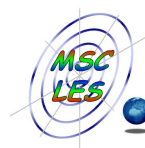


# ISM

# The International Conference on Industry 4.0 and Smart Manufacturing

## Preliminary Program

**Organized by**



 UNIVERSITÀ DELLA CALABRIA  
DIPARTIMENTO DI  
INGEGNERIA MECCANICA,  
ENERGETICA E GESTIONALE  
DIMEG

Updated at October 14th, 2019  
Subject to changes

# ISM 2019 Partners

The ISM 2019 Organization Committee thanks all the partners and institutions for their support to the event.

## Scientific Partners



## Industrial Partners



## Under the patronage of



# ISM 2019 @ Smart Manufacturing Matchmaking 2019

## Many events for a single goal

This year **International Conference on Industry 4.0 and Smart Manufacturing (ISM)** is co-located within the **Smart Manufacturing Matchmaking 2019** event, organised between University of Calabria researcher groups and Enterprise Europe Network partners, SPIN and other ones, jointly co-organized with several stakeholders for Industry 4.0.

Besides the ISM, the whole Smart Manufacturing Matchmaking 2019 event also includes:

- the *International Workshop on Innovation for Logistics (WINLOG)*, an initiative of the Pole of Innovation for Logistics (“SMART LOGISTICS”) that includes Universities, Public and Private Research Centres and Companies working in the fields of Logistics. The workshop will include plenary and parallel sessions as well as panels that will focus on Innovations for Logistics.
- a *Brokerage Event*, organised by SPIN and the Enterprise European Network, which offers access to B2B meetings and access to specialised panels and workshops;
- the *invNET*, a SPIN/EEN action that aims to support companies and startups in projects, activities and visions with a strong economic and social impact, in the area of Smart Manufacturing and Industry 4.0.

For further info, you can visit the websites of the single events:



<http://www.msc-les.org/conf/ism2019/index.html>



<http://www.innovazione-rdlog.it/winlog2019>



<https://smm2019.b2match.io>



<http://www.smm2019.eu/invnet/>

# ISM 2019

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## Organization Committee

### **ISM 2019 General Co-Chairs**

Francesco Longo, *MSC-LES – DIMEG, University of Calabria, Italy*

Feng Qiao, *Shenyang Jianzhu University, China*

### **ISM 2019 Program Chair**

Antonio Padovano, *MSC-LES – DIMEG, University of Calabria, Italy*

### **ISM 2019 Honorary Chair**

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### **ISM 2019 Publicity Chair**

Giancarlo Fortino, *DIMES, University of Calabria, Italy*

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Virginia D'Augusta, *CAL-TEK S.r.l., Italy*

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Simone Talarico, *CAL-TEK S.r.l., Italy*

Marco Vetrano, *CAL-TEK S.r.l., Italy*

# ISM 2019

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## International Program Committee

Ajith Abraham, *Machine Intelligence Research Labs (MIR Labs)*  
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Sameh M Saad, *Sheffield Hallam University, UK*  
Stefano Antonio Saetta, *Università degli Studi di Perugia, Italy*  
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Flavio Soares, *University of Sao Paulo, Brazil*  
Mehdi Souier, *High School of Management of Tlemcen, Algeria*  
Andreas Tolk, *Old Dominion University, USA*  
Fabiana Tornese, *Università del Salento, Italy*  
Dalton Cézane Gomes Valadares, *Federal Institute of Pernambuco, Brasil*  
Antonio Viridis, *University of Pisa, Italy*  
Edward Williams, *University of Michigan-Dearborn, USA*

# ISM 2019

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## Registration and Information Desk

**Location: Ariha Hotel Conference Center**

**Floor: -1**

**Opening Hours**

Wednesday, November 20<sup>th</sup> – Friday, November 22<sup>nd</sup>

08:30 am – 12:30 pm

14:00 pm – 17:00 pm

# ISM 2019

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## Activities and Sessions Details

Wednesday, November 20th

08:30 am – 09:45 am

*Ariha Hotel Conference Center – Registration Desk*

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### **ISM Attendees Registration**

09:45 am – 10:00 am

### **Bus transfer to University of Calabria – Aula Caldora**

The meeting point is in front of the Ariha Hotel

10:00 am – 10:45 am

*University of Calabria – Aula Caldora*

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### **SMM Joint Welcome Ceremony**

*Chair: Francesco Longo, University of Calabria, Italy*

- > Welcome to University of Calabria & Rende  
*TBA*
- > Welcome to Calabria Region  
*Menotti Lucchetta, Calabria Region Government*
- > Welcome to BE  
*TBA*
- > Welcome to ISM  
*Antonio Padovano, ISM Program Chair*
- > Welcome to WINLOG  
*Francesco De Bonis, Innovation Pole for Logistics*

10:45 am – 11:15 am

*University of Calabria – Aula Caldora*

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### **Networking Coffee Break**

Updated at October 14th, 2019  
Subject to changes



11:15 am – 12:45 pm

University of Calabria – Aula Caldora

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**SMM Joint Plenary Session Speeches**

- > The role of FESTO in the implementation and promotion of the Industry 4.0 platform  
*Nicolò Nicolosi, Head of Education at FESTO C.T.E.*
- > Industry 4.0 and Smart Manufacturing in BHGE Italy  
*Federico Iozello, Plant Manager at BHGE*

