COMMITTEES

Chair László Monostori (HU) **Co-Chair** Botond Kádár (HU)

INTERNATIONAL PROGRAMME COMMITTEE

IPC Chair: Hervé Panetto (FR) IPC Co-Chair: Benoit lung (FR) IPC Vice chair from Industry: István Gödri (HU)

NATIONAL ORGANISING COMMITTEE:

NOC Chair László Monostori (HU) NOC Co-Chair Botond Kádár (HU)

Botond Kádár (HU): Special Sessions Ádám Szaller (HU): Young authors,PhD workshops Zoltán Vén (HU): Industrial Workshops

EDITORS

László Monostori (HU), Botond Kádár (HU) Benoit Lung (FR), Hervé Panetto (FR)



IPC MEMBERS

Ronald Askin (US) Armand Baboli (FR) Natalia Bakhtadze (RU) Zbigniew Banaszak (PL) Ahmad Barari (CA) Olga Battaïa (FR) Lyes Benyoucef (FR) Peter Bernus (AU) József Bokor (HU) Theodor Borangiu (RO) Abdelaziz Bouras (QA) **Robert Brennan (CA)** Luis M. Camarinha-Matos (PT) Sergio Cavalieri (IT) Stephen Childe (UK) Dong-il Cho (KR) George Chryssolouris (GR) Balázs Csáji (HU) Frederic Demoly (FR) Christian Diedrich (DE) Alexandre Dolgui (FR) Mariagrazia Dotoli (IT) Péter Egri (HU) Hoda ElMaraghy (CA) Christos Emmanoulidis (IJK) lean-Marie Faure (FR) Luca Ferrarini (IT)

Florin Gh. Filip (RO) Michael Freitag (US) Georg Frey (DE) Péter Gáspár (HU) Ali Gharbi (CA) Bernard Grabot (FR) Robert Grubbström (SE) Elisabeth Ilie-Zudor (HU) Benoit lung (FR) Dmitry Ivanov (DE) Klaus Janschek (DE) Ricardo Jardim-Goncalves (PT) Botond Kadar (HU) **Dimitris Kiritsis (CH)** Bálint Kiss (HU) Peter Kopacek (AT) Péter Korondi (HU) Levente Kovács (HU) András Kovács (HU) Andrew Kusiak (US) Gisela Lanza (DE) Jay Lee (US) Dimitri Lefebvre (FR) Hermann Lödding (DE) Marco Macchi (IT) Duncan McFarlane (UK)

Arturo Molina (MX)

SPONSORS

MAIN SPONSOR

CC 5. Cyber Physical Manufacturing Enterprises

MAIN SPONSORING TECHNICAL COMMITTEES

TC 5.1. Manufacturing Plant Control TC 5.2. Management and Control in Manufacturing and Logistics TC 5.3. Integration and Interoperability of Enterprise Systems (I2ES) TC 5.4. Large Scale Complex Systems

CO-SPONSORING TECHNICAL COMMITTEES

TC 1.3. Discrete Event and Hybrid Systems TC 4.2. Mechatronic Systems TC 4.3. Robotics TC 6.4. Fault Detection, Supervision & Safety of Techn. Processes-SAFEPROCESS TC 7.1. Automotive Control TC 7.4. Transportation Systems TC 7.5. Intelligent Autonomous Vehicles TC 9.2. Social Impact of Automation

TECHNICAL CO-SPONSORS



IPC MEMBERS

László Monostori (HU) Andrew Nee (SG) Torbjörn Netland (SE) Stephen Newman (UK) Shimon Y. Nof (US) Ovidiu Noran (AU) Angel Ortiz Bas (ES) Hervé Panetto (FR) Yiannis Papadopoulos (UK) Anatoly Pashkevich (FR) Carlos Eduardo Pereira (BR) Francois Peres (FR) Wilfrid Perruquetti (FR) Roberto Pinto (IT) Ricardo Rabelo (BR) Josè Reinaldo Silva (BR) Nidhal Rezg (FR) David Romero (MX) lurek Sasiadek (CA) David Simchi-Levi (US) Alexander Smirnov (US) Alexandros Soumelidis (HU) Kathryn Stecke (US) Gábor Stépán (HU) Jan Ola Strandhagen (NR) Stanislaw Strzelczak (PL) Tibor Szalav (HU)

Gabor Sziebig (NR) Janusz Szpytko (PL) Marco Taisch (IT) Sergio Terzi (IT) Klaus-Dieter Thoben (DE) Andre Thomas (FR) Tullio Tolio (IT) Fernando Torres Medina (ES) Damien Trentesaux (FR Tsu-Chin Tsao (US) Marcos Tsuzuki (BR) Paul Valckenaers (BE) Jozsef Váncza (HU) Bálint Vanek (HU) István Varga (HU) Francois Vernadat (FR) Zsolt Viharos (HU) Agostino Villa (IT) Xiaofan Wang (CN) Georg Weichart (AT) Frank Werner (DE) Katia Windt (DE) Dash Wu (CA) Farouk Yalaoui (FR) Marek B Zaremba (CA) Janan Zaytoon (FR) Noreddine Zerhouni (FR) Detlef Zuehlke (DE)



7–9 JUNE 2021 BUDAPEST– HUNGARY



17TH IFAC SYMPOSIUM ON INFORMATION CONTROL PROBLEMS IN MANUFACTURING

INFORMATION CONTROL IN THE CYBER-PHYSICAL ENTERPRISE: TECHNOLOGICAL BREAKTHROUGH VS. CULTURAL REVOLUTION

CALL FOR PAPERS

WWW.INCOM2021.ORG Contact: info@incom2021.org

Organized by:





The 2021 IFAC Symposium on Information Control Problems in Manufacturing (INCOM2021) represents the 17th event in the rich tradition of IFAC in manufacturing sciences and information technologies.

