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3 – 6 June 2020**



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Wednesday, June 3

Wednesday, June 3 8:00 - 10:00 (America/Detroit)

## K1: Welcome & Opening Keynote

Managing Macro Level Supply Chain Disruptions: Lessons from COVID-19

**Opening Remarks - Andy Chen, TEMS**

**Ray Sasinowski, TEMSCON 2020 Chair**

**Tugrul Daim, Program Chair**

**Keynote, Sri Talluri**

Room: americas

Sri Talluri, Ph.D, Hoagland-Metzler Endowed Professor, Michigan State University

This talk discusses supply chain strategies and practices that have contributed to the disruptions we are currently facing amid COVID-19. We present both short-term and long-term strategies that companies can utilize to mitigate the impact of such a disruption in future. We also highlight the importance of strengthening the nexus between academic research and practice in designing and operating robust and resilient supply chains.

Wednesday, June 3 10:00 - 11:00 (America/Detroit)

## BA1: Break

Room: americas

Wednesday, June 3 11:00 - 13:00 (America/Detroit)

## AM1: Technology Management

Room: americas

Chair: Raymond Sasinowski (8945 Margo dr. & GM LLC, USA)

### 11:00 *Evolution of Korean Smart City Programs: Challenges and Opportunities...1*

Young Hoon Kwak (George Washington University, USA); [Jaehyun Lee](#) (George Washington University & Seoul National University, USA)

### 11:20 *The Effect on Productivity of the 3P Methodology Applied to Production Processes for the Ventilation and Air Extraction Industry...6*

Mauricio Hidalgo-Loaeza (Universidad Autonoma de Baja California, Mexico); [Reyna Virginia Barragán-Quintero](#) and Oscar Omar Ovalle-Osuna (Autonomous University of Baja California, Mexico); Eduardo Ahumada-Tello (Universidad Autónoma de Baja California, Mexico)

### 11:40 *Decision Making with Hierarchical Decision Model to Expedite the Manufacturing Process at Streimer Sheet Metal Works, Inc...11*

[Mustafa Almuzel](#) and Ramin Neshati (Portland State University, USA)

### 12:00 *M2M technology for bus fleet management. Case study: A college transportation system...17*

[Vladimir Sanchez Padilla](#) (Escuela Superior Politecnica del Litoral, Ecuador); Adriana Collaguazo (Escuela Superior Politécnica del Litoral, ESPOL, Ecuador); Jose Cabrera and Joffre Pesantez (Escuela Superior Politecnica del Litoral, Ecuador)

Wednesday, June 3 13:00 - 14:00 (America/Detroit)

## BA2: Break

Room: americas

Wednesday, June 3 14:00 - 16:00 (America/Detroit)

## AM2: Emerging Technologies 1

Room: americas

Chair: David E Mindham (EDP Renewables, USA)

**14:00 Crime Analysis Mapping, Intrusion Detection - Using Data Mining...22**

[Biswajit Panja](#) (Eastern Michigan University, USA)

**14:20 Scalable and Secure Architecture for Distributed IoT Systems...27**

Najmeddine Dhieb (Higher School of Communications of Tunis, Tunisia); [Hakim Ghazzai](#) (Stevens Institute of Technology & Stevens, USA); Hichem Besbes (Ecole Supérieure de Communications de Tunis, Sup'Com, University of Carthage, TUNISIA, Tunisia); Yehia Massoud (Stevens Institute of Technology, USA)

**14:40 Virtual and Augmented Reality Applied in Power Electric Utilities for Human Interface Improvement - A Study Case for Best Practices...33**

[Diogo Vinicius Joao](#) (CERTI Headquarters, Brazil); Paula Zenni Lodetti and Marcos Aurelio Izumida Martins (CERTI Foundation, Brazil); João Almeida (Enel Distribuição São Paulo, Brazil)

**15:00 Word Embedding-based Text Processing for Comprehensive Summarization and Distinct Information Extraction...37**

[Xiangpeng Wan](#) (Stevens Institute of Technology, USA); [Hakim Ghazzai](#) (Stevens Institute of Technology & Stevens, USA); Yehia Massoud (Stevens Institute of Technology, USA)

## Wednesday, June 3 23:30 - 1:30 (America/Detroit)

### A1: Emerging Technologies - Asia

Room: asia

Chair: Ravikiran Annaswamy (Technology and Management Consultant, India)

**23:30 Research on Blockchain for Sustainable E-Agriculture...42**

[Luona Song](#) and Xiaojuan Wang (Beijing University of Posts and Telecommunications, China); Nicolas Merveille (Université du Québec à Montréal, Canada)

