Logistics Management at the SabMiller Co. Academy. He participated in Specialization Programs in Purchasing, Warehouse, Transportation, Aggregate Planning and Forecasting Management at Esan University. He has a Specialization in Quality Engineering from the Pontificia Universidad Católica del Perú and has a degree in Business Administration from the Inca Garcilaso de la Vega University. Mr. Salas is a professor at graduate schools on topics of Strategic Management, Operations Management and Supply Chain Management. He has been Head of Warehousing and Logistics at Anheuser-Busch InBev and South African Breweries Miller. Production and Packaging Supervisor, Operations and Maintenance Technician at Cervecería Backus y Johnston and Production Supervisor at Bayer Químicas Unidas. He is currently also a consultant in Strategic Management, Supply Chain Integration, Demand Forecasting, Warehouse and Inventory Optimization, Plant Redesign, Continuous Improvement Implementation, World Class Manufacturing, ERP-SAP and certifications for ISO 9001, 14001, 22000, 45000, GAP, GMP and HACCP.

9:00 am – 9:20 am (Thursday, May 11)
Elena Espinoza Rios
Coordinador Modalidad a Distancia, Facultad de Ingeniería
Ingeniería Empresarial y Sistemas e Informática
Universidad Continental, Peru

### Global Supply Chain and Logistics II

May 11, 4:00 – 5:45 pm – Meeting Room 3 (onsite)

#### 4:00 pm – 4:20 pm (Thursday, May 11)

**Franklin Cordova-Buiza**  
Research Teacher  
Department of Industrial Engineering  
Universidad Privada del Norte (UPN)  
Lima, Peru

#### 4:20 pm – 4:40 pm (Thursday, May 11)

**Mg. Sylvia Karina Rodas Risso**  
Supply chain manager, Leader and Entrepreneur  
Arca Continental Lindley S.A., Peru  
Vice President of Women Supply Chain – WINS in Peru  
Lima, Peru

Mg. Industrial Engineer SYLVIA KARINA RODAS RISSO worked for 10 years at Arca Continental Lindley S.A. and 6 years at Alicorp S.A.A. occupying management and leadership positions. Silvia is the Vice President of Women Supply Chain – WINS in Peru. She is currently an Undergraduate Teacher in Logistics Management and Supply Chain Management subjects. She has 20 years of controlling operations in supply chains of leading mass consumption companies in Latin America. Her holistic vision allows me to identify the impact on the business of the decisions made at the logistical level. Sylvia is observant, creative, analytical, with a focus on planning and team leadership ensuring reliability in operations and achievement of goals proposed objectives.

#### 4:40 pm – 5:00 pm (Thursday, May 11)

**Lucia M. Bautista Zuñiga**  
Docente Asociado  
Directora Académica  
Docente Investigadora Renacyt  
Universidad Privada del Norte (UPN)  
Lima, Perú

Lucía Bautista is Associate Professor and Academic Director of the Universidad Privada del Norte (UPN). PhD Candidate in Industrial Engineering from the Universidad Nacional Mayor de San Marcos (UNMSM). Professor Researcher Renacyt. Operations, Logistics and Simulation Specialist. Undergraduate and graduate professor at local universities. Specialist in University Management and Accreditation. Mentor at Innova ESAN Incubator and Pontificia Católica Center for Innovation and Entrepreneurial Development of Peru (CIDE-PUCP). Academic Coordinator in course Information Systems ERP – SAP. ISO internal auditor. LACCEI Peer Reviewer. ACM Professional Member.

5:00 pm – 5:20 pm (Thursday, May 11)

Juan Carlos Quiroz-Flores, Ph.D.
Research Professor – ULima
Facultad de Ingeniería y Arquitectura
Carrera de Ingeniería Industrial
Universidad de Lima, Peru

Juan Carlos Quiroz-Flores holds an MBA from Universidad ESAN. Industrial Engineer from Universidad de Lima. D. in Industrial Engineering from Universidad Nacional Mayor de San Marcos and Black Belt in Lean Six Sigma from Universidad Peruana de Ciencias Aplicadas. He is currently an undergraduate professor and researcher at the University of Lima. Expert in Lean Supply Chain and Operations with more than 20 years of professional experience in management positions in operations management, process improvement, and productivity. He has published articles in journals and conferences indexed in Scopus and Web of Science. He is a classified researcher by the National Council of Science, Technology and Technological Innovation of Peru (CONCYTEC), as well as a member of IEOM, IISE, ASQ, IEEE, and CIP (College of Engineers of Peru).

5:20 pm – 5:40 pm (Thursday, May 11)

Maria Elena Perez Lujan
Professor in Undergraduate
Continental University
Peru

Professor at the Continental University in Undergraduate. Doctor(c) in Business Management from the Universidad Nacional Mayor de San Marcos. Master of Administration from ESAN University. Bach. Industrial Engineer from the National University of San Marcos. Master in International Business at EOI (Spain). Professional with more than 20 years of experience in large transnationals of mass consumption, construction, industry and services – leading the Supply Chain areas such as Procurement, Warehouses, Transportation, Distribution and International Trade. Director of the Purchasing Committee at WINS.
Plenary Speakers
2nd IEOM Global Lean Six Sigma
 Lean Six Sigma I
Thursday, May 11, 8:00 – 9:45 am – Room 4 (Onsite)

8:00 – 8:20 am, Thursday, May 11, 2023

Kevin Aza Valencia, CAPM®, SFPC
Project Manager
AFRY, Lima, Perú

Title: Application of “Choosing By Advantages” in the conceptual design of solar PV projects
Professional in Civil Engineering, certified in Project Management under the PMI approach (CAPM) and in SCRUM tools (SFPC). He has over 5 years of experience in planning and management of engineering projects, innovation and research, on topics such as sustainable construction, renewable energy, design and construction of bridges, transport systems, weather phenomena and prestressed concrete. He masters tools such as Last Planner, BIM and Lean, as well as agile methodologies to contribute to the most efficient and optimal management of his projects and work teams. He is currently Coordinator of the Renewable Energy area in AFRY Peru, where he has participated in more than 15 renewable energy projects (including solar and wind) in South America, for a total of more than 2800 MW. He has also held positions related to management engineering and management consulting for several solar, wind, thermal and hydroelectric projects. Additionally, he is an independent researcher, focusing on project management and sustainability. He has developed research projects on renewable energy, transport systems, weather phenomena, sustainable construction, lean management, last planner system, construction software development, etc. Frequent speaker on topics related to sustainable management at UNI and UNMSM.

8:20 – 8:40 am, Thursday, May 11, 2023

Flor de Maria Tapia Vargas
Planning and Manufacturing Consultant
Expert in Lean Manufacturing, Push & TOC Systems
Lima, Peru

Evaluation of Lean Manufacturing Implementations based on an analysis of the FII-UNMSM Digital Program
Industrial Engineer University of Lima (1988); Master in Production Engineering from the Federal University of Santa Catarina – Brazil (1996), and PhD in Education from the San Martin de Porres University (2014). Professional in Logistics of Materials and Services from the Universidad Católica de la Plata and School of Logistics Management and Supply Chain – Argentina (2007). Extensive experience in manufacturing and service companies (General Manager of Editora Futura S.A., Head of Production of Consorcio Industrial San Martín Dry Cleaning Plant, Lead Consultant of EPRs Implementations in Baan Perú S.A, among others). Teacher with more than 25 years of experience in Post-Graduate and Pre-Graduate Schools nationwide. Member of the Civil, Industrial and Road Engineering Research Group of the Ricardo Palma University. Extensive experience in Production and Productivity seminars in Private and Government Institutions in Peru and Brazil.

8:40 – 9:00 am, Thursday, May 11, 2023

Jaime Cortez
CEO and Founder
Arcor Group
Lima, Peru

9:00 – 9:20 am, Thursday, May 11, 2023

Gina Huamán S.
Supervisor de Carga Rodante y PDI, APM Terminals
CEO & Consultor en Soluciones Lean
Peru
9:20 – 9:40 am, Thursday, May 11, 2023

Claudia Garcia Urure
LSSBB – Lean Six Sigma Black Belt, Industrial Engineer
Continuous Improvement Engineer
Minera Chinalco Perú S.A.
Peru

9:40 – 10:00 am, Thursday, May 11, 2023

Ing. Hugo Chacón Moscoso
Director de la Escuela Profesional de Ingeniería Industrial
Facultad de Ingeniería y Arquitectura
Universidad de San Martín de Porres
Programa Acreditado por ABET, ASIIN, ICACIT y SINEACE
Av. La Fontana 1250 Urb. Santa Patricia, La Molina
Peru, Lima

Lean Six Sigma II
Thursday, May 11, 2023 – 2:00 – 3:45 pm – Room 4 (Onsite)

Session Chair: Ing. Hugo Chacón Moscoso

2:00 – 2:20 pm, Thursday, May 11, 2023

Gabriel Olivera Pazos
Sub Gerente de Mejora Continua
Derco Perú
Lima, Perú

2:20 – 2:40 pm, Thursday, May 11, 2023

Cristopher Ramírez, MBA, Six Sigma Blackbelt
Plant Manager – UHT
LAIVE S.A.
Peru

2:40 – 3:00 pm, Thursday, May 11, 2023

Mónica Baca
Blackbelt Lean Six Sigma
Analista Senior de Procesos – Reemplazo de Jefe Corporativo Ingeniería de Procesos
Interoc Corporativo
Peru
Suresh Done
Founder and Chief Architect
SNA Technologies, Southfield, Michigan, USA
Chairman, AEA Michigan Chapter
Commerce Twp, Michigan, USA

Suresh Done is the Founder and Chief Architect of SNA Technologies, which he founded in 2006 based in Southfield, Michigan, USA. Suresh has around 33 years of experience in IT and Engineering. He is an Enterprise Architect and a World-class Agile Leader. Suresh has helped many companies to transform and rejuvenate their business and technology. He has provided Strategic Advisory consulting services to major companies in Government, Banking, Telecom, Automotive, Health, and Retail Industries. Suresh is an Agile Guru and has developed methodologies like TOPAgile (Agile Architecture Methodology) and E2EAM (End to End Agile Methodology) that helps the organization to be agile from end to end (planning to implementation to operations). Using his expert guidance, many companies were able to reduce IT cost by more than 40% and improve efficiencies by more than 50%. Suresh is a renowned Speaker, Author, and World-class trainer/coach. He had presented at various conferences across the globe. He is the author of two books, TOGAF Simplified and Architecting Enterprise Transformations. He is a world-class trainer/coach, delivered several courses on TOGAF and Scaled Agile. He has certified thousands of professionals on certifications like TOGAF(R), ArchiMate(R), IT4IT(TM), DPBoK, Open FAIR, and several Scaled Agile courses like Leading SAFe, SAFe for Architects, SAFe Product Owner/ Product Manager etc. Suresh had provided consulting services to many organizations including Fortune 1000 companies. He had been in large-scale transformations, worked with CXOs to lead the change from the top-level management to the operational level. Suresh had helped organizations to develop business and innovation strategies. Suresh’s breadth of knowledge in business and technology had made these transformations seamless and organizations were able to reap the benefits in a shorter period of time.
Panel Sessions

Industry 4.0 Panel
Tuesday, May 9, 8:00 – 9:30 am – Room 2 (Onsite)

Panel Chair

Dr. Christopher Harris
Associate Professor of Computer Science
University of Northern Colorado
Greeley, Colorado, United States

Dr. Christopher Harris is an Associate Professor of Computer Science in the School of Mathematical Science at the University of Northern Colorado. Previously, he taught at the State University of New York in Oswego and has nearly 20 years of work experience as a technical strategist at companies including the World Bank, Northrop Grumman, Ratheon, E! Entertainment Television, and AT Kearney. He served as the General Manager at Advisa Group, a technology consultancy based in Beijing, China. Professor Harris received his PhD in Information Science at the University of Iowa, an MBA from the Anderson Graduate School of Management at UCLA, his Masters in Computer Science from Virginia Tech, and his Bachelor’s in Computer Engineering from the University of South Florida. Professor Harris’ research areas include applying machine learning and artificial intelligence to business, agriculture, human resources, and manufacturing, ensuring fairness in machine learning algorithms, and applications involving blockchain and smart contracts.

Panel Speakers

Prof. Vitor Mendes Caldana
Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
Sorocaba, Sao Paulo, Brazil

Began the academic career with a technician course in Electronics from Liceu de Artes e Oficios (1999) followed by an undergraduate degree in Electronic Engineering from Universidade Presbiteriana Mackenzie in 2004. In 2016, finished the Masters course in Industrial Engineering with the Quality of Engineering Education and its Relation to Regional Development as his area of research. As a technical profession, from 1999 until 2016, started in Caltronic Automação Industrial, a service-based company in Brazil that represents American and European automation equipment for the printing industry, and finished as Service and Projects Manager, serving not only Brazil but the whole of South America with services performed also in USA and China. During the professional career took several courses in USA and Europe to Automation and dedicated equipment maintenance. In 2016 left the company for full-time dedication to IFSP. In 2016 moved to IFSP to start the electronics Technical Course in the city of Sorocaba and has been engaged with this project since. In this 4,5 years taught a variety of courses in electronics. In 2018 began his Research Group in Industry 4.0 and is currently working with colleagues in this research area as well as the project for the PhD.

Lean Six Sigma Panel
Tuesday, May 9, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair

Dave Harry
Black Belt Trainer / Kata Coach
President & CEO
Process Whisperer® Consultants LLC
Greeneville, TN, USA

David Harry, a.k.a. “The Process Whisperer®”, has more than 30 years' experience as a project manager, business process improvement instructor and expert problem solver. Following a successful military career as a Naval Aviator, Dave taught Lean and Six Sigma “Belts” and project management classes for various companies including KPMG Consulting, Northrop Grumman, Rolls-Royce Energy, Arconic, and the University of Tennessee Knoxville. An Expert Trainer at Northrop Grumman, he was Manager of Continuous Improvement at Rolls-Royce Energy and has been involved with manufacturing and logistics Lean Six Sigma programs across several industries.. He has served on leadership boards of the American Society for Quality and the Institute of Industrial Systems Engineers and the OpEx Society. He has been awarded three Masters-level degrees in management, including from the University of Southern California and the University of Chennai (India). His certifications include PMI Project Management Professional, ASQ Six Sigma Black Belt, Lean Bronze Certification from the SME/Shingo/AME Alliance, Agile Certified Scrum Master and a Certified Baseline Project Management Office (CB-PMO) Consultant. He is a recognized Toyota Kata “Geek” and has attended and presented at several IEOM conferences.
Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ  
Chief Executive Officer & Founder  
TP Global Business Consulting, LLC  
Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Adept at reengineering business processes, change management and IT infrastructure with business visions to drive profitability, efficiency, and growth within the organization. Proficient at ensuring all processes comply with regulatory requirements and IT governance practices. Excellent communicator with strong influencing and problem-solving skills. Strong leadership skills and demonstrated ability to lead team members and external business contacts including stakeholders such as consultants, partners and vendors. Demonstrated track record of delivery of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000. He also volunteered in many activities to promote project management and participated of writing PMP exam questions workshop in Dallas, Texas in 2002. Dr. Prensa has helped hundreds of project management professionals to get prepared for the PMP exam. Dr. Prensa has taught project management for several universities in the country, including Virginia Technical University, Grand Canyon University, Colorado Technical University, University of Phoenix and currently teaching for Walden University. With more than 25 years of teaching experience in various formats, face-to-face and virtual. Dr. Prensa has developed techniques to connect with learners and students in the most efficient way. Dr. Prensa has extraordinary people skills, he always puts people first.