12:45 pm – 13:00 pm

**Bus transfer to Ariha Hotel**

The meeting point is in front of the Aula Caldora of the University of Calabria

13:00 pm – 14:30 pm

Ariha Hotel – Ristorante Il Senso della Calabria

**Networking Lunch**

14:30 pm – 16:00 pm

Congress Center

ISM

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**Panel Discussion on Industry 4.0 and Smart Manufacturing**

Chair: Francesco Longo, University of Calabria, Italy

14:30 pm – 16:00 pm

Expo Room 2

ISM

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**Current trends and future challenges in Industry 4.0 and Smart Manufacturing**

Chair: TBA

- > Enabling Technologies, Application Areas and Impact of Industry 4.0: a Bibliographic Analysis  
*Barbara Bigliardi, Eleonora Bottani, Giorgia Casella*
- > Digital Twin Models in Operations: A Systematic Literature Review  
*Tsega Yenew Melesse, Valentina Di Pasquale, Stefano Riemma*
- > Role of Business Model and Channels in E-Commerce Additive Manufacturing Industry  
*Priyanka Arora, Bijay Dhakal, Ravneet Kaur, Ahmed Qureshi*
- > Industry 4.0: The use of simulation for human reliability assessment  
*Anastasia Angelopoulou, Konstantinos Mykoniatis, Nithisha Reddy Boyapati*
- > Circular Economy Models in the Industry 4.0 Era: A Review of the Last Decade

*Antonella Petrillo, Marta Travaglioni, Giuseppina Piscitelli, Angela Ferazzoli,  
Raffaele Cioffi, Adele Parmentola*

14:30 pm – 16:00 pm

*Expo Room 4*

**WINLOG**

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**Special Session: The Calabrian Innovation Poles Network**

*Chair: TBA*

16:00 pm – 16:30 pm

*Ariha Hotel – Demo Area*

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**Networking Coffee Break**

16:30 pm – 18:00 pm

*Expo Room 2*

**ISM**

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**Extended Reality for Industry 4.0**

*Chair: TBA*

- > Counteracting Social Exclusion in Virtual Reality Applications for Industry  
*Josef Wolfartsberger, Jan Zenisek, Norbert Wild*
- > Virtual Reality Enriched Business Model Canvas Customer Building Blocks for  
Enhancing Customer Retention  
*Manuel Brunner*
- > The Use of Marker-Based Augmented Reality in Space Measurement  
*Salin Boonbrahm, Poonpong Boonbrahm, Charlee Kaewrat*
- > Effective Collaborative Design of Large Virtual 3D Model using Multiple AR  
Markers  
*Poonpong Boonbrahm, Charlee Kaewrat, Salin Boonbrahm*

16:30 pm – 18:00 pm

*Expo Room 3*

**ISM**

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**Production Planning & Control in Industry 4.0 and Smart Manufacturing**

*Chair: TBA*

- > Structuring the Planning Process in Pallet Production  
*Matthias Kaltenbrunner, Maria Anna Huka, Manfred Gronalt*
- > Combining a Genetic Algorithm with Dispatching Rules to Quickly Solve a  
Hybrid Flow Shop Scheduling Problem  
*Benjamin Rolf, Tobias Reggelin, Marcel Müller, Sebastian Lang*
- > Batch Energy Scheduling Problem with no-wait/blocking Constraints for the

general Flow-shop Problem  
*Ivan Ferretti, Lucio Zavanella*

- > *TBA*
- TBA*

16:30 pm – 18:00 pm

*Expo Room 3*

**WINLOG**

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**Special Session: R&D Projects**

*Chair: TBA*

- > GreenValues Project
- > Zerok-IRS Project
- > *SMART-TRAIN*
- > *W-Artemys*

# ISM 2019

## Activities and Sessions Details

Thursday, November 21st

09:00 am – 10:30 am

*Expo Room 2*

ISM

### **Artificial Intelligence Applications and Advances in Industry 4.0**

*Chair: TBA*

- > Explore the Application of Reinforced Learning to Support Decision Making during the Design Phase in the Construction Industry  
*Samer BuHamdan, Aladdin Alwisy, Ahmed Bouferguene*
- > A Deep Neural Network as Surrogate Model for Forward Simulation of Borehole Resistivity Measurements  
*Mostafa Shahriari, David Pardo, Bernhard Moser*
- > Imagery Creation based on Autonomic System for Finite Element by using Fully Convolutional Network  
*Gentaro Miyaki, Komei Tanaka, Hiroshi Hasegawa*
- > An Embedded Machine Vision System for an In-Line Quality Check of Assembly Processes  
*Fabio Frustaci, Stefania Perri, Giuseppe Cocorullo, Pasquale Corsonello*
- > A data transformation for the estimation of decay types of multivariate distributions  
*Florian Sobieczky, Mostafa Shahriari Shourabi*

09:00 am – 10:30 am

*Expo Room 3*

ISM

### **Digital Manufacturing: towards Industry 5.0**

*Co-Chairs: TBA*

- > Is a Digital Transformation Framework enough for Manufacturing Smart Products? The Case of Small and Medium Enterprises  
*Lamia Berrah, Melissa Liborio Zapata, Laurent Tabourot*