**23:50 Product Development Strategy Definition using Qualitative Patent Analysis...47**

[Suchitra Damodharan](#) (Continental Automotive Components India Pvt. Ltd. & Business Area: Autonomous Mobility and Safety, India)

**24:10 Technology Concept Development and Refinement using 6E Incubator Method...51**

[Vishal Muralidharan](#) (Continental Automotive, India); [Suchitra Damodharan](#) (Continental Automotive Components India Pvt. Ltd. & Business Area: Autonomous Mobility and Safety, India)

## Thursday, June 4

## Thursday, June 4 1:30 - 3:30 (America/Detroit)

### A2: Innovation Management - Asia

Room: asia

Chair: Sudeendra Koushik (IEEE Chair, India)

**1:30 How to bring positive societal change through Corporate Social Responsibility (CSR)? Modeling the social responsible enablers using ISM-MICMAC...55**

[Kuldeep Singh](#) and Madhvendra Misra (Indian Institute of Information Technology Allahabad, India)

**1:50 Feature Driven Agile Product Innovation Management Framework...61**

[Suchitra Damodharan](#) (Continental Automotive Components India Pvt. Ltd. & Business Area: Autonomous Mobility and Safety, India); [Vishal Muralidharan](#) (Continental Automotive, India); [Vivek Muralidharan](#) (Continental Automotive Components India Pvt. Ltd., India)

**2:10 Obstacles to Innovation - Is There a Need for Consensus?...66**

[Saltanat Akhmadi](#) and Mariza Tsakalerou (Nazarbayev University, Kazakhstan)

**2:30 An Approach for Developing Integrated Decision Support System Model for Optimizing Contracting Process of Public Procurement in Pakistan...72**

[Muhammad Shahzeb Khan](#) (Ceme, National University Of Science & Technology, Pakistan); Muhammad Ayyaz and Afshan Naseem (CEME National University of Science & Technology, Islamabad, Pakistan)

Thursday, June 4 9:00 - 11:00 (America/Detroit)

### AM3: Editorial Panel

Room: americas

Chair: Tugrul Daim (Portland State University, USA)

Thursday, June 4 11:00 - 12:00 (America/Detroit)

### BA3: Break

Room: americas

Thursday, June 4 12:00 - 13:20 (America/Detroit)

### AM4: Emerging Technologies 2

Room: americas

Chair: Andy T Chen (Catronic Enterprise & REDDS Capital, Canada)

**12:00 A Trustworthy Recruitment Process for Spatial Mobile Crowdsourcing in Large-scale Social IoT...78**

Abdullah Khanfor (Stevens Institute of Technology, USA); Aymen Hamrouni (Stevens Institute of Technology, USA & Higher School of Communication of Tunis, Tunisia); [Hakim Ghazzai](#) (Stevens Institute of Technology & Stevens, USA); Ye Yang and Yehia Massoud (Stevens Institute of Technology, USA)

**12:20 Optimal Team Recruitment Strategies for Collaborative Mobile Crowdsourcing Systems...84**

Aymen Hamrouni (Stevens Institute of Technology, USA & Higher School of Communication of Tunis, Tunisia); [Hakim Ghazzai](#) (Stevens Institute of Technology & Stevens, USA); Turki Alelyani and Yehia Massoud (Stevens Institute of Technology, USA)

**12:40 Leveraging Personal Navigation Assistant Systems Using Automated Social Media Traffic Reporting...90**

[Xiangpeng Wan](#) (Stevens Institute of Technology, USA); [Hakim Ghazzai](#) (Stevens Institute of Technology & Stevens, USA); Yehia Massoud (Stevens Institute of Technology, USA)

**13:00 Selection of a machine learning algorithm for OSHA fatalities...96**

[Jaby Mohammed](#) and [Md Jubaer Mahmud](#) (Illinois State University, USA)

Thursday, June 4 14:00 - 16:00 (America/Detroit)

### AM5: Entrepreneurship

Room: americas

Chair: Tugrul Daim (Portland State University, USA)

**14:00 An Assessment of Entrepreneurial Ecosystem: The case of Saudi Arabia...101**

[Mustafa Almuzel](#) and Timothy R Anderson (Portland State University, USA)

**14:20 The Key Attributes that Drive University Entrepreneurship...107**

[Jessica Sarceda](#) (Paradox.ai, USA); Steve T Cho (Arizona State University, USA)

**14:40 A Team Competency Framework for Engineering Entrepreneurship Education...113**

[Xaver Neumeyer](#) (University of North Carolina at Wilmington, USA); Susana Santos (Rowan University, USA)