**Women in Industry and Academia (WIIA) Panel**

**Tuesday, May 9, 4:00 – 5:45 pm – Room 2 (Onsite)**

**Panel Chair**

**Karol Muñoz**  
Docente de Ingeniería Mecatrónica  
PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ  
Avenida Universitaria N° 1801  
San Miguel, Lima 32 – Perú

Master in Automation and Systems Engineering from the Federal University of Santa Catarina, Brazil and Electronic Engineer from the Pontifical Catholic University of Peru. Specialist in Project Management and Quality by the Quality Institute of the Pontifical Catholic University of Peru. Full-time professor for 6 years and part-time professor for 11 years in the undergraduate Mechatronics Engineering program. Co-author of the book “Mechatronic Design Methodology “. Winner of the program for high performance teaching in 2021 and 2022. Member of ALWE (Academic Leadership for Women in Engineering). Co-founder of the project “This Girl Can: Discover, create and innovate”, it promotes that more girls are motivated to study engineering. Head researcher in projects with industry and government agencies in the area of automation.

**Panel Speakers**

**Cinthia Vargas Figueroa**  
Senior Manager of Human Resources, Volcan Compañía Minera  
Part time Professor Post Grade and Senior Coach, Universidad ESAN Graduate School of Business  
Peru

Cinthia Vargas Figueroa has Master in Human Resources from EADA Spain, MBA from ESAN and Industrial Engineer from the Pontificia Universidad Católica del Perú and Ontological Coach with International Certification. She has held high positions as Manager in Human Resources, Administration and Social Responsibility, developing high performance teams based on the achievement of objectives through the employees in the following fields: mining, services, government and banking. She is a successful implementer in organizational change processes and management indicators (ROI, BSC etc) that allows to measure the impact and improvement of productivity in the management of people and companies. She is author of publications related to the development of personal and professional skills, as well as co-author of the book Indicators and Measurements applied to People Management, where she delves into the application of measurement tools such as ROI in Training people. Through her consulting company, PD (Personnel Development) established 14 years ago, she provides Coaching sessions to high executives, advises companies focusing in development and execution of their strategic plan. She is a professor at the Pontificia Universidad Católica del Perú (Engineering Department) and ESAN University, (Postgraduate School), in Coaching and Leadership Competences, Effective Communication, Negotiations and Conflict Management.
Panel Chair

**Dr. Luis Alberto Flores Garcia**  
Professor  
Pontificia Universidad Católica del Perú  
Lima Perú Chapter Communications Vice President  
Program Chair, Member of the University Assembly

Luis Flores has a PhD in Strategic Management. Possess several credentials related with management (PMP, PMI-RMP, PMI-ACP, Certified Scrum Master, Agile hybrid project professional, Organizational Transformation Foundation, PMI Citizen Developer Practitioner, PMI Citizen Development Business Architect, HCMBOK 3g Expert Professional, HCMBOK To Agile Practitioner, CQ Certified Change Leader and ICC International Coach). He is currently Director of the Master’s Degree in Project Management and Quality at Pontificia Universidad Catolica del Peru and Program Chair of the informatics engineering program, He is Founding Partner of F&M Consulting, Director of Human Change Management Institute for Peru. Additionally, he acts as Technical Secretary of the Standardization Committee in project, program and portfolio management, member of the international Committee TC 258 of the ISO and volunteer of PMI Global for more than 13 years. He has been President of PMI Lima Perú Chapter, member of the review committee of the PMBOK Guide, member of the PMI Academic Community and currently he is in charge of the Research Unit of the PMI Lima Peru Chapter.

Panel Speakers

**Catherine Cueva**  
Vice President of the PMI Lima Peru Chapter  
Formerly head of the Professional Development Department of the Chapter  
Risk Management Specialist for core projects of the Peruvian Government

Vice President of the PMI Lima Peru Chapter. Formerly head of the Professional Development Department of the Chapter. She has PMP, PMI-RMP, Project Management and Risk Management certifications. She is a speaker at conferences and author of articles for journals on topics related to Project Management. She is currently working as a Risk Management Specialist for core projects of the Peruvian Government.

**Vicente Granadino**  
Advisor to the Congress of the Republic  
Past Project Management and IT Consultant for the Ministry of Production, Sierra y Selva Exportadora of the Ministry of Agrarian Development and Irrigation  
Past President of the PMI Lima Peru Chapter

Consultant focused on project portfolio management and digital transformation of large projects with more than 30 years of experience on Banking, Finance, IT and Agribusiness industries. International speaker at PMI conferences in Peru, Santiago de Chile, Montevideo, Buenos Aires, Asuncion and Santa Cruz since 2009. Industrial Engineer with an MBA in Strategic Business Administration at CENTRUM PUCP Certified as PMP by PMI and Master Practitioner in Neuro-Linguistic Programming by the International Association for Neuro-Linguistic Programming (IANLP). Currently, advisor to the Congress of the Republic. Previously, he has been Project Management and IT Consultant for the Ministry of Production, Sierra y Selva Exportadora of the Ministry of Agrarian Development and Irrigation. Deputy Manager of IT Applications at Banco de Crédito BCP and Past President of the PMI Lima Peru Chapter.

**Deivhy Torres**  
Consultant in Government and Digital Transformation at the Secretariat of Government and Digital Transformation, and University Professor at UNI, UPN and PUCP  
Technology Project Evaluator in the Pacific Alliance and Inter-American Development Bank  
Leader of the PMI Cajamarca Community  
Vice President of Education and PMIef Liaison in PMI Norte Peru Chapter

Systems Engineer, specialized in Information Technology, Project Management, Digital Transformation and Innovation + Entrepreneurship. PhD in Economics from the National University of Cajamarca, Master in IT Administration from the Tecnológico de Monterrey and Master in Information Systems Management from the Universidad Privada del Norte. Recognized for his professional career as Doctor Honoris Causa by the International University in Human Development and Leadership, Mexico. He is certified as PMP, PMO-CP, CSM, PRINCE2 Practitioner, ITIL 4, COBIT, Six Sigma Yellow Belt, Leadership Management, Design Thinking Practitioner and Data Science by IBM. He has specializations in the Inter-American Development Bank, Harvard University and Tecnológico de Monterrey. He has been Technology Project Evaluator in the Pacific Alliance and Inter-American Development Bank, Leader of the PMI Cajamarca Community, Vice President of Education and PMIef Liaison in PMI Norte Peru Chapter, he has also held different management positions in the public sector, as Head of Planning, Deputy Manager of Institutional Development, Head of Systems, Regional Director of Digital Transformation in the Regional Government.
Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ  
Chief Executive Officer & Founder  
TP Global Business Consulting, LLC  
Orlando, Florida, USA

Dr. Prensa is a highly accomplished executive and leader of project management office (PMO), project/portfolio management, information systems and technologies, combines a Doctorate in Organizational Leadership with a major in Information Systems and Technologies, Certified PMO Professional, Authorized PMO Instructor, Certified Project Management (PMP), and ITILIV certification with extensive experience managing and overseeing large information systems projects/programs, strategic planning, and seamless IT implementations. Adept at reengineering business processes, change management and IT infrastructure with business visions to drive profitability, efficiency, and growth within the organization. Proficient at ensuring all processes comply with regulatory requirements and IT governance practices. Excellent communicator with strong influencing and problem-solving skills. Strong leadership skills and demonstrated ability to lead team members and external business contacts including stakeholders such as consultants, partners and vendors. Demonstrated track record of delivery of multiple technical and business projects on time and within budget. Experience in full-lifecycle project management methodologies and tools. Dr. Prensa has been involved with the Project Management Institute for more than twenty-five years. He served a vice president of PMI Puerto Rico Chapter from 1998-2000. He also volunteered in many activities to promote project management and participated of writing PMP exam questions workshop in Dallas, Texas in 2002. Dr. Prensa has helped hundreds of project management professionals to get prepared for the PMP exam. Dr. Prensa has taught project management for several universities in the country, including Virginia Technical University, Grand Canyon University, Colorado Technical University, University of Phoenix and currently teaching for Walden University. With more than 25 years of teaching experience in various formats, face-to-face and virtual. Dr. Prensa has developed techniques to connect with learners and students in the most efficient way. Dr. Prensa has extraordinary people skills, he always puts people first.

Data Science Panel  
Wednesday, May 10, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair

Dr. Yamilet Serrano Llerena  
Head of Data Science Department  
UTEC – Universidad de Ingeniería y Tecnología  
Lima, Peru

Dealing with uncertainties in the formal verification of probabilistic systems has been my challenge for the last years. I am currently a Computer Science Ph.D. candidate and a research assistant at the National University of Singapore. The motivation of my research work is to understand the effect of uncertain events in the verification of systems that present some probabilistic behavior. During my Ph.D. studies, I have learned several programming languages, randomized algorithms, and fundamentals of software engineering. Mainly, I have focused on the analysis, testing, and verification of software. Before I joined as a Ph.D. student, I had the grateful experience of teaching as a lecturer in the area of Discrete Mathematics and Programming Languages in San Pablo Catholic University, Peru from 2008 to 2011. I always challenge myself to learn new techniques and languages; I try to find creative solutions to problems using my computer science background. I enjoy working in a group, collaborating and learning from my peers. On the other hand, I love teaching and sharing my knowledge with others. Maybe one day, my students will cross more doors than I have crossed so far.

Panel Speakers

Hans Figueroa Guaylupo  
Data Visualization Specialist – Oechsle (Intercorp InRetail)  
Master in Business Intelligence & Data Analytics – IEBS Business School  
Chemical Engineer – Universidad de Ingeniería & Tecnología (UTEC)  
University Innovation Fellow – Hasso Plattner Institute of Design at Stanford University

Hans is Data Visualization Specialist at Data & Strategy team at Oechsle, one of the most competitive retail companies in the Peruvian market. He has nearly 5 years of business experience, and has worked on data and customer experience projects for the sports (Alianza Lima), healthcare (Hanfra Technology), education (UTEC), telecommunications (Telefónica) and retail (Oechsle) industries.

He holds a Bachelor of Engineering degree in Chemical Engineering from Universidad de Ingeniería & Tecnología (Lima, Peru) and a Master degree in Business Intelligence & Data Analytics from IEBS Business School (Barcelona, Spain). Hans serves as University Innovation Fellow for Hasso Plattner Institute of Design at Stanford University (California, USA), and led an educational movement in Perú & Latam to help university students developing their own creative confidence and entrepreneur nontraditional businesses. He is Futures Thinking Specialist from Institute for The Future (California, USA), and Intellectual Property Specialist from Indecopi (Lima, Peru). Hans carried out projects with recognized institutions such as MIT (USA) and VDI (Germany).

He considers himself an inveterate curious and a lifelong learner, with only one purpose: enjoy the process. Wherever he goes, he defends and promotes a horizontal & data driven culture, transparency, empathy, intellectual humility, agility and interdisciplinarity to achieve any short and long term goal.
Global Engineering Education Panel

Wednesday, May 10, 4:00 – 5:45 pm – Room 2 (Onsite)

Panel Chair

Dr. Francisco Rumiche
Dean, School of Science and Engineering
Pontificia Universidad Católica del Perú (PUCP)
Lima, Peru

Francisco Rumiche is the Dean of the School of Science and Engineering at Pontificia Universidad Católica del Perú (PUCP). He is a professor of Materials Science and Engineering in the Department of Engineering and an alumnus of the DIES International Deans’ Course Latin America 2021-2022. He holds a PhD and a MSc degree in Materials Engineering from the University of Illinois at Chicago and a bachelor's degree in mechanical engineering from PUCP. A senior Analyst in the Materials Laboratory; his professional and research interests include failure analysis, materials characterization, and nanostructured materials. His educational interests are focused on the use of flipped learning, storytelling for teaching, and the use of digital resources to support learning processes.

Panel Speakers

Dr. José A. Santiváñez
Dean of Engineering
UTEC – Universidad de Ingeniería y Tecnología
Lima, Peru

José A. Santiváñez is Dean of Engineering of UTEC – Universidad de Ingeniería y Tecnología, Lima, Peru. He was Department Chair of Industrial Engineering at UTEC. He earned a B.S. in Industrial Engineering from Pontificia Universidad Católica del Perú, Perú, MS in Operations Research and PhD in Industrial Engineering both from Northeastern University, Boston, MA. His research interests include critical infrastructure systems, complex networked systems, network reliability and survivability, and locational theory. His areas of expertise include operations research, service systems, stochastic modeling, and quantitative and statistical analysis. He is a member of IISE and INFORMS.

Professor Donald M. Reimer
President, The Small Business Strategy Group
Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University
Southfield, Michigan, USA

Dr. Ahad Ali
Associate Professor
Director of Bachelor of Science in Industrial Engineering
Director, Master of Science in Industrial Engineering
Director of Smart Manufacturing and Lean Systems Research Group
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International
Diversity and Inclusion Panel sponsored by Ford Motor Company

Wednesday, May 10, 6:00 – 7:00 pm – Room 2 (Onsite)

Panel Chair

Professor Donald M. Reimer
President, The Small Business Strategy Group
Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University
Southfield, Michigan, USA

Donald M. Reimer is an adjunct faculty at the A. Leon Linton Department of Mechanical Engineering in College of Engineering at Lawrence Tech in Southfield, Michigan. He coordinates the Certificate of Entrepreneurial Engineering Skills. Mr. Reimer holds a Bachelor of Science degree in Industrial Management from Lawrence Technological University and a Master of Arts degree in Political Science from University of Detroit/Mercy. He is a Certified Management Consultant with over 35 years of experience in working with closely-held businesses. He has taught courses in entrepreneurship, strategic management, corporate entrepreneurship and innovation for engineers. Mr. Reimer is a member of the Lawrence Tech Kern Campus Committee, Coordinator of the Lawrence Tech Innovation Encounter. He is faculty Advisor of the Collegiate Entrepreneurs’ Organization. Mr. Reimer serves as a Kern Fellow of The Kern Family Foundation, Co-Direct of the Coleman Fellows Program, member of the National Collegiate Entrepreneurs’ Organization Faculty Advisory Council and is a member of the American Society of Engineering Education. He has operated his own consulting company – The Small Business Strategy Group for 23 years. He has published numerous articles on small business, entrepreneurship and strategic thinking. He has received several awards and recognition by local, state and federal agencies for his work in entrepreneurship and minority business development. Mr. Reimer served as member of the Minority Economic Development Committee of New Detroit. Mr. Reimer is member of the Small Business Advisory Council of the Detroit Regional Chamber of Commerce. Mr. Reimer is a member of Advisory Board of the Milwaukee Junction Small Business Assistance Center. He is also a member of the Applied Innovation Alliance. Mr. Reimer serves as a KEEN Fellow for The Kern Family Foundation and is a member of United States Association of Small Business and Entrepreneurship.

