NEWSLETTER

IFAC — INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

IFACx 2025

No.1

February 2025

IFAC co-sponsorship "light" for NMOs: IFACx: This service allows IFAC NMOs to give an IFAC label to some domestic technical events organized under their supervision.

IFACx COUNTRY/REGION Events: Each NMO can request the IFACx COUNTRY/REGION label for at most 2 domestic events. These may typically be a domestic Conference + one other event such as a summer school, a Webinar series, etc.

The labeled events are not bound to be held in English. IFAC has no financial liability with respect to these events. The technical and scientific quality is the responsibility of the NMO, without any verification by IFAC. The events should be well aligned with IFAC's mission of promoting automatic control, and respectful of IFAC's code of conduct www.ifac-control.org/about.

Application Document: In a single document, the NMO provides by 1 December of the year before for each event:
- Name of the event, location, dates
- Type of event: Conference, School, etc.
- Website (will be used by IFAC to promote the event)
- Short description (typically 1 or 2 sentences)

Validation by IFAC: All submitted requests shall receive the approval of the Technical Board and Conference Board Chairs. Approval ensures advertisement of the event in the IFAC channels (website, newsletter, social media etc.) and gives the right to use the "IFACx COUNTRY/REGION" logo.

The following events were approved for 2025

IFACx Brazil

1) Simpósio Brasileiro de Automação Inteligente (SBAI 2025), XVII Brazilian Symposium on Intelligent Automation, São João del-Rei, Brazil, 29/07/2025 to 01/08/2025.

2) Simpósio Brasileiro de Sistemas Elétricos (SBSE 2025), XI Brazilian Symposium on Electrical Systems, São João del-Rei, Brazil, 29/07/2025 to 01/08/2025.

sba.org.br/sbai2025
sba.org.br/sbse2025

These two Symposia are biannually organized by the SBA. They are the main scientific events on Intelligent Systems, Automation, and Control (SBAI) and on Electrical Systems (SBSE), including control, automation and optimization, of the Brazilian community and the bigger conferences in their respective areas in Latin America. Usually, SBAI receives 650 submissions and accepts about 450 papers; SBSE receives 430 works and accepts around 300 papers. In both events, papers can be written in Portuguese, English, or Spanish and are subject to a rigorous peer-review process.

IFACx France

1) SAGIP Annual Congress
Location and dates: Mulhouse, 21-23 May, 2025

Preliminary website:
sagip2025.sciencesconf.org

Abstract: The third Annual Congress of SAGIP, IFAC NMO in France, will be held in Mulhouse, May 21-23, 2025. As previous events in the series, it will gather the automation and control scientists and engineers from all research academic and industrial centers in France. The program includes plenary and semi-plenary presentations, dedicated workshops and parallel technical sessions of presentations selected by the SAGIP Editorial Board composed of the chairs of the SAGIP Technical Committees. The event includes presentations about IFAC and IFAC related activities in France.

2) MACS fall seminar
Paris, 14-16 October 2025

The IFAC Conference App is available!

The App is paid for by IFAC and can be used free of charge by IFAC conference organizers and attendees.

How to download:
App Store apple.co/3mpaER7
Google Play bit.ly/3lazFjx
Web version ifac.floq.live

You can also search for 'IFAC' in the Apple App Store or in the Google Play Store.

Log in is shared with the IFAC Affiliates Portal. There is no need for double registration.

The IFAC Journals

Automatica
journals.elsevier.com/automatica

Control Engineering Practice
journals.elsevier.com/control-engineering-practice

Engineering Applications of Artificial Intelligence
journals.elsevier.com/engineering-applications-of-artificial-intelligence

Journal of Process Control
journals.elsevier.com/journal-of-process-control

Annual Reviews in Control
journals.elsevier.com/annual-reviews-in-control

Journal on Mechatronics
journals.elsevier.com/mechatronics

Nonlinear Analysis: Hybrid Systems
journals.elsevier.com/nonlinear-analysis-hybrid-systems

IFAC Journal of Systems & Control
journals.elsevier.com/ifac-journal-of-systems-and-control

IFAC-PapersOnLine
journals.elsevier.com/ifac-papersonline

gdr-macs.fr/node/4864

The seminar will be the second in a series started in 2024 with an event dedicated to Multi-Agent Systems. The 2025 event will take place in Paris during 2 days programmed between October 14th and 16th. The seminar will include: tutorial presentations on the state of the art; presentations of recent results both from the MACS network and for connected research fields; poster sessions by PhD students; a round table on prospectives in the field.