**15:00 The Role of Compassion in IT-Based Social Entrepreneurship...119**

Suisin Priscila Lam-Lam and [Eduardo Ahumada-Tello](#) (Universidad Autónoma de Baja California, Mexico); Richard David Evans (Brunel University London, United Kingdom (Great Britain))

**15:20 Does Money Makes Entrepreneurs Happy In The Age Of Industries 4.0?...125**

Rafael Ravina-Ripoll (Universidad de Cádiz, Spain); M<sup>o</sup> Jose Foncubierta-Rodriguez (Universidad de Cadiz, Spain); [Eduardo Ahumada-Tello](#) (Universidad Autónoma de Baja California, Mexico); Richard David Evans (Brunel University London, United Kingdom (Great Britain))

**15:40 Simulation of a Generalized Equation for Innovation in Complex Adaptive Systems...130**

[Pravir Malik](#) (Deep Order Technologies & Zappos, USA); Leon Pretorius (University of Pretoria, South Africa)

Friday, June 5

Friday, June 5 3:00 - 4:30 (America/Detroit)

## E1: Technology Management 1 - Europe

Room: europe

Chair: Joe Amadi-Echendu (University of Pretoria, South Africa)

Europe - Opening Remarks  
Robert Bierwolf. IEEE TEMS VP Conferences

### 3:10 *Assessing the Technology Readiness Level of Current Blockchain Use Cases...137*

[Kristoffer Holm](#) (Aarhus University, BSS, Denmark); Rene Chester Goduscheit (Aarhus University, Denmark)

### 3:30 *Influence of organizational culture in the adoption of agile...143*

[Krishna Jivan](#), [Annлизэ Marnewick](#) and [Nazeer Joseph](#) (University of Johannesburg, South Africa)

### 3:50 *A Multidisciplinary Case Study on Managing the Resilience of Connected systems...149*

Joe Amadi-Echendu, Liesel Ebersöhn, Chrisna du Plessis, Alta van der Merwe and Gerrit Stols (University of Pretoria, South Africa)

### 4:10 *Paradigm Shift of Social Enterprise in India...155*

[Ashok Chopra](#) (Amity University & Dubai International Academic City, United Arab Emirates)

Friday, June 5 5:00 - 7:00 (America/Detroit)

## E2: Innovation Management - Europe

Room: europe

Chair: Leon Pretorius (University of Pretoria, South Africa)

### 5:00 *Methodology Concept for the Determination of the Idea-specific Requirement Space for the Execution of Radical Innovations...164*

[Guenther Schuh](#) (RWTH Aachen University, Germany); [Paul Zeller](#) (Fraunhofer Institute for Production Technology IPT, Germany)

### 5:20 *Time-To-Market and Product Performance Trade-off Revisited...N/A*

[Ali Yassine](#) and [Sally Souweid](#) (American University of Beirut, Lebanon)

### 5:40 *Methodology for the determination of the logic of innovation ideas for technical systems...172*

[Günther Schuh](#) (RWTH Aachen University, Germany); [Thomas Schwarberg](#) (Fraunhofer-Institute for Production Technology IPT, Germany); [Patrick Scholz](#) (Fraunhofer Institute for Production Technology IPT, Germany)

Friday, June 5 7:00 - 8:00 (America/Detroit)

## BE1: Break

Room: europe

Friday, June 5 8:00 - 9:00 (America/Detroit)

## E3: Technology Management 2 - Europe

Room: europe

Chair: Patrick Scholz (Fraunhofer Institute for Production Technology IPT, Germany)

### 8:00 *Assessing the application based utility potential of new technologies...178*

[Guenther Schuh](#), [Patrick Scholz](#) and [Yuka Marie-Sophie Ando](#) (Fraunhofer Institute for Production Technology IPT, Germany)

### 8:20 *Identification of multidimensional key performance indicators for manufacturing companies...186*

[Svenja Marek](#) and [Guenther Schuh](#) (FIR e.V. at RWTH Aachen, Germany); [Volker Stich](#) (FIR e. V. at RWTH Aachen, Germany)

8:40 *Software Tool for the Selection of 3D Print Service Providers in the context of Spare Parts Logistics...192*

[Svenja Marek](#) and Daniel Pause (FIR e.V. at RWTH Aachen, Germany); Volker Stich (FIR e. V. at RWTH Aachen, Germany)

Friday, June 5 9:00 - 9:15 (America/Detroit)

CL: Closing Remarks

Robert Bierwolf. IEEE TEMS VP Conferences

Room: europe