Panel Speakers

Sandro Paz, Ph.D.
Director of the Industrial Engineering Program – PUCP
Former Director of University Accreditation
Pontificia Universidad Catolica del Peru
San Miguel, Peru

Sandro Paz is a Professor at the Pontificia Universidad Catolica del Peru (PUCP). He graduated from PUCP as an Industrial Engineer, holds a MS from the University of Puerto Rico, and a PhD in Industrial Engineer from University of South Florida. Dr. Paz was the Director in the Peruvian accreditation board, which has allowed him to learn about the Peruvian university system. He also has worked in several consulting projects related with optimization and quality management. As of today, he is Program Director of Industrial Engineering (undergraduate) and Engineering Management (graduate) programs. He leads the accreditation process for all engineering programs at PUCP that have achieved accreditations from CEAB (Canada), Abet (USA), and Icacin (Peru)

Global Supply Chain and Logistics Panel

Thursday, May 11, 2:00 – 3:45 pm – Room 2 (Onsite)

Panel Chair

Dr. Jose Larco
Associate Professor
Program Coordinator for Supply Chain & Logistics Coordinator
Industrial Engineering Department
University of Engineering and Technology (UTEC)
Lima, Peru

Dr. Larco is an Associate Professor at the University of Engineering and Technology (UTEC), in the Industrial Engineering Department. He is the program coordinator for Supply Chain & Logistics related courses within the department. His current research interests include the following: human decision making and organization in planning tasks, human factors of productive workers and retail operations in emerging countries. He has published
IEOM Peru Conference Panel Sessions May 8-11, 2023

Panel Speakers

Mario Chong
Universidad del Pacifico

Submissions Received from Countries and Territories


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14th International Conference on Industrial Engineering and Operations Management
February 12-14, 2024, Dubai, United Arab Emirates (UAE)
Venue: Hyatt Regency Dubai
Host: Khalifa University, Abu Dhabi
http://ieomsociety.org/dubai2024/

Conference Chair:
Dr. Mohammed Omar
Professor and Chair, Department of Industrial and Systems Engineering
Khalifa University, Abu Dhabi, UAE
### Parallel Sessions

**All Times are in Peru Time**

#### Monday, May 8, 2023

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<thead>
<tr>
<th>Time</th>
<th>Room 1 - Virtual</th>
<th>Room 2 - Virtual</th>
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<tr>
<td>8:00 am</td>
<td>Undergraduate Student Paper Competition</td>
<td>Competitions (FYP, Simu, HF, Poster)</td>
<td>Competitions (HS, Grad Paper)</td>
<td>Engineering Management</td>
<td>IoT and IT</td>
<td>Case Studies</td>
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<tr>
<td>10:00 am</td>
<td>Supply Chain and Logistics Competition</td>
<td>Supply Chain Management</td>
<td>Lean Six Sigma Manufacturing</td>
<td>Industry 4.0</td>
<td>Case Studies</td>
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<tr>
<td>12:00 pm</td>
<td>Online Keynote I: Professor Edward J. Williams, Educator at University of Michigan – Dearborn, Statistics/Simulation Consultant and Senior Technical Specialist at PMC, Dearborn, Michigan, USA – Room 1</td>
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<td>12:40 pm</td>
<td>Online Keynote II: Dr. Neyara Radwan, Associate Professor, Mechanical Engineering, Faculty of Engineering, Suez Canal University, Egypt &amp; Associate Professor &amp; the Quality Assurance Officer for the PhD program, King Abdulaziz University, Saudi Arabia – Room 1</td>
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<td>1:20 pm</td>
<td>Online Keynote III: Professor Eldon G. Caldwell Marin, Professor, Industrial Engineering Department, University of Costa Rica – Room 1</td>
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<td>2:00 pm</td>
<td>Reliability Competition – Room 1</td>
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<td>4:00 pm</td>
<td>Six Sigma Competition – Room 1</td>
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<td>6:00 pm</td>
<td>Production Planning and Control Competition – Room 1</td>
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#### Tuesday, May 9, 2023

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<tr>
<th>Time</th>
<th>Room 1 – Ballroom at JW Marriott Hotel</th>
<th>Room 2 Onsite</th>
<th>Room 3 Onsite</th>
<th>Room 4 Onsite</th>
<th>Room 5 Virtual</th>
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<tr>
<td>8:00</td>
<td>Strategies for Writing &amp; Publishing Research Articles Workshop</td>
<td>Industry 4.0 Panel</td>
<td>Global Engineering Education I – Plenary</td>
<td>Undergraduate Student Paper Competition</td>
<td>Optimization</td>
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<tr>
<td>10:00</td>
<td>Welcome Address – Dr. Elio Iván Rodríguez Chávez, Rector, Universidad Ricardo Palma - Ballroom at JW Marriott Hotel</td>
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<tr>
<td>10:20</td>
<td>Keynote I: Dr. Wester Zela, Professor in undergraduate and postgraduate programs, Director of the UNI AI Laboratory, National University of Engineering (UNI), Lima, Peru</td>
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<td>11:00</td>
<td>Keynote II: Ivan Garibay, Associate Professor, Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA - Director UCF Artificial Intelligence and Director, Master of Science in Data Analytics</td>
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<td>12:20</td>
<td>Keynote IV: Dr. Domingo González, Vice President for Administration, Professor of Engineering Department, Pontificia Universidad Católica del Perú (PUCP), Lima, Peru</td>
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<td>1:00</td>
<td>Lunch Break</td>
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<td>2:00</td>
<td>Six Sigma Certification Workshop</td>
<td>Lean Six Sigma Panel</td>
<td>Global Business Management I – Plenary</td>
<td>Competitions (Undergrad Research, SCM and Simulation)</td>
<td>Manufacturing</td>
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<tr>
<td>4:00</td>
<td>Women in Industry and Academia (WIIA) Panel</td>
<td>Global Business Management II – Plenary</td>
<td>Competitions (MS Thesis, LSS, Grad Paper)</td>
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#### Wednesday, May 10, 2023

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<tr>
<th>Time</th>
<th>Room 1 – Ballroom at JW Marriott Hotel</th>
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<th>Room 3 - Onsite</th>
<th>Room 4 - Onsite</th>
<th>Room 5 - Online</th>
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<tr>
<td>8:00</td>
<td>Resume Writing &amp; Career Planning Workshop</td>
<td>Project Management Panel</td>
<td>SCM and Operations Research</td>
<td>Global Data Analytics I - Plenary</td>
<td>Applied Statistics</td>
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<tr>
<td>10:00</td>
<td>Conference Chair Remarks</td>
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<td>10:20</td>
<td>Keynote V: Eduardo Herrera, CEO, Ceeepsa, Lima, Peru</td>
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<td>11:00</td>
<td>Keynote VI: George Reinoso Vasquez, Plant Optimization Manager – Peru Plant, The Goodyear Tire &amp; Rubber Company, Callao, Peru</td>
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<td>11:40</td>
<td>Keynote VII: Tania Cristina D’Agostini Bueno, CEO, Instituto de Governo Eletrônico, Inteligências e Sistemas – I3G, Florianópolis, Santa Catarina, Brazil</td>
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<td>12:20</td>
<td>Keynote VIII: Carolina Carbone Moane, Client Experience Manager, Mibanco, Peru</td>
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<td>1:00</td>
<td>Lunch Break</td>
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<td>2:00</td>
<td>Toyota Kata Workshop The Secret Sauce for Toyota Production System</td>
<td>Data Science Panel</td>
<td>Industry Solutions and Industry 4.0 I - Plenary</td>
<td>Global Data Analytics II - Plenary</td>
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<td>4:00</td>
<td>Global Engineering Education Panel</td>
<td>Industry Solutions and Industry 4.0 II - Plenary</td>
<td>Global Data Analytics III - Plenary</td>
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<tr>
<td>6:00</td>
<td>Diversity and Inclusion Panel sponsored by Ford Motor Company</td>
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#### Thursday, May 11, 2023

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<th>Time</th>
<th>Room 1 – Ballroom Onsite at JW Marriott Hotel</th>
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<th>Room 4 - Onsite</th>
<th>Room 5 - Online</th>
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<tr>
<td>8:00</td>
<td>Project Management Workshop: Leading with Emotional Intelligence</td>
<td>Optimization</td>
<td>Global Supply Chain and Logistics I - Plenary</td>
<td>Lean Six Sigma I - Plenary</td>
<td>HF and Healthcare</td>
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<tr>
<td>10:00</td>
<td>Conference Chair Remarks</td>
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<tr>
<td>11:00</td>
<td>Keynote X: Esp. Roberto Giordano, Decano de la facultad de Ingeniería, Universidad de Fasta, Argentina</td>
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<td>11:40</td>
<td>Keynote XI: Miguel Ángel Gómez Martínez, Departamento de ingeniería, Universidad de Guanajuato, Guanajuato, Mexico</td>
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<td>12:20</td>
<td>Keynote XII: Luis Felipe Turbides, Director of IF, Optimization and Projects, DP World Callao, Peru</td>
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<td>1:00</td>
<td>Lunch Break</td>
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<tr>
<td>2:00</td>
<td>Innovation and Entrepreneurship Workshop</td>
<td>Supply Chain and Logistics Panel</td>
<td>Six Sigma and AI</td>
<td>Lean Six Sigma II - Plenary</td>
<td>Engineering Education</td>
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<tr>
<td>4:00</td>
<td>Technical Presentations</td>
<td>Global Supply Chain and Logistics II - Plenary</td>
<td>Operations Management</td>
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**Awards Ceremony and Dinner Buffet**

7:00 – 10:00 pm, May 11, 2023 – JW Marriott Hotel Lima
May 8, 2023 (Monday)

May 8, 2023 (Monday) - Session: 8:00 – 9:45 am

8:00 – 9:45 am, MONDAY Undergraduate Student Paper Competition Virtual Room 1

Sponsored by Siemens

Session Chair: Dr. Mizanur Rahman, IEOM, Australia

ID 2 Perceived Employee Engagement, Collaborative Capability, and Service Tenure as Correlates of Employee Performance: A Multivariate Analysis
America, Girle; De Palma, Mary Leinel; Demalata, Fiona Mae; Denila, Robert Ryan; Inocencio, Bheatixie and Obilino, Sharmae Jayne
Department of Industrial Engineering, College of Engineering and Architecture, Technological Institute of the Philippines – Quezon City Cubao, Quezon City, Philippines

ID 38 A Case Study Review of Supply Chain Modifications to Minimize Community Impact from Hurricanes
Tara Birgani, Maxwell Ferrer, Thomas Kiely, Arina Poggioli and Mohamed Awwad, Industrial and Manufacturing Engineering Department California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 182 Factors Affecting the Level of Trust of MSMEs in Using Fintech Using the Technology Acceptance Model (TAM)
Suci Ayu Putri, Faculty of Social Humanities, Universitas Bina Darma, Palembang, Indonesia
Dewi Sartika, Faculty of Social Humanities, Universitas Bina Darma, Palembang, Indonesia
Muji Gunarto, Faculty of Social Humanities, Universitas Bina Darma, Palembang, Indonesia
Sulaiman Helmi, Faculty of Social Humanities, Universitas Bina Darma, Palembang, Indonesia

ID 88 Lean Management Practices Applied in Retail Sector Businesses: a Systematic Review of Literature
Romina Samantha Egoavil Bazán, Universidad de Lima, Facultad de Ingeniería y Arquitectura, Lima, Peru
Nataly Selene Rodríguez Ortiz, Universidad de Lima, Facultad de Ingeniería y Arquitectura, Lima, Peru
Juan Manuel Machuca De Pina, Universidad de Lima, Facultad de Ingeniería y Arquitectura, Lima, Peru

ID 207 Product Design of Adjustable Mini Static Bicycle Using Nigel Cross Method
Jennifer, Sharah Corralynn, Charin Natasha Tarigan, Ariz Farhan, and Wiradhika Putra Anugerah, Departement of Industrial Engineering, Faculty of Engineering, Universitas Sumatera Utara, 20222, Medan, Indonesia

ID 98 Inventory Policy for the Demand of Main Products: The Case of a Peruvian Grocery Store
Joshep Delfín Mauricio Espinoza, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Lima, Perú
Emilio Huaynate Ricaldi, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Lima, Perú
Marcos Fernando Ruiz-Ruiz, Associate Professor, Universidad de Lima, Lima, Perú

Undergraduate Research Competition

ID 108 Business Agile Model for Startups in the Meat Industry using Digital Marketing, Lean Canvas and Lean Startup
Alexandro Manuel Gutierrez-Posadas and Renzo Leonardo Vargas-Castillo, Bachelor of Science in Industrial Engineering, Facultad de Ingeniería y Arquitectura, Universidad de Lima
Juan Carlos Quiroz-Flores, Research Professor, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú
Ruth Vasquez-Rivas-Plata, Research Professor, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú
Martin Fidel Collao-Diaz, Research Professor, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú

8:00 – 9:45 am, MONDAY, May 8 Competitions Virtual Room 2

Session Chair: Nusrat Islam, IEOM, Bangladesh

SENIOR CAPSTONE DESIGN COMPETITION sponsored by Tooling Tech Group

ID 20 Design of a Pick and Place Mechanism – With Industrial Application
Fatmah Alshatti, Albatoul Alramzi, Nawal Alkandari and Rawan Almutairi, College of Engineering and Technology, American University of the Middle East, Kuwait

SIMULATION COMPETITION

ID 34 Simulation Competition, Discrete Event Simulation on a Production Line and Applying the Kanban Definition of a Welding and Machining Cell Process
Kaique de Sousa Menck da Silva, Bruna Meire Kuhl Gomes, Renan Matheus da Silva Pontes, Thiago Fernando Rosa Teodoro, Henrique Ebanks de M. Vieira and Rodrigo Luiz Gigante, Production Engineer, Facens University, Sorocaba, São Paulo, Brazil

HUMAN FACTORS AND ERGONOMICS COMPETITION sponsored by CINTAS

ID 204 Identification of Ergonomic Risk Factors and Safety Concerns in Metal Fabrication Industries
S.M. Hasanuddin, Student, Methodist College of Engineering and Technology, Hyderabad, India
Quotubuddin S.M., Associate Professor, P.D.A. College of Engineering, Kalaburagi, India
Ayesha Fatima, Student, Stanley College of Engineering and Technology for Women, Hyderabad, India