- > In2DIG: Case Study of an SME implementing Industry 4.0  
*Fernando Piedade, Paulo Chaves, Marcia Baptista*
- > Digital Manufacturing Challenges through Open Innovation Perspective  
*Marta Travaglioni, Angela Ferazzoli, Raffaele Cioffi, Fabio De Felice, Giuseppina Piscitelli*
- > Analysis of SMEs as a Target Group for Research Institute Services  
*Daniel Ranke, Andreas Aichele, David Görzig, Michael Luckert, Jörg Siegert, Thomas Bauernhansl*
- > Lean production as a tool for green production: the Green Foundry case study  
*Stefano Saetta, Valentina Caldarelli*

09:00 am – 10:30 am

*Expo Room 4*

**WINLOG**

### **Improving the Internal and External Logistics Operations and Processes**

*Chair: TBA*

- > Machine Learning Methods to Improve the Operations of 3PL Logistics  
*Alessandro Tufano, Riccardo Accorsi, Riccardo Manzini*
- > Open Interfaces for Connecting AGVs to an FMS  
*Walter Quadrini, Elisa Negri, Luca Fumagalli*
- > A Control Strategy for Smart Energy charging of warehouse Material Handling Equipment  
*Raffaele Carli, Salvatore Digiesi, Mariagrazia Dotoli, Francesco Facchini*
- > Performance, Quality, and Control in Steel Logistics 4.0  
*Andreas Beham, Sebastian Raggl, Viktoria Hauder, Johannes Karder, Stefan Wagner, Michael Affenzeller*

10:30 am – 11:00 am

*Ariha Hotel – Demo Area*

### **Networking Coffee Break**

11:00 am – 12:30 am

*Expo Room 2*

**ISM**

### **Towards Maintenance 4.0: Advances and Solutions**

*Chair: TBA*

- > An Ensemble-Learning Model for Failure Rate Prediction  
*Marcello Braglia, Davide Castellano, Marco Frosolini, Roberto Gabbrielli,*

*Leonardo Marrazzini, Luca Padellini*

- > Divide and Conquer Anomaly Detection: A Case Study Predicting Defective Engines

*David Muhr, Shailesh Tripathi, Herbert Jodlbauer*

- > A Hybrid Bond Graph Model-based – Data Driven Method for Failure Prognostics

*Wolfgang Borutzky*

- > XRepo - Towards an Information System for Prognostics and Health Management Analysis

*Alfonso Ardila, Felipe Martinez, Kelly Garces, Giacomo Barbieri, David Sanchez-Londono, Andrea Caielli, Laura Cattaneo, Luca Fumagalli*

11:00 am – 12:30 am

*Expo Room 3*

**ISM**

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### **Process Monitoring and Traceability in a 4.0 Perspective**

*Chair: TBA*

- > Simulation and Temperature Control in Refrigerated Fruit Storage Chamber  
*Honorato Ccalli Pacco*

- > Blockchain and agricultural supply chains traceability: research trends and future challenges

*Giovanni Mirabelli, Vittorio Solina*

- > How to increase the sustainability of the agri-food supply chain through innovations in 4.0 perspective: a first analysis

*Stefano Saetta, Valentina Caldarelli*

- > A Decentralized Application for the Traceability Process in the Pharma Industry

*Ferdinando Chiacchio, Lucio Compagno, Diego D'Urso, Luca Velardita, Philipp Sandner*

11:00 am – 12:30 am

*Expo Room 4*

**WINLOG**

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### **Parcels Delivery in Urban Areas: Recent Advances and Technologies**

*Chair: TBA*

- > Vendor Managed Inventory in the Last-Mile Delivery: an Industrial Application

*Annarita De Maio, Demetrio Laganà*

- > Managing Loading and Discharging Operations at Cross-Docking Terminals

*M. Flavia Monaco, Marcello Sammarra*

- > Crowd-shipping: a New Efficient and Eco-Friendly Delivery Strategy  
*Giusy Macrina, Francesca Guerriero, Luigi Di Puglia Pugliese*
- > Using Drones for Parcels Delivery Process  
*Luigi Di Puglia Pugliese, Francesca Guerriero, Giusy Macrina*

12:30 pm – 14:00 pm

*Ariha Hotel – Ristorante Il Senso della Calabria*

### **Networking Lunch**

14:00 pm – 15:30 pm

*Expo Room 2*

**ISM**

### **Cyber-Physical Systems**

*Chair: TBA*

- > RMAS Architecture for Industrial Agents In IEC 61499  
*Andrea Bonci, Sauro Longhi, Emanuele Lorenzoni, Massimiliano Pirani*
- > Cyber-Physical Production System Self-Description-Based Data Access Layer  
*Daniel Stock, Daniel Schel, Thomas Bauernhansl*
- > Requirements and Concept for a Modular and State-Oriented Control Device Architecture  
*David Breunig, Stock Daniel, Thomas Bauernhansl*
- > Human Machine Interfaces Based on Open Source Web-Platform and OPC UA  
*Marcelo Garcia*

14:00 pm – 15:30 pm

*Expo Room 3*

**ISM**

### **Digitization in Maritime Logistics: Shipping 4.0**

*Co-Chairs: TBA*

- > Towards Shipping 4.0. A Technology Gap Analysis  
*Giuseppe Aiello, Salvatore Vacante, Antonio Giallanza, Giuseppe Mascarella, Stefano Fasoli*
- > Maritime 4.0 – Digitalization and Advanced Manufacturing for Next Generation Vessel Development  
*Brendan Sullivan, Shantoo Desai, Jordi Sole, Javier Hernández Duque, Monica Rossi, Lucia Ramundo, Sergio Terzi*
- > Study of the Evolution of Large Yacht Project and Construction as

