ICINCO 2021

SCOPE

The purpose of the International Conference on Informatics in Control, Automation and Robotics (ICINCO) is to bring together researchers, engineers and practitioners interested in the application of informatics to Control, Automation and Robotics. Four simultaneous tracks will be held, covering Intelligent Control Systems, Optimization, Robotics, Automation, Signal Processing, Sensors, Systems Modelling and Control, and Industrial Informatics.

Informatics applications are pervasive in many areas of Control, Automation and Robotics; This conference intends to emphasize this connection, therefore, authors should highlight the benefits of Information Technology (IT) in these areas. Ideas on how to solve problems using IT, both in R&D and industrial applications, are welcome. Papers describing advanced prototypes, systems, tools and techniques and general survey papers indicating future directions are also encouraged. Papers describing original work are invited in any of the areas listed below. Accepted papers, presented at the conference by one of the authors, will be published in the Proceedings of ICINCO, with an ISBN. Acceptance will be based on quality, relevance and originality. Both full research reports and work-in-progress reports are welcome. There will be both oral and poster sessions.

Special sessions, dedicated to case-studies and commercial presentations, as well as tutorials dedicated to technical/scientific topics are also envisaged: companies interested in presenting their products/methodologies or researchers interested in holding a tutorial, workshop or special session are invited to contact the conference secretariat or visit the conference website.

CONFERENCE AREAS

Each of these topic areas is expanded below but the sub-topics list is not exhaustive. Papers may address one or more of the listed sub-topics, although authors should not feel limited by them. Unlisted but related sub-topics are also acceptable, provided they fit in one of the following main topic areas:
1. INTELLIGENT CONTROL SYSTEMS AND OPTIMIZATION
2. ROBOTICS AND AUTOMATION
3. SIGNAL PROCESSING, SENSORS, SYSTEMS MODELLING AND CONTROL
4. INDUSTRIAL INFORMATICS

AREA 1: INTELLIGENT CONTROL SYSTEMS AND OPTIMIZATION

Decision Support Systems
Distributed Control Systems
Engineering Applications on Intelligent Control Systems and Optimization
Evolutionary Computation and Control

Fuzzy Control
Genetic Algorithms
Hybrid Learning Systems
Intelligent Fault Detection, Diagnosis and Prognostics
Knowledge-Based Systems Applications
Machine Learning in Control Applications
Neural Networks Based Control Systems
Optimization Algorithms
Planning and Scheduling
Soft Computing
Software Agents for Intelligent Control Systems

AREA 2: ROBOTICS AND AUTOMATION

Autonomous Agents
Cognitive Approach for Robotics
Collective and Social Robots
Control and Supervision Systems
Drones and Internet of Things for Surveillance
Engineering Applications on Robotics and Automation
Guidance, Navigation and Control
Human-Machine Interfaces
Humanoid Robots
Human-Robots Interfaces
Image Processing
Industrial Networks and Automation
Integration of Drones and UV-C Lights for COVID-19 Disinfection
Intelligent Transportation Technologies and Systems
Mechatronics Systems
Mobile Robots and Intelligent Autonomous Systems
Modelling, Simulation and Architecture
Network Robotics
Perception and Awareness
Robot Design, Development and Control
Space and Underwater Robots
Surveillance, Fault Detection and Diagnosis
Telerobotics and Teleoperation
Vehicle Control Applications
Virtual Environment, Virtual and Augmented Reality
Vision, Recognition and Reconstruction

AREA 3: SIGNAL PROCESSING, SENSORS, SYSTEMS MODELLING AND CONTROL

Adaptive Signal Processing and Control
Biological Inspired Sensors
Computer and Microprocessor-Based Control
Defect and Change Detection and Identification
Engineering Applications
Environmental Monitoring and Control
Information-Based Models for Control
Intelligent Components for Control
Mechanical, Force and Tactile Sensors
Modelling, Analysis and Control of Discrete-Event Systems
Modelling, Analysis and Control of Hybrid Dynamical Systems
Nonlinear Signals and Systems
Optimization Problems in Signal Processing
Real-Time Systems Control
Sensors Fusion
Signal Reconstruction
System Identification
System Modelling
Time-Frequency Analysis

AREA 4: INDUSTRIAL INFORMATICS

Computer-Based Manufacturing Technologies
Digital Twins
Energy Efficiency and Green Manufacturing
Human Factors & Human-System Interface
Industrial Automation and Robotics
Industrial Internet of Things
Intelligent Design and Manufacturing
Manufacturing Systems Engineering
Performance Evaluation and Optimization
Precision Engineering
Production Planning, Scheduling and Control
Production Tasks' Design, Planning and Management
Quality Control and Management
Resources and Knowledge Management in Industry
Supply Chain and Logistics Engineering
Supply Chain Resilience
Systems Modelling and Simulation

KEYNOTE SPEAKERS

ICINCO 2021 will have several invited keynote speakers, who are internationally recognized experts in their areas. Their names are not yet confirmed.

PAPER SUBMISSION

Authors can submit their work in the form of a complete paper or an abstract. Complete papers can be submitted as a Regular Paper, representing completed and validated research, or as a Position Paper, portraying a short report of work in progress or an arguable opinion about an issue discussing ideas, facts, situations, methods, procedures or results of scientific research focused on one of the conference topic areas.

Authors should submit a paper in English, carefully checked for correct grammar and spelling, addressing one or several of the conference areas or topics. Each paper should clearly indicate the nature of its technical/scientific contribution, and the problems, domains or environments to which it is applicable. To facilitate the double-blind paper evaluation method, authors are kindly requested to produce and provide the paper WITHOUT any reference to any of the authors, including the authors' personal details, the acknowledgments section of the paper and any other reference that may disclose the authors' identity.

When submitting a complete paper please note that only original papers should be submitted. Authors are advised to read INSTICC's ethical norms regarding plagiarism and self-plagiarism thoroughly before submitting and must make sure that their submissions do not substantially overlap work which has been published elsewhere or simultaneously submitted to a journal or another conference with proceedings. Papers that contain any form of plagiarism will be rejected without reviews.

All papers must be submitted through the online submission platform PRIMORIS and should follow the instructions and templates that can be found under Guidelines and Templates. After the paper submission has been successfully completed, authors will receive an automatic confirmation e-mail.

PUBLICATIONS

All accepted complete papers will be published in the conference proceedings, under an ISBN reference, on paper and on digital support.
SCITEPRESS is a member of CrossRef (http://www.crossref.org/) and every paper on our digital library is given a DOI (Digital Object Identifier).
The proceedings will be submitted for indexation by SCOPUS, Google Scholar, The DBLP Computer Science Bibliography, Semantic Scholar, Microsoft Academic, Engineering Index (EI) and Conference Proceedings Citation Index.

SECRETARIAT

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VENUE

Available soon.

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Oleg Gusikhin, Ford Motor Company, United States

PROGRAM COMMITTEE MEMBERS