ID 305 A Cross-Sectional Study on Anger Expression among Students in University of Cyberjaya, Malaysia
Nur Aimi Nadiah Binti Rosdan, Student, School of Medicine, University of Cyberjaya (UoC), Cyberjaya, Malaysia
Kirsharuhpini Gopalakrishnan, Abu Huzailah Bin Muhammad Sharman, Kenny Anak Paschal and Dr. Muhammad Radhi Ahmad, School of Medicine, University of Cyberjaya (UoC), Cyberjaya, Malaysia

POSTER COMPETITION

ID 85 Mobile Racks AS/RS's Throughput Rate Calculation Using Timed Petri Nets
Yassine Boudghene Stambouli, Manufacturing Engineering Laboratory of Tlemcen, Faculty of Technology, University Abou Bakr BELKAID of Tlemcen, University Centre of Maghnia, Institute of Sciences and Technology, Algeria
Samir Hamaci, Quartz Laboratory (EA 7393), ECAM-EPMI, 13, Bvd de l’Hautel, 95092, Cergy-Pontoise, France

COVID-19 COMPETITION

ID 206 Sustainability of Construction Company Waste Management in the Industrial Era 5.0 - Post Pandemic Covid-19
Yenita, Faculty of Economics and Business, Universitas Tarumanagara, Letjen S. Parman No. 1 West Jakarta, Indonesia

MASTERS THESIS COMPETITION

ID 210 The Investigation of 4.5G Service Quality Using the SERVQUAL Method in the Gaziantep
Busra Savcili, Faculty of Industrial Engineering, University of Gaziantep, Turkey
Alptekin Durmusoglu, Faculty of Industrial Engineering, University of Gaziantep, Turkey

8:00 – 9:45 am, MONDAY, May 8
Session Chair: Aqib Islam, IEOM, Bangladesh

HIGH SCHOOL STEM COMPETITION

ID 90 Legal Research on Decision-Making in Artificial Intelligence and Corporate Management
Kim See You and Shin Dong Ho, Student and Professor, My Paul School, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Student, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

ID 91 Factors Affecting Intention to Accept Artificial Intelligence-based Smart Aquaculture System
Jung Ji-Seok and Shin Dong Ho, Student and Professor, My Paul School, 12-11, Dowontongmi-gil, Cheongcheon-myeon, Goesan-gun, Chungcheongbuk-do, Republic of Korea
Jeongwon Kim, Student, Department of Economics, College of Economics, Nihon University, 3-2 Kanda-Misakicho, 1-chome, Chiyoda-ku, Tokyo, Japan

ID 174 Node-RED for PLC Automation
Daniel Ribeiro de Sousa and Vitor Mendes Caldana, Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus, Sorocaba, Sao Paulo, Brazil

GRADUATE STUDENT PAPER COMPETITION sponsored by Eaton

ID 173 Lean Six Sigma Approaches Trend: A Bibliometric Review
Omar Celis Gracia, Fabiola Hermosillo Villalobos, Jorge Luis Garcia Alcaraz and Francisco Javier Estrada Orantes, Department of Industrial Engineering and Manufacturing, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Chihuahua, México

ID 177 Lean Manufacturing for Process Improvement: A Bibliometric Review
Fabiola Hermosillo Villalobos, Omar Celis Gracia, Jorge Luis Garcia Alcaraz and Francisco Javier Estrada Orantes, Department of Industrial Engineering and Manufacturing, Autonomous University of Ciudad Juárez, Ciudad Juárez, Chihuahua, México

8:00 – 9:45 am, MONDAY, May 8
Session Chair: Dr. José Antonio Larco, UTEC

Engineering Management

ID 92 Innovation of Marketing Strategy for Spun Pile Products at Precast Construction Company in Indonesia with a Risk Approach and ISO 56002 Innovation Process to Increase Competitiveness
Arya Wirtanu Fahreva, Master Student, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia
Yusuf Latief, Professor, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 95 Innovation of Spun Pile Manufacturing Method Using a Risk Approach and ISO 56002 Innovation Process to Increase Competitiveness
Amanda Yohanna, Master Student, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia
Yusuf Latief, Professor, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 96 Innovation of Technology Application in the Manufacturing of Spun Pile Products at Precast Construction Company Using a Risk Approach and ISO 56002 Innovation Process to Increase Competitiveness
Marsella Khaerunnisa, Master Student, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia
Yusuf Latief, Professor, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 97 Innovation Product for Precast Concrete Products at Precast Construction Company in Indonesia with a Risk Approach to Increase Competitiveness
Nabila Baqarizky, Master Student, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia
Yusuf Latief, Professor, Department of Civil Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia
ID 130  Synthesis of Criteria for Knowledge Management Strategy in an Aircraft Maintenance Company to Increase the Employee Capability
Haikal Rastinggi and Novandra Rhezza Pratama, Department of Industrial Engineering, University of Indonesia, Salemba, Indonesia

ID 178  Business Process Reengineering for Regulatory on Radioactive Waste Management in Indonesia
Rizal Palapa, Novandra Rhezza Pratama and Rahmat Nurcahyo, Industrial Engineering Department, Faculty of Engineering, University of Indonesia Depok, Indonesia

8:00 – 9:45 am, MONDAY, May 8  IoT and IT  Virtual Room 5
Session Chair: Dr. Miguel Avalos Ortecho Edilberto, ULima

ID 148  iCare43s: A Trees Information and Management System for Trees Coalition in Angeles City
Troy John Nuguid Miranda and Earl Wendell Bognot Nakpil, College of Computer Studies, Angeles University Foundation, Angeles City, Philippines
Dr. Jonilo C. Mababa, College of Computer Studies, Faculty, Angeles University Foundation, Angeles City, Philippines

ID 150  A Proposed Wireless Campus Network Planning and Design of Salapungan Elementary School
Nicholai Ethan Enriquez Bolus, Danica Villate Calma, and Jinky Anne Espino, College of Computer Science, Angeles University Foundation Angeles City, Philippines
Professor Benedict M. Guarin, Faculty of College of Computer Science, Angeles University Foundation, Angeles City, Philippines

ID 151  Recapp: A Web-Based Client’s Healthcare Record and Appointment Management System for Bale Angeleño
Trixi May S. Sison, Jay-ar G. Anunciacion, Stephanie L. Lopez and Joshua G. Ocampo, College of Computer Studies, Angeles University Foundation Angeles City, Philippines
Dr. Daisy S. Yap, Faculty of College of Computer Studies, Angeles University Foundation, Angeles City, Philippines

ID 152  Esee: A Web-Based Performance-Driven Employee Management System for The Midnight Suns Company
Mikaela Mae C. Silva, Xzyla L. Lapid and Kathrine Annette G. Mercado, College of Computer Studies, Angeles University Foundation Pampanga, Philippines
Ma. Joyce V. Macaspac, MIT, Professor of Multimedia and Arts, College of Computer Studies Program Chair, Angeles University Foundation Pampanga, Philippines

ID 131  IoT Based Mechanized Robot: An Integrated Process Involving Multipurpose Control, Automation and Surveillance System
Abdullah Ali MamunAnik, Military Institute of Science and Technology, Bangladesh

ID 134  IoT Smart Entry System of RFID Attendance with Face Mask Detection and Body Temperature Monitoring for Starlord Delivery Services
Ralph Louise Canlas, Justine Gabriel, S. Abria, Reginald, S. Bruehwiler and Sharon Wendy T. Mallari, College of Computer Studies, Angeles University Foundation Angeles City, Philippines
Professor Benedict M. Guarin, Faculty of College of Computer Studies, Angeles University Foundation, Angeles City, Philippines

ID 145  NETBLK: Network Adblocker using Raspberry Pi
John Ezekiel Dunglao, Sean Deniel Agustin, Jay Tanglao and Vraelle Velarde, College of Computer Studies, Angeles University Foundation Angeles City, Philippines
Mr. Ray A. Nicolas – Adviser, Faculty - College of Computer Studies, Angeles University Foundation, Angeles City, Philippines

ID 147  CYPHER: Implementation of an IoT-based Smart Security Camera System with Image Detection and Email alert using Raspberry Pi
Patric Ian Cortez, Bruce Mendoza and Emdrey Quijano, College of Computer Studies, Angeles University Foundation, Angeles City, Philippines
Jonilo C. Mababa, College of Computer Studies Faculty, Angeles University Foundation, Angeles City, Philippines

8:00 – 9:45 am, MONDAY, May 8  Case Studies  Virtual Room 6
Session Chair: Elena Espinoza Rios, Universidad Continental

ID 110  Agile Course Planning in Educational Programs
Manohar S. Madan, Information Technology and Supply Chain Management Department, University of Wisconsin-Whitewater, Whitewater, Wisconsin, USA
Kingsley Gnanendran, Operations and Analytics Department, University of Scranton, Scranton, Pennsylvania, USA

ID 39  Impact of Specialized Valid Inequalities for the Driver Rostering Problem for Mass Transit Systems
Luis M. Escobar, Professor and Researcher, Universidad Libre Seccional Pereira, Pereira, Colombia
Laura M Escobar, Professor and Researcher, Universidad Tecnológica de Pereira, Pereira, Colombia
Rubén I. Bolaños, I+D+I Research coordinator, Integra s.a, Pereira, Colombia
César A. Marín, I+D+I Research manager, Integra s.a, Pereira, Colombia

ID 51  Multi-criteria Index clustering method with Mean-Variance Optimization in PSE amidst Covid-19 Pandemic
Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao Quezon City, Philippines
Bryan B. Navarro, Electrical Engineering Department, Technological Institute of the Philippines, Cubao Quezon City, Philippines

ID 89  Asynchronous Team for Flow Shop Scheduling Problem: A Case Study
Luis Enrique Tarazona Torres, Department of Industrial Engineering, Universidad de los Andes, Bogota, Colombia
Ciro Alberto Amaya Guio, Department of Industrial Engineering, Universidad de los Andes, Bogota, Colombia
David Álvarez-Martínez, Department of Industrial Engineering, Universidad de los Andes, Bogota, Colombia
ID 132 Assessing and Furthering Technology Transfer in the Gulf Cooperation Council Countries
Ahmad Al-Khayat and Mohammed A. Hajeeh, P.O. Box 24885, Safat, Kuwait 13109, Techno-Economics Division, Kuwait Institute for Scientific research, Kuwait

ID 136 Manpower Planning and Allocation in Warehousing Area: A Multi-Objective Optimization Approach using Goal Programming and Particle Swarm Optimization Methods
Tody Isfitazli, Farizal and Rahmat Nurcahyo, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Jakarta, Indonesia

May 8, 2023 (Monday) - Session: 10:00 – 11:45 am

10:00 – 11:45 am, MONDAY Supply Chain and Logistics Competition Virtual Room 1
Session Chair: Tahera Parvin, IEOM, Bangladesh

ID 205 Evaluation of Indicators for Developing Supply Chain Resilient in the Healthcare Industry of Indonesia
Meitreya Taris, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, Depok, Jawa Barat 16424, Indonesia
Romadhani Ardi, Faculty Member, Dept. of Industrial Engineering, Faculty of Engineering, University of Indonesia, Depok, Jawa Barat, Indonesia

ID 31 Data Analytics in an Operational System with FMEA in Healthcare Organization
Kesorn Thongneg, Cluster of Logistics and Rail Engineering, Faculty of Engineering, Mahidol University, Nakhon Pathom, Thailand
Assoc. Prof. Dr. Duangpun Kritchanchai, Associate Professor, Director, Centre of Logistics management and Healthcare Supply Chain
Mahidol University, Nakhon Pathom, Thailand

ID 7 Benefits and Effects of Tesla’s Direct-to-Customer Sales Model
Jeremy Asuncion, Momo Murphy, Nikolai Prutow, Maxwell Siantar, Jeffrey Tyre-Vigil and Mohamed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 36 The Airborne Fulfillment Center: Understanding the Feasibility and Limitations of the Flying Vessel
Evan Engler, Eric Cheon, Gabriella Fajardo Gomez, Lance Wharton, Jakob Teksler and Mohamed Awwad, Industrial and Manufacturing Engineering Department, California Polytechnic State University, San Luis Obispo, CA 93407, USA

ID 280 Machine Learning Applications for Enhancing the Supply Chain Productivity - A Review
Supply Chain Management (SCM) Deep Bhalodiya Pandit Deendayal Energy University India

10:00 – 11:45 am, MONDAY, May 8 Supply Chain Management Virtual Room 2
Session Chair: Juan Carlos Quiroz-Flores, ULima

ID 158 A Bibliometric Analysis on Inventory Management: On a Time Horizon 2000-2022
Germán Herrera Vidal and Camilo Molina Guerrero, Escuela de Ingeniería Industrial, Universidad del Sinú, Cartagena – Colombia
Grupo de Investigación DeArtica, Colombia

ID 1 RFID Technology Usage Effect on Enhancing Warehouse Internal Processes in the 3PLs Providers: An Empirical Investigation in Jordanian Manufacturing Firms
Moh’d Anwer Al-Shboul, Associate Professor, Business Administration Department, Princess Sumaya University for Technology (PSUT)
Amman, Jordan

ID 143 Using Predictive Analytics for Mini-Grocery Store Characterization in Barranquilla (Colombia)
Yesenia Cruz Cantillo, PhD, MSIE, MECE, Industrial Engineering Department, Universidad Ana G. Méndez-Gurabo Campus, Gurabo, Puerto Rico
Cristian Solano Payares, PhD Student, Industrial Engineering Department, Universidad del Atlántico, Colombia
Carlos González Oquendo, MEEE, Engineering Technology and Aviation Department, Universidad Ana G. Méndez-Carolina Campus, Carolina, Puerto Rico

ID 153 Sustainability Strategy in The Fiber Cement Industry in Indonesia Using Soft System Methodology
David Putra Sanjaya, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, Depok, West Java, Indonesia
Akhammad Hidayatno, Department of Industrial Engineering, Faculty of Engineering, University of Indonesia, Depok, West Java, Indonesia

ID 155 Implementation of Lean Manufacturing to Reduce Production Cycle Times and CO2 Emission in Gate to Gate Life Cycle Assessment in the Biodegradable Plastic Industry
Muthia Khadijah, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Depok, Indonesia

ID 93 Reverse Logistics of Electric Vehicle Battery in Indonesia: A Causal Loop Analysis
David Danur Winda, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, Jawa Barat 16424, Indonesia
Romadhani Ardi, Faculty Member, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, Jawa Barat 16424, Indonesia

ID 156 Policy Analysis of Water Management in Integrated Industrial City Bekasi Area Using System Dynamics
Fazri Azhar Ramdani and Armand Omar Moeis, Department of Industrial Engineering, University of Indonesia, Jakarta, Indonesia

