ScAIEM
Scandinavian Academy of Industrial Engineering and Management

THE PROGRAM: ACCEPTED TRACKS AND PRESENTATIONS ScAIEM 2023

Please see main program for full conference activity program including social events and meals- this overview offers a summary of the tracks and track presenters in the 4 parallel track sessions.

Day 1: 29th November:

Pre-Conference summit and PDW workshops – please see full program on website. Summit sessions on 2nd floor. (HoD summit on 5th floor)

Day 2: 30th November:

Welcome address in Auditorium Becker- 2nd floor

Parallel Sessions 1

PS1.1: Innovation and Technology management: Young Scholar Perspectives.
Track Chair: Daryl Powell: Room 5119

1. **Adeesa Iram**. Decentralization and Digitalization of a Healthcare Process
2. **Janka Fabianova.** Deep PurpleTM: A Sustainable Subsea Energy Solution Empowered by Digitalization and AI. South-Eastern University Norway, Kongsberg, Norway.
3. **Hasti Asayesh**. In the Shadows of Opportunity: An Exploration of Challenges pertaining to wellbeing and Their Impact on Immigrant Entrepreneurs in Norway. South-Eastern University Norway, Kongsberg, Norway
4. **Hamed Valizadeh and Mahya Darbandsari.** From Ideas to Global Markets: Intellectual Property Strategies for European Startup Success. South-Eastern University Norway, Kongsberg, Norway
5. **Aline Pereira da Silva.** Towards a Maturity Model for Digital Transformation. South-Eastern University Norway, Kongsberg, Norway
6. **Arezoo Naraghi/Mariem Moukhtari**. From numbers to practicality: developing a robust measurement of innovation indicators to derive an optimal innovative business approach in European region. South-Eastern University Norway, Kongsberg, Norway

PS1.2: New Global Management Perspectives.
Track chair: Carl Åberg: **Room 5120**

This track brings together scholars and experts to explore a wide array of topics exploring the forefront of management practices in a global context. Within this track, we for example prioritize the dissemination of research on critical global management themes, including new perspectives on managing today's interconnected world.

1. **Stephanie Francis Grimbert[ab], Jon Mikel Zabala Iturriagagoitia[abc], Asunción Ibáñez-Romero[a].** From imposed openness to deliberate isolation: an evolutionary perspective on open innovation

a.- Deusto Business School, University of Deusto, Camino de Mundaiz 50, 20012, Donostia-San Sebastian, Spain.
b.- CIRCLE, Lund University, Solvegatan 16, 22362, Lund, Sweden.
c.- South-Eastern University Norway, Hasbergs Vei 36, 3616, Kongsberg, Norway.

2. **Stephanie Francis Grimberta.** Collective shared value creation (CSV): An emergent strategy for cluster management organizations

a.- Deusto Business School, University of Deusto, Camino de Mundaiz 50, 20012, Donostia-San Sebastian, Spain.
b.- CIRCLE, Lund University, Solvegatan 16, 22362, Lund, Sweden

3. **Leo Mularia, Jari Parankoa**. R&D Development over the decades: Preliminary insights from Finnish industry. aCost Management Center, Unit of Industrial Management and Engineering, Tampere University, Tampere, Finland

4. **Peter Lindelöf.** The Importance of physical proximity for firm-university innovation networks: Evidence from China and Sweden. University of South-Eastern Norway, Kongsberg, Norway.

PS1.3: Evaluation of educational program – and how to get the most out of them! (Round table) - Track Chairs: Mathias Henningsson, Linköping University and Tim Torvatn, NTNU. Room 5129

Most of us have to deal with different types of evaluations of our IEM study programs. We believe that it is important to handle these evaluations as opportunities for learning. In this session we discuss how ScAIEM can help all the programs to learn from evaluations. This could take many different forms. For example:

- Could ScAIEM maintain a list of persons interested in helping out with evaluations?
- Could ScAIEM suggest themes that are particularly important for IEM programs to evaluate
  - for example, how to create connections between technological and economy/management courses in an IEM program.
- Could ScAIEM have a library of recent evaluations of IEM programs?
- Could ScAIEM help to connect programs that would like to do peer evaluation or other types of formative assessment of programs or parts of programs?

Lunch and networking opportunity: mingling room 5th floor * Open lunch meeting: Meet the editors of international journals -*Please bring your lunch from the picnic table with you to **5119** and join us for publication tips and calls for articles:* 1. Special Issue in Journal of Clear Production, "New trends in innovations and technologies for sustainability" Professor Abdelkader Sbihi, USN 2. Special Issue in Journal of Product Innovation Management, "Innovation via Business-to-Business (B2B) Digital Platforms, Platform Ecosystems, and Platform-based Business Models", Professor Seppo Leminen, USN, 3. Invited best papers for a SCAEIM conference book Jon Mikel Zabala & Seppo Leminen, USN. Journal of International Doctoral research: Gillian Warner-Søderholm. Also Journal of Entrepreneurship, Management and Innovation.