## Consequence of Environmental Rules

*Valerio Ruggiero*

- > Calm-water performance of a boat with two swept steps at high-speeds: Laboratory measurements and mathematical modeling  
*Bilandi Rasul Niazmand, Vitiello Luigi, Mancini Simone, Nappo Vincenzo, Roshan Fatemeh, Tavakoli Sasan, Dashtimanesh Abbas*

15:30 pm – 16:00 pm

*Ariha Hotel – Demo Area*

### Networking Coffee Break

16:00 pm – 16:30 pm

*Expo Room 2*

**ISM**

### Safety, Security & Risk Management in Industry 4.0

*Chair: TBA*

- > Shipbuilding Supply Chain Framework and Digital Transformation: A Project Portfolios Risk Evaluation  
*Rafael Diaz, Katherine Smith, Rafael Landaeta, Antonio Padovano*
- > Integrating IoT technologies for an “intelligent” safety management in the process industry  
*Maria Grazia Gnoni, Paolo Bragatto, Maria Francesca Milazzo, Roberto Setola*
- > Powder Bed Fusion/Sintering Machines: Safety at Workplaces  
*Alessandra Ferraro, Luciano Di Donato*
- > Innovative technical measures for risk prevention during the use of mobile machines with remote guide  
*Marco Pirozzi, Luciano Di Donato*
- > Supply Chain Risk Management: An Interactive Simulation Model in A Big Data Context  
*António Vieira, Luís Dias, Maribel Santos, Guilherme Pereira, José Oliveira*

16:00 pm – 16:30 pm

*Expo Room 3*

**ISM**

### Towards Maintenance 4.0: Condition-based and Predictive Maintenance Applications

*Chair: TBA*

- > Industry 4.0 elements of Machinery Maintenance - A Pilot Study of Predictive Maintenance Implementation in West-Bohemian Region



*Peter Poor, Josef Basl, David Zenisek*

- > Detection of Operating Anomalies and Predictive Maintenance of Electric Motors Through Real-Time Monitoring

*Luis Magadán, Francisco J. Suárez, Juan C. Granda, Daniel F. García*

- > A Real-Time Condition Monitoring and Maintenance Management System for Low Voltage Industrial Motors Using Internet-of-Things

*Konstantinos Mykoniatis*

- > Predictive model for the degradation state of a hydraulic system with dimensionality reduction

*Elena Quatrini, Francesco Costantino, Cesare Pocchi, Massimo Tronci*

18:30 pm – 19:00 pm

**Bus transfer to Cosenza Planetarium**

The meeting point is in front of the Ariha Hotel at 18:15.

19:00 pm – 20:00 pm

Cosenza Planetarium

**ISM Social Activity**

- > Description TBA

20:00 pm – 20:30 pm

**Bus transfer to TBA**

The meeting point is in front of the Cosenza Planetarium at 20:00.

20:30 am – 23:00 am

TBA

**Gala Dinner & Award Ceremony**

23:00 pm – 23:30 pm

**Bus transfer to Ariha Hotel**

The meeting point is in front of the TBA at 23:00.

# ISM 2019

## Activities and Sessions Details

Friday, November 22nd

09:00 am – 10:30 am

*Expo Room 2*

ISM

### **Industrial Internet of Things: Real-World Applications**

*Chair: TBA*

- > An RFID Application for the Process Mapping Automation  
*Orazio Urso, Ferdinando Chiacchio, Lucio Compagno, Diego D'Urso*
- > Internet of things and industry 4.0 applied in Bicipuma bike-sharing system in UNAM-Mexico  
*Armando Moises Pérez Silva, Veronica Olvera Rodriguez, Carmen Angelina García Cerrud, Soler Anguiano Francisca Irene, Flores de la Mota Idalia*
- > A self-assessment tool for supporting continuous improvement through IoT integration  
*Jonas Nygaard, Michele Colli, Brian Vejrum Wæhrens*
- > Exoskeletons Towards Industrie 4.0: Benefits and Challenges of the IoT Communication Architecture  
*Enrique Bances, Urs Schneider, Jörg Siegert, Thomas Bauernhansl*

09:00 am – 10:30 am

*Expo Room 3*

ISM

### **Simulation and Process Modeling in the Industry 4.0 Framework**

*Chair: TBA*

- > Simulation Modeling and Analysis for Material Handling Processes on a Container Terminal  
*Wenhe Yang*
- > Simulation Techniques for Production Lines Performance Monitoring  
*Mario Caterino, Alessandro Greco, Sara D'Ambra, Pasquale Manco, Marcello Fera, Roberto Macchiaroli, Francesco Caputo*

- > Are Simulation Tools Ready for Big Data? Computational Experiments with Supply Chain Models Developed in SIMIO  
*António Vieira, Luís Dias, Maribel Santos, Guilherme Pereira, José Oliveira*
- > Bypassing Data Issues of a Supply Chain Simulation Model in a Big Data Context  
*António Vieira, Luís Dias, Maribel Santos, Guilherme Pereira, José Oliveira*
- > Energy savings in reheating furnaces through process modelling  
*Simone Zanoni, Ivan Ferretti, Lucio Zavanella*