10:00 – 11:45 am, MONDAY, May 8 Lean Six Sigma Virtual Room 3
Session Chair: Dr. Lauro Enciso, niversidad Nacional de San Antonio Abad del Cusco

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4th South American IEOM Conference
ID 24  Improvement of Clean-in-Place (CIP) in the Evaporation Process of a Dairy Company Using Six Sigma
Diego González and Mervyn Márquez, Industrial and Systems Engineering Institute, Faculty of Engineering Sciences, Universidad Austral de Chile Valdivia, Chile

ID 32  Improvement of Performance Indicator of Milk in Cheese Manufacturing of a Dairy Company Using Lean Six Sigma
Javier Cancino and Jusbeth Zambrano, Industrial and Systems Engineering Institute, Universidad Austral de Chile, Valdivia, Chile

ID 154  FMECA-Based Model for the Development of a Fault Diagnosis Interface – Case Study in Small Electric Vehicles
Carmen Elena Patiño-Rodríguez, Departamento de Ingeniería Industrial, Universidad de Antioquia, Colombia
Olga Cecilia Usuga Manco, Departamento de Ingeniería Industrial, Universidad de Antioquia, Colombia
Freddy Hernández Barajas, Departamento de Estadística, Universidad Nacional de Colombia, Colombia
Fernando G Juevara-Carazas, Facultad de Minas, Universidad Nacional de Colombia, Colombia

ID 86  Exploring the Effects of Footwear against Fall Incidents Amongst Older Adults: A Review for Design Enhancement
Rinada Abbas Eldeeb and In-Ju Kim, Department of Industrial Engineering and Engineering Management, University of Sharjah, Sharjah, UAE

ID 99  Strategy to Improve Product Quality Using Quality Function Deployment and Importance Performance Analysis
Gadid Ranti, Linda Theresia, Ni Made Sudri, Yasmin Mauliddina and Ary Ditto Baihaqi, Industrial Engineering Department, Institut Teknologi Indonesia, Indonesia

ID 103  Additive manufacturing and lean construction
H. Jebbour, Science and Techniques, Sidi Mohammed Ben Abdellah University, B.P. 2202 - Route d’Imouzzer – FES, Morocco
A. Chafi, 2Science and Techniques, Sidi Mohammed Ben Abdellah University, B.P. 2202 - Route d’Imouzzer – FES, Morocco
S. Kammouri Alami, Science and Techniques, Sidi Mohammed Ben Abdellah University, B.P. 2202 - Route d’Imouzzer – FES, Morocco

ID 55  First steps towards the simple prediction: soccer world championship
Susana Arias, Universidad Tecnica de Ambato, Ecuador

ID 179  Change Management on Government Institution: Study Case Online Single Submission
Alwin Ponco Nugroho, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Depok, Indonesia

ID 78  The Role of Stakeholders and Their Participation in Additive Manufacturing Technology Roadmapping: A Case of a Defense Industry
Nur Sena Ertem, Gizem Gunaydin and Eren Ozceylan, Department of Industrial Engineering, Engineering Faculty, Gaziantep University, Gaziantep, Turkey

ID 100  Rainwater Harvesting Acceptance Model in DKI Jakarta
Rinanda Hanindy Rastiarisa, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Kampus Ul Depok, 16424, Indonesia
Djoko Sihono Gabriel, Industrial Engineering Department, Faculty of Engineering, Universitas Indonesia, Kampus Ul Depok, 16424, Indonesia

ID 58  Road Education and GIS Technology as keys to the reduction of traffic accidents
Hector F Gomez, An Universidad Tecnica de Ambato, Ecuador

ID 199  Prioritizing Fire Risk Criteria in Ready-Made Garments Factories of Bangladesh by Applying CRITIC Method
Md. Mehedi Hasan and Md Kamrul Hasan Chowdhury, Boiler Safety Engineering Department, RMG Sustainability Council, Dhaka, Bangladesh
Md. Tanvir Siraj, S.M. Faysal Ahmed and Spandan Basak Payel, Department of Mechanical and Engineering Technology, Dhaka, Bangladesh
Nazrul Islam, Department of Mechanical Engineering, Rajshahi University of Engineering and Technology, Rajshahi, Bangladesh
Debashis Biswas, Department of Electrical Engineering, National Institute of Technology, Silchar, India

ID 25  Analysis of the Performance of a Private Entity as Agent of Governance in a Local Productive Arrangement of Information Technology
Flávio D’Angelo Pereira da Silva, Gabriel da Silva Martins, Tainah Delfino Arrieti and Yuri do Rosario de Araujo, Industrial Engineering School of Petrópolis, Federal Fluminense University

ID 46  Students’ Perceptions of Information Security in Online Platforms
Thiru Pandian, The University of Texas at Dallas, United States

ID 135  Customized Rotary Evaporator’s Agitation Power for Meniran Extraction
Dwi Heru Siswantoro and Budi Santoso, Department of Mechanical Engineering, Sebelas Maret University, Surakarta, Indonesia

ID 45  Industry 4.0 Maturity Models in SMEs, Mexico Context
Crisdalith Cachutt-Alvarado, Claudia N. Sánchez and Pia Berger, Facultad de Ingeniería, Universidad Panamericana, Aguascalientes, México
ID 183  Sustainable Layout in Automotive Original Equipment Manufacturer: Design Analysis and Improvement
Giri Aji Anggoro, Farizal and Rahmat Nurcahyo, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Jakarta, Indonesia

ID 197  Barriers on Electric Car Adoption Based on People’s Perspective in DKI Jakarta
Muhammad Fadhil Rajabi, Rahmat Nurcahyo and Farizal, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Jakarta, Indonesia

ID 278  A Review On Existing Studies On Thermal Simulation And Future Of LNG Based IC Engine
Bhavan Malhotra Pandit Deendayal Energy University, India

ID 279  Review on environmental impacts of diesel and LNG based and IC engine Industry 4.0 - Special Track
Muhammad Fadhil Rajabi, Rahmat Nurcahyo and Farizal, Department of Industrial Engineering, Faculty of Engineering, Universitas Indonesia, Jakarta, Indonesia

10:00 – 11:45 am, MONDAY, May 8   Case Studies
Session Chair: Prof. Manohar S. Madan, Professor, ITSCM Department, University of Wisconsin-Whitewater, Whitewater, WI – 53190, USA

ID 281  Geometric modeling and Fluid Flow simulation of IC Engine
Kalpit Patel, Student, India

ID 40  The Association Through the Generation of Consortiums, Methodology Applicable to MyPimes of Imbabura- Ecuador
Jenyffer Yépez and Karla Paola Negrete, Carrera de Ingeniería Industrial, Universidad Técnica del Norte, Ibarra, Ecuador

ID 54  Identificacion De Zonas De Estudio De Interes Y Probables Consecuencias De La Actividad En La Misma Mediante Google Earth Engine
Susana Arias, Universidad Tecnica de Ambato, Ecuador

May 8, 2023 (Monday) - Session: 12:00 – 2:00 pm – Online Keynotes
Virtual Room 1 – Moderator: Dr. Eldon Caldwell

12:00 – 12:40 pm, MONDAY, May 8: Online Keynote I
Professor Edward J. Williams
Educator at University of Michigan – Dearborn
Statistics/Simulation Consultant and Senior Technical Specialist at PMC
Dearborn, Michigan, USA

12:40 – 1:20 pm, MONDAY, May 8: Online Keynote II
Dr. Neyara Radwan
Associate Professor
Mechanical Engineering, Faculty of Engineering
Suez Canal University, Egypt

1:20 – 2:00 pm, MONDAY, May 8: Online Keynote III
Professor Eldon G. Caldwell Marin, Ph.D., Sc.D, Dr.Ed. – IEOM President-Elect
Professor, Industrial Engineering Department
Engineering School
University of Costa Rica
San Jose, Costa Rica
### 2:00 – 3:45 pm, MONDAY, May 8

**Reliability Competition**

**Virtual Room 1**

Session Chair: Prof. Edward Williams, University of Michigan Dearborn and PMc, Detroit, Michigan, USA

<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>297</td>
<td>Reliability Analysis for High Precision Bearings in Aetna Bearing Company</td>
<td>Ziyad ALKassir</td>
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<td>298</td>
<td>Reliability Analysis of Pitot Static System Failure in North America</td>
<td>Margot Fontaine, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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<tr>
<td>299</td>
<td>Determining the Reliability of Vehicle Electronic Component</td>
<td>Karthik Dhandapani, Lawrence Technological University, Southfield, Michigan, USA</td>
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<tr>
<td>300</td>
<td>Reliability Analysis and Improvement of a Bottle Assembly System</td>
<td>Sai Chand Gogisetty, Lawrence Technological University, Southfield, Michigan, USA</td>
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<tr>
<td>301</td>
<td>Failure Modeling of Turbine Blades - Reliability and Maintainability</td>
<td>Joseph Russo, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>302</td>
<td>Reliability Analysis to Improve Injection Molding Tool Life</td>
<td>Vyoma Teja Saja, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>303</td>
<td>Reliability Analysis Using FMEA tools for Hydrogen Fuel Cell Electric Vehicles</td>
<td>Bharani Beemanapally, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>304</td>
<td>Application of Failure Rate Function and Network Flow Analysis in Road Repairs</td>
<td>Sai Abhijith Medavarapu, Lawrence Technological University, Southfield, Michigan, USA</td>
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### 4:00 – 5:45 pm, MONDAY, May 8

**Six Sigma Competition**

**Virtual Room 1**

Session Chair: Dr. Saso Krstovski, Ford Motor Company

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<th>ID</th>
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<tr>
<td>284</td>
<td>Applying Six Sigma to Reduce Electricity Bill in Single Family Residential Home</td>
<td>Vidita Shukla, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>286</td>
<td>Six Sigma Application to Chip Shortage Crisis in Automotive Industry</td>
<td>Abdur Rahman Nadeem Syed and Margot Fontaine, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>287</td>
<td>Application of Six Sigma for Electronic Control Units</td>
<td>Chaturya Gadde and Joseph Russo, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>288</td>
<td>Application of Gauge R&amp;R And DMAIC Approach in Fuel Valve Using Air Bench</td>
<td>Nikunj Gediya and Sushil Dev Kumar Sivakumar, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
</tr>
<tr>
<td>289</td>
<td>Quality Improvement in Car Door Panels Using Six Sigma</td>
<td>Harshavardhan Goud Gunugurthi and Sriram Kumar Maddu, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
</tr>
<tr>
<td>290</td>
<td>Enhancing the quality of automobile piston ring using Six Sigma Methodology</td>
<td>Anjan Kumar, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>291</td>
<td>Automotive Front Disk Manufacturing Production Improvement Utilizing Six Sigma Methodology</td>
<td>Nicole Krame and Karthick Raja, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>292</td>
<td>Improvement of Tapped Hole Deviations in Prototype Machining Applications: A Six Sigma Approach</td>
<td>Ryan Lester and Phaninder Kompally, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
</tr>
<tr>
<td>293</td>
<td>Implementation of DMAIC method to reduce Carbon footprint</td>
<td>Jayanth Mummalaneni and Karthick Saladi, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, Michigan, USA</td>
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### 6:00 – 7:45 pm, MONDAY, May 8

**Production Planning and Control Competition**

**Virtual Room 1**

Session Chair: Dr. Joseph M. Ogundu, Emerald Global Consulting Inc., Detroit, Michigan, USA

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<tr>
<td>273</td>
<td>Application of PPC Tools in Plastic Parts Manufacturing Industry</td>
<td>Sai Abhijith Medavarapu and Neil Murray, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA</td>
</tr>
</tbody>
</table>
ID 294  Maximizing Production Efficiency: Mitigating the Impact of Raw Material Shortages through PPC Strategies
Vyoma Teja Sajja and Neil Murray, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 295  Forecasting Spice Demand Using Monte Carlo Simulation
Kevin McCabe and Neil Murray, A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

HIGH SCHOOL STEM PRESENTATION

ID 306  Studying the Behavior of Neural Networks
Anas Ali, Michigan Islamic Academy, Ann Arbor, Michigan, USA

May 9, 2023 (Tuesday)

May 9, 2023 (Tuesday) - Session: 8:00 – 9:45 am

8:00 – 9:45 am, TUESDAY, May 9, 2023 (Tuesday)

Workshop on
“Strategies for Writing and Publishing Research Articles”
Dr. Mario Chauca, Ricardo Palma University, Peru

8:00 – 9:45 am, TUESDAY, May 9

Panel Chair
Dr. Christopher Harris
Associate Professor of Computer Science
University of Northern Colorado
Greeley, Colorado, United States

Panel Speakers

- Prof. Vitor Mendes Caldana
  Federal Institute of Sao Paulo (IFSP) – Sorocaba Campus
  Sorocaba, Sao Paulo, Brazil

8:00 – 9:45 am, TUESDAY, May 9

Global Engineering Education I - Plenary

8:00 am -8:20 am (Tuesday, May 9)

Dr. Julián Arellana
Dean
College of Engineering
Associate Professor, Department of Civil and Environmental Engineering
Universidad del Norte
Barranquilla, Colombia

8:20 am – 8:40 am (Tuesday, May 9)

Rony Martín Cabrera Donayre
Jefe de Laboratorios Festo en PUCP
Peru

8:40 am – 9:00 am (Tuesday, May 9)

Mag. Luis Alberto Zuloaga Rotta
Decano
Facultad De Ingeniería Industrial Y De Sistemas
Universidad Nacional de Ingeniería
Av. Túpac Amaru 210, Rímac 15333
9:00 am – 9:20 am (Tuesday, May 9)

Juan M. Gutierrez Cardenas  
University Lecturer  
Universidad de Lima  
ABET Program Evaluator for the CAC  
Lima, Peru

9:20 – 9:40 am (Tuesday, May 9)

Mag. José Antonio Taquía Gutiérrez  
Researcher at IDIC – Scientific Research Institute – Universidad de Lima  
Professor at Engineering Faculty – Universidad de Lima  
Member of Industry 4.0 and applied analytics research group

9:40 – 10:00 am (Tuesday, May 9)

Frank Ronald Huaricacha Chuco  
Big Data Engineer  
Bwit Perú  
Lima, Perú

Data Analytics, Cloud and Automation

8:00 – 9:45 am, TUESDAY, May 9  
Undergraduate Student Paper Competition  
Onsite Room 4

Session Chair: Judging Committee Chair

ID 3  
Prospective analysis of water supply through analytical methods for a high Andean population  
Jair Gómez, Keren Guzmán, Paulo Huanaco and Leonardo Porras y Ladhy Sierra, Escuela de Ingeniería Civil, Universidad Ricardo Palma  
Santiago de Surco 15039, Lima, Perú

