

INTERNATIONAL ENGINEERING AND TECHNOLOGY MANAGEMENT SUMMIT 2022

“BUSINESS, SOCIETAL, ENVIRONMENTAL OPPORTUNITIES and CHALLENGES in the DIGITAL AGE”

ISTANBUL TECHNICAL UNIVERSITY AND BAHÇEŞEHİR UNIVERSITY
etms.itu.edu.tr/2022/



20 - 21 OCTOBER 2022 ISTANBUL / TURKEY

Welcome

The 4th INTERNATIONAL ENGINEERING AND TECHNOLOGY MANAGEMENT SUMMIT, organized jointly by Istanbul Technical University and Bahcesehir University will be held in Istanbul, Turkey during October 20-21, 2022 in collaboration with American Society for Engineering Management (ASEM) and Politechnika Poznanska (Poznan Technical University). Virtual participation will also be available via Zoom.

- Engineering Management Profession
- Engineering Management Education and Training
- International Engineering Management Issues
- Entrepreneurship in High-Tech Environments
- Science and Technology Policy
- Management of Innovation
- Disruptive Technologies
- Emerging Technologies
- Knowledge and R&D Management
- Intellectual Property Rights
- Technology Transfer
- Technological Innovations
- Technology Assimilation
- Technology Alliances
- Technology Assessment
- Technology Diffusion
- Technological Foresight
- Manufacturing and Supply Chain Systems
- Lean Six Sigma in High-Tech Organizations
- Healthcare Innovation
- Management Information Systems
- Sustainability in Agile Systems
- Engineering Teams and Work Groups
- Engineering Economics
- Entrepreneurial Finance
- Marketing of Technology
- Program / Project Management
- Strategic Management of Technology
- Change Management in Technological Environments
- Management of Digital Transformation
- Business Analytics

On behalf of organization committee

Prof. Dr. Ferhan Çebi & Prof. Dr. Tunç Bozbura

Submissions:

Invited Speakers from the World of Science and Business Authors can submit their abstracts or conference papers either in English or Turkish using the online system to be accessed by the link:

- <https://cmt3.research.microsoft.com/ETMS2022>

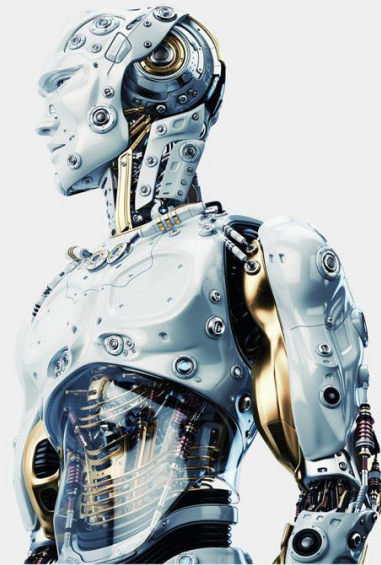
Important Dates:

Conference Paper Submission Deadline:

SEPTEMBER 15th 2022

Notification of Acceptance:

