TECHNICAL PROGRAMME

of IEEE E-TEMS 2022

9 – 11 March 2022

University of the Basque Country, Spain

The conference is scheduled in accordance with
Central European Time (CET).

2022 IEEE EUROPEAN TECHNOLOGY & ENGINEERING MANAGEMENT SUMMIT

9 - 11 March 2022, University of the Basque Country, Spain

IEEE E-TEMS 2021-2025 is a conference series designed to look at critical and emergent issues through the lens of project, technology and engineering management. Over the course of the series, the European Partnership on Project & Innovation Management (EuroPIM) will bring research, practitioner and industry perspectives to emphasize the social accountability that must be associated with project management, digital transformation and smart cities. Each event will aim at delivering a hybrid conference model (with both virtual and in-person) and include international experts, educational workshops, doctoral symposia, poster sessions and dialogues amongst our EuroPIM partners. **IEEE E-TEMS 2022** is the second of the series and we sincerely welcome you to consider the details of this programme, how these insights can affect your research and project activities and how, most especially, you can see yourself contributing to future events.

We look forward to seeing you during the series!

Chairs & Organising Committee:
- Beverly Pasian
- Jose Ramon Otegi-Olaso
- Carsten Wolff
- Anna Badasian
- Nargiza Mikhridinova
- Alexia Nalewaik
- Ianire Taboada

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- Aleksandra Galiakhmetova
- Anastasiya Kurylchyk
- Areej Aldaghamin
- Carolina Cruz Villazón
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- Bassam Hussein
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- Kanesan AL Muthusamy
- Luis Ruiz Minguela
- Lydia Kaiser
- Maider Iturrondobeitia
- Markus Schmidtner
- Nigel Williams
- Olatz Etxaniz
- Olena Verenych
- Peter Arras
- Rikardo Minguez
- Rolando Bautista Montesano

- Rūta Čiutienė
- Semih Severengiz
- Sergey Bushuyev
- Thomas Holzmann
- Urtzi Llano
- Uwe Grossmann

Special Guests:
- Aaron Shenhar
- Ane Miren Ibañez Zugazaga
- Asier Abaunza Robles
- Bassam Hussein
- Dennie Jansen
- Dirk Ahlers
- Egle Radvile
- Elena Vitkauskaite
- Federico Perez
- Markus Schmidtner
- Lydia Kaiser
- Nigel Williams
- Peter Arras
- Robert Bierwolf

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#citiesr4living

SCHEDULE

Time Zone: **Central European Time (CET)**

Time	Wednesday, 09.03.2022	Time	Thursday, 10.03.2022		Time	Friday, 11.03.2022
09:30-10:00	Opening of the conference				09:30-10:30	Keynote: INT - What Makes a City Smart? (It's Not Technology)
10:00-11:00	Keynote: Bilbao, a Complete Smart City Project	10:30-11:30	Collaborative Smart City Projects		10:30-11:30	Poster & Video Discussions: Achieving Quality of Life in Smart Cities
11:00-11:20	*Virtual guided tour around Bilbao + break*	11:30-11:50	*Virtual guided tour around Bilbao + break*		11:30-11:50	*Virtual guided tour around Bilbao + break*
11:20-12:20	Sustainable Smart Cities	11:50-12:50	Workshop: Parameters that influence project management decisions		11:50-12:50	Educational Potential in Smart Cities
12:20-13:30	*Live cooking from Bilbao for our lunchtime*	12:50-13:50	*Live cooking from Bilbao for our lunchtime*		12:50-13:30	*Live cooking from Bilbao for our lunchtime*
13:30-14:30	Workshop: Responsible Project Data Analytics	13:50-14:20	Citizens perspective of Bilbao		13:30-14:00	Continuing the Dortmund story
14:30-15:00	Continuing the Trondheim story	14:20-15:20	Technologies Enabling Quality of Life		14:00-14:30	Continuing the Lithuania story
15:00-15:30	Continuing the Belgium story				14:30-15:30	New Student Journal: PMRP
15:30-16:00	*Virtual guided tour around Bilbao + break*	15:20-15:40	*Virtual guided tour around Bilbao + break*		15:30-15:40	*Virtual guided tour around Bilbao + break*
16:00-17:00	Showcase presentations: Bilbao Smart City	15:40-16:40	Doctoral Workshop: Smart Cities as systems of systems		15:40-16:10	Writing a QoL Research Agenda
17:00-18:00	Quality of life: Projects from Bilbao and around the world	16:40-17:40	Poster & Video Discussions: Technologies for Responsible Smart Cities	Doctoral Workshop: Smart Cities as systems of systems	16:10-16:30	Panel Discussion "What will this IEEE E-TEMS series be talking about in next 3 years?"
					16:30-17:00	Award session + Closure of the Conference

