2022 IEEE Technology and Engineering Management Conference (TEMSCON EUROPE 2022)

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Monday, April 25 10:00 - 12:00 (Europe/Istanbul)

OP: CONFERENCE OPENING & KEYNOTE

Welcomes & Keynote

Hasan Mandal, Opening Keynote

Room: Main

> Chair: Tugrul Daim (Portland State University, USA)

Welcomes: Tugrul Daim, Nuri Basoglu, Gulgun Kayakutlu, Sudeendra Kaushik, Ravikiran Annaswamy, IYTE President, IEEE Turkey President/VP

Keynote: Hasan Mandal, Vice President & Director of Research and Graduate Policies, Sabanci University, Istanbul, Turkey

Monday, April 25 12:00 - 14:00 (Europe/Istanbul)

EM1: ENGINEERING MANAGEMENT 1

Room: Breakout B

> Chair: Mehmet Ozgur Kayalıca (Istanbul Technical University, Turkey)

12:00 *Computational Intelligence Driven Prognostics for Remaining Service Life of Power Equipment*

Jamshaid Iqbal Janjua (Al-Khawarizimi Institute of Computer Science & University of Engineering & Technology, Lahore, Pakistan); Mehwish Nadeem (Al-Khawarizmi Institute of Computer Science (KICS), University of Engineering and Technology (UET), Pakistan); Zubair Khan (University Of Engineering & Technology, Lahore, Pakistan); Tahir Abbas Khan (School of Computer Sciences, National College of Business Administration & Economics (NCBAE), Pakistan)

pp. 1-6

12:20 *Structuration Mechanisms of a Creation Process of Local Energy Systems*

Jussi Valta and Saku Mäkinen (Tampere University, Finland)

pp. 7-14

12:40 *In Search of a Just Mechanism*

Mustafa Sinan Mustafaoglu, Mehmet Ozgur Kayalıca, Gülgün Kayakutlu and Atilla Kılınç (Istanbul Technical University, Turkey)

pp. 15-20

13:00 *Financial Performance Analysis of Firms in the Energy Sector with Multi-Criteria Decision-Making Methods*

İrem Duzdar Argun, IDA (Duzce University Konuralp Campus 81000 & Duzce University, Turkey); Hazal Altınoluk (Duzce University, Turkey)

pp. 21-25

IM1: INNOVATION MANAGEMENT 1

Room: Breakout A

Chair: Saku Mäkinen (Tampere University, Finland)

12:00 *Removing the Barriers to Innovation: Firm Size Matters!*

Saltanat Akhmadi and Mariza Tsakalerou (Nazarbayev University, Kazakhstan)

pp. 26-31

12:20 *Influence of innovation attributes with preventive nature of innovation on intent to adopt: the case of photovoltaic systems in mass markets*

Deborah K Kuperstein-Blasco, Laura Valtonen, Saku Mäkinen and Essi Saloranta (Tampere University, Finland)

pp. 32-39

12:40 *Faculty Effectiveness Prediction using Machine Learning and Text Analytics*

Dhanya Pramod (Symbiosis Centre for Information Technology(SCIT), Symbiosis International(Deemed University) (SIU), India); Vijayakumar Bharathi. S (Symbiosis Centre for Information Technology (SCIT) & Symbiosis International University, India); Ramakrishnan Raman (Symbiosis Institute of Business Management Pune & Symbiosis International University India, India)

pp. 40-47

TM1: TECHNOLOGY MANAGEMENT 1

Room: Main

Chair: Alexander Brem (University of Stuttgart, Germany & University of Southern Denmark, Denmark)

12:00 *Preventive Measures for Digital Learning Spaces' Security Issues*

Essohanam Djeki and Jules Dégila (University of Abomey-Calavi, Benin); Carlyna Bondiombouy (CEA-SMIA, Benin); Muhtar Hanif Alhassan (National Open University of Nigeria, Nigeria)

pp. 48-55

12:20 *Characteristics of Scenario Planning for Public Policy: A Case Study of Korean Artificial Intelligence Policy*

Changhyun Park (KISTEP, Korea (South))

pp. 56-60

12:40 *Augmented intelligence for state-of-the-art patent search*

Ana Hafner (FIS & DOBA Business School, Slovenia); Nadja Damij (University of Northumbria at Newcsatle, United Kingdom (Great Britain)); Dolores Modic (Nord University Business School, Norway)

pp. 61-66

13:00 *A Qualitative Evaluation On SME Decision Makers Adoption of ERP Systems*

Mustafa Cem Arpacı (Turkey)...N/A

Monday, April 25 14:00 - 14:30 (Europe/Istanbul)

