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**Virtual Conference
17 – 20 May 2021**



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Monday, May 17

Monday, May 17 8:30 - 9:00 (Europe/Berlin)

OP: Welcome Remarks

Room: Main

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

Andy Chen, IEEE TEMS President
Marina Dabic, Chair TEMSCON-EUR 2021
Tugrul Daim, Program Chair TEMSCON-EUR 2021
Sudeendra Koushik, IEEE TEMS VP Conferences
Nebojša Sojčić, Vice Rector University of Dubrovnik
Jurica Pavičić, Dean, Faculty of Economics and Business Zagreb
Nina Begičević Ređep, Dean Faculty of Organisation and Informatics, FOI

Monday, May 17 9:00 - 10:00 (Europe/Berlin)

P1: Opening Keynote: "Strategic Agility in The Age of Disruption"

Shlomo Tarba, Professor of Strategy and International Business at the University of Birmingham

Room: Main

Monday, May 17 10:00 - 12:00 (Europe/Berlin)

EU1: Digital Transformation I

Room: Main

Chair: Leonardo Santiago (Copenhagen Business School, Denmark)

10:00 *Applying the Random Forest Algorithm to Predict Engineering Change Effort*

Michael Riesener (RWTH Aachen University, Laboratory for Machine Tools and Production Engineering (WZL), Germany); Christian Dölle (RWTH Aachen University, Laboratory of Machine Tools and Production Engineering (WZL), Germany); Michael Mendl-Heinisch and Günther Schuh (RWTH Aachen University, Germany)

pp. 1-6

10:20 *Embrace gamification for co-designing new solutions: a framework of "game principles"*

Ziheng Zhang and Francesco Zurlo (Politecnico di Milano, Italy); Rui Patricio (UNIDCOM/IADE, Unidade de Investigação em Design e Comunicação, Portugal)

pp. 7-12

10:40 *Process Model for Integrated Product Lifecycles Using Digital Twins and Predictive Analytics*

Finn Reiche and Holger Timinger (University of Applied Sciences Landshut, Germany)

pp. 13-17

11:00 *Improved plagiarism detection with collaboration network visualization based on source-code similarity*

Matija Novak (Faculty of Organization and Informatics, University of Zagreb, Croatia); Mike Joy (University of Warwick, United Kingdom (Great Britain)); Olfat M. Mirza (Umm Al-Qura University, Saudi Arabia)

pp. 18-23

Monday, May 17 12:00 - 13:00 (Europe/Berlin)

MLB: Lunch Break

Room: Main

Monday, May 17 13:00 - 15:00 (Europe/Berlin)

EU2: Digital Transformation II

Room: Main

Chair: Saku Mäkinen (Tampere University, Finland)

13:00 *Forecasting news events based on the model accounting for self-organisation and memory*

Dmitry Zhukov (Russian Technological University, Russia); Tatiana Khvatova (Emlyon Business School & Lappeenranta-Lahti Technical University, France); Anton Aleshkin (Russian Technological University, Russia); Francesco Schiavone (Parthenope University of Naples, Italy)

pp. 24-30

13:20 *Measuring Digital Business Models Maturity for SMEs*

Helena Zentner (Zenadian, Croatia); Mario Spremic (Faculty of Economics and Business, University of Zagreb, Croatia); Radovan Zentner (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia)

pp. 31-36

13:40 *Impact of Leadership on Digital Transformation*

Karolina Kokot and Ivana Đunđek Kokotec (University of Zagreb, Faculty of Organization and Informatics, Croatia); Marina Klačmer Čalopa (Faculty of Organization and Informatics, University of Zagreb, Croatia)

pp. 37-42

14:00 *Using Mergers and Acquisitions to Prepare for Disruption*

Johanna Kirjavainen, Saku Mäkinen, Ulla Saari and Kimmo Risikko (Tampere University, Finland)

pp. 43-48

Monday, May 17 15:00 - 17:00 (Europe/Berlin)

EU3: Digital Transformation III

Room: Main

15:00 *A Novel Architecture for enhancing Electronic Health Record interoperability: A Blockchain-Based Approach*

Emanuela Riccio and Piera Centobelli (University of Naples Federico II, Italy); Roberto Cerchione (University of Naples Parthenope, Italy)
pp. 49-54

15:20 *Organizational Challenges of Blockchain Adoption: An Exploratory Literature Review*

Antonela Čižmešija and Neven Vrcek (University of Zagreb, Croatia)
pp. 55-60

15:40 *Defining and measuring supply chain digitalization: A systematic literature review*