ID 6  
Characterization of energy efficiency in lighting systems using solar panels by light self-regulation applied to higher education centers  
Heder Portocarrero, Nayelly Parra, Mauricio Lúcar, Alonso López and Juan Reyes, School of Civil Engineering, Ricardo Palma University, Santiago de Surco, Lima, Perú

ID 80  
Designing the Prototype Aquatic Rescue Robot Based on the Biomimicry of the Istiophorus (sailfish)  
Bernabé Oscco, José Mayorga, Víctor Cuyotupac, Leonardo Macetas and Mario Chauca, Escuela de Ingeniería Mecatrónica, Universidad Ricardo Palma, Santiago de Surco, Lima, Perú

ID 109  
Chemometrics Didactic Experiment for the planning of experiments: Efficiency of Natura perfume brand  
Maria E. Puelles Bulnes, School of Industrial Engineering, Ricardo Palma University, Santiago de Surco, Lima, Perú  
Adrian Barriga, Alvaro Juarez, Henry Segura, Kiara Gutierrez and Nicolle Trigueros, Students of Industrial Engineering, Ricardo Palma University, Santiago de Surco, Lima, Perú

ID 172  
The application of lean tools in the food industry: a systematic review of the literature  
Jems German Valencia Vásquez, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú  
Ching Ann Wu Yu, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú  
Juan Manuel Machuca De Pina, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú

8:00 – 9:45 am, TUESDAY, May 9  
Optimization  
Virtual Room 5

Session Chair: Mai Elgazzar, Alexandria University, Egypt

ID 149  
Determination of Independent Surveyor for Coal Trader using Analytical Hierarchy Process and TOPSIS methods in Indonesia  
M. Hardiansyah Shodiq, Department of Industrial Engineering, Universitas Indonesia, Depok, Indonesia  
Dr. Armand Omar Moeis, ST, MSc, Department of Industrial Engineering, Universitas Indonesia, Depok, Indonesia

ID 157  
Designing a on Demand Job Application for Online Employment Company  
Putri Aysha Qalbi and Novandra Rieszha Pratama, Industrial Engineering Department, Faculty of Engineering, University of Indonesia  
Depok, Indonesia

ID 144  
Digital Capability Maturity Improvement Strategy Design: A Case Study of a Mobile Phone Manufacturing Company  
Luthfi Azmiza Hadyah and Novandra Rhezza Pratama, Department of Industrial Engineering, Universitas Indonesia

ID 59  
FLP Optimization Problem using Multi-point Swapped Crossover  
Maricar M. Navarro, Industrial Engineering Department, Technological Institute of the Philippines, Cubao Quezon City, Philippines  
Bryan B. Navarro, Electrical Engineering Department, Technological Institute of the Philippines, Cubao Quezon City, Philippines

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4th South American IEOM Conference
### Keynote Speakers

10:00 Welcome Address:

**Dr. Elio Iván Rodríguez Chávez**  
Rector, Universidad Ricardo Palma

10:20 Keynote I (Day 1 Opening Keynote):

11.00 Keynote II:

**Dr. Ivan Garibay**  
Associate Professor, Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, USA - Director, UCF Artificial Intelligence and Big Data Initiative and Director, Master of Science in Data Analytics

11:40 Keynote III:

**Bernardo Rubinstein**  
Partner, McKinsey & Company, Peru

12:20 Keynote IV:

**Dr. Domingo González**  
Vice President for Administration, Professor of Engineering Department, Pontificia Universidad Católica del Perú (PUCP), Lima, Peru

1:00 Lunch Break

### May 9, 2023 (Tuesday) - Session: 2:00 – 3:45 pm

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<td><strong>Six Sigma Certification Workshop</strong></td>
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<td><strong>Dr. Ahad Ali</strong></td>
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<tr>
<td>Associate Professor</td>
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<td>Director of Bachelor of Science in Industrial Engineering</td>
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<td>Director, Master of Science in Industrial Engineering</td>
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<td>Director of Smart Manufacturing and Lean Systems Research Group</td>
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<td>Director, Graduate Certificate in Lean Six Sigma</td>
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<td>A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering</td>
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<tr>
<td>Lawrence Technological University, Southfield, Michigan, USA</td>
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<td>Executive Director, IEOM Society International</td>
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### May 9, 2023 (Tuesday) - Session: 2:00 – 3:45 pm

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<tr>
<td><strong>Lean Six Sigma Panel</strong></td>
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<td>Panel Chair</td>
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</table>
Panel Speakers

Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ
Chief Executive Officer & Founder
TP Global Business Consulting, LLC
Orlando, Florida, USA

2:00 – 3:45 pm, TUESDAY   Global Business Management and PM I – Plenary   Onsite Room 3
Session Chair: Dr. Carlos Raymundo

2:00 – 2:20 pm, Tuesday, May 9, 2023
Dr. Carlos Raymundo
Research Professor / Administrative coordinator at the Research Office
Universidad Peruana de Ciencias Aplicadas
Lima, Peru

2:20 – 2:40 pm, Tuesday, May 9, 2023
Juana Miranda Cuadros
Operational Excellence Manager Lima & WACAM
Mondelēz International
Lima, Peru

2:40 – 3:00 pm, Tuesday, May 9, 2023
Rocío Angeles-Boza
Quality Assurance Management, Continuous Improvement (Lean Thinking, Lean-Six sigma)
Quality Assurance Manager – International Perú
Pacific Coast Producers
California, Estados Unidos
Peru

3:00 – 3:20 pm, Tuesday, May 9, 2023
Professor Avid ROMAN-GONZALEZ
CEO & Founder Business on Engineering and Technology S.A.C. (BE Tech)
Full Professor, Universidad Nacional Tecnológica de Lima Sur
Director, Research Institute, Universidad Nacional Tecnológica de Lima Sur
Director, Electronics and Telecommunication Engineering Department, Universidad Nacional Tecnológica de Lima Sur
Professor, Universidad Peruana Cayetano Heredia
Professor, Universidad de Ciencias y Humanidades
Distinguished Lecturer, AESS IEEE
Senior Member IEEE

2:00 – 3:45 pm, TUESDAY, May 9   Competitions   Onsite Room 4
Session Chair: Judging Committee Chair

UNDERGRADUATE RESEARCH COMPETITION

Heder Portocarrero, Nayelly Parra, Mauricio Lúcar, Alonso López, Juan Reyes and Mario Chauca, School of Civil Engineering, Ricardo Palma University, Santiago de Surco, Lima, Perú

ID 203 Characterization of the ecological impact of the oil spill associated with the intervention of the state in the protection of marine biodiversity
Jean Díaz, Alejandra Escalante, Milagros Garcia, María Tello, Abraham Zamudio, Álvaro Aliaga and Mario Chauca, Escuela de Ingeniería Industrial Universidad Ricardo Palma, Santiago de Surco, Lima, Perú

SUPPLY CHAIN AND LOGISTICS COMPETITION

ID 82 Prospective Analysis of Water Supply Through Analytical Methods for a High Andean Population
Jair Gómez, Keren Guzmán, Paulo Huanaco, Leonardo Porras, Ladhy Sierra and Mario Chauca, Escuela de Ingeniería Civil, Universidad Ricardo Palma, Santiago de Surco 15039, Lima, Perú
SIMULATION COMPETITION

ID 84  Characterization of Soils and Their Resistance Through the Unconsolidated Direct Shear Test in a Coastal City
Isaac Caycho, Junior Llerena, Johan Murillo, Gabriel Loarte, Sabrina Ramirez and Mario Chauca, Escuela de Ingeniería Civil, Universidad Ricardo Palma, Santiago de Surco 15039, Lima, Perú

2:00 – 3:45 pm, TUESDAY, May 9  Manufacturing  Virtual Room 5
Session Chair: Roshna Shipa, IEOM, Bangladesh

ID 272  STEM Manipulatives Additive Manufacturing Student Business Plan
Carlos Adachi, Jon Goenaga, Rafael Rezende Mendes and Neil Gordon Murray Jr., A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, Lawrence Technological University, Southfield, MI 48075, USA

ID 26  Increasing the Potential of Bolivian Manufacturing Systems Through Factory Physics and The Theory of Constraints: A Case Study
Boris Christian Herbas-Torrico and Sandra Cecilia Enríquez-Reyes, Exact Sciences and Engineering Research Center (CICEI), Bolivian Catholic University, Cochabamba, Bolivia

Mai Elgazzar and M. Nashat Fors, Industrial Engineering, Production Engineering Department, Alexandria University, Egypt
Islam Ali, Industrial and Manufacturing Engineering Department, Egypt-Japan University of Science and Technology, Borg El-Arab, Egypt
Industrial Engineering, Production Engineering Department, Alexandria University, Egypt

May 9, 2023 (Tuesday) - Session: 4:00 – 5:45 pm

4:00 – 5:45 pm, TUESDAY, May 9  Onsite Room 1
Six Sigma Certification Workshop
Dr. Ahad Ali
Associate Professor
Director of Bachelor of Science in Industrial Engineering
Director, Master of Science in Industrial Engineering
Director of Smart Manufacturing and Lean Systems Research Group
Director, Graduate Certificate in Lean Six Sigma
A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International

4:00 – 5:45 pm, TUESDAY, May 9  Onsite Room 2
Women in Industry and Academia (WIIA) Panel
Session Chair:
Panel Chair
Karol Muñoz
Docente de Ingeniería Mecatrónica
PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ
Avenida Universitaria N° 1801
San Miguel, Lima 32 – Perú

Panel Speakers
Cinthia Vargas Figueroa
Senior Manager of Human Resources, Volcan Compañía Minera
Part time Professor Post Grade and Senior Coach, Universidad ESAN Graduate School of Business
Peru

Claudia León Chávarri
Full Time Professor
Carrera de Ingeniería Industrial
Universidad Peruana de Ciencias Aplicadas (UPC)
Monterrico, Santiago de Surco
Peru

Professor Silvia Rodas Risso
Vice President of Women Supply Chain - WINS in Peru
4:00 – 5:45 pm, TUESDAY  Global Business Management and PM II – Plenary  Onsite Room 3

Session Chair: Dr. Tony Prensa

4:00 – 4:20 pm, Tuesday, May 9, 2023

Dorian Florea
Assistant Professor of Marketing
CENTRUM Católica Graduate Business School
Lima, Peru

4:20 – 4:40 pm, Tuesday, May 9, 2023

Javier Enríquez Vereau
Project Management Consultant
CEO & Founder
Kecurso, Project Management & Business Solutions
General Manager
PML Executive Institute S.A.C.
La Molina, Lima, Peru

4:40 – 5:00 pm, Tuesday, May 9, 2023

Claudia León Chávarri
Full Time Professor
Carrera de Ingeniería Industrial
Universidad Peruana de Ciencias Aplicadas (UPC)
Monterrico, Santiago de Surco
Peru

5:00 – 5:20 pm, Tuesday, May 9, 2023

Leonard Panta
Coordinación Estudiantil - PMI Lima Perú Chapter
Project Manager, Labhility, Trujillo, La Libertad, Peru

5:20 – 5:40 pm, Tuesday, May 9, 2023

Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ
Chief Executive Officer & Founder
TP Global Business Consulting, LLC
Orlando, Florida, USA

4:00 – 5:45pm, TUESDAY, May 9  Competitions  Onsite Room 4
Session Chair: Judging Committee Chair

MASTERS THESIS COMPETITION

ID 196  Referential Strategic Socioeconomic Business Model, to Increase Competitiveness by Sustainable Development of Amazon Forest
Julio Lu-Chang-Say, Universidad Nacional de Ingeniería, Peru

LEAN SIX SIGMA COMPETITION sponsored by Tooling Tech Group

ID 81  Building Vulnerability Reduction Through Lean Construction and BIM Methodologies to Boost Productivity and Effectiveness in the High Andean Area
Sebastián R. Tejada, Roberto M. Minaya, Kiara Y. Cáceres y Rosa M. Cruz and Mario Chauca, Escuela de Ingeniería Civil, Universidad Ricardo Palma, Santiago de Surco 15039, Lima, Perú

ID 208  Diseño de Propuesta de la Cadena de Operaciones de ADEICS Utilizando Lean Six Sigma
Alberto Elias Julian L., Fabiana Angelid Retamozo T. and Kendra Ysabel Bernal F., Departamento de Ingeniería Industrial, Universidad de Ingeniería y Tecnología - UTEC, Lima, Perú

GRADUATE STUDENT PAPER COMPETITION sponsored by Eaton Corporation

ID 198  Gamification in Occupational Safety Training: A Systematic Literature Review
César Alonso Nazael Condori Colán, Daniel Alejandro Barco Peralta, Rafael Mauricio Villanueva Flores and Juan Carlos Morales Gomero, Universidad de Lima, Peru

4:00 – 5:45pm, TUESDAY, May 9  Track  Virtual Room 5
Session Chair:
May 10, 2023 (Wednesday)

May 10, 2023 (Wednesday) - Session: 8:00 – 9:30 am

8:00 – 9:20 am, WEDNESDAY, May 10

Resume Writing & Career Planning Workshop
Dr. Christopher Harris
Associate Professor of Computer Science
University of Northern Colorado, Greeley, Colorado, United States

8:00 – 9:20 am, WEDNESDAY, May 10

Project Management Panel
Panel Chair
Dr. Luis Alberto Flores Garcia
Professor
Pontificia Universidad Católica del Perú
Lima Perú Chapter Communications Vice President
Program Chair, Member of the University Assembly

Panel Speakers
Catherine Cueva
Vice President of the PMI Lima Peru Chapter
Formerly head of the Professional Development Department of the Chapter
Risk Management Specialist for core projects of the Peruvian Government

Vicente Granado
Advisor to the Congress of the Republic
Past Project Management and IT Consultant for the Ministry of Production, Sierra y Selva Exportadora of the Ministry of Agrarian Development and Irrigation
Past President of the PMI Lima Peru Chapter

Deivhy Torres
Consultant in Government and Digital Transformation-Secretariat of Government and Digital Transformation
University Professor at UNI, UPN and PUCP
Technology Project Evaluator in the Pacific Alliance and Inter-American Development Bank
Leader of the PMI Cajamarca Community
Vice President of Education and PMIef Liaison in PMI Norte Peru Chapter

Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ
Chief Executive Officer & Founder
TP Global Business Consulting, LLC
Orlando, Florida, USA

8:00 – 9:30 am, WEDNESDAY, May 10

SCM and Operations Research
Session Chair: María del Rocío Soto-Flores, Instituto Politécnico Nacional, Ciudad de México, México

ID 171  Machine Learning algorithms applied in a Service Platform for Professional Services. Case Study
Renato Alejandro Manrique Acha, Universidad de Lima, Carrera de Ingeniería Industrial, Lima, Perú
Roger Elias Lescano Vargas, Universidad de Lima, Carrera de Ingeniería Industrial, Lima, Perú
José Antonio Taquia Gutiérrez, Universidad de Lima, Instituto de Investigación Científica, Carrera de Ingeniería Industrial, Lima, Perú