OCTOBER 2th 2022



WYDZIAŁ
INŻYNIERII
ZARZĄDZANIA

İTÜ





ETMS
2022

INTERNATIONAL
ENGINEERING AND TECHNOLOGY
MANAGEMENT SUMMIT

INTERNATIONAL ENGINEERING AND TECHNOLOGY
MANAGEMENT SUMMIT 2022,
20-21 October 2022, Istanbul /TURKIYE

1.gün (Day 1) Hybrid

	Venue: Bahcesehir University, Beşiktaş
09.30-09.45	Açılış (Opening) Fazıl Say Conference Hall Zoom Link: https://zoom.us/j/92515442355?pwd=QnhhdS9OWnJRGF0K0dPcFQ3VzhFdz09
09.45-10.30	Keynote Speech: Erol Yücel, Strategy Group Leader, HAVELSAN Fazıl Say Conference Hall Zoom Link: https://zoom.us/j/92515442355?pwd=QnhhdS9OWnJRGF0K0dPcFQ3VzhFdz09
10.30-10.45	Ara (Break)
10.45-12.00	Paralel Oturumlar- Bildiri Sunumları (Parallel Sessions- Paper Presentations) 1.1.1, 1.1.2, 1.1.3
12.00-12.15	Çay Kahve Arası (Coffee Break)
12.15-13.30	Paralel Oturumlar- Bildiri Sunumları (Parallel Sessions- Paper Presentations) 1.2.1, 1.2.2, 1.2.3
13.30-14.30	Öğle Yemeği (Lunch)
14.30-16.00	Panel: Sanayide Sürdürülebilirlik için Dijital Teknoloji Yönetimi Fazıl Say Conference Hall Moderator: Dr. Nihan Yıldırım, Istanbul Technical University, Türkiye Panelists: Haydar Vural, Agile Tribe Lead, Data Science and AI Lead at TOFAŞ Vügar Kerimoğlu, Arçelik Global, Manager, Process & Material Technologies Erdem Çorapçıoğlu, TUSAŞ Zoom link: https://zoom.us/j/92515442355?pwd=QnhhdS9OWnJRGF0K0dPcFQ3VzhFdz09
16.00-16.15	Çay Kahve Arası (Coffee Break)
16.15-17.45	Round Table: Moderators: Dr. Alex Gorod and Dr. Leonie Kay Hallo Fazıl Say Conference Hall Zoom link: https://zoom.us/j/92515442355?pwd=QnhhdS9OWnJRGF0K0dPcFQ3VzhFdz09
18.00 - 20.00	Kokteyl Resepsiyon (Cocktail Reception) - BAU C Teras (BAU C Terrace)



ETMS
2022

INTERNATIONAL
ENGINEERING AND TECHNOLOGY
MANAGEMENT SUMMIT

**INTERNATIONAL ENGINEERING AND TECHNOLOGY
MANAGEMENT SUMMIT 2022,
20-21 October 2022, Istanbul /TURKIYE**

2. gün (Day 2) Online

10.00-11.00	Paralel Oturumlar- Bildiri Sunumları (Parallel Sessions- Paper Presentations) 2.1.1, 2.1.2, 2.1.3
11.00-12.00	Paralel Oturumlar- Bildiri Sunumları (Parallel Sessions- Paper Presentations) 2.2.1, 2.2.2, 2.2.3
12.00-13.15	Paralel Oturumlar- Bildiri Sunumları (Parallel Sessions- Paper Presentations) 2.3.1, 2.3.2, 2.3.3
13.15-14.00	Öğle Yemeği (Lunch)
14.00-15.00	Keynote Speech: Dr. Gregory Sedrick, ASEM Past President Dr. Yesim Sireli, ASEM President, USA Zoom link: https://zoom.us/j/93010740684?pwd=d1duU3J1aXNuTmxwcXZlSzFzYm9jZz09
15.00-15.15	Çay Kahve Arası (Coffee Break)
15.15-16.45	Panel: Focus on Global Engineering Management Network / ASEM Moderator: Dr. Yesim Sireli, ASEM President, USA Panelists: Dr. Brian Smith – EMJ’s Co-Editors, USA Dr. Gregory Sedrick, ASEM Past President, USA Dr. Willy Van Overschee, ASEM International Director, Belgium Zoom link: https://zoom.us/j/93010740684?pwd=d1duU3J1aXNuTmxwcXZlSzFzYm9jZz09
16.45-17.00	Kapanış (Closing) Zoom link: https://zoom.us/j/93010740684?pwd=d1duU3J1aXNuTmxwcXZlSzFzYm9jZz09

20 OCTOBER 2022

10.45-12.00

1.1.1- Technology, Engineering, and Knowledge Management in Learning Organizations