IFAC Germany

1) Annual German AUTOMATION congress
VDI Congress AUTOMATION, Congress Center Baden-Baden, July 1 and 3, 2025

www.vdi-wissensforum.de/automatisierungskongress/

The AUTOMATION is the leading congress in measurement and automation technology and a partner event of the VDI Wissensforum and the VDI/VDE -GMA. With up to six parallel tracks, the congress is the largest networking event in the field of automation, bringing together science and industry in Germany. This congress is a call for paper event with paper selection by a program committee consisting of experts of academia and industry. The topics covered are: Factory Automation, Process automation, Methods and synergies, Automation Technology, Artificial Intelligence & Autonomous Systems, Industrial Communication and Data Science for Automation.

2) Annual scientific workshop
Joint workshop of technical committees "Modeling, identification and simulation in automation" and "Systems theory and control", Anif near Salzburg, Austria, September 2025 (annually)

tu-dresden.de/ing/elektrotechnik/rst/das-institut/gma-fa-2-14

Two technical committees of GMA's automation technology methodology division organize an annual joint workshop with lectures and intensive discussion. Traditionally, this workshop of the German member organization GMA takes place near Salzburg in Austria. The GMA Technical Committee 2.13 is dedicated to questions of modeling, identification and simulation of dynamic systems at the interface to control engineering. The focus is on theoretical aspects and numerical methods as well as concrete applications from industry and research. The GMA Technical Committee 2.14 deals with current developments in control theory and their application in the industrial environment. The

main topics are model predictive control of dynamic systems, nonlinear observers and state estimators as well as control of networked and distributed parametric systems.

IFAC Italy

Summer School SIDRA 2025, Bertinoro, July 7-12, 2025

sidra2025.dei.unibo.it/

The SIDRA PhD School on Automatica is organized annually by the Italian Society of PhD and Researchers in Automatica1 in July in the beautiful location of Bertinoro. It consists of a week of classes (two parallel courses by renown international researchers in the field) held in a friendly and stimulating environment.

IFAC Japan

68th Japan Joint Automatic Control Conference (JJACC), Nagoya, Japan, November 1 (Sat) and 2 (Sun), 2025

jsme.or.jp/conference/rengo68

JJACC has been held annually since 1958 and is organized by the Japan NMO, which is part of the Science Council of Japan. The conference is sponsored by seven societies related to automatic control including SICE (The Society of Instrument and Control Engineers), ISCIE (The Institute of Systems, Control and Information Engineers), and JSME (The Japan Society of Mechanical Engineers).

IFAC Republic of Korea

2025 The 40th ICROS Annual Conference (ICROS 2025)

Jeonbuk National University, Jeonbuk, Korea

June 25~27, 2025

2025.icros.org

ICROS 2025 is the leading domestic annual conference of ICROS (Institute of Control, Robotics and Systems). The conference's main themes are control and robotics, and the language is Korean.

IFAC Mexico

1) 20th Latin American Control Congress (LACC 2025)

Cancún, Mexico.

October 13-17, 2025.

amca.mx/congresos/clca2025/

The 20th Latin American Congress on Automatic Control 2025 (LACC 2025) seeks to unite the Latin American scientific community dedicated to automatic control and related disciplines. In 2025, the LACC will be hosted by the NMO AMCA (Asociación de México de Control

From the IFAC President

Dear IFAC Friends and Colleagues,

IFAC is proud to offer all its conference proceedings in diamond open access in the *IFAC PapersOnLine* yearly volumes. Thanks to a negotiated agreement with our publisher Elsevier, all papers are downloadable for free from the ScienceDirect platform. The agreement has a hosting cost which is fully covered by IFAC. It also includes some limitations, one of which being the number of pages allowed per paper which should be in average less or equal to 6. Additional costs apply for additional pages. Starting from 2021 IFAC decided that, at the exception of limited cases to be agreed on with the Editor in Chief of *IFAC PapersOnLine*, strict 4 to 6 pages limits shall apply to conference papers.