ID 87   A New Probability Distribution with Applications to Pandemic Data
Isidro Jesús González-Hernández, Rafael Granillo-Macias, Manuel de Jesús Martínez-Téllez, Aidee Domínguez-Islas and Francisca Santana-Robles, Escuela de Superior de Ciudad Sahagún-Ingeniería Industrial, Universidad Autónoma del estado de Hidalgo, Tepeapulco, Hidalgo, México

ID 106  Design and implementation of an automatic control system applying PID in the positioning of an electric wheelchair
Samuel Zegarra Poma, Juan Carlos Gofri Dellon, Eduardo Jose Cieza de Leon, Fabricio Humberto Paredes Larroca and Angie Jimena Cuadros Serna, Facultad de Ingeniería y Arquitectura, Universidad de Lima, Perú

ID 168  Corporate Social Responsibility and the Application of NOM-035 in a Consulting Services Company
8:00 – 9:30 am, WEDNESDAY, May 10

Global Data Analytics I - Plenary

Onsite Room 4

Session Chair: Alejandro Latorre Rojas

8:00 – 8:20 am, Wednesday, May 10, 2023

Omar Rubio Quezada
Coordinador senior de evaluación e impacto
Jefe de práctica del curso Gestión de Organizaciones
Pontificia Universidad Católica del Perú
Lima, Peru

8:20 – 8:40 am, Wednesday, May 10, 2023

Claudia Barrera Acosta
Analista de Mejora de Procesos
BBVA
Lima, Peru

8:40 – 9:00 am, Wednesday, May 10, 2023

Alejandro Latorre Rojas, BSc.
Data Analytics and Engineering Advisor
Senior Analytics Engineer – Favo
Data Analytics Teaching Assistant – Pontifical Catholic University of Peru
Business Strategy Executive Program alumni – Pearson College London

9:00 – 9:20 am, Wednesday, May 10, 2023

Nicolás Núñez Morales
Professor and Subdirector ProLab
CENTRUM PUCP Business School
Pontificia Universidad Católica del Perú
Lima, Peru

8:00 – 9:30 am, WEDNESDAY, May 10

Applied Statistics

Virtual Room 5

Session Chair: Vanessa Maribel Choque Soto, Universidad Nacional de San Antonio Abad del Cusco

ID 27 Understanding Electric Vehicle Adoption in Bolivia: An Examination of Consumer Attitudes and Influential Factors
Boris Christian Herbas-Torrico and Anelisse Andrea Cardozo-Cortez, Exact Sciences and Engineering Research Center (CICEI), Bolivian Catholic University, Cochabamba, Bolivia

ID 48 Replacing Complex Models for Health Decision Making with Metamodels: Three Examples
Margaret Brandeau, Department of Management Science and Engineering, Stanford University, Stanford, California USA

ID 33 Optimal Decisions for a Group Buying Problem with Two Retailers and Two Capacitated Suppliers
Abdollah Mohammadi and Ertunga C. Ozcelkan, University of North Carolina at Charlotte, United States

ID 127 Evaluation of the Effects of a Center of Excellence Support Program on National Technology-Based Strategic Goals of a Country: A Case Study
Mehmet Kabak, Hafsa Nur Ozturk, Ezgi Aktas Potur and Aylin Adem, Department of Industrial Engineering, Gazi University, Ankara, Türkiye
Ahmet Aktas, Department of Industrial Engineering, University of Turkish Aeronautical Association, Ankara, Türkiye

ID 28 Influencing Variables and Scenarios for the Frozen Fruit Agro-export Sector: The Peruvian Case
Ariana Mariell Alvarez-Gallegos, Facultad de Ingeniería, Universidad de Lima, Perú
César André Soto-Tipacti, Facultad de Ingeniería, Universidad de Lima, Perú
Martín Fidel Collao-Díaz, Facultad de Ingeniería, Universidad de Lima, Perú

ID 21 Enhancing Academic Performance in Operations Research through Cooperative PBL in a Distance Learning Environment
Vanessa Maribel Choque Soto and Victor Dario Sosa Jauregui, Department of Informatics, Universidad Nacional de San Antonio Abad del Cusco Cusco, Cusco, Perú

May 10, 2023 (Wednesday) - Session: 10:00 am – 1:00 pm

Keynote Speakers

10:20 Keynote V:
Eduardo Herrera  
CEO, Celepsa, Lima, Peru  

11.00 Keynote VI:  

George Reinoso Vasquez  
Plant Optimization Manager – Peru Plant  
The Goodyear Tire & Rubber Company, Callao, Peru  

11:40 Keynote VII:  

Tania Cristina D'Agostini Bueno  
CEO, Instituto de Governo Eletrônico, Inteligências e Sistemas – i3G  
Florianópolis, Santa Catarina, Brazil  

12:20 Keynote VIII:  

Carolina Carbone Moane  
Client Experience Manager, Mibanco, Peru  

1:00 Lunch Break

May 10, 2023 (Wednesday) - Session: 2:00 – 3:45 pm

2:00 – 3:45, WEDNESDAY, May 10        Onsite Room 1

Toyota Kata Workshop  
The Secret Sauce for Toyota Production System  
Mr. Dave Harry  
Black Belt Trainer / Kata Coach  
President & CEO  
Process Whisperer® Consultants LLC  
Greeneville, TN, USA

2:00 – 3:45, WEDNESDAY, May 10        Onsite Room 2

Panel Chair  
Dr. Yamilet Serrano Llerena  
Head of Data Science Department  
UTEC – Universidad de Ingeniería y Tecnología  
Lima, Peru

Panel Speakers  
Hans Figueroa Guaylupo  
Data Visualization Specialist – Oechsle (Intercorp InRetail)  
Master in Business Intelligence & Data Analytics – IEBS Business School  
Chemical Engineer – Universidad de Ingeniería & Tecnología (UTEC)  
University Innovation Fellow – Hasso Plattner Institute of Design at Stanford University

Dr. Wester Zela  
Professor in undergraduate and postgraduate programs
2:00 – 3:45, WEDNESDAY, May 10  Industry Solutions and Industry 4.0 I - Plenary  Onsite Room 3

Session Chair: José Antonio Larco

2:00 pm – 2:20 pm (Wednesday, May 10)

Dr. Aurelio Arbildo
Professor at Universidad de Lima
Lima, Perú
Process Control and automation

Title: “From industry 1.0 towards 6.0”

2:20 pm – 2:40 pm (Wednesday, May 10)

Raúl Díaz Parra
Cofounder & Senior Partner
Strategos Consulting Services
Part Time Professor, Universidad de Lima
PhDc in Strategic Management
Lima, Peru

2:40 pm – 3:00 pm (Wednesday, May 10)

Jose Perez Becerra, MSc.
Data Analyst
Adjunct Professor
Universidad de Lima
Lima, Peru

3:00 pm – 3:20 pm (Wednesday, May 10)

Dr. Lauro Enciso
Full Professor of Computing Courses in Informatics Department
Dean of Electrical, Electronics, Informatics & Mechanics Engineering Faculty (FIEEIM)
National University of San Antonio Abad del Cusco, Perú

3:20 pm – 3:40 pm (Wednesday, May 10)

José Antonio Larco
Director – Ingeniería Industrial
UTEC – Universidad de Ingeniería y Tecnología
Lima, Peru

2:00 – 3:45, WEDNESDAY, May 10  Global Data Analytics II - Plenary  Onsite Room 4

Session Chair: Aracelli Centeno Sanchez

2:00 pm, Wednesday, May 10, 2023

Carlos Amhed Pino Moren
Data Processing Specialist
Ministry of Education
Lima, Peru

2:20 – 2:40 pm, Wednesday, May 10, 2023

Milagros Huachillo Alvarado
Consultor De Procesos
Estudio Ugaz Zegarra & Abogados Asociados
Peru

2:40 – 3:00 pm, Wednesday, May 10, 2023

Aracelli Centeno Sanchez
Business Process Manager
Cleaning and Beauty Products
Peru

3:00 – 3:20 pm, Wednesday, May 10, 2023
Roberto Inchaustegui Gil  
Corporate People & Operations Manager  
Intercorp  
Peru

3:20 – 3:40 pm, Wednesday, May 10, 2023

David Allende Quintana  
Leader Data Scientist, Tottus  
Analytical Trainer, DMC Perú  
Analytical Trainer, UTEC - Universidad de Ingeniería y Tecnología  
Lima, Peru

2:00 – 3:45, WEDNESDAY, May 10  
Track: Virtual Room 5

May 10, 2023 (Wednesday) - Session: 4:00 – 5:45 pm

4:00 – 5:45, WEDNESDAY, May 10  
Onsite Room 1

**Toyota Kata Workshop**  
The Secret Sauce for Toyota Production System  
Mr. Dave Harry  
Black Belt Trainer / Kata Coach  
President & CEO  
Process Whisperer® Consultants LLC  
Greeneville, TN, USA

4:00 – 5:45, WEDNESDAY, May 10  
Onsite Room 2

Panel Chair:

Dr. Francisco Rumiche  
Dean  
School of Science and Engineering  
Pontificia Universidad Católica del Perú (PUCP)  
Lima, Peru

Panel Speakers:

Dr. José A. Santiváñez  
Dean of Engineering  
UTEC – Universidad de Ingeniería y Tecnología  
Lima, Peru

Professor Donald M. Reimer  
President, The Small Business Strategy Group  
Detroit, Michigan, USA  
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering  
Lawrence Technological University  
Southfield, Michigan, USA

Dr. Mario Chauca  
Professor  
Department of Industrial Engineering  
Universidad Ricardo Palma  
Santiago de Surco  
Lima, Peru

Ahad Ali, Ph.D.  
Associate Professor  
Director, Bachelor of Science in Industrial Engineering (BSIE)  
Director, Master of Science in Industrial Engineering (MSIE)  
Director, Graduate Certificate in Lean Six Sigma
4:00 – 5:45, WEDNESDAY, May 10  Industry Solutions and Industry 4.0 II - Plenary  Onsite Room 3

Session Chair: Dr. Christopher Harris

4:00 pm – 4:20 pm (Wednesday, May 10)

Dr. Christopher Harris
Associate Professor of Computer Science
University of Northern Colorado
Greeley, Colorado, United States

4:20 pm – 4:40 pm (Wednesday, May 10)

Mr. Ayush Lal
Senior Mechanical Engineer
Aptiv Corporation
Troy, Michigan, USA

4:40 pm – 5:00 pm (Wednesday, May 10)

Michael Terrones MsC, PMP
CEO at Peru Green Metals
CTO at INDEXUM
Lima, Peru

5:00 pm – 5:20 pm (Wednesday, May 10)

Eng. Orlando Aquije
SIEMENS – PERU

5:20 pm – 5:40 pm (Wednesday, May 10)

Manuela Linares Barbero
MBA, Systems Engineer
University Professor and Researcher
Universidad de Lima
Peru

4:00 – 5:45, WEDNESDAY, May 10  Global Data Analytics III - Plenary  Onsite Room 4

Session Chair: Alberto J Donayre-Torres

4:00 – 4:20 pm, Wednesday, May 10, 2023

Alberto J Donayre-Torres
Full Time Professor
UTEC – Universidad de Ingeniería y Tecnología
Lima, Peru

4:20 – 4:40 pm, Wednesday, May 10, 2023

A. Guillermo Joo Aguayo
Supervisor de Proyectos de Inversion
Project Manager
Petroperú S.A.
San Isidro, Lima, Perú

4:40 – 5:00 pm, Wednesday, May 10, 2023

Carlos Mariño, Ph.D.
Director de Investigación
Profesor
Departamento Académico de Posgrado en Negocios
Pontificia Universidad Católica del Perú
Lima, Peru

5:00 – 5:20 pm, Wednesday, May 10, 2023
4:00 – 5:45, WEDNESDAY, May 10  
Technical Presentations  
Online Room 5

6:00 – 7:00, WEDNESDAY, May 10  
Diversity and Inclusion Panel sponsored by Ford Motor Company  
Room 2

Panel Chair:

Professor Donald M. Reimer  
President, The Small Business Strategy Group  
Detroit, Michigan, USA  
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering  
Lawrence Technological University  
Southfield, Michigan, USA

Panel Speakers:

Sandro Paz, Ph.D.  
Director of the Industrial Engineering Program – PUCP  
Former Director of University Accreditation  
Pontificia Universidad Catolica del Peru  
San Miguel, Peru

May 11, 2023 (Thursday)

May 11, 2023 (Thursday) - Session: 8:00 – 9:30 am  
Onsite Room 1

8:00 – 9:40, THURSDAY, May 11  
Project Management Workshop  
Leading with Emotional Intelligence: A Seminar for Industrial Engineers  
Dr. Tony Prensa, PhD, MBA, PMP, CB-PMO, CCP, ITIL, 6σ  
Chief Executive Officer & Founder  
TP Global Business Consulting, LLC  
Orlando, Florida, USA

8:00 – 9:20, THURSDAY, May 11  
Optimization  
Onsite Room 2

ID 180  
Modelo De Logística De Última Milla Aplicando El Algoritmo De Metaheurística Tabu  
José Felix Hernández Vallejos, Universidad Nacional de San Agustín, Facultad de Ingeniería de Producción y Servicios, Dirección. Urb. Arequipa Perú  
Julio Abraham Ramos Quispe, Universidad Nacional de San Agustín, Facultad de Ingeniería de Producción y Servicios, Dirección. Urb. Nicaragua I-12 Paucarpata, Arequipa Perú  
Ismael Vélez VilcaJulio, Universidad Nacional de San Agustín, Facultad de Ingeniería de Producción y Servicios, Dirección. Urb. Las Marias E-25 Paucarpata, Arequipa Perú  
Jose Manuel Cardenas Medina, Universidad Nacional de San Agustín, Facultad de Ingeniería de Producción y Servicios, Dirección, Peru

ID 4  
Crowdsourced Local Delivery in Developing and Developed Countries: A Comparison of Stakeholder Expectations  
Aiyoob Jaward Mohamed and Stanislav Chankov, Jacobs University Bremen, Germany

ID 202  
Green Hydrogen as Energy Alternative to Reduce Carbon Emissions in Transport Urban of the City of Lima  
Luis Zambrano and Adriana Ruiz, Industrial Engineering School, Ricardo Palma University, Santiago de Surco, Lima, Perú  
Susana Davila and Cecilia Tello, Professor of Civil Engineering School, Director of institute Confucio, Ricardo Palma University, Santiago de Surco, Lima, Perú  
Mario Chauca, Doctorate in Education, Ricardo Palma University, Santiago de Surco, Lima, Perú

ID 169  
Use of Artificial Intelligence in Education: A Systematic Review  
Nixon Duarte A. and Yury Montoya Pérez, Facultad de Ingenierías, Corporación Universitaria Remington, Medellín, Colombia  
Matilde Bolaño García, Facultad de Ciencias de la Educación, Universidad del Magdalena, Santa Marta, Colombia