BK1: BREAK

Room: Main

Monday, April 25 14:30 - 16:30 (Europe/Istanbul)

EM2: ENGINEERING MANAGEMENT 2

Room: Breakout B

Chair: Eda Çorbacıoğlu (Izmir University of Democracy, Turkey)

14:30 *Is COVID-19 Friend or Foe to Industry 4.0: Experiences of Turkish White Goods Suppliers*
Kubra Simsek Demirbag (Gumushane University, Turkey); Nihan Yildirim (İstanbul Technical University Management Faculty, Turkey)
pp. 67-72

14:50 *Individual Adaptation Determinants and Themes for Environmental Resilience*
Gizem Kaplan (Izmir Institute of Technology, Turkey); Eda Çorbacıoğlu (Izmir University of Democracy, Turkey); Nuri Basoglu (Izmir Institute of Technology, Turkey)
pp. 73-78

IM2: INNOVATION MANAGEMENT 2

Room: Breakout A

Chair: Gulin Idil Bolatan (Alanya Univ, Turkey)

14:30 *Open Challenges and Research Roadmap: Visual Representations aiding Organizational Leadership in Decision Making for New Product Development at the Early Innovation Stage*
Manojkumar Somabhai Parmar (Robert Bosch Engineering and Business Solutions Private Limited, India & HEC Paris, France); Anna Provodnikova (SSBM, Geneva, Switzerland)
pp. 79-86

14:50 *Challenges in Testing the Kano Model's Validity through Computer-Assisted Human Behaviour Analysis*
Sabina Alina Potra (Politehnica University of Timişoara, Romania); Hazal Duman Alptekin (Cognitive-Behavioral Application and Research Center, Turkey); Adrian Pugna (Politehnica University of Timişoara, Romania); Nihan Tomris Küçün (Cognitive-Behavioral Application and Research Center, Turkey); Behçet Yalın Özkara (Eskisehir Osmangazi University, Turkey); Mădălin-Dorin Pop (Politehnica University of Timişoara, Romania)
pp. 87-93

15:10 *Shareholders' Activism in India: Understanding characteristics of companies targeted by activist shareholders using discriminant analysis*
Sudam Sinngade (Equifax India Mumbai, India); Shailesh Rastogi (Symbiosis Institute of Business Management Pune, Symbiosis International (Deemed) University, India); Chetan P Panse (Symbiosis International (Deemed University) & SIBM, Pune, India)

pp. 94-99

15:30 *The Impact of Innovation Performance on Operational Performance: The Example of Technopark Istanbul*
Ibrahim Sapaloglu (Istanbul Technical University, Turkey); Gulin Idil Bolatan (Alanya Univ, Turkey)
pp. 100-105

TM2: TECHNOLOGY MANAGEMENT 2

Room: Main
Chair: Nihan Yildirim (İstanbul Technical University Management Faculty, Turkey)

14:30 *To be or not to be digital: Digitalization Needs and Clustering-based Profile Analysis of Theatre Artists for Scene 2.0 Pandemic Recovery Programme*
Nihan Yildirim (İstanbul Technical University Management Faculty, Turkey); Hüseyin Ay (İstanbul Technical University, Turkey); Yudum Kaymak (Inogar Social Cooperative, Turkey)
pp. 106-111

14:50 *ICT Adoption by Women Entrepreneurs in India: A Qualitative Study using Focus Group Discussion*
Monica Chouksey (Symbiosis International Deemed University Pune India, India); Madhura Bedarkar (Associate Professor, SIBM Pune, Pune, Maharashtra, India)
pp. 112-117

15:10 *Retail After COVID-19: Use Virtual Reality to Enhance Ecommerce*
Rae Yule Kim (Montclair State University, USA)
pp. 118-123

15:30 *Cyersecurity Modeling and Their Simulation Tools: Mini-Systematic Review*
Aws Jaber (Pilestredet 35, Norway & Oslo Metropolitan University (OsloMet), Norway)
N/A

Monday, April 25 16:30 - 17:00 (Europe/Istanbul)

BK2: Break

Room: Main

Monday, April 25 17:00 - 19:00 (Europe/Istanbul)

K1: Keynote

Arda Ural, EY Americas Industry Markets Leader for Health Sciences and Wellness
Room: Main
Chair: Tugrul Daim (Portland State University, USA)

Monday, April 25 19:00 - 21:00 (Europe/Istanbul)