09:00 am – 10:30 am

*Expo Room 2*

**ISM**

### **Manufacturing of future**

*Chair: TBA*

- > Human-Robot Collaboration Based on Cyber-Physical Production System and MQTT  
*Marcelo Garcia*
- > Smart Manufacturing Retrofit for Brownfield Systems  
*Dieter Etz, Hannes Brantner, Wolfgang Kastner*
- > Bidirectional Transformation of MES Source Code and Ontology based on Description Logic  
*Badarinath Katti, Christiane Plociennik, Martin Ruskowski, Michael Schweitzer*
- > Metadata management in a big data infrastructure  
*Roxana-Maria Holom, Katharina Rafetseder, Stefanie Kritzinger, Harald Sehrschönb*
- > An Integrated Approach for Power Transformer Modeling and Manufacturing  
*Georgios C. Chasparis, Christian Lettner, Michael Moser, Josef Pichler*

10:30 am – 11:00 am

*Ariha Hotel – Demo Area*

### **Networking Coffee Break**

11:00 am – 12:30 am

*Expo Room 2*

**ISM**

### **Advanced Mobility Technologies: Fuel Cells and Innovative Propulsion Systems**

*Chair: TBA*

- > Use of fuel cells and/or hydrogen in naval vessels – Project TecBIA  
*Alessia Sortino, Salvatore Vacante, Andrea Cogliolo, Francesco Beltrame*
- > Insights for Industry 4.0 Applications into a Hydrogen Advanced Mobility  
*Petronilla Fragiaco, Francesco Piraino, Matteo Genovese*
- > Intermediate temperature solid oxide fuel cell/electrolyzer towards the future large-scale production  
*Petronilla Fragiaco, Giuseppe De Lorenzo, Orlando Corigliano*
- > Propulsion monitoring system for digitized ship management  
*Giuseppe Aiello, Vacante Salvatore, Giallanza Antonio, Mascarella Giuseppe, Fasoli Stefano*

11:00 am – 12:30 am

*Expo Room 3*

**ISM**

### **Towards the Industrial Operator 4.0**

*Chair: TBA*

- > Designing Industry 4.0 for Human Values: A Value Sensitive Design Approach  
*Steven Umbrello, Antonio Padovano, Francesco Longo*
- > Automatic ergonomic postural risk monitoring on the factory shopfloor – the ErgoSentinel tool  
*Vito Modesto Manghisi, Antonio Emmanuele Uva, Michele Fiorentino, Michele Gattullo, Antonio Boccaccio, Alessandro Evangelista*
- > Bridging human and machine learning for needs of collective intelligence development  
*Mariia Gavriushenko, Vagan Terziyan, Olena Kaikova*
- > An innovative tool for information and training for employees who work in "suspected of pollution or confined spaces"  
*Luciano Di Donato, Francesco Longo*

11:00 am – 12:30 am

*Expo Room 4*

**ISM**

### **Supply chain digitalization: challenges and opportunities from a managerial perspective**

*Co-Chairs: TBA*

- > Modelling of a Multi-Agent Supply Chain Management System using Coloured Petri Nets  
*Luis Fierro, Ruth Cano, José Garía*
- > Designing Human Mistake-Free Machine: a Mexico City Public Transport

### Commuters' Approach

*Adrielly Nahomee Ramos Alvarez, Francisca Irene Soler Anguiano, Idalia Flores de la Mota, Jessica López Moncada*

- > Minimization of the Logistic Costs in Healthcare Supply Chain: a Hybrid Model  
*Francesco Facchini, Salvatore Digiesi, Luigi Ranieri*
- > Goods Relocation Management in City Fashion Retailers with an Incentive System  
*Bartolomeo Silvestri, Salvatore Digiesi, Michele Roccotelli, Luigi Ranieri*

12:30 pm – 14:00 pm

*Ariha Hotel – Ristorante Il Senso della Calabria*

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### Networking Lunch

# ISM Proceedings Publication

The ISM proceedings will be published as part of the Elsevier Procedia Manufacturing. Procedia Manufacturing is an open access journal focusing entirely on all the important topics in the field of manufacturing engineering. Procedia Manufacturing enables fast dissemination of its content (the articles are Open Access and indexed in SCOPUS database) so that conference delegates can publish their papers online on ScienceDirect.

## International Journal Special Issues

The authors of the best papers submitted and presented at ISM will be invited by direct email after the end of the conference to extend their work and contribute to International Journal Special Issues and Book Series dealing with the topics of Industry 4.0 and Smart Manufacturing.

### **International Journal of Simulation and Process Modeling**

*Special Issue on: "New Challenges and Solutions for Industry 4.0 and Smart Manufacturing"*

### **Springer Series on Internet of Things**

*Special Issue on: "Industry 4.0 and Industrial Internet of Things"*

### **IET Collaborative Intelligent Manufacturing**

*Special Issue on: "Collaborative & Intelligent Manufacturing in Smart Manufacturing and Industry 4.0"*

# ISM 2019 Awards

The ISM 2019 Awards will be delivered during the Gala Dinner.

The **ISM 2019 Best Paper Award** is assigned by the ISM 2019 Best Paper Award International Committee and selected among the top quality papers presented at ISM based on originality, scientific quality and impact on the manufacturing domain.