This decision followed many discussions within the IFAC Publications Board. Arguments in favor of maintaining the option to pay for extra pages up to 8, which some authors can afford and that brings additional income to conference organizers, were balanced with the arguments in favor of equality of treatment of all authors and the complexity of transferring the collected fees from conference organizers to the federation.

In the IFAC model, the National Member Organizations are fully responsible for the financial and legal aspects of the conferences hosted in their country/region. IFAC offers services to conference organizers and provides guidelines to IFAC sponsored and co-sponsored events, but conferences are financially independent.

As IFAC President, I fully understand that there might have been some misunderstanding about this change of policy, although the rules are clearly stated in the Conference Organizers Guide. Some exceptions have been made but I endorse the decision and hope that the strict limit of 4-to-6 pages per paper is well understood for all future papers submitted to the IFAC PaperOnLine series.

With best regards,

Dong-Il "Dan" Cho,
IFAC President 2023-2026

Automático) in cooperation with Mexican academic institutions.

2) Escuela de Verano de Control Automático.

Location: Puebla, Mexico.
August 7-8, 2025

amca.mx/escuelas/ev2025/

Description: The AMCA-Summer School is mainly intended for master's and Ph.D. students, researchers, and scholars interested in the theory and practice of automatic control and new and emergent related areas.

IFAC×Romania

25th International Conference on Control Systems and Computer Science (CSCS25)

Faculty of Automatic Control and Computers, Bucharest, Romania

27-30 May 2025

25.cscs-conference.com/

The International Conference on Control Systems and Computer Science (CSCS), which has been organized as a biennial event for the last 50 years by the Romanian Society of Control Engineering and Technical Informatics (SRAIT) and the Faculty of Automatic Control and Computers in Bucharest, reaches its 25th edition in 2025.

The CSCS is the longest series of international technical conferences in Romania gathering, throughout the years, experts and innovators from the convergence of Control Systems and Computer Science fields. The topics are focused on classical, advanced and intelligent control theory, Machine Learning, AI, computational technologies, and their advancements in autonomous robotics, intelligent system design, bioengineering, cyber-physical systems, big data analytics, cloud computing, healthcare, smart manufacturing, IoT, cyber security, smart cities and real-time decision-making.

IFAC×Slovakia

25th International Conference on Process Control, Strbske Pleso, Slovakia, June 3-6, 2025

process-control.sk/

The conference's objective is to bring together theory experts and control systems practitioners to evaluate the new avenues for techniques, design procedures and instruments in process control. This conference has a long tradition of inviting plenary speakers who are at the top of their fields while opening the possibility of submitting papers in 4 main domains, like Linear and Nonlinear Control, Optimization and Computing in Control, Machine Learning and Control, and Sustainable Industrial Production and Applications.

IFAC×Spain

Jornadas de Automática 2025, Cartagena, Spain, 3-5 September 2025

jautomatica.es

Short description: *"Jornadas de Automática"* is the CEA flagship event. It is an annual event with more than 40 years of history. The event brings together a large number of control professors and researchers from all over Spain and other countries. The event presents scientific works but also addresses issues of interest to the industrial community.

Name of the event: CEA Webinars. Online via Zoom and scheduled once a month on Thursdays at 18:00 (GMT +1).

Series of Webinars

ceautomatica.es/blog/2018/02/10/webinari-zate/

Short description: This event represents an opportunity to learn and share the experiences of researchers facing the challenges that arise in the field of automatic control. The presentations are planned to address a wide variety of topics, such as robotics, intelligent control, or control engineering, among others.

IFAC×Sweden

Reglermötet 2025 ("Swedish Control Conference 2025") will be held at Lund University on 11-13 June, 2025. The aim is to create new networks and strengthening knowledge for teachers, doctoral students and TA staff in the field of automatic control – and to be a forum for contacts between industry, universities and colleges. The language of the conference is English.