KP1: KEYNOTE PANEL: CYBERSECURITY

Room: Main

Chair: Nuri Basoglu (Izmir Institute of Technology, Turkey)

Panelists:
o Birol Yesilada
o Bridget Barnes

Tuesday, April 26

Tuesday, April 26 9:20 - 9:30 (Europe/Istanbul)

IF: INDUSTRY FORUM OPENING

Room: Main

Chairs: Ferhan Cebi (Istanbul Technical University, Turkey), Tugrul Daim (Portland State University, USA)

Prof. Dr. Tuğrul DAİM / Prof. Dr. Ferhan ÇEBİ

Tuesday, April 26 9:30 - 11:00 (Europe/Istanbul)

P1: PANEL: Next Generation Technologies on Pandemic Effect on Digitization

Room: Main

Panelists:
o Çiğdem Kayali, Director of Cyber Security - Microsoft MEA, Founding & Board Member of Women in Technology Association (Wtech)
o Y. Burak SAVAK, VP of IoT, Cloud & Automotive, R&D Department, Vestel
o Serdar Yılmaz, CIO Fibabanka

Tuesday, April 26 11:00 - 11:15 (Europe/Istanbul)

BK3: Break

Room: Main

Tuesday, April 26 11:15 - 12:45 (Europe/Istanbul)

P2: PANEL: Women Leaders in Technology and Innovation

Room: Main

Moderator: İffet İYİGÜN MEYDANLI, Co-founder of M2I Consultancy

Panelists:
o Prof. Dr. Gözde ÜNAL, Faculty Member, İTÜ Faculty of Computer and Informatics Engineering
o Prof.Dr. Melike NİKBAY, Faculty Member, ITU Faculty of Aeronautics and Astronautics
o Dr. Burcu SANER OKAN, Faculty Member, Sabancı University, TTGV Fellow Co-founder of Nanografen

Tuesday, April 26 12:45 - 13:45 (Europe/Istanbul)

L1: LUNCH

Room: Main

Tuesday, April 26 13:45 - 15:15 (Europe/Istanbul)

P3: PANEL: Digital Transformation of Industry - Case Studies & Policy Development

Room: Main

Moderator: Prof. Dr. GÜLGÜN KAYAKUTLU, İTÜ

Panelists:
o Sertac Yerlikaya, Advisor to Deputy Minister of Industry and Technology
o Prof. Dr. Süleyman Sevinç, Labenko Bilişim AŞ, Founding Partner of AI & Robot and Medical applications
o Can Arslan, Co-Founder of Foton Renewable Energy Trading Platform
o Saygun Kaçar, Smart Production Technologies Manager in Borçelik

Tuesday, April 26 15:15 - 15:30 (Europe/Istanbul)

BK4: Break

Tuesday, April 26 15:30 - 17:00 (Europe/Istanbul)

P4: PANEL: From Idea to Practice Technology ecosystem actors and their roles for a sustainable development

Room: Main

Moderator: Prof. Dr. Hamit SERBEST, ÜSİMP, University Industry Cooperation Centers Platform, Chairman of the Board

Wednesday, April 27

Wednesday, April 27 9:00 - 11:00 (Europe/Istanbul)

K3: KEYNOTE SPEAKERS: INNOVATION FOR RESILIENCE

Marina Dabic, Amandeep Dhir
Room: Main
Chair: Gulgun Kayakutlu (unknown)

Wednesday, April 27 11:00 - 13:00 (Europe/Istanbul)

EDP: PANEL: Meet the Editors

Room: Main
Chair: Marina Dabic (University of Zagreb, Faculty of Economics and Business, Croatia)

Moderator: Professor Marina Dabic (University of Zagreb, Faculty of Economics and Business, Croatia)

Panelists:
• Alexander Brem, Associate Editor: Technological Forecasting and Social Change, Elsevier
• Professor Tugrul Daim, Editor in chief IEEE- Transactions on Engineering Management
• Professor Yogesh K. Dwivedi, PhD Editor in Chief International Journal of Information Management, Elsevier
• Professor Jelena Španjol, Editor-in-Chief, Journal of Product Innovation Management
• Professor James Fleck, Editor-in-Chief, Technology Analysis and Strategic Management

Wednesday, April 27 13:00 - 14:00 (Europe/Istanbul)

L2: Lunch

Room: Main

Wednesday, April 27 14:00 - 16:00 (Europe/Istanbul)

EM3: ENGINEERING MANAGEMENT 3

Room: Breakout B
Chair: Haydar Yalcin (Izmir Katip Celebi University & Portland State University, USA)

