AUTOMATION DAYS 2023
CALL FOR PAPERS

Automation and machine learning as
enablers for the green transition
28.–29.3.2023 Crowne Plaza Helsinki, Finland

AUTOMATION DAYS
28.–29.3.2023
SUOMEN AUTOMAATIOSEURA RY
FINNISH SOCIETY OF AUTOMATION

Automation Days 2023 is the Finnish Automation Society's most important seminar on automation and digitization. In 2023, special attention will be paid to the green transition and machine learning. However, presentations are widely sought in the areas of automation. The seminar is a great networking platform between the education, research and business sectors.

The green transition applies to all application areas of automation, from factories and industrial processes to decentralized energy production and energy-efficient building automation. Smart grids, demand response, bioprocesses, and energy storage and conversion processes will require new control, optimization, time series forecasting, fault diagnosis, and condition monitoring solutions. Advanced automation technologies are available for these purposes, and they are being complemented or even disrupted by machine learning technologies. In particular, companies are challenged to present industrial-scale solutions against which the potential of machine learning can be assessed.

Topics include:

> Internet of Things (IoT), edge computing and cloud services
> Artificial intelligence and machine learning
> Education and lifelong learning
> Control theory and systems engineering
> Modeling and simulation
> Human-centered automation
> Digital Twins
> Environmental applications
> Energy solutions
> Process automation and control
> Robotics and machine automation
> Building automation
> Automation and robotics in healthcare

WRITING INSTRUCTIONS:

1 Industrial papers and short papers which can be written in Finnish, Swedish or English and which are accepted on the basis of an extended abstract. Interesting case reports are also welcome!

2 Scientific articles in English, accepted for submission on the basis of an extended abstract or completed article. The authors will later submit an article to a special issue of Energies (Impact factor 3.0) or Applied Sciences (Impact factor 2.7) and an extended abstract will be published as part of a conference publication. The submission and evaluation of a journal article will be carried out in accordance with the journal's policies.

EVENT LANGUAGE:
> Keynote presentations are in English
> With the exception of keynotes, the seminar will proceed in three parallel sessions. Some of the sessions are fully in English, some in mixed languages and some in Finnish. It is guaranteed that there will always be at least one fully English session and that speakers will be allowed to give their presentations in a fully English session if they wish.

SCHEDULE:
> **Title and abstract:** November 15th, 2022
> **Approval Notice:** January 31st, 2023
> **Final papers, extended abstracts, and scientific articles:** April 15th, 2023

PUBLICATION:
> Industry papers will be published online at www.automaatioseura.fi/julkaisut
> Peer reviewed journal papers will be published in special issues of the Energies and Applied Sciences journals.

SUBMISSION:
> Submission of all papers and abstracts is handled via EasyChair: link TBA
> Energies special issue: https://www.mdpi.com/journal/energies/special_issues/Energy_Automation
> Applied Sciences special issue: https://www.mdpi.com/journal/applsci/special_issues/Trends_Automation_Technology

WRITING INSTRUCTIONS AND TEMPLATES:
www.automaatioseura.fi/automationdays2023/call-for-papers/

FINNISH SOCIETY OF AUTOMATION
SUOMEN AUTOMAATIOSEURA RY

Welcome to Automation Days 2023!
General chair **Seppo Sierla**, Aalto University
(seppo.sierla@aalto.fi)

CALL FOR EXHIBITION / REGISTRATION / INFO:
www.automaatioseura.fi/automationdays2023