Room: D402

Zoom link: <https://zoom.us/j/92515442355?pwd=QnhhdS9OWnJJRGF0K0dPcFQ3VzhFdz09>

Chair: Prof. Dr. Hakkı Okan Yeloğlu

ID	Author	Title
52	Altay Dalkılıç; Nurcan Alkış Bayhan (Başkent University)	Emerging Methods and Future Applications of Contemporary Knowledge Representation: A Literature Review
14	Duygu Aktay Kantaroğlu (Turkish Aerospace); Aybüke Temel Çakır (Turkish Aerospace); Abdulsamet Ekşi (Turkish Aerospace); Asım Aspur Göksel (Turkish Aerospace); Hasret Yağmur Koç (Istanbul Technical University); Onur Jane (Turkish Aerospace)	A New Perspective to Innovation Competitions: IDEASPRINT
22	Ayfer Aksu; Guler Kocak; Hakkı Okan Yeloğlu (Baskent University)	Agency Problem as a Barrier in Digitalization and Organizational Learning
25	Sigal Kordova ; Ron Hirschprung (Ariel University)	Considering Privacy in Systems Thinking Assessment
15	Rabia Insel; Ferhan Cebi (Istanbul Technical University)	Designing a Roadmap for Corporates to Manage Effectively In-House Ideas with an Intrapreneurship Structuring

10.45-12.00

1.1.2- Engineering and Technology Management

Room: D406

Zoom link: <https://zoom.us/j/95987752087?pwd=Z3BsRU5rUHZDUGcwR0ZaWmEyeDJKdz09>

Chair: Dr. Leonie Kay Hallo

ID	Author	Title
46	Leonie Hallo; Richa Gulati (The University of Adelaide)	An Agile Approach to Project Leadership: Complexities and KSA Perspective
33	Leonie Hallo (University of Adelaide)	Trust, leadership, and national culture in engineering endeavors
34	Leonie Hallo (University of Adelaide); Alex Gorod (University of Adelaide)	Applying the principles of engineering management to ethical issues: the case of patient centered care
37	Leonie Hallo; Leonie Duh (University of Adelaide)	EGO-driven decision vs strategy audit based decision in case of international crises
39	Leonie Hallo (University of Adelaide); Leonie Hallo (University of Adelaide); Willy van Overschee (ASEM); Ayush Shukla (University of Adelaide)	Global Advances in Engineering Management

10.45-12.00

1.1.3- Applications of Digital Technologies

Room: D501

Zoom link: <https://zoom.us/j/97862513445?pwd=MkV1eW9LTmJORKhwTnBoaHVqR21Jdz09>

Chair: Dr. Adnan Çorum

ID	Author	Title
16	Dana Şeyhibrahim (Yıldız Technical University); İrem Şanal (Bahcesehir University)	Application of Digital Image Analysis to Automate Aggregate Gradation Evaluation
13	Tenin Çolak; Mert Ensari; Altay Oğulcan Dalkılıç (Başkent University)	Artificial Intelligence in Breast Cancer Diagnosis: A Literature Review
18	Elizabeth Ripley Johnson; María Castaño Martínez; Selcen Ozturkcan (Linnaeus University)	Complications in big data-based communication in the wake of COVID-19: A comparison of North American and Nordic practices of multinational healthcare corporations
42	Nalan Gündüz (Bahcesehir University)	Investigating Senior Adults' Smartwatch Usage
28	Nazlı Altunbulak; Adnan Çorum (Bahcesehir University)	Process Design of New Digital Payment Platform

12.15-13.30

1.2.1- Supply Chain and Logistics Management

Room: D402

Zoom link: <https://zoom.us/j/92515442355?pwd=QnhhdS9OWnJJRGF0K0dPcFQ3VzhFdz09>

Chair: Assoc. Prof. Dr. Oğuzhan Erdiç

ID	Author	Title
19	Berna Çalışkan; Ali Atahan; Caner Güney (Istanbul Technical University)	Investigating Urban Rail Transit System with District Based Socio-economic Parameters
43	Büşra Buran (Istanbul Technical University)	A Digital Business Model Framework for Public Bus Transportation: Istanbul Case Study
45	Tiep Nguyen (Vietnam National University); Leonie Hallo (University of Adelaide); Alex Gorod (University of Adelaide)	System of Systems (Sos) Approach in Defining the Boundary of Stakeholder Involvement in Smart City Governance
63	Fahrettin Eldemir (University of Jeddah); Reema Al-Dalain (Isra University); Israa Ismail (Istanbul Technical University)	The Impact of Digital Technology on Capacity and Operations Planning of the Transport Sector
20	Muhammet Ali Kadioğlu (Istanbul Technical University); Hidayet Takcı (Cumhuriyet University)	A Data Science Project Management Methodology: From Development to Production