FORMAT TYPES OF PAPERS PRESENTATION

LIVE/ONLINE PRESENTATIONS:

2 Digital Sustainability Canvas as an Assessment Tool for Digital Transformation Projects in Education
(Jorge Maldonado-Carranza, Jose Ramon Otegi-Olaso)

29 Extending the Capstone Model for Social Good
(Louis J Taborda)

47 Development of a Holistic Care Platform in the Smart City Environment: Implications for Business Models and Data Usage Concepts
(Jelena Bleja, Tim Krüger, Sara Neumann, Lars Engelmann, Uwe Grossmann)

12 Process Mining in Project Management for Smart Cities
(Kevin Zebro, Holger Timinger)

26 English Language Communication in Agile Cross-Border Projects: Implications on Virtual Learning Settings
(Ainur Baizhanova, Olha Mikhieieva, Zhibek Tleshova, Carsten Wolff)

34 Smart Cities: Through Projects to Resist Entropy
(Sergey Bushuyev, Natalia Bushuyeva, Svitlana Onyshchenko, Inna Khodikova)

53 Teaching Smart City: A Contribution to Advance the Topic of "Smart City" in Academic Education
(Rebecca Hegemann-Rockel, Thorsten Ruben)

15 Artificial Intelligence for Smart Cities: Comparing Latency in Edge and Cloud Computing
(Ben Naets, Willem Raes, Rembrandt Devillé, Catherine Middag, Nobby Stevens, Ben Minnaert)

24 Safety vs Privacy: Findings from a Smart Grid Digitalization Project in Norway
(Kristian Kanneløning, Arne Roar Nygård, Sokratis Katsikas, Bassam Hussein)

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(Beatrice Ietto, Kerstin Eisenhut, Robert Muth, Jochen Rabe, Florian Tschorsch)

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(Tristan Stull, Jean-Pierre Kuilboer)

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(Feruza Saidova, Feruza Zakirova, Azizjon Eminov, Golibjon Otamurodov)

37 A General Description of Virtual Power Plants as Smart Manager in Power Systems
(Jaime Fernando Venegas-Zarama, Jose Ignacio Muñoz-Hernandez)

51 Mapping the Platforms in Higher Education – A Systematic Literature Review
(Finn Reiche)

54 Learning and Education in Digital Age: What is an Expectation of the Ukrainian Community?
(Christian Reimann, Olena Verenych, Polina Repka)

POSTERS:

14 A Study for the Application of 'Smart Glass'
(Asier Divasson Jaureguibarria, Nerea Bilbao Turrado, Nahia Arrese Ugarte)

19 Training and Education for Smart Cities, Communities and Enterprises Using ISEM Concept
(Amjad Umar)

22 A Digital Transformation Lab for Developing Countries and Small to Medium Enterprises
(Amjad Umar)

23 Adapting Agile Principles for Requirements Engineering in Automotive Software Development
(Syeda Komal Anjum, Carsten Wolff, Nerea Toledo)

49 The Concept of an Automated Biotechnological Filter for Air Purification
(Didar Yedilkhan, Alexandr Neftissov, Sanzhar Kusdavletov)

57 A Conceptual Model for a Car Sharing System in Kazakhstan
(Beibut Amirgaliyev, Aigerim Zuyeva, Magzhan Kairanbay, Zharasbek Baishemirov)

3 Methods and Tools of Video Monitoring for Remote Laboratory
(Oleksandr Berezhnoj, Artem Tulenkov, Anzhelika Parkhomenko, Oleksandr Sokolyanskii, Yaroslav Zalyubovskiy, Karsten Henke, Heinz-Dietrich Wuttke)

18 Improving Quality of Life Through Engineering Education. A Case Study
(David Luengo, Albert Treytl, Stephanie Nestawal, Peter Arras, Kinga Korniejenko, Galyna Tabunshchyk, Tom Trigano)

20 Cognitive Readiness of Managing Infrastructure Projects Driving by SMARTification
(Sergey Bushuyev, Natalia Bushuyeva, Denis Bushuiev, Victoria Bushuieva)

42 Responsible Decarbonization for Smart Cities: A People-Centered Agenda
(Yawen Feng, Han-Teng Liao, Mengyi Bu)

52 Agile Mindset Competencies for Project Leaders
(Olha Mikhieieva, Robert Baumgartner, Klaus Stephan, Elena Lipilina)

VIDEOS (TEASER FORMAT):