IFAC Affiliates Statistics

As of the date of Feb. 17, 2025, the IFAC database contains 8258 affiliates. 46% of these (3809) registered to the new IFAC Portal and thereby provide useful data about IFAC volunteers around the globe. Gender is not a mandatory field in the Affiliates profile. In average 63% of the registered affiliates filled the gender information, among them 15% are female. 10 affiliates selected "other". Surprisingly the percentage of affiliates filling the gender information is not uniform among countries. Considering the top 10 countries in terms of number of registered affiliates, the willingness to fill the gender data ranges from 80% for Brazil to 49% for USA. Meanwhile, the percentages of female affiliates also vary significantly from 4% in Japan and 8% in Germany to 26% in Italy and 27% in Netherlands.

As mentioned in earlier issues of the News-Letter, IFAC will soon erase the data concerning affiliates who never connected to the Portal. This was initially planned for January 2025 and is postponed for technical reasons but will apply in the near future.

The IFAC Calendar of Conferences is constantly updated as addditional technical events (Workshops, Symposia, and Conferences) are approved. Please check back often for the current status. The complete version of the IFAC Calendar of Conferences is available online at: www.ifac-control.org/conferences/@@conference_view

Introducing IFAC Associated Member Organizations: Lebanese IFAC Chapter

The Establishment of the Lebanese IFAC Chapter: A New Era for Control Engineering in Lebanon

The formation of the Lebanese IFAC Chapter and its acceptance as an IFAC AMO marks a significant milestone for Lebanon's control engineering community, which has long focused on the socio-economic impact of its work. With the establishment of this Chapter, Lebanon is poised to amplify its contributions to the field of control engineering, particularly in 2025 and beyond.

Lebanon's control engineering community has made significant contributions across several sectors, including industrial systems optimization, renewable energy, and the integration of AI in control systems. Researchers in Lebanon are particularly focused on addressing local and regional challenges. These include advancements in Precision Agriculture (PA), autonomous navigation in unstructured environments, and the development of cost-effective technologies for critical industries like food production. Innovations in optimizing machine operations and applying big data for enhanced decision-making processes are also key areas of focus. These efforts align with global trends and demonstrate Lebanon's commitment to technological advancement in key areas. The Lebanese IFAC Chapter will continue to support these efforts, while enhancing the visibility of Lebanon's research and innovations on the global stage.

Lebanon's active participation in international conferences highlights its increasing prominence in the global control engineering community. In February 2025, Lebanon will host the International Conference on Control, Automation, and Instrumentation (IC2AI), a milestone that will further solidify the country's leadership. This follows the success of hosting the prestigious MELECON conference in 2014, underscoring Lebanon's role as a regional leader in control engineering.

The Lebanese IFAC Chapter serves as a vital platform for fostering collaboration between academia, industry, and international peers. Through knowledge dissemination, research promotion, and international cooperation, the Chapter will strengthen Lebanon's position in the global control engineering landscape. By facilitating the exchange of ideas and innovations, the Lebanese IFAC Chapter ensures Lebanon remains at the forefront of technological advancements in critical sectors, including renewable energy, food industry automation, and autonomous systems.

A key objective of the Lebanese IFAC Chapter is to provide a forum for ongoing collaboration and exchange among researchers, practitioners, and industry leaders. The Chapter will actively promote Lebanese research and technological advancements in international forums, ensuring Lebanon's continued influence and visibility in global control engineering.

The rise of remote work presents a unique opportunity for Lebanese talent to contribute to international projects while alleviating the challenges posed by the ongoing brain drain. Remote work enables Lebanese engineers and researchers to engage in global control engineering initiatives, while still remaining connected to their home country. The Lebanese IFAC Chapter will support this trend by offering platforms for knowledge exchange, collaboration, and participation in international projects. In conclusion, the Lebanese IFAC Chapter represents a valuable opportunity for Lebanon to enhance its global standing in control engineering. By promoting collaboration, fostering innovation, and empowering local talent, the Chapter will ensure Lebanon's continued leadership in technological advancements. As the Lebanese control engineering community grows and strengthens its ties with international partners, Lebanon is positioned to make meaningful contributions, particularly in precision agriculture, autonomous navigation, food production, industrial development, energy production and management, and other vital industries.

Submitted by: Naseem Daher, Chair of the Lebanese IFAC Chapter (IFAC AMO).