14:00 *Effective strategy implementation through rail infrastructure projects*

Berendina Bonhomme (Postgraduate School of Engineering Management, South Africa); Annlizé Marnewick and Carl Marnewick (University of Johannesburg, South Africa)

pp. 124-129

14:20 *Learning Academy and Expertise Development*

Anandh Nagalingam (Continental Automotive Components India, India); Naresh Babu Bhogavarpu (Continental Automotive Coomponents India pvt ltd, India); Kumar Dinker (Continental Automotive, India); Nethra Thattekere Shivaraju (& Continental Automotive India, India)

pp. 130-134

14:40 *Artificial Intelligence Project Success-Emerging Trends...N/A*

Gloria J. Miller (Maxmetrics, Germany)

15:00 *The interrelationship between Lean Manufacturing and Internet of Things: a bibliometric analysis*

Claudia L. Márquez and Jesús D. Avilés (Universidad Autónoma de Baja California, Mexico); Oscar Omar Ovalle-Osuna and Reyna Virginia Barragán-Quintero (Autonomous University of Baja California, Mexico)

pp. 135-140

IM3: INNOVATION MANAGEMENT 3

Room: Breakout A

Chair: Nadja Damij (University of Northumbria at Newcsatle, United Kingdom (Great Britain))

14:00 *An analysis of the relationship between marital status and happiness in entrepreneurs of the industry 4.0 era, from the perspective of the age variable*

Rafael Ravina-Ripoll (Universidad de Cádiz, Spain); María- Jose Foncubierta-Rodriguez (Universidad de Cadiz, Spain); Eduardo Ahumada-Tello (Universidad Autónoma de Baja California, Mexico)

pp. 141-145

14:20 *Adapting The Quadruple Aim For The Benefit Of The Stakeholders In Academic Healthcare Research*

Muthu Singaram, V r Muraleedharan and Mohanasankar Sivaprakasam (IIT Madras, India); Shashwat Pathak (Meerut Institute of Engineering and Technology & ACIC MIET Meerut Foundation, India)

pp. 146-151

14:40 *The Role of AI Chatbots in Mental Health Related Public Services in a (Post)Pandemic World: A Review and Future Research Agenda*

Nadja Damij and Suman Bhattacharya (University of Northumbria at Newcsatle, United Kingdom (Great Britain))

pp. 152-159

15:00 *Innovation Management Footprint in a Technology Organization*

Suchitra Damodharan (Continental AG & Business Area: Safety and Motion, India); Suraj Menon (Continental AG, India); Aditya N Rao (Continental AG & Business Area : Safety and Motion, India); Sudipta Saha (Continental AG & Business Area: Safety and Motion, India)

pp. 160-165

15:20 *Current Status Analysis on Early Stage Support of Technology Based Initiatives*

    Rana Ezgi Köse (Turkey); <u>Ferhan Cebi</u> (Istanbul Technical University, Turkey)

    pp. 166-171

TM3: TECHNOLOGY MANAGEMENT 3

Room: Main

    Chair: Ferhan Cebi (Istanbul Technical University, Turkey)

14:00 *Data Science Technology Selection: Development of a Decision-Making Approach*

    <u>Kerem Nazlıel</u> (Middle East Technical University, Turkey); Kerem Kayabay (Middle East Technical University & TUBITAK ULAKBIM, Turkey); Mert Onuralp Gökalp (Tüpraş & Middle East Technical University, Turkey); Ebru Gökalp (Hacettepe University, Turkey); P. Erhan Eren (METU, Turkey)

    pp. 172-178

14:20 *The effect of blockchain technology on supply chain management: its potential to prevent fraud and reduce risks to food safety and its effects on the relationships between supply chain actors in the Mexican food processing industry*

    <u>Shima Esfandiari</u> (University of Brighton, United Kingdom (Great Britain))

    pp. 179-183

14:40 *Productivity in Technology-Based Firms from the Perspective of Work-Family Balance and Conflict*

    <u>María Dolores Oropeza-Yepez</u> (Universidad Autónoma de Baja California` & Facultad de Contaduría y Administración, Mexico); <u>Eduardo Ahumada-Tello</u> and Maricela Sevilla-Caro (Universidad Autónoma de Baja California, Mexico); Reyna Virginia Barragán-Quintero (Autonomous University of Baja California, Mexico)

    pp. 184-191

15:00 *Enabling technologies and dynamic capabilities: The case of the US healthcare industry...N/A*

    Asta Pundziene (Kaunas University of Technology, Lithuania; UC Berkeley, USA); Sohvi Heaton (Loyola Marymount University, USA); David Teece (UC Berkeley, USA)