25 Scenario-based Requirements Engineering for Complex Smart City Projects
(Carsten Wiecher, Philipp Tendyra, Carsten Wolff)

27 Analysis on User Acceptance for Light Electric Vehicles and Novel Charging Infrastructure
(Nora Schelte, Semih Severengiz, Sebastian Finke, Jannik Stommel)

28 A Distributed Ledger Based Ecosystem as an Approach to Reduce Greenhouse Gas Emissions for Shared Mobility by Incentivizing Users
(Sebastian Finke, Michele Velenderic, Semih Severengiz, Martin Fortkort, Nora Schelte, Oleg Pankov)

38 Well-being as a Composite Capability in the Smart Building Domain: A Formal and Technical Study
(Khalid Halba, Asmaa Hailane, Ahmed Lbath, Edward Griffor, Anton Dahbura)

8 How to Make the Undefined Tangible: Development of a Typology for Smart City Replication
(Patrick Ruess, Anna Katharina Eberhardt, Svenja Weber)

13 The Impact of Grading on Student Motivation and Learning Outcome in Project-Based Learning
(Bassam Hussein)

30 Analysis of Dynamic Resource Allocation in Digital Education Ecosystems
(Muhammad Anjum Malik, Stephan Recker)

40 Angklung Smart Band: An IoT-Based System to Support Music Activities for Elderly in Thailand
(Saranya Hiranpanthaporn, Pornprapit Phoasavadi, Nagul Cooharojananone)

WEDNESDAY, 9.03.2022

09:30 - 10:00   Opening of the Conference

10:00 - 11:00   Keynote: Bilbao, a Complete Smart City Project
            Asier Abaunza Robles - Bilbao City Council

11:00 - 11:20   Virtual guided tour around Bilbao + break

11:20 - 12:20   **Sustainable Smart Cities** (live/online presentations)
            (Chair: Jose Ramon Otegi Olaso)
            2 Digital Sustainability Canvas as an Assessment Tool for Digital Transformation
               Projects in Education
               (Jorge Maldonado-Carranza, Jose Ramon Otegi-Olaso)
            29 Extending the Capstone Model for Social Good
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            47 Development of a Holistic Care Platform in the Smart City Environment:
               Implications for Business Models and Data Usage Concepts
               (Jelena Bleja, Tim Krüger, Sara Neumann, Lars Engelmann, Uwe Grossmann)

12:20 - 13:30   Live cooking from Bilbao for our lunchtime

13:30 - 14:30   Workshop: Responsible Project Data Analytics
            Nigel Williams

14:30 - 15:00   Continuing the Trondheim story
            Bassam Hussein and Dirk Ahlers

15:00 - 15:30   Continuing the Belgium story
            Peter Arras and Dennie Jansen

15:30 - 16:00   Virtual guided tour around Bilbao + break

16:00 - 17:00   Showcase presentations: Bilbao Smart City
            Ane Miren Ibañez Zugazaga - BilbaoTIK

17:00 - 18:00   Panel Discussion: **Quality of Life: Projects from Bilbao and Around the World**
            Beverly Pasian

THURSDAY, 10.03.2022

10:30 - 11:30 **Collaborative Smart City Projects** (live/online presentations)
(Chair: Luis Ruiz Minguela)
26 English Language Communication in Agile Cross-Border Projects: Implications on Virtual Learning Settings
(Ainur Baizhanova, Olha Mikhieieva, Zhibek Tleshova, Carsten Wolff)
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11:30 - 11:50 Virtual guided tour around Bilbao + break

11:50 - 12:50 Workshop: **Parameters that Influence Project Management Decisions**
■ Markus Schmidtner

12:50 - 13:50 Live cooking from Bilbao for our lunchtime

13:50 - 14:20 **Citizens perspective of Bilbao**
■ Ane Miren Ibañez Zugazaga

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(Chair: Alexia Nalewaik)

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FRIDAY, 11.03.2022

09:30 - 10:30   Keynote: INT - What Makes a City Smart? (It's Not Technology)
Aaron Shenhar - Rutgers Business School and Technological Leadership Institute

10:30 - 11:30   Poster & Video Discussions: **Achieving Quality of Life in Smart Cities**
(Chair: Nigel Williams)

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(Oleksandr Berezhnoj, Artem Tulenkov, Anzhelika Parkhomenko, Oleksandr Sokolyanskii, Yaroslav Zalyubovskiy, Karsten Henke, Heinz-Dietrich Wuttke)

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                    Beverly Pasian, Robert Bierwolf, Elena Vitkauskaite

16:30 - 17:00   Award session + Closure of the Conference