IFAC Distinguished Lecturer Report
Geoff Chase
"State of the Art in Digital Twins and ICU Medicine: Models, AI, or Both?"
11 October 2024
George Town, Penang, MY

It was a great pleasure to present the conference opening plenary session talk titled *"State of the Art in Digital Twins and ICU Medicine: Models, AI, or Both?"* at the 8th IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES 2024) on 11 October 2024

as part of the IFAC Distinguished Lecturer Program.

The conference is sponsored by the IEEE Engineering in Medicine and Biology Society (IEEE-EMBS) Malaysia Chapter, along with the IEEE. The focus is biomedical engineering and covered 15 specific track areas in the field for over 140 attendees in George Town, Penang, Malaysia. There were several excellent talks, particularly with some unique discussion around emerging areas of using sensors and devices to help in the clinical management of those with neurodiversity and dementia.

Thanks to the support of the Distinguished Lecturer Program to attend, I was also able to visit Universiti Sains Malaysia, which is one of Malaysia's top universities with a leading engineering and medical school, to give another full seminar to staff and students on *"AI, Big Data, Digital Twins and Avatars for Productivity and Support in Healthcare"*.

Finally, I was able to catch up with several former PhD students who are faculty in Malaysia, after their studies with me some years ago under a special Malaysia-NZ program. While it was a great visit, I will have to say, I still am unable to eat Durian fruit (a local, very contentious delicacy, you either love it, …. Or not).

Visiting with former students who are now faculty

Thus, I would like to take this opportunity to thank IFAC and the Distinguished Lecturer Program for this opportunity.

Submitted by: Geoff Chase (NZ), IFAC Distinguished Lecturer

Editor's Note: IFAC currently has an Associated Member Organization in Malaysia, *Malaysian Society for Automatic Control Engineers* (MACE). More information about MACE and control activities in MY can be found on their website: https://www.maceifac.org/

Who's Who in IFAC: Distinguished Lecturer Program Lecturers
continuation of a series

Fei-Yue Wang

Fei-Yue Wang (S'87–M'89–SM'94–F'03) received his Ph.D. degree in computer and systems engineering from the Rensselaer Polytechnic Institute, Troy, NY, USA, in 1990. He joined The University of Arizona in 1990 and became a Professor and the Director of the Robotics and Automation Laboratory and the Program in Advanced Research for Complex Systems. In 1999, he founded the Intelligent Control and Systems Engineering Center at the Institute of Automation, Chinese Academy of Sciences (CAS), Beijing, China, under the support of the Outstanding Chinese Talents Program from the State Planning Council, and in 2002, was appointed as the Director of the Key Laboratory of Complex Systems and Intelligence Science, CAS, and Vice President of Institute of Automation, CAS in 2006. He found CAS Center for Social Computing and Parallel Management in 2008 and became the State Specially Appointed Expert and the Founding Director of the State Key Laboratory for Management and Control of Complex Systems in 2011.

His current research focuses on methods and applications for parallel intelligence, social computing, and knowledge automation. He is

The IFAC Council and Related Meetings 2025 are scheduled to take place from 16-19 July 2025 in Paris, FR!

The meetings are being held in conjunction with Mechatronics and Robotics Symposia.
ifac2025-msrob.com/

Some accomodation information is available at: ifac2025-msrob.com/accomodation/

Please note that at this time there are expected updates to the entry requirements for France and other European Union countries, so please check often to make sure that your travel documentation and authorization is in order! travel-europe.europa.eu/etias_en

Information such as the schedule will be updated here:

ifac-control.org/news

cloud.ifac-control.org/apps/forms/s/SQswJajPjCSLNdbnzPck5TEo

a Fellow of IEEE, INCOSE, IFAC, ASME, and AAAS. In 2007, he received the National Prize in Natural Sciences of China, numerous best papers awards from IEEE Transactions, and became an Outstanding Scientist of ACM for his work in intelligent control and social computing. He was honored with the IEEE Intelligent Transportation Systems Outstanding Application and Research Awards in the years 2009, 2011, and 2015. In 2014, he received the IEEE SMC Norbert Wiener Award, and in 2024, he was awarded both the 2025 IEEE Transportation Technologies Award and the IEEE CRFID Emily Sopensky Meritorious Service Award. Additionally, in 2021, he was selected as an IFAC Pavel J. Nowacki Distinguished Lecturer.