The **Industrial Award** is assigned by the ISM 2019 Industrial Partners Committee and selected among the top quality papers presented at ISM that have the greatest impact on industrial practice and provide relevant advances to manufacturing systems.

The **ISSIP-IBM Best Paper Award “Best Service Innovation Paper”** is assigned by ISSIP (International Society of Service Innovation Professionals) in collaboration with IBM to the best paper dealing with promoting service innovation for our interconnected world and in particular in industrial domain.

## Brokerage Event

The brokerage event gives the participants (companies, research groups, institutions, etc.) the opportunity to make networking, to meet potential partners face-to-face, receive feedback from Industry 4.0 experts and practice pitch sessions. In order to register to the B2B sessions, to define the time slots when you are available for meetings during the event and to schedule a meeting with another participant, visit <https://smm2019.b2match.io/> and complete the registration.

The registration to B2B session is **free**. B2B sessions will be held in the Room TBA on the ground floor of the Ariha Hotel.

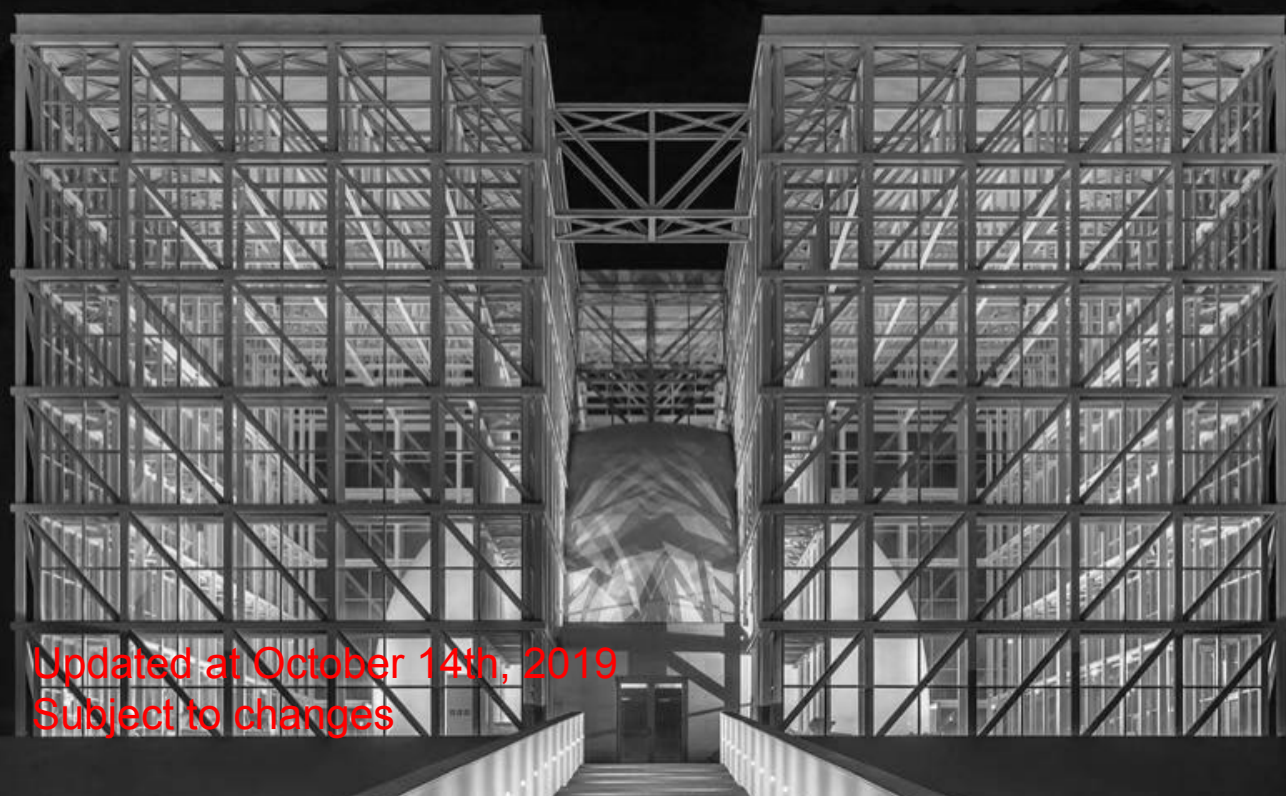
# ISM 2019

## Social Activities

\*confirmed only if the minimum number of participants is reached



Named after Giovan Battista Amico, the astronomer born in the royal city of Cosenza at the beginning of the 16th century, the Planetarium is one of the biggest and most innovative in Italy. The audience will live a fascinating immersive experience, comfortably seated on swinging and tilting armchairs. They will be able to watch the simulated astronomical phenomena such as the movement of an earth revolution, the passage of an asteroid and countless other scenarios and the movements that occur in the Sky with the passing of hours, days, years, centuries and even millennia, all projected onto the hemispherical dome with a qualities that only a few planetariums in the world can guarantee. The technological apparatus that allows the projection, a Starmaster ZMP of Zeiss, unique in Italy and among the best in Europe, is composed of an optical and precision mechanical equipment for the representation of the starry sky (about 4000 stars). All the technological principles of the projection system have been conceived in order to reproduce in the best way the astronomical and physical laws of nature.