Godfrey Mugurusi and Eirik Bådsvik Hamre Korsen (Norwegian University of Science and Technology, Norway); Alireza Eshaghzadeh (CGI Norway AS, Norway)
pp. 61-66

Monday, May 17 17:00 - 18:00 (Europe/Berlin)

P2: Keynote: "Digital Transformation: Evaluating Emerging Technologies"

Professor Tugrul U Daim Editor in Chief, IEEE Transactions on Engineering Management

Room: Main

Digital transformation is here and selecting the right technology is even much more critical today than ever. Evaluation of technologies should not be taken lightly because there are multiple perspectives which needs to be considered. These multiple perspectives include technical, economic, environmental, social and political. This talk will review technology evaluation research and practice in sectors which are likely to impact the new decade including healthcare, energy, smart cities, transportation and robotics.

Monday, May 17 18:00 - 19:00 (Europe/Berlin)

PNL1: Plenary: Panel - Meet the Editors I

Room: Main

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

Representatives of leading Technology Management journals will be explaining the philosophy and publication strategies of their journals in the "Meet the Editors" panel.

Moderator: Marina Dabić, Associate Editor: Technological Forecasting and Social Change, Elsevier

Panelists:

Tugrul Daim, Editor in Chief - IEEE- Transactions on Engineering Management (IEEE-TEMS)

Charla Griffy Brown, Editor in Chief: Technology in Society, Elsevier

Monday, May 17 19:00 - 21:00 (Europe/Berlin)

NA1: Digital Transformation IV

Room: Main

Chair: Adriano O. Solis (York University, Canada)

19:00 *Digital Transformation: Practical Approach to Manage Transformation (The Change) Successfully within the Organization*

Mahmoud Abou-Gabal (Canada)

pp. 67-74

19:20 *How the Information Technology Firms Can Grow and Perform Through Capital Allocation*

Amar Dev Amar (Seton Hall University, USA); Januj Juneja (San Diego State University, USA)

pp. 75-81

19:40 *On the Relationship between Digitalization and Managerial Competencies*

Xaver Neumeyer (University of North Carolina at Wilmington, USA); Mengyang Liu (Beijing Institute of Technology, USA); Ziyuan Jin (Tsinghua University, USA)

pp. 82-86

20:00 *Knowledge-based factors regarding the development of Industry 4.0 in technology-based firms*

Eduardo Ahumada-Tello, Karen Ramos and Martha López-Regalado (Universidad Autónoma de Baja California, Mexico); Rafael Ravina-Ripoll (Universidad de Cádiz, Spain)

pp. 87-91

Monday, May 17 21:00 - 23:00 (Europe/Berlin)

NA2: Technology Management I

Room: Main

Chair: Elif Kongar (University of Bridgeport, USA)

21:00 *Disruptive Transformation Fueling Gig Economies*

Shubhadip Ray, Norbert Herman and Indrajit Sen (IBM Corporation, USA)

pp. 92-98

21:20 *The Human-side of Emerging Technologies and Cyber Risk: A case analysis of blockchain across different verticals*

Charla Griffy-Brown and Karen Johnson (Pepperdine University, USA); Mark Chun (Graziadio School of Business, Pepperdine University, USA); Howard Miller (LBW Insurances and Financial Services, Inc., USA)

pp. 99-104

21:40 *Towards a Holistic View of Technology Commercialization*

Xaver Neumeier (University of North Carolina at Wilmington, USA); Shuyu Chen (Huazhong University of Science and Technology, USA)
pp. 105-110

22:00 *Clusters, Innovation Networks and SMEs: A conceptual framework for the Baja California wine industry*

Reyna Virginia Barragán-Quintero and Oscar Omar Ovalle-Osuna (Autonomous University of Baja California, Mexico); Eduardo Ahumada-Tello (Universidad Autónoma de Baja California, Mexico)
pp. 111-116

Tuesday, May 18

Tuesday, May 18 4:00 - 6:00 (Europe/Berlin)

AS1: Digital Transformation V

Room: Main

4:00 *Enhancing Consumer Repurchase Intention towards Airbnb*

Ai Chin Thoo and Meng Kiat Tan (Azman Hashim International Business School, Universiti Teknologi Malaysia, Malaysia); See Pheng Hang and Lee Yoke Lai (Universiti Teknologi Malaysia, Malaysia)
pp. 117-122

4:20 *Indirect Integration: Orchestrating Complementors behind Competitors to Shrink Platform Boundaries in Digital Multi-sided Platform Ecosystems*

Noboru Fujii and Masaharu Tsujimoto (Tokyo Institute of Technology, Japan)
pp. 123-128