The cyber-physical era, frequently called the fourth industrial revolution (Industry 4.0), i.e., the intersection of the two worlds in an unprecedented extent – like in other fields – fundamentally influences the modeling, management, and control of the production structures from the processes/machines through the manufacturing systems and enterprises to the level of production networks, including logistics.

The symposium aims to provide a forum for exchanging knowledge, reviewing and discussing theoretical advances, research results, and industrial experiences in this exciting and highly relevant field.

Authors from academia and industry are encouraged to join the event and share their research results and empirical insights focusing on one of the following themes:

- Digitalization for Modelling and Controlling Smart Manufacturing Systems and Networks
- Modeling, control, and optimization of smart production systems and networks
- Simulation, control, and monitoring of resilient production systems and networks
- Operations management in production systems and logistics
- Lifecycle management, product-service systems and technologies
- Newest trends in enterprise modeling and information systems
- Human and social factors in production systems and networks
- New advances in robotics and autonomous systems
- Advanced reliability, maintenance and safety engineering and technologies
- Sustainable production, circular economy
- Biological transformation in production
- Human-robot cooperation
- Cyber-physical production and logistic systems
- Al and machine learning applications in production and logistics

The program of INCOM 2021 will include regular, invited and special sessions, workshops and tutorials.

REGULAR SESSIONS

Authors are invited to submit draft papers reporting original research of theoretical or applied nature. Final manuscripts are limited to 6 pages.

INVITED SESSIONS

Invited sessions consist of papers focusing on targeted subjects and presenting a unifying theme. Invited session organizers should submit an abstract that summarizes the aim and the content of the invited session. If at least 5 papers are accepted, the session is included in the symposium program as an invited session, otherwise, the papers will be included in regular sessions.

SPECIAL SESSIONS

Special sessions offer a venue for the presentation of topics of

special academic, social or industrial interest, such as emerging research areas or the most recent trends in manufacturing engineering.

The format of special sessions is more flexible; it allows a panel discussion, led by the session chair(s), to motivate the exchange of opinions among presenters and participants.

OPEN INVITED TRACKS

Open Invited Tracks consist of regular papers focusing on targeted subjects; they have no upper limit on the number of papers; only those tracks having gathered more than 5 papers will be considered.

PAPER SUBMISSION

All manuscripts as well as Invited/Special Session proposals and Open Tracks must be electronically submitted through the PaperPlaza Conference Manuscript Management System at: https://ifac.papercept.net

The list of accepted session proposals is available at: https://incom2021.org/call-for-papers.html

Guidelines for the preparation of manuscripts are provided on the IFAC website:

http://www.ifac-control.org/events/author-guide

All papers will be accepted with the understanding that they will be presented at the conference.

At least one author of each accepted paper will be required to register for INCOM2021 before uploading the final version.

COPYRIGHT CONDITIONS

All publication material submitted for presentation at an IFACsponsored meeting (Congress, Symposium, Conference, Workshop) must be original and hence cannot be already published, nor can it be under review elsewhere.

The authors take responsibility for the material that has been submitted. IFAC-sponsored conferences will abide by the highest standard of ethical behavior in the review process as explained on the Elsevier webpage (https://www.elsevier.com/authors/ journal-authors/policies-and-ethics), and the authors will abide by the IFAC publication ethics guidelines (https://www.ifac-control.org/events/organizers-guide/PublicationEthicsGuidelines. pdf/view).

Accepted papers that have been presented at an IFAC meeting will be published in the proceedings of the event using the open-access IFAC-PapersOnLine series hosted on ScienceDirect (https://sciencedirect.com/). To this end, the author(s) must grant exclusive publishing rights to IFAC under a Creative Commons license when they submit the final version of the paper.

The copyright belongs to the authors, who have the right to share the paper in the same terms allowed by the end-user license, and retain all patent, trademark and other intellectual property rights (including research data).

POST-SYMPOSIUM PUBLICATIONS

The IPC of INCOM2021 may screen presented papers with the purpose of recommending the authors to consider significantly extended versions in one of the IFAC Journals and other high-ranked journals:

- Annual Reviews in Control
- Engineering Applications of Artificial Intelligence
- International Journal of Computer Integrated Manufacturing
- Computers & Industrial Engineering
- Journal of Industrial and Intelligent Information
- Enterprise Information Systems
- Journal of Intelligent Manufacturing Systems
- International Journal of Production Research
- Production.

VENUE

In Budapest, there are ruins from the times of the Roman Empire as well as from the Middle Ages. Its main characteristics reflect the atmosphere of the end of the 19th century when the millennium of the Hungarian State was celebrated. It boasts a number of museums, theatres, concert halls, a lot of restaurants and other amenities.

Several baths and thermal waters of various medicinal springs are also at the disposal of visitors.



IMPORTANT DATES

Special/Invited Session/Open Tracks proposal CLOSED

Draft paper submission 21st December 2020

Notification of acceptance 28th February 2021

Camera-ready final manuscripts 19th March 2021

Early registration deadline 8th February 2021

Late registration deadline 1st April 2021