Updated at October 14th, 2019  
Subject to changes



# ISM 2019

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## Maps and Directions

The University of Calabria (UNICAL) and the Ariha Hotel are located in the city of Rende (CS), which is 4 km from the city of Cosenza. The closest motorway exit is Rende-Cosenza Nord (Autostrada A2 del Mediterraneo - Salerno - Reggio Calabria), which is 1 km from the University and 400 mt from the Ariha Hotel. The closest train station is Castiglione Cosentino (CS), which is 1.5 km from the University of Calabria and 650 mt from the Ariha Hotel. The closest airport is the Lamezia Terme International Airport, which is 73 km from Rende.

### Urban transportation

The Rende-Cosenza urban area is served by the Consorzio Autolinee TPL. Visit the website for information about the bus schedule and routes. You can now download the MyCicero App to look for the bus schedule, to buy your tickets and validate your tickets on board the bus with the QR code. For further info, visit <http://www.consorzioautolineetpl.it/download/LocandinaMyCicero.pdf> or <http://www.consorzioautolineetpl.it/>.

For further information, about maps and directions, please visit the ISM website, <http://www.msc-les.org/conf/ism2019/index.html> and download the Maps and Directions leaflet.

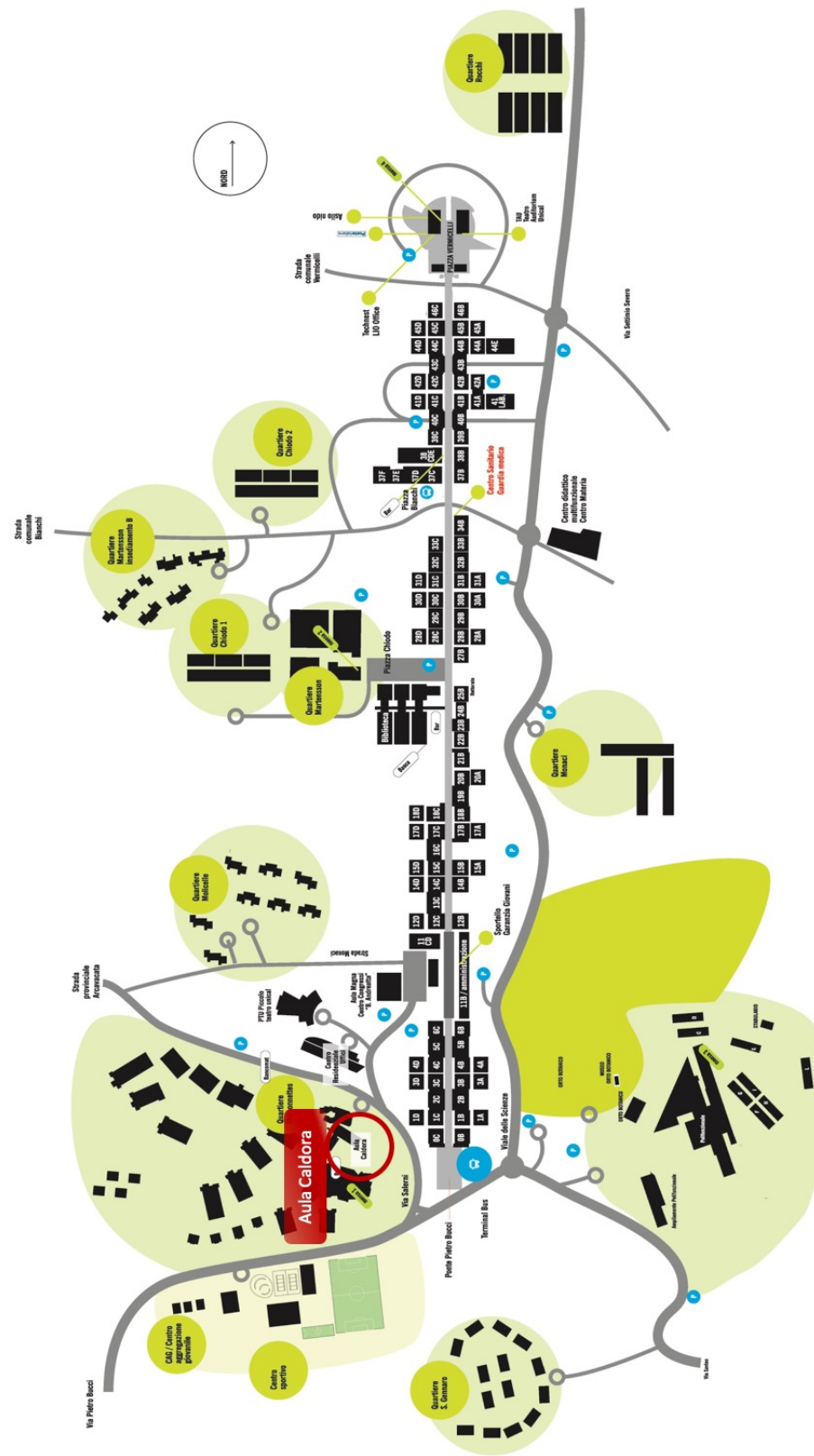
### Ariha Hotel

Via Marconi 59  
87036 Rende (CS) Italy  
Tel.: +39 0984 401010  
Email: [info@arihahotel.com](mailto:info@arihahotel.com)  
Website: <http://www.arilahotel.com>