Tuesday, May 18 6:00 - 7:00 (Europe/Berlin)

TB: Break

Room: Main

Tuesday, May 18 7:00 - 9:00 (Europe/Berlin)

AS2: Digital Transformation VI

Room: Main

7:00 *Design of a Sign Language Transformer to Enable the Participation of Persons with Disabilities in Remote Healthcare Systems for Ensuring Universal Healthcare Coverage*

Kanchon Kanti Podder (University of Dhaka, Bangladesh); Shaira Tabassum (Kyushu University,

Japan); Ludmila Emdad Khan (Chief Executive Officer, Bangladesh); Khan Md Anwarus Salam (Managing Director, Bangladesh); Rafiqul Islam Maruf (Kyushu University, Japan); Ashir Ahmed (Kyushu University & Grameen Communications, Japan)

pp. 129-134

7:20 Recognition of Doctors' Cursive Handwritten Medical Words by using Bidirectional LSTM and SRP Data Augmentation

Shaira Tabassum and Ryo Takahashi (Kyushu University, Japan); Md Mahmudur Rahman (Global Communication Center, Grameen Communications, Bangladesh); Imamura Yosuke and Luo Sixian (Kyushu University, Japan); Md Moshir Rahman (Hiroshima University, Japan); Ashir Ahmed (Kyushu University & Grameen Communications, Japan)

pp. 135-140

7:40 A Markerless High Resolution Structural Health Monitoring Framework for Smart Cities

Christopher CK Chan (Chaoyang University of Technology, Taiwan); Chih-Cheng Chen (Feng Chia University, Taiwan); Steven Delaney (Ryerson University, Taiwan); Alex Ferworn (Ryerson University, Canada)

pp. 141-145

Tuesday, May 18 9:00 - 10:00 (Europe/Berlin)

P3: Keynote: "Digital Entrepreneurship: The Role of Entrepreneurial Orientation for Digitalization Success"

Professor Sascha Kraus, Editor, Review of Managerial Science, Springer

Room: Main

Tuesday, May 18 10:00 - 11:00 (Europe/Berlin)

PNL2: Plenary: Panel - Meet the Editors II

Room: Main

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

Representatives of leading Technology Management journals will be explaining the philosophy and publication strategies of their journals in the "Meet the Editors" panel.

Moderator: Marina Dabić, Associate Editor: Technological Forecasting and Social Change, Elsevier

Panelists:

Alexander Brem, The Editor-in-Chief, The International Journal of Innovation and Technology Management (IJITM)

Manlio Del Giudice, Editor in Chief: Journal of Knowledge Management, Emerald

Sascha Kraus, Editor in Chief: Review of Managerial Science, Springer

Miruna RADU-LEFEBVRE, Editor in Chief: Entrepreneurship & Regional Development, Taylor & Francis

Alberto Di Minin, Co-Editor in Chief: R&D Management, Wiley

Shlomo Tarba, Editor in Chief: British Journal of Management, Wiley

Wim Vanhaverbeke, Editor in Chief: Technovation, Elsevier

Tuesday, May 18 11:00 - 13:00 (Europe/Berlin)

EU4: Technology and Society I

Room: Main

Chair: Gulgun Kayakutlu (unknown)

11:00 *Political Participation in the Information Society and Impact of Open Data on It*

Larisa Hrustek (University of Zagreb & Faculty of Organization and Informatics, Croatia); Martina Tomičić Furjan and Igor Pihir (University of Zagreb, Faculty of Organization and Informatics, Croatia)
pp. 146-151

11:20 *Creating a secure, private and accessible web of information*

Matija Novak (Faculty of Organization and Informatics, University of Zagreb, Croatia); Adekunle Shaibu Shonola (Coventry University, Croatia)
pp. 152-156

11:40 *Women in Engineering as a Research Topic: Past, Present, and Future*

Marina Dabic (University of Zagreb, Faculty of Economics and Business, Croatia); Bozidar Vlacic (Católica Porto Business School, Universidade Católica Portuguesa, Portugal); Tena Obradović (University of Zagreb, Faculty of Economics and Business, Croatia); Giacomo Marzi (University of Lincoln, United Kingdom (Great Britain)); Sascha Kraus (Free University of Bozen-Bolzano, Italy)
pp. 157-162

12:00 *Disruption caused business transformations in tourism-related industries*

Iva Gregurec and Katarina Tomičić-Pupek (Faculty of Organization and Informatics, Croatia); Ana Kutnjak (University of Zagreb & Faculty of Organization and Informatics, Croatia)
pp. 163-168