Wednesday, April 27 16:00 - 18:00 (Europe/Istanbul)

IM4: INNOVATION MANAGEMENT 4

Room: Breakout A

    Chair: Xaver Neumeyer (University of North Carolina at Wilmington, USA)

16:00 *Assessing the Key Factors Impacting the Customers Adoption of the Electronic Banks in Saudi Arabia*

    Abdullah Shamsi Alfurayji (King Saud University, Saudi Arabia); Saeed Alzahrani (King Saudi University - Building 67, Saudi Arabia); <u>Ammar Almaatouq</u> (Torod Holding LTD, Saudi Arabia)

    pp. 192-197

16:20 *Digitalization and the entrepreneurial mindset: A conceptualization and research framework*

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

pp. 198-203

16:40 *Assessment of Human-Robot Interaction between Householders and Robotic Vacuum Cleaners*

Nur Beril Yapici (Izmir Institute of Technology, Turkey); Tugkan Tuglular (Izmir Institute Of Technology, Turkey); Nuri Basoglu (Izmir Institute of Technology, Turkey)

pp. 204-209

17:00 *Organizational Enablers of Data-Driven Digital Transformation: A Case Study from Banking Industry*

Rıza E Arsal (Boğaziçi University & Istanbul Bilgi University, Turkey); Tolga Durdu (Boğaziçi University & Fibabanka, Turkey); Mustafa H Tongarlak (Boğaziçi University, Turkey)

pp. 210-216

17:20 *Product Agnostic Generic Software Design and Development*

Usha Yogish, Sumit Narang and Ashwin Ganapathy (Continental Automotive India, India)

pp. 217-221

TM4: TECHNOLOGY MANAGEMENT 4

Room: Main

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

16:00 *An Explainable Credit Scoring Framework: A Use Case of Addressing Challenges in Applied Machine Learning*

Gülçin Ece Özkahya, Umit Tigrak and Erdal Bozan (Fibabanka, Turkey); Levent Guntay (Ozyegin University, Turkey); Tolga Durdu (Boğaziçi University & Fibabanka, Turkey)

pp. 222-227

16:20 *Data Visualization and Statistical Graphics in big data analysis by Google Data Studio - Sales Case Study*

Mohammad Allaymoun, Masooma Khaled, Fatima Saleh and Fatima Merza (Gulf University, Bahrain)

pp. 228-234

16:40 *A Technology Lens into the Operationalization of Resiliency and Sustainability Post Covid-19*

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

pp. 235-241

17:00 *Smart Traffic Control for Intelligent Transportation System in the Electronic-City Management*

Reza Khalilian, Eng (MUI Research Assistant and Author, Iran & Dr Vita Company and NUST MISIS, Iran); Abdalhossein Rezai (University of Science and Culture, Iran); MohammadReza Talakesh (Municipality Clerk, Iran)

N/A

TM5: TECHNOLOGY MANAGEMENT 5

Room: Breakout B

Chair: Eduardo Ahumada-Tello (Universidad Autónoma de Baja California, Mexico)

16:00 *Knowledge Complexity and Collective Intelligence Development in Technology Based-Firms*
Eduardo Ahumada-Tello and Karen Ramos (Universidad Autónoma de Baja California, Mexico); Rodolfo Martínez-Gutiérrez (Instituto Tecnológico de México, Mexico); Rafael Ravina-Ripoll (Universidad de Cádiz, Spain)
pp. 242-246

16:20 *Blockchain design in health data management*
Stefano Abbate and Piera Centobelli (University of Naples Federico II, Italy); Roberto Cerchione (University of Naples Parthenope, Italy); Eugenio Oropallo and Emanuela Riccio (University of Naples Federico II, Italy)
pp. 247-253

16:40 *A first bibliometric literature review on Metaverse*
Stefano Abbate and Piera Centobelli (University of Naples Federico II, Italy); Roberto Cerchione (University of Naples Parthenope, Italy); Eugenio Oropallo and Emanuela Riccio (University of Naples Federico II, Italy)
pp. 254-260

17:00 *The Effects of Social Media Use on Attitude Changes of Religious Tolerance and Intolerance: Online Social Paradigms May Bring New Possibilities for Transformations in Organizations and Society*
Oscar D Nelson (DataResearch US, USA)
pp. 261-266

17:20 *The Use of Networking for Community Development: A Survey*
Sohaib Riaz, Mohsin Khalil and Syed Fahad Hassan (National University of Sciences and Technology, Pakistan)
pp. 267-274