8:00 – 9:20, THURSDAY, May 11  
Global Supply Chain and Logistics I - Plenary  
Onsite Room 3

Session Chair: Elena Espinoza Ríos
8:00 am – 8:20 am (Thursday, May 11)

Juan Pablo Briceño
Corporate Planning Manager
Vitapro S.A.
Lima, Peru

8:20 am – 8:40 am (Thursday, May 11)

Christian Ovalle
Technological University of Peru
Perú

8:40 am – 9:00 am (Thursday, May 11)

Luis Salas Biondi
Operations & Plant Manager
Corporación Lon
Lima, Peru

9:00 am – 9:20 am (Thursday, May 11)

Elena Espinoza Ríos
Facultad de Ingeniería
Coordinador Modalidad a Distancia
Ingeniería Empresarial y Sistemas e Informática
Universidad Continental
Peru

8:00 – 9:30, THURSDAY, May 11   Lean Six Sigma I - Plenary   Onsite Room 4

Session Chair: Ing. Hugo Chacón Moscoso

8:00 – 8:20 am, Thursday, May 11, 2023

Kevin Aza Valencia, CAPM®, SFPC
Project Manager
AFRY
Lima, Perú

8:20 – 8:40 am, Thursday, May 11, 2023

Flor de Maria Tapia Vargas
Planning and Manufacturing Consultant
Expert in Lean Manufacturing, Push & TOC Systems
Lima, Peru

Evaluation of Lean Manufacturing Implementations based on an analysis of the FII-UNMSM Digital

8:40 – 9:00 am, Thursday, May 11, 2023

Jaime Cortez
CEO and Founder
Arcor Group
Lima, Peru

9:00 – 9:20 am, Thursday, May 11, 2023

Gina Huamán S.
Supervisor de Carga Rodante y PDI, APM Terminals
CEO & Consultor en Soluciones Lean
Peru

9:20 – 9:40 am, Thursday, May 11, 2023

Claudia García Urre
LDSSBB – Lean Six Sigma Black Belt, Industrial Engineer
Continuous Improvement Engineer
Minera Chinalco Perú S.A.
Peru

9:40 – 10:00 am, Thursday, May 11, 2023

Ing. Hugo Chacón Moscoso
Director de la Escuela Profesional de Ingeniería Industrial
8:00 – 9:30, THURSDAY, May 11

**HF and Healthcare**

Virtual Room 5

**Session Chair:** Erika Muñoz Larsson, Facultad de arquitectura y Diseño, Pontificia Universidad Javeriana

**ID 44**  
A Home Health Care multi-objective approach for personnel scheduling and routing problem

Mariana Castro Acosta, Tania Paola González, Camila Rocha Arroyave, Lucía Rodríguez Ramírez and Carlos Eduardo Montoya Casas, Departamento de Ingeniería Industrial, Pontificia Universidad Javeriana, Bogotá, Colombia

**ID 49**  
Patient Monitoring over the Internet

Nicholas Bambos, Department of Electrical Engineering and Department of Management Science and Engineering, Stanford University, Stanford, California USA

**ID 79**  
X-hance an interface that enhances x-ray images

Sarah Al, Department of Engineering, Loyola University Chicago, Chicago, IL 60660, USA

**ID 47**  
Effect of Using Different Riveting Tools on Riveters’ and Buckers’ Vibration Exposure, and Muscle Fatigue

Fereydoun Aghazadeh and Vamshi Pushapati, Department of Mechanical and Industrial Engineering, Louisiana State University, Baton Rouge, Louisiana, USA

Lou T. Vi, Deloitte and Touche LLP, Houston, Texas, USA

Anthony D. Banks, Lockheed Martin Corporation, Bethesda, MD, USA

**ID 101**  
The Relationship between Workload and Labor Utilization Factor

Linda Theresia, Gadih Ranti, Yenny Widiandy and Rikfan Ardiansyah, Program Studi Teknik Industri Institut Teknologi Indonesia

**ID 170**  
Design and validation of personal protective masks for specialized medical personnel: Development, Anthropometry, and Sustainability

Erika Muñoz Larsson, Facultad de arquitectura y Diseño, Pontificia Universidad Javeriana

Martha Delgado, Facultad de Medicina, Pontificia Universidad Javeriana

Daniel Franco, Facultad de Medicina, Pontificia Universidad Javeriana

Willmar Ricardo Rugeles, Facultad de arquitectura y Diseño, Pontificia Universidad Javeriana

Laura Cruz, Facultad de arquitectura y Diseño, Pontificia Universidad Javeriana

María Paula Mora, Facultad de arquitectura y Diseño, Pontificia Universidad Javeriana

**ID 201**  
Driver Factors in Bus Accident: A Systematic Review

César Corrales, Departamento de Ingeniería, Pontificia Universidad Católica del Perú, San Miguel, Lima, Perú

María del Carmen Pardo-Ferreira and Juan Carlos Rubio-Romero, School of Industrial Engineering, Universidad de Málaga, Teatinos, Málaga, España

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May 11, 2023 (Thursday) - Session: 10:00 am – 1:00 pm – Onsite Room 1

**Keynote Speakers**

10:00 Conference Chair Remarks

10:20 Keynote IX (Day 3 Opening Keynote):

**Alberto Valle**

Country Business Unit Manager – Factory Automation, Siemens, Lima, Peru

11.00 Keynote X:

**Esp. Roberto Giordano**

Decano de la facultad de ingeniería, Universidad de FASTA, Argentina

11:40 Keynote XI:

**Miguel Ángel Gómez Martínez**

Departamento de ingeniería, Universidad de Guanajuato, Guanajuato, Mexico
12:20 Keynote XII:

Luis Felipe Turbides
Director of IT, Optimization and Projects, DP World Callao, Peru

1:00 Lunch Break

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May 11, 2023 (Thursday) - Session: 2:00 – 3:45 pm

2:00 – 2:45, THURSDAY, May 11  Onsite Room 1

Innovation and Entrepreneurship Workshop

Professor Donald M. Reimer
President, The Small Business Strategy Group, Detroit, Michigan, USA
Adjunct Faculty – A. Leon Linton Department of Mechanical Engineering
Lawrence Technological University, Southfield, Michigan, USA

2:00 – 2:45, THURSDAY, May 11  Onsite Room 2

Supply Chain and Logistics Panel

Panel Chair
Dr. Jose Larco
Associate Professor
Program Coordinator for Supply Chain & Logistics Coordinator
Industrial Engineering Department
University of Engineering and Technology (UTEC)
Lima, Peru

Panel Speakers
Mario Chong, Universidad del Pacifico

2:00 – 2:45, THURSDAY, May 11  Onsite Room 3

Six Sigma and AI

Session Chair: Renato Alejandro Manrique Acha, Universidad de Lima, Carrera de Ingeniería Industrial, Lima, Perú

ID 176  ECOPACAYA 4.0: An Innovation Augmented Reality Based Application for Ecotourism and Scientific Tourism in the Pacaya Samiria Amazon Lodge Private Reserve in the Amazon Jungle of Loreto, Peru
Johan Baldeon, Emilio Díaz, Darwin Auccapuri, Andrés Masuda and Rodolfo Gálvez, Departamento de Ingeniería, Pontificia Universidad Católica del Perú, San Miguel, Lima, Perú

ID 104  Interaction University-Community as Generator of Social Innovations
José C. Alvarez, Researcher, Faculty of Engineering, Universidad Peruana de Ciencias Aplicadas, Lima, Peru
Orkun Yıldız, Professor, İzmir Democracy University, İzmir, Turkey
Jorge Inche, Director of Graduate Unit, Faculty of Industrial Engineering, Universidad Nacional Mayor de San Marcos, Lima, Perú
Carlos Alvarez-Suarez and Piero Alvarez-Suarez, Engineering undergraduate students, Universidad Nacional Mayor de San Marcos, Lima, Perú

Luis Antonio Quesada Velarde, Thalia Leyton Reto and Paul Cardenas Lizana, Departamento de Bioingeniería, Universidad de Ingeniería y Tecnología, Barranco, Lima, Perú

ID 181  Experimental implementation of the content of the Design of Experiments course for the Industrial Engineer career
Maria Elizabeth Puelles Bulnes and Pedro Huamani Navarrete, Department of Industrial Engineering, Ricardo Palma University, Santiago de Surco, Lima, Perú

Renato Alejandro Manrique Acha, Universidad de Lima, Carrera de Ingeniería Industrial, Lima, Perú
2:00 – 3:45, THURSDAY, May 11    Lean Six Sigma II - Plenary    Onsite Room 4
Session Chair: Ronald Huamán Hilario, Universidad del Pacífico

2:00 – 2:20 pm, Thursday, May 11, 2023
Gabriel Olivera Pazos
Sub Gerente de Mejora Continua
Derco Perú
Lima, Perú
2:20 – 2:40 pm, Thursday, May 11, 2023
Cristopher Ramírez, MBA, Six Sigma Blackbelt
Plant Manager – UHT
LAIVE S.A.
Peru
2:40 – 3:00 pm, Thursday, May 11, 2023
Mónica Baca
Blackbelt Lean Six Sigma
Analista Senior de Procesos – Reemplazo de Jefe Corporativo Ingeniería de Procesos
Interoc Corporativo
Peru
3:00 – 3:20 pm, Thursday, May 11, 2023
Cesar Luis Olivos Villasis, MBA, Ing.
General Coordinator Impulsat Business Incubator
Professor attached to the Department of Business Sciences
Universidad Católica Santo Toribio de Mogrovejo
Chiclayo, Perú
Alumni of the of the United States Department of State
Title: Frameworks for Entrepreneurship and Innovation from the University
3:20 – 3:40 pm, Thursday, May 11, 2023
Suresh Done
Founder and Chief Architect
SNA Technologies, Southfield, Michigan, USA
Chairman
AEA Michigan Chapter
Commerce Twp, Michigan, USA
3:40 – 4:00 pm, Thursday, May 11, 2023
Ronald Huamán Hilario
Finance Superintendent at Minsur S.A.
Professor at Universidad del Pacífico
Lima, Perú

2:00 – 3:45, THURSDAY, May 11    Engineering Education    Virtual Room 5
Session Chair: Martha Lucia Pachón Palacios, Professor and researcher, Universidad EAN, Bogotá D.C., Colombia

ID 52  Approach to the generation of areas of criminalistic influence
Susana Arias, Universidad Tecnica de Ambato, Ecuador

ID 41  Hybrid Laboratory in Engineering Education from the Teacher's Perspective
J. Divitt Ed. Velosa-Garcia, Professor and researcher, Universidad EAN, Bogotá D.C., Colombia
Martha Lucia Pachón Palacios, Professor and researcher, Universidad EAN, Bogotá D.C., Colombia

ID 42  Gamification for the development of entrepreneurial skills in the classroom in a financial context
Martha Lucia Pachón Palacios, Professor and researcher, Universidad EAN, Bogotá D.C., Colombia
J. Divitt Ed. Velosa-Garcia, Professor and researcher, Universidad EAN, Bogotá D.C., Colombia

ID 50  Fintech in the Entrepreneurial Ecosystem: Analysis of the Relationship of Variables in SMEs in the State of Mexico
ID 105  Modeling and Optimization Process of Acid Effects on the Silica and Aluminum Contents of Geopolymer Concrete
Bello, J. K. Mohammad, O. S. Abejide and J. Ochepo, Department of Civil Engineering, Ahmadu Bello University, Zaria, Nigeria
A. Bello, Department of Chemical Engineering, Ahmadu Bello University, Zaria, Nigeria

May 11, 2023 (Thursday) - Session: 4:00 – 5:45 pm

4:00 – 5:45, THURSDAY, May 11 Onsite Room 1

Innovation and Entrepreneurship Workshop
Professor Don Reimer, LTU, USA

4:00 – 5:45, THURSDAY, May 11 Technical Presentations Onsite Room 2

4:00 – 4:45, THURSDAY, May 11 Global Supply Chain and Logistics II - Plenary Onsite Room 3
Session Chair: Juan Carlos Quiroz-Flores

4:00 pm – 4:20 pm (Thursday, May 11)
Franklin Cordova-Buiza
Research Teacher
Department of Industrial Engineering
Universidad Privada del Norte (UPN)
Lima, Peru

4:20 pm – 4:40 pm (Thursday, May 11)
Mg. Sylvia Karina Rodas Risso
Supply chain manager, Leader and Entrepreneur
Arca Continental Lindley S.A., Peru
Vice President of Women Supply Chain – WINS in Peru
Lima, Peru

4:40 pm – 5:00 pm (Thursday, May 11)
Lucia M. Bautista Zuñiga
Docente Asociado
Directora Académica
Docente Investigadora Renacyt
Universidad Privada del Norte (UPN)
Lima, Perú

5:00 pm – 5:20 pm (Thursday, May 11)
Juan Carlos Quiroz-Flores, Ph.D.
Research Professor – ULima
Facultad de Ingeniería y Arquitectura
Carrera de Ingeniería Industrial
Universidad de Lima
Peru

4:00 – 5:45, THURSDAY, May 11 Operations Management Onsite Room 4
Session Chair: Andrei Harold Quinteros Castillo, Universidad de Lima, Perú, Santiago de Surco, Lima, Perú

ID 37  Production Management Model Based on Lean Manufacturing and SLP to Optimize Unproductive Times in SMES in the Plastics Industry
Jhordy Edinson Burga-Dominguez, Faculty of Engineering and Architecture, University of Lima, Perú
Oscar Jofre Seminario-Mallqui, Faculty of Engineering and Architecture, University of Lima, Perú
Martin Fidel Collao-Díaz and Juan Carlos Quiroz-Flores, Faculty of Engineering and Architecture, University of Lima, Perú

ID 43  Beyond Operations, Integration of Risk Management and Customer Experience
Rosa Aracelli Centeno Sánchez, Cleaning and Beauty Products S.A.C., Cercado de Lima, Lima, Perú
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**4:00 – 5:45, THURSDAY, May 11**

**Session Chair:** Angelo Jean Pierr Janampa-Salvatierra, Faculty of Engineering and Architecture, University of Lima, Perú

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<td>El Alami Jamila, LASTIMI laboratory, University Med V of Rabat, Graduate school of technology, Sale, Morocco</td>
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**May 11, 2023 (Thursday) - Session: 7:00 – 10:00 pm**

**Conference Awards Ceremony and Dinner**

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Professor of Technology Management, Department of Production and Operations Management, Universiti Tun Hussein Onn Malaysia

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Prof. of Operations Management
Head of the Centre for Supply Chain Improvement
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Rabat, Morocco

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Professor
School of Engineering and Technology
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Venue: Krishibid Institution, KIB, Farmgate + Virtual

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February 12-14, 2024, Dubai, UAE
Venue: Hyatt Regency Dubai, Host: Khalifa University

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