Tuesday, May 18 13:00 - 14:00 (Europe/Berlin)

TULB: Lunch Break

Room: Main

Tuesday, May 18 14:00 - 16:00 (Europe/Berlin)

EU5: Technology and Society II

Room: Main

Chair: Dirk Meissner (National Research University Higher School of Economics, Russia)

14:00 *The Impact of Municipal Leadership on Technology Acquisition, Transfer Process and Performance: The Case of Gauteng Metropolitan Municipalities*

Tshepiso Alfred Mokgeseng (University of Johannesburg, South Africa); Humna Hassan Malik (Council for Scientific and Industrial Research & Postgraduate School of Engineering Management, University of Johannesburg, South Africa); Jan Harm Pretorius (University of Johannesburg, South Africa)

Africa)
pp. 169-174

14:20 *Using machine learning to assess public policies: a real case study for supporting SMEs development in Italy*

Guido Perboli (Politecnico di Torino & ARISK srl, Italy); Andrea Tronzano (Piedmont Regional Government, Italy); Mariangela Rosano (Politecnico di Torino, Italy); Luciano Tarantino (Arisk, Italy); Filippo Velardocchia (Politecnico di Torino, Italy)
pp. 175-180

14:40 *The digitalisation of work: Which way forward?*

Jadranka Svarc (Ivo Pilar Institute of Social Sciences, Croatia); Marina Dabic (University of Zagreb, Faculty of Economics and Business, Croatia)
pp. 181-186

15:00 *Time-driven Activity-based Costing Using Process Data Mining*

Michael Riesener (RWTH Aachen University, Laboratory for Machine Tools and Production Engineering (WZL), Germany); Christian Dölle (RWTH Aachen University, Laboratory of Machine Tools and Production Engineering (WZL), Germany); Alexander Menges and Günther Schuh (RWTH Aachen University, Germany)
pp. 187-192

Tuesday, May 18 16:00 - 18:00 (Europe/Berlin)

EU6: Technology and Society III

Room: Main

Chair: Frank Tietze (University of Cambridge, United Kingdom (Great Britain))

16:00 *Prioritizing factors for the successful deployment of digital competence certification systems in schools*

Igor Balaban and Aleksandra Sobodić (University of Zagreb, Faculty of Organization and Informatics, Croatia)
pp. 193-197

16:20 *A Cognitive Agent for University Student Support*

Markus Schatten (Faculty of Organization and Informatics, Croatia); Bogdan Okreša Đurić and Tomislav Peharda (Faculty of Organization and Informatics, University of Zagreb, Croatia)
pp. 198-203

16:40 *Overview of university accounting education practices during the COVID - 19 pandemic in Europe*

Emna Novak, Suzana Keglević Kozjak and Tanja Šestan Perić (University of Zagreb, Faculty of Organization and Informatics, Croatia)
pp. 204-210

17:00 *Identifying Clusters of Primary and Secondary School Teachers According to Their Educational Digital Content Perceptions*

Dijana Oreški, Goran Hajdin and Dijana Plantak Vukovac (University of Zagreb, Faculty of

Tuesday, May 18 18:00 - 19:00 (Europe/Berlin)

P4: Keynote: "AI for Code: Transforming Application Modernization"

Maja Vukovic, Ph.D., IBM Fellow, AI for Application Modernization, IBM T.J. Watson Research Center

Room: Main

Tuesday, May 18 19:00 - 21:00 (Europe/Berlin)

NA3: Engineering Management I

Room: Main

Chair: Tugrul Daim (Portland State University, USA)

19:00 *Incorporating Human Factors into Installing a Pressure Transmitter on a Flowline of Oil and Gas Platforms: A Case Study at the Design Stage of Projects*

Donna V Ramkissoon (University of the West Indies, Trinidad and Tobago); Kit Fai Pun (UWI - St Augustine, Trinidad and Tobago)
pp. 217-222

19:20 *Expanding Horizons in Business Decision Making*

Maoloud Dabab (Pacific Lutheran University, USA); Mike Freiling (Shimenawa no Michi, USA); Daniel Sagalowicz (Portland State University, USA)
pp. 223-230

19:40 *Achieving an Effective Energy Sustainability Strategy*

Maoloud Dabab (Pacific Lutheran University, USA); Thanh Nguyen (Tektronix, USA); Timothy R Anderson (Portland State University, USA)
pp. 231-236

20:00 *Information Overload in Organization: Impact on Decision Making and Influencing Strategies*