12.15-13.30

1.2.2- Multi Criteria Decision Making

Room: D406

Zoom link: <https://zoom.us/j/95987752087?pwd=Z3BsRU5rUHZDUGcwR0ZaWmEyeDJKdz09>

Chair: Prof. Dr. Tankut Atan

ID	Author	Title
5	Mehmet Karahan (Firat University); Hasan Dinç (National Defense University); Merve Sinem Karahan (Beykent University)	Performance Analysis of BRICS-T Countries within The Scope of Logistics Performance Index with Entropy Weighted TOPSIS Method
38	Cansu Işık; Melis Türkkkan; Safa Marbou; Sait Gul (Bahcesehir University)	Stock Market Performance Evaluation of Listed Food and Drink Companies in Istanbul via MCDM Methods
29	Asım Umut Özbey (Turner Construction Company); Masood Jabarnejad (Dogus University)	Multiple Criteria Decision-Making for Subcontractor Selection Using Fuzzy Analytic Hierarchy Process and TOPSIS Methods
58	Semiha Bal (International Humanitarian Organization)	Evaluation of Apps' Usage in Humanitarian Sector: A SWOT Analysis and Decision-Making Framework Development

12.15-13.30

1.2.3- Teknolojik İnovasyon

Room: D501

Zoom link: <https://zoom.us/j/97862513445?pwd=MkV1eW9LTmJORKhwTnBoaHVqR21Jdz09>

Chair: Prof. Dr. Ömür Yaşar Saatçioğlu

ID	Author	Title
6	Neslihan Yegen; Sait Gül (Bahcesehir University)	TOPSISsort ile Scrum Takımlarının Performans Sınıflandırması
36	Betül Ayça (Trakya University)	Dijital Kültür ve Örgütsel Değişim
30	Omur Yasar Saatcioglu (Dokuz Eylul University)	Yaratıcılığın İnovasyona Etkisinin Değerlendirilmesi: Steve Jobs Örneği
48	Pınar Göktaş; Nilay Şengöl; Zehra Kılınç (Süleyman Demirel University)	Türkiye'nin İlk Metaverse Girişimcilik Maratonu Katılımcıları Üzerine Bir Araştırma
50	Emir Özeren; Azad İsmayilzada (Dokuz Eylul University)	Perakende Mağazacılığında Fijital Alışveriş Deneyimleri: Hazır Giyim Perakendeciliği Sektöründe Niteliksel Bir Araştırma

21 OCTOBER 2022

10.00-11.00

2.1.1- Human Factors in Contemporary Enterprise

Zoom link: <https://zoom.us/j/93010740684?pwd=d1duU3J1aXNuTmxwcXZlSzFzYm9jZz09>

Chair: Prof. Dr. Marcin Butlewski

ID	Author	Title
57	Wiktoria Czernecka (Poznan University of Technology)	Success factors of ergonomic interventions
62	Janusz Rajewski (Poznan University of Technology)	Well-being as an effect of shaping parameters in office space
64	Fryderyk Wachowiak (Poznan University of Technology)	The method of selecting employees in the system of visual quality control of wood-based panels
66	Szymon Nowaczyk (Poznan University of Technology)	Perspective of automation within polish transportation sector

10.00-11.00

2.1.2- Data Analysis

Zoom link: <https://zoom.us/j/95732206730?pwd=Q3pRZDVZdTNaYTIwOFNacG5rOGZlQT09>

Chair: Dr. Dilay Çelebi Gonidis

ID	Author	Title
31	Tolga Kaplan (Arabam.com); Masood Jabarnejad (Dogus University)	Data Analytics for Quality Products in an Industrial IoT Environment
44	Ilknur Pala; Nihan Yıldırım; Nur Gürgöze (Istanbul Technical University)	Corporate Big Data Analytics Capabilities and Performance Relationship: A Research for Turkey
40	Müge Bulu (Bahcesehir University); Ozlem Senvar (Marmara University)	An Overview to Stochastic Modelling for Industrial Engineering considering utilization of Artificial Intelligence and Learning Systems
68	Mesut Akdere; Yeling Jiang; Minsoo Choi; Issra Azzam; Farid Breidi; Christos Mousas (Purdue University)	Promoting Team Collaboration in Engineering Teams through Mixed Reality Technology