### Aula Caldora

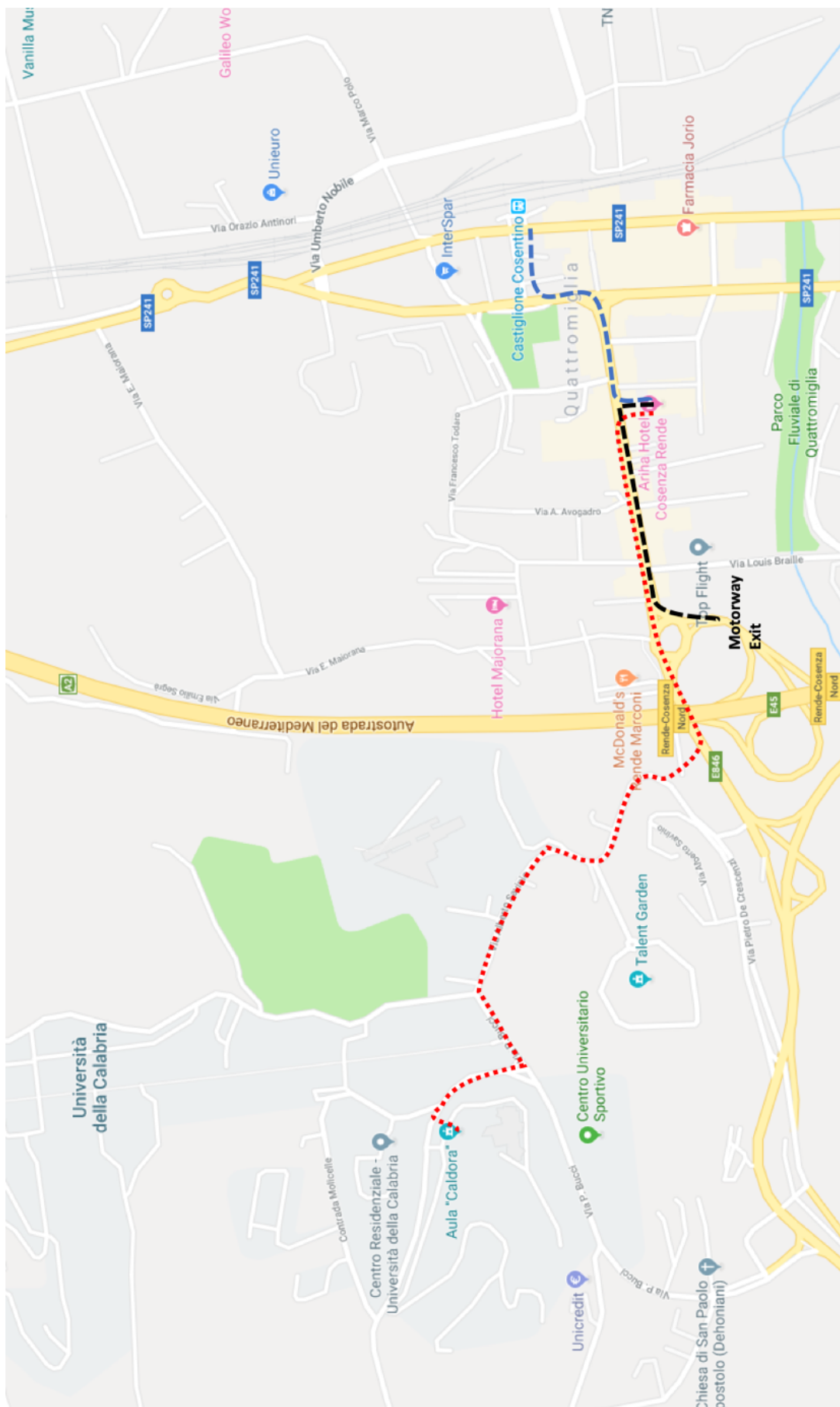
Via Alberto Savinio  
Centro Residenziale  
Università della Calabria  
87036 Arcavacata di Rende (CS)  
Italy

# University of Calabria Conference Center – Aula Caldora



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Map - Walking pathways for ISM points of interest







## ISM 2020 | Hagenberg – Linz, Austria

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Next year, ISM 2020 will be held in Hagenberg-Linz area, Austria, in collaboration with the Upper Austria University of Applied Sciences. Please consider to be active and to participate in this important event by attending by submitting a paper or by joining the International Program Committee. For further information please check the website [www.msclles.org/conf/ism2020](http://www.msclles.org/conf/ism2020) or write to Francesco Longo, [f.longo@unical.it](mailto:f.longo@unical.it) or Antonio Padovano, [antonio.padovano@unical.it](mailto:antonio.padovano@unical.it).

ISM 2020 will be co-located with:

- WAMS 2020 (the International Workshop on Applied Modeling & Simulation). For further info, please check <http://www.msc-les.org/conf/wams2020> or write to Marina Massei, [marina.massei@liophant.org](mailto:marina.massei@liophant.org);
- WINLOG 2020 (the International Workshop on Innovation for Logistics). For further info, please check <http://www.innovazione-rdlog.it/winlog2020/> or write to Sergio Scrivano, [info@innovazione-rdlog.it](mailto:info@innovazione-rdlog.it).



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