Harshada Shrivastav and Elif Kongar (University of Bridgeport, USA)
pp. 237-241

Tuesday, May 18 21:00 - 23:00 (Europe/Berlin)

NA4: Technology Management II

Room: Main

Chair: Elias G. Carayannis (George Washington University & School of Business, USA)

21:00 *The Detrimental Impacts of Restrictive Immigration Policies During Global Health Crises: Health Inequities and Mobility Crisis*

Muhammad Hassan Bin Afzal (Kent State University, USA)
pp. 242-247

21:20 *Speeding Up Technology Transfer- a case study of an emerging country on the pursuit of a COVID-19 vaccine*

Hugo Defendi (Fundação Oswaldo Cruz, Brazil); Leonardo Santiago (Copenhagen Business School, Denmark)
pp. 248-253

21:40 *Analytical Framework for Innovation in Hierarchical and Bureaucratic Organizations*

Rachel Olney (Stanford University, USA)
pp. 254-258

22:00 *Innovation Mechanisms based on Management of Business and Technology Knowledge Networks*

Claudia Yáñez (Universidad del Desarrollo, Chile); Maribel Guerrero (Northumbria University, U, United Kingdom (Great Britain)); María José Ibáñez and Sebastián Barros (Universidad del Desarrollo, Chile)
pp. 259-264

Wednesday, May 19

Wednesday, May 19 4:00 - 6:00 (Europe/Berlin)

AS3: Engineering Management II

Room: Main

Chair: Yuan Zhou (Tsinghua University, China)

4:00 *T-Shaped Competence Management Framework*

Swaroop Garimella (Continental Automotive, India); Anil Allur (& Continental Automotive Components India Pvt Ltd, India); Naresh Babu Bhogavarpu (Continental Automotive Coomponents India pvt ltd, India)
pp. 265-269

4:20 *100 day Employee On-Boarding Program*

Ahamed Moideen Umar (& Continental Automotive, India); Soorya Isaac (Continental Automotive Components India Pvt. Ltd., India); Kumar Dinker (Continental Automotive, India); Prashant Puri (India)
pp. 270-274

4:40 *Modeling corporate social responsibility (CSR) enablers for sustainable agriculture by integrating expert mining and ISM-MICMAC*

Kuldeep Singh, Madhvendra Misra and Jitendra Yadav (Indian Institute of Information Technology

Allahabad, India)

pp. 275-280

5:00 Software Reuse Management for better efficiency and turnaround time

Anandaraj Rangasamy (Electronic city, Bangalore & Continental Automotive India Pvt Ltd, India);

Vanishree Nagaraj (Continental Automotive Components (India) Pvt Ltd, India); Karthikrajan

Nandhakumar (Continental Automotive Pvt Ltd, India)

pp. 281-284

Wednesday, May 19 6:00 - 7:00 (Europe/Berlin)

WB: Break

Room: Main

Wednesday, May 19 7:00 - 9:00 (Europe/Berlin)

AS4: Technology Management III

Room: Main

Chair: Yuan Zhou (Tsinghua University, China)

7:00 Dynamic Capability in Business Ecosystem: How to Obtain New capabilities from Existing Environment

Kenichiro Banka and Naoshi Uchihira (Japan Advanced Institute of Science and Technology, Japan)

pp. 285-290

7:20 An evolutionary algorithm-based framework for determining crucial features contributing to the success of a start-up

Ajit Kumar Pasayat (IIT KHARAGPUR, India); Bhaskar Bhowmick (Indian Institute of Technology

Kharagpur, India)

pp. 291-296

7:40 Intellectual Property Policy Development: The Case of a State College in the Philippines

John Joshua F. Montañez (Bicol State College of Applied Sciences and Technology, Philippines)

pp. 297-300

8:00 Techno-Economic Analysis of Advanced Ku-Band High Throughput Satellite to Fulfill Broadband Access Needs of Indonesian Government

Ignatius Daru Kristiadi, Muhammad Imam Nashiruddin and Miftadi Sudjai (Telkom University,

Indonesia)

pp. 301-306

Wednesday, May 19 9:00 - 10:00 (Europe/Berlin)

P5: Keynote: "Energy and Sustainability will improve faster with AI applications"

Prof. Dr. Gülgün KAYAKUTLU, Istanbul Technical University, Istanbul, Turkey

Room: Main

Wednesday, May 19 10:00 - 12:00 (Europe/Berlin)

EU7: Engineering Management III

Room A

Chair: Francesco Schiavone (Parthenope University of Naples, Italy)