Plenary session: Keynote Address from Industry: ***Daryl Powell*: Chief Scientist SINTEF:** Digitalization in Manufacturing: Trends, Challenges, and Research Outlook: **Room Auditorium Becker: 2nd floor.**

Parallel Sessions 2

PS2.1: Factory of the Future for Nordic Industry.
Track Chairs: Jørn Longva, USN and **Abdelkader Sbihi,USN. Room 5119**

Manufacturers and authorities in the Nordic countries have both recognised the power of smart factories and have therefore worked to adopt disruptive technology. These capabilities will result in faster design, innovative production, improved processing, reduced risk, and minimal waste of resources. In this session, we will explore how Scandinavian countries and companies can achieve sustainable growth by adopting Industry 4.0 technologies in line with the sustainable agenda? How to quickly lead and help the Nordic manufacturing sector to their maturity models towards the switch to the Factory of the Future (by taking account of barriers, change ethics, constraints, legislations…)?

1. **Ainhoa Goienetxea Uriarte, Kristens Gudfinnsson, Mattias Strand**: Factory of the Future: Beyond Technology in Digital Transformation, Department of Intelligent Production Systems, School of Engineering Science, University of Skövde, Skövde, Sweden
2. **Maria Morgunova, Åse Linné.** Back to the future: nuclear energy prospects in Sweden. Department of Civil and Industrial Engineering, Industrial Engineering and Management, Sweden.
3. **Martin Falk**. Diverging patterns of digital transformation and innovation activities in European firms. USN
4. **1Jari Paranko, 1Leo Mulari, 2Roi Mendez.** Identifying potentially profitability impact areas of the implementation of new production technology.
   1: Tampere University, Tampere, Finland
   2: AIMEN Technology Centre, Pontevedra, Spain
5. Eivind Arne Fauskanger, Seyedehemehrsa Fatemi, and Daryl Powell. Towards an assessment model for Lean and Green 4.0, USN School of Business -Findings from EEA project: Process Optimization and Industry 4.0

PS2.2: ChatGPT perspectives in learning and research.
Track Chair: Eskil Le Bruyn. Room 5120

Our business as researchers and lecturers is to develop knowledge and educate students. Both activities may be severely influenced by AI tools like ChatGPT. In this track we invite proposals for presentations or discussions that examine (e.g.): Teaching methodologies involving ChatGPT, ethical considerations in integrating AI into educational settings, case studies and success stories, evaluating and grading exams and student projects, research projects that leverage ChatGPT for data analysis, simulations, or other applications.

1. **Aristidis Kaloudis**, NTNU: ChaptGPT as an educational assistance tool
2. **Hannele Lampela**, Oulu: Utilizing chatbots in project management education
3. **Peyman Teymoori,** USN: ChatGPT in Modern Education and Research

Parallel Sessions 3

PS3.1: Pedagogical perspectives in Innovation, Engineering and Management.
Track Chair: Erik Lankut: Room 5119

This track invites submissions that explore one or more modern and innovative pedagogical methods and practices in Innovation, Engineering and Management. The track also invites submissions that share meaningful insights on pedagogical perspectives that applies to innovation and technology that helps to shape a better world.

1. **Glenn-Egil Torgersen1, Ole Boe1, Leif Inge Magnussen1, Lisa Scordato2, Dorothy Sutherland Olsen2**. Explaining which competences are necessary in order to cope with unforeseen incidents: What is missing in the field of innovation?
    i. 1: University of South-Eastern Norway,
    ii. 2: Nordic Institute for Studies in Innovation, Research and Education (NIFU)
2. **Päivi Kekkonena1, Eeva Leinonenb2, Markus Rytinkib2, Arto Reimana1, Mirja Väänänenc3.** Developing competences of micro-entrepreneurs for agility and resilience.
    i. 1: Industrial Engineering and Management, University of Oulu, Finland,
    ii. 2: Micro-Entrepreneurship Centre MicroENTRE®, Kerttu Saalasti Institute, University of Oulu, Finland,
    iii. 3: Nivala-Haapajärven seutu NIHAK ry, Finland
3. **Lise Feirud**. Use of gamification techniques in digital learning platforms – effects on students' active participation, level of learning and exam results. School of Business, University of South-Eastern Norway
4. **Kari-Pekka Heikkinen.** Cornerstones of a New Interdisciplinary Innovation and Product Development master's Program. Affiliation: University of Oulu, Finland

PS3.2: Systems Engineering: new perspectives: Round Table discussion led by Head of Department and Systems Engineering scholar Elisabet Syverud. Room 5120

Day 3:1st December:

Parallel Session 3 (2nd Floor)