10.00-11.00

2.1.3- Decision Analysis

Zoom link: <https://zoom.us/j/97591809750?pwd=ZDVWQTdtYnRkK1VyQ3RsVWtBeWVHQ09>

Chair: Assoc. Prof. Dr. Gülin İdil Sönmeztürk Bolatan

ID	Author	Title
26	Yaman Erzurumlu (Babson College); Gürcan Avcı (FinaHukuk)	Blockchain tokenization of real estate investment A security token offering procedure and legal design proposal
7	Mehmet Karahan; Solunay Duran (Firat University)	Analysis of Innovation Performances of Turkish States According to Global Innovation Index Data by Entropy Weighted TOPSIS Method
65	Mete Ömerali; Tolga Kaya	IIOT Vendor Selection Framework Using Novel Hybrid CRITIC-ELECTRE Multi Criteria Decision Making Model
1	Serhat Çakır; Hakkı Okan Yeloğlu (Başkent University)	Assessment of a Multinational Technology Foresight Study: A Case Study in European Area

11.00-12.00

2.2.1- Technological Innovation

Zoom link: <https://zoom.us/j/93010740684?pwd=d1duU3J1aXNuTmxwcXZlSzMzFzYm9jZz09>

Chair: Prof. Dr. Nuri Bařođlu

ID	Author	Title
9	Elif Yađmur Petekkaya; Burcu Felekoglu (Dokuz Eylul University)	Investigation Of New Approaches for Collaborative R&D And Innovation
17	Aftab Haider (Bahria University)	Nexus of Servant Leadership with Firm Innovativeness, mediating role of Intrinsic Motivation, An empirical study of IT sector of Pakistan.
54	Ahmet Tekin; Ferhan Cebi; Neslihan Aldođan (Istanbul Technical University)	Pharmacy Segmentation Based on RFM Model via Clustering Approach
49	Muhittin Orhan; Ayse Elvan Bayraktaroglu (Istanbul Technical University)	Examining the aspects impacting the engagement of volunteers on volunteering match platforms

11.00-12.00

2.2.2- Performans Deđerlendirme

Zoom link: <https://zoom.us/j/95732206730?pwd=Q3pRZDVZdTNaYlIwOFNacG5rOGZLQT09>

Chair: Assoc. Prof. Dr. Arzu Karaman

ID	Author	Title
3	Erdiñ Öztürk (Bahcesehir University)	İnřaat Sektöründe Dijital Dönüşüm Sürecine Etki Eden Faktörlerin Dematel Yöntemi ile Deđerlendirilmesi
60	Abdulkadir Kurtulan; Nihal Horasan (Selçuk University)	İSO 500'de Yer Alan Gıda Firmalarının Veri Zarflama Analizi Temelli Malmquist-TFV Endeksi ile Verimliliklerinin Analizi
2	Erdiñ Öztürk (Bahcesehir University)	Uzaktan Çalıřma Ortamlarında İř Tatminini Etkileyen Faktörler
8	Ahmet Tekin; Cem Sarı (Istanbul Technical University)	Mađaza Tabanlı Talep Tahmini: Topluluk Öđrenmesi Yaklařımları ile Zaman Serisi Yaklařımı Karřılařtırılması