10:00 *Reliability and Maintainability of a Forging Plant*

Fanyana Zibane (University of Johannesburg, South Africa); Arnesh Telukdarie (University of Johannesburg, South Africa)

pp. 307-313

10:20 *Requirements Engineering through Exploratory Analysis of Usage Data*

Michael Riesener (RWTH Aachen University, Laboratory for Machine Tools and Production Engineering (WZL), Germany); Christian Dölle (RWTH Aachen University, Laboratory of Machine Tools and Production Engineering (WZL), Germany); Benjamin Lender (RWTH Aachen University, Laboratory for Machine Tools and Production Engineering (WZL), Germany); Günther Schuh (RWTH Aachen University, Germany)

pp. 314-319

10:40 *Evaluating the effectiveness of a boiler plant's predictive maintenance system*

Mmabatho Gabonewe, Megashnee Munsamy and Arnesh Telukdarie (University of Johannesburg, South Africa)

pp. 320-326

11:00 *Reliability of Forging Plants*

Arnesh Telukdarie (University of Johannesburg, South Africa)

pp. 327-332

EU8: Technology and Society IV

Room B

10:00 *Enabling technological innovation in healthcare: A knowledge creation model perspective*

Roberto Cerchione (University of Naples Parthenope, Italy); Piera Centobelli (University of Naples Federico II, Italy); Emilio Esposito (UNINA, Italy); Emanuela Riccio (University of Naples Federico II, Italy)

pp. 333-338

10:20 *The effects of Working from Home during COVID-19 Pandemic on Productivity and Virtuality in*

an engineering company

Luka Kapeter (Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Denmark); Stanko Škec (University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture, Croatia); Mario Storga (University of Zagreb Faculty of Mechanical Engineering and Naval Architecture, Croatia & Lulea University of Technology, Sweden)

pp. 339-343

10:40 The role of religion and marital status in happiness perception of Spanish Entrepreneurs. A concept to be explore in the Post COVID-19 era

Rafael Ravina-Ripoll (Universidad de Cádiz, Spain); María- 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))

pp. 344-347

11:00 Supply Chain Energy Sustainability with Artificial Intelligence

Michael Sishi and Arnesh Telukdarie (University of Johannesburg, South Africa)

pp. 348-353

Wednesday, May 19 12:00 - 13:00 (Europe/Berlin)

WLB: Lunch Break

Room A

Wednesday, May 19 13:00 - 15:00 (Europe/Berlin)

EU10: Technology and Society V

Room B

Chair: Massimiliano Matteo Pellegrini (University of Rome "Tor Vergata", Italy)

13:00 Exploring entrepreneurial pivoting and the factors that trigger pivots by tech startups

Pavan Kumar Sala, Simon Philbin and Saifa Barikzai (London South Bank University, United Kingdom (Great Britain))

pp. 354-359

13:20 The Entrepreneurial Ecosystem Governance: evolution of policy and roles

Eva Panetti, Maria Cristina Pietronudo and Marco Ferretti (Parthenope University of Naples, Italy)

pp. 360-364

13:40 Region-specific Institutional Context for Citizen-driven Entrepreneurship in Smart Cities: Evidence from Rome and Berlin

Irina Gorelova and Marco Savastano (Sapienza University of Rome, Italy); Mario Spremic (Faculty of Economics and Business, University of Zagreb, Croatia); Mariya Dedova (University of Tartu, Estonia)

pp. 365-370

EU9: Engineering Management IV

Room A

13:00 Initial empirical evidence for Agile Project Management in the Film Industry

Kristin Kiri Trier (Seeburg Castle University, Germany)

pp. 371-377

13:20 Agile Project Management in Creative Industries: A systematic literature review and future research directions

Kristin Kiri Trier (Seeburg Castle University, Germany)

pp. 378-385

13:40 The Use of Decision-Making Methods to Ensure Assessment Validity

Blaženka Divjak (University of Zagreb, Faculty of Organization and Informatics, Croatia); Nikola Kadoic (University of Zagreb Faculty of Organization and Informatics, Croatia); Bojan Žugec (University of Zagreb, Faculty of Organization and Informatics, Croatia)

pp. 386-391

14:00 Analysis of the Open Source Software Development Project Properties and Practices

Ivan Čeh (University of Zagreb, Croatia); Goran Delac (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia); Mario Storga (University of Zagreb Faculty of Mechanical Engineering and Naval Architecture, Croatia & Lulea University of Technology, Sweden)

pp. 392-397

Wednesday, May 19 15:00 - 17:00 (Europe/Berlin)

EU11: Engineering Management V

Room A

Chair: Giacomo Marzi (University of Lincoln, United Kingdom (Great Britain))

15:00 Energy Consumption Management Using Programmable Logic Controllers (PLC's)

Amin Al Ka'bi (Australian College of Kuwait, Kuwait)

pp. 398-403

15:20 Taking stock of creating your offering sustainably: How can companies use carbon pricing internally?