PS3.1: BATNET: Norwegian Battery Packing Network and digitalization trends*:* Round Table

- **PS3.1: BATNET: Norwegian Battery Packing Network and digitalization trends in Industry*:*** (Round Table)Track Chairs*: Kristin Woll*, USN, with *Torbjørn Langedahl Leirmo.* SINTEF Manufacturing. Industrial Ecosystems and *Pål Christian Myhre*, Nordic Batteries. and *Dag Eirik Helle*, *Omid Razbani and Behzad Behdani, USN.* **(Room 2222)**

PS3.2: Health Sciences: The Human Factor.
Track Chair: Bente M. Aakre ,USN: Room 2228

1. **Ellen Svarverud,** Ethical considerations on inclusive and agency-driven development of XR technologies. IORL-USN
2. **Lene** Aarvelta Hagen. Can knowledge about diversity in common visual problems and its association with eye-body coordination inform inclusive design of XR? IORL-USN

3. **Espen Strange**. Advancements in Remote Maintenance: Designing for inclusive human-machine collaboration in autonomous offshore hydrogen production. Kongsberg Maritime.

PS3.3: Management Implications of AI. Track Chairs: Mats Engwall KTH and Emrah Karakaya KTH. Room 2229

As a general-purpose technology, AI comes in variety of forms and with significant, potential effects on industry structures and business models, ways of organizing, as well as work procedures and jobs. However, there is still a lack of empirical studies on the managerial implications of AI. Thus, this track addresses the need for research on these effects and invites discussion in a round table session that discusses the implications of AI on industrial management from an industrial, organizational, and individual perspective.

Parallel Sessions 4

PS4.1: Sustainable Operations Management.
Track Chair: Behzad Behdani, USN. **Room 2224**

This session will focus on sustainability in operations and supply chain management. Some potential research topics in this field encompass sustainable supply chain management, green manufacturing, circular economy practices, and carbon footprint reduction strategies. Researchers can also present their ideas and work progress on developing sustainable sourcing practices, optimizing transportation networks for reduced emissions, implementing eco-friendly production processes, and adopting sustainable packaging solutions. Additionally, topics related to stakeholder engagement, corporate social responsibility, and sustainable business models are relevant to this session.

1. **Deniz Turkcu**, Analyzing Industry Perceptions of Biobased Plastic Packaging Products, Department of Industrial Engineering and Management, LUT University, 53850 Lappeenranta, Finland
2. **1Eva Hagsten, 2Martin Falk**, Resource efficiency measures and carbon neutrality plans of European SMEs. 1. Swedish Agency for Economic and Regional Growth, 2. USN
3. **Kristine Wilhelm Lund, Erik Skov Madsen.** Barriers and drivers for the Operations Management researcher as a facilitator of coopetition towards new Sustainable Eco-systems. Dept. Engineering Operations Management, University of Southern Denmark
4. **Zahra Asayesh, Fatemeh Nikzad Larijani, Behzad Behdani**, The Potential of Drones in Revolutionizing Telemedicine: Challenges and Opportunities. USN

PS4.2: Case Based Learning: Post Pandemic Classroom Innovations
Track Chair: Gillian Warner-Søderholm, USN. Room 2228

- **Theordorus Jozaf Sikkes.** Creative Jam Seminar Series –close to industry and international collaboration partners- going hybrid – lessons learned**.** School of Business USN.
- How AI makes formative assessment possible in large classes **Emil Johan Oliver,** CEO and co-founder **HUBROEDUCATION. Room 2222**

PS4.3: Health and Society.
Track Chair: Martin Falk. Room **2229**

In the health sector, new technologies are being used intensively. Examples include e-health systems, apps that alert citizens to health problems, electronic health certificates, individual access to health data and many other innovative digital solutions that improve people's well-being. This section welcomes theoretical and empirical contributions as well as case studies.

1. **Jon Mikel Zabala Iturriagagoitia[abc*], Stephanie Francis Grimbert[ab], Asunción Ibáñez-Romero[a].** Assessing the ecosystem services of the primary sector and how to monetize them

a.- Deusto Business School, University of Deusto, Camino de Mundaiz 50, 20012, Donostia-San Sebastian, Spain.
b.- CIRCLE, Lund University, Solvegatan 16, 22362, Lund, Sweden.
c.- South-Eastern University Norway, Hasbergs Vei 36, 3616, Kongsberg, Norway.

2. **Pernilla Ulfvengren**. Organisational capabilities (organizational hazard) to reduce operational risk. Sustainable operations management - here a mix of operations management and safety management, and how risk analysis is not enough, without capability to system change. Reporting from an EU-Erasmus project ORION and adjacent research in earlier projects. Industrial engineering and sociotechnical systems (and safety), INDEK, KTH

Closing session in plenum in 'Becker' auditorium on 2nd floor