11.00-12.00

2.2.3- Operasyon Yönetimi

Zoom link: <https://zoom.us/j/97591809750?pwd=ZDVWQTdtYnRkK1VyQ3RsVWtBeWVHQ09>

Chair: Prof. Dr. Ferhan Çebi

ID	Author	Title
61	Beyza Aydın; Hilmi Yüksel (Dokuz Eylul University)	E-ticaret İřletmelerinde Sipariř İřleme Problemleri için Depo Otomasyon Çözümleri ve Bir Vaka Çalıřması
41	Nurseda Öztař; Seyfettin Umut Umu; Fatma Yařlı (Eskisehir Technical Uni.)	Tramvay Durakları Hizmet Performansının Çok Kriterli Karar Verme Yaklařımı ile Ele Alınması
53	Melisa Soylu (Istanbul Technical University)	İlaç Endüstrisinde Yapılan İř Birliklerinin Hisse Senedi Deđerlerine Etkisinin Olay Analizi ile İncelenmesi
32	Mert Karaađaç; Seyfettin Umut; Mehmet Mete Öztürk (Eskisehir Technical University)	Kent İçi Raylı Ulařım Sistemlerinde Metro İstasyonlarının Yapısal ve Mimari Tasarım Kriterleri Üzerinde İnceleme

12.00-13.15

2.3.1- Applied Engineering

Zoom link: <https://zoom.us/j/93010740684?pwd=d1duU3J1aXNuTmxwcXZlSzMzFzYm9jZz09>

Chair: Prof. Dr. Hilmi Yüksel

ID	Author	Title
23	Sagir Mahmud (Federal Polytechnic Bauchi)	Influence of slip velocity on rotating electro-osmotic flow in a slowly varying micro-channel
27	Moulgada Abdelmadjid (University of Ticaret)	Study of the fatigue behavior of plate with a central crack repaired with composite patches
56	Hussein Al-Tameemi (Istanbul Technical University)	Laser Scanning in the Construction Management: A Review
21	Berfin Özel; Biran Koser; Meryem Gizem Yıldız; Yasemin Mert; Çağlar Sivri; Oğuzhan Erdinc (Bahcesehir University)	User Experience Evaluation of an Online University Library via User Test and Heuristic Evaluation

12.00-13.15

2.3.2- Operations Management

Zoom link: <https://zoom.us/j/95732206730?pwd=Q3pRZDVZdTNaYTIwOFNacG5rOGZLQT09>

Chair: Prof. Dr. Alptekin Erkollar

ID	Author	Title
24	Derya Yeliz Coşar Soğukkuyu (FLO)	A Supervised Machine Learning Approach for Stock Transfer between Stores
11	Gizem Deniz; Tuncay Özcan (Istanbul Technical University)	Set Covering Approach to The Selection of Cargo Delivery Point: Real Case Study
12	Ugur Yildiz; Gizem Deniz; Hatice Camgöz Akdağ (Istanbul Technical University)	Implementation of Lean Principles to Warehouse Design in The Textile Industry: A Real Case Study
70	Ecem Ayan; Ezgi Biçer; Tuncay Özcan; A. Kemal Konyalıoğlu; Tuğçe Beldek (Istanbul Technical University)	Shelf Space Allocation and Layout Optimization in Retail Management
35	Rabia Insel; Ferhan Cebi (Istanbul Technical University)	Analyzing Market Potential of Particle Board with Using Data Envelopment Model for Turkey

12.00-13.15

2.3.3- Urban Management

Zoom link: <https://zoom.us/j/97591809750?pwd=ZDVWQTdtYnlrK1VyQ3RsVWtBeWVHQT09>

Chair: Assoc. Prof. Dr. Berk Küçükaltan

ID	Author	Title
47	Reema Talab Al-Dalain (Isra University); Dilay Çelebi (Istanbul Technical Uni.)	Assessing The Potential of Sustainability In Transport Sector Using Fuzzy Set Theory And Monte Carlo Simulation
55	Esra Damar; Mehmet Aydıncal (Hitit University)	Interconnection of Smart City, Smart People and Stem Skills of People
59	Reema Talab Al-Dalain (Isra University); Dilay Çelebi (Istanbul Technical Uni.)	The Sustainability in Istanbul City
67	Helin Sezgit; Hatice Camgöz Akdağ (Istanbul Technical University)	Food Waste and the situation in Türkiye
69	Atakan Altunel; Kubilay Karaçam; Tuğçe Beldek; A. Kemal Konyalıoğlu; Ferhan Cebi ; İdil V. Evcimen (Istanbul Technical Uni.)	A Numerical Approach to Prioritization in Urban Transformation: An Application in İstanbul