Essi Saloranta, Johanna Kirjavainen and Saku Mäkinen (Tampere University, Finland)

pp. 404-409

15:40 Structural cooperation models and incentivization for cooperative inventory pooling-systems

Yannic Hafner, Katharina Diepold and Johannes Fottner (Technical University of Munich, Germany)

pp. 410-415

16:00 Pursuing a sustainable competitive advantage through product design: what matters the most?

Zisis Atsou, Chrysothea Basia, Dimitrios Chatzoudes and Prodromos Chatzoglou (Democritus University of Thrace, Greece)

pp. 416-421

EU12: Engineering Management VI

Room B

Chair: Leonardo Santiago (Copenhagen Business School, Denmark)

15:00 *A make-buy decision framework for new product introduction: An automotive manufacturing perspective*

Avilan Reddy, [Nazeer Joseph](#) and Annlizé Marnewick (University of Johannesburg, South Africa)
pp. 422-427

15:20 *Research and development: accounting perspective and issues*

[Sanja Sever Mališ](#) and Mateja Brozović (University of Zagreb, Faculty of Economics and Business, Croatia)
pp. 428-435

15:40 *Measuring the success factors of strategic design implementation*

[Lynne Whelan](#) (University of Limerick & School of Design, Ireland); Louise Kiernan, Kellie Morrissey and Niall Deloughry (University of Limerick, Ireland)
pp. 436-441

16:00 *Data Mining in Product Portfolio and Variety Management - Literature Review on Use Cases and Research Potentials*

[Jan Mehlistäubl](#) (University of the Bundeswehr Munich); Felix Braun (MAN Truck & Bus SE); Kristin Paetzold (University of the Bundeswehr Munich)
pp. 442-447

Thursday, May 20

Thursday, May 20 9:00 - 10:30 (Europe/Berlin)

BFI: Business Forum I

Panel: Perspectives and real-life application of AI in Croatia

IEEE Croatia Section and Technology and Engineering Management Chapter

Room: Main

Summary: Artificial Intelligence is one of the hottest topics at the moment. In recent years it has been attracting the equal attention of the academia, industry and policy makers. The topic itself is far from new, especially scientifically and engineering wise, but its true deployment raises many questions: technological, legal/ethical, economic. AI is without a doubt a technology for the future, but it is reasonable to ask what are its true perspective and application in a foreseeable future in Croatia and world wide. These and many other questions will be discussed on this round table with our distinguished guests.

Moderator: IEEE Croatia Section

Speakers:

- Neven Duić (Faculty of Mechanical Engineering and Naval Architecture University of Zagreb)
- Mislav Malenica (CroAI)
- Vedran Podobnik (Hewlett Packard Enterprise, London)

- Ana Meštrović (Department of Informatics University of Rijeka)
- Nikola Popović J (HAKOM)

Thursday, May 20 10:30 - 12:00 (Europe/Berlin)

BFII: Business Forum II

Technology Innovation and Smart Industries in Small Open Economies - challenges and opportunities

Room: Main

In a quest for a cheaper labor force in the last fifth of the last century, the translation and relocation of production capacities have produced rapid deindustrialization of western economic and industrial blocs, with the United States and Western European countries leading the process. Entering into the 4th Industrial Revolution this trend started to change, and manufacturing is once again being widely considered as the backbone of one's national economic development. On the other hand, various global crises are hitting national economies hard and thus exposing their vulnerability and lack of resilience. The question arises, which form of national strategic positioning, in the appropriate conjuncture, is appropriate as a response to the challenges of a turbulent and uncertain global economic and technological race accompanied with crisis hits? What are the challenges and opportunities that small open economies, Croatia like, are facing in this fierce race when the technology proliferation and innovation is in question.

Moderator: Ernest Vlacic, PhD, MBA

Panelists:

- RIMAC Automobili - Antonija Mrcic Radas, PhD, project director
- Smart Industry Croatia initiative (INFODOM) - FOI - Neven Vrcek, PhD, prof.
- KONČAR institute - Zlatka Tecec Ribaric, PhD, unit director
- CROAI - Mislav Malenica, MSc, association president
- UNIZG, Faculty of Mechanical Engineering and Shipbuilding - Bojan Jerbic, PhD, prof.

Thursday, May 20 12:00 - 13:00 (Europe/Berlin)

THLB: Lunch Break

Room: Main

Thursday, May 20 13:00 - 14:00 (Europe/Berlin)

PNL3: Panel: Digitalisation and Industry 5.0 - Implications on different domains

Horizon 2020 RISE OpenInnoTrain

Room: Main

Industry 5.0 is the new paradigm to achieve a more resilient, human-centric and sustainable society (European Commission, 2020). In this context, the panelists focus on shining a light on the implications upcoming for different work environments and domains.

Does the Industry 5.0 paradigm imply any ongoing adaptations/changes already? Where are more efforts required? Or which domain is a forerunner?

Each panelist will be giving their understanding, perceptions and perspectives on the paradigm and followed up by an interactive

discussion.

Panelists

- Petra BERG, Researcher (University of Vaasa, School of Marketing and Communication)
- Omar VELEDAR, Innovation Management Specialist & R&D Project Manager at AVL List GmbH
- Philippe REINISCH, Founder of Silkroad4.0, a nomadic incubator network & Project management specialist for large IT transformational programs
- Bruno WÖRAN, Head Research Management & Technology Transfer, Paracelsus Private Medical University, CEO PMU Innovations Ltd.
- Georg MACHER, Senior Scientist (Graz University of Technology) & Industrial Consultant

Thursday, May 20 14:00 - 15:00 (Europe/Berlin)

EFI: Entrepreneurial Forum I

IEEE: how our scientific and professional association can help entrepreneurs in their endeavor?

Room: Main

Innovation often comes from brilliant minds who like to think out of the box, explore new directions, and look to new problems and needs. Often creative people feel the urgency of developing their ideas in a new environment and build their own workplace, following their dreams. Entrepreneurs are visionary people who create the future.

However, entrepreneurs have also to face real-world problems to make their dreams a reality.

This panel offers the opportunity of becoming aware about how IEEE can support entrepreneurs in the various phases of their journey, from understanding the problems to ideation of solutions, from deepening technical knowledge to advancing entrepreneurship skills. Specifically, this panel presents and discusses the resources and services conceived by IEEE to assist the entrepreneurs in the various activities.

Moderator: Robert Bierwolf

Agenda:

- Introduction (Vincenzo Piuri)
- IEEE Entrepreneurship Committee: IEEE resources and services for entrepreneurs (Joanne Wong)
- IEEE Region 8 Industry for Action Committee: What IEEE Region 8 can do for entrepreneurs? (Mohamed El Dallal)
- Q&A

Thursday, May 20 15:00 - 16:00 (Europe/Berlin)

EFII: Panel: Engineers as Innovation Leaders: How to Prepare the Next Generation?

Room: Main

Engineers have become essential to lead innovation projects in all sectors, well beyond traditional roles in product-focused organizations. Engineering Management is increasingly required as a core competence, and its focus on leadership skills and hybrid acumen is leading engineering schools to rethink their curricula. Among key challenges, programs must be updated to prepare the next generation to deal with digital transformation in all its forms. Graduates must also consider alternative professional certifications, where engineering, management, and digital expertise are blended beyond traditional curricula.

This panel brings together co-authors of the TEMS Body of Knowledge (TEMSBOK) to debate how to best prepare the next generation of Engineers as Innovation Leaders. The discussion will address several ongoing projects, among others: how to best position digital transformation within the engineering management curriculum; what distinguishes engineers for innovation leadership in the digital age; where should engineers acquire professional certifications focused on hybrid skillsets; why should academic and professional associations federate their efforts, especially for BOK development, and develop a unique open-source proposition geared toward research-practice joint partnerships to keep BOKs continuously up to date.

Panelists:

- Stéphane Gagnon, Chair of Business Technology Management (BTM) Body of Knowledge (BOK) Development Team, BTM Forum, and Associate Professor, University of Quebec, Canada
- Elif Kongar, Chair, Department of Technology Management, and Professor of Technology Management and Mechanical Engineering, School of Engineering, University of Bridgeport
- Gustavo Giannattasio, Chair of Technical Committee TEMSBOK, IEEE TEMS

Thursday, May 20 18:00 - 20:00 (Europe/Berlin)

PhD: PhD Forum

Complementary

Room: Main

"How to publish in an Engineering management journal"

Marina Dabić, Associate Editor: Technological Forecasting and Social Change, Elsevier

"How to reveal the underlying intellectual structure of the domain with computer-powered tools"

Božidar Vlacic, Católica Porto Business School, Universidade Católica Portuguesa, Portugal