Since 1997, Wang has been serving as the General or Program Chair of over 30 IEEE, IN-FORMS, IFAC, ACM, and ASME conferences. He was the President of the IEEE ITS Society from 2005 to 2007, the IEEE Council of RFID from 2019 to 2021, the Chinese Association for Science and Technology, USA, in 2005, the American Zhu Kezhen Education Foundation from 2007 to 2008, the Vice President of the ACM China Council from 2010 to 2011, the Vice President and the Secretary General of the Chinese Association of Automation from 2008 to 2018, the Vice President of IEEE Systems, Man, and Cybernetics Society from 2019 to 2021.

Wang was the Founding Editor-in-Chief (EiC) of the *International Journal of Intelligent Control and Systems* from 1995 to 2000, *IEEE ITS Magazine* from 2006 to 2007, *IEEE/CAA JOURNAL OF AUTOMATICA SINICA* from 2014-2017, China's *Journal of Command and Control* from 2015-2021, and China's *Journal of Intelligent Science and Technology* from 2019 to 2021. He was the EiC of the *IEEE Intelligent Systems* from 2009 to 2012, *IEEE TRANSACTIONS on Intelligent Transportation Systems* from 2009 to 2015, *IEEE TRANSAC-TIONS ON COMPUTATIONAL Social Systems* from 2017 to 2020. Currently, he is the President of CAA's Supervision Council, and the EiC of *IEEE Trans. on Intelligent Vehicles*.

Fei-Yue Wang's lecture topics are as follows:

1. "*AI and The Third Axial Age: Systems Intelligence for Sustainability Industry*".

2. "*Industry 5.0 for Parallel Humans: From Neo-Platonism's Shadows to Karl Popper's Three Worlds*".

3. "*Parallel Control of Parallel Intelligence: From MPC to Intelligent Control for Knowledge Automation*". Graduate School on Advanced Sliding Mode Control*".

**The IFAC Story E-book
is available!
ISBN 978-3-902823-73-1**

ifac-control.org/about/the-ifac-story

Graduate School on Advanced Sliding Mode Control
Jodhpur, IN
5-10 December 2024

The Graduate School on Advanced Sliding Mode Control (ASMC), supported by the IFAC Activity Fund, was held at the beautiful campus of the Indian Institute of Technology (IIT) Jodhpur, Jodhpur, India, from 5-10 December 2024. This school received financial support from the IFAC Activity Fund through its project call in April 2024. This project was led by Prof. Bijnan Bandyopadhyay with endorsement by the Automatic Control and Dynamic Optimization Society (ACDOS), which is the Indian National Member Organization of the IFAC.

Speakers and Participants of the Graduate School on ASMC

The school was organized by Prof. Bijnan Bandyopadhyay (IIT Jodhpur), Prof. Deepakkumar M. Fulwani (IIT Jodhpur), Dr. Jayesh Barve (AC-DOS) and Dr. Abhisek K. Behera (IIT Roorkee). A total of 41 participants attended this school, which included students, faculty members, and research scientists from all over India. Of this, 18 (around 44%) were female participants, including 14 young women (below 30 years of age).

We had the great pleasure of having Prof. Sarah K. Spurgeon from the University College London, UK, and Prof. Antonella Ferrara from the University of Pavia, Italy, in person as expert lecturers for this event. Other speakers include Prof. Bijnan Bandyopadhyay, Prof. Deepakkumar M. Fulwani, Dr. Shyam Kamal (India), Dr. Sohom Chakrabarty (India), and Dr. Abhisek K. Behera. Apart from that, many distinguished speakers, viz., Prof. Leonid Fridman (Mexico), Prof. Jaime A. Moreno (Mexico), Prof. Andrzej Bartoszewicz (Poland), Dr. Paweł Latosinski (Poland), Prof. S. Janardhanan (India), and Prof. Akhilanand P. Tiwari (India) also delivered the online talks in this school.

The school began with tutorial sessions on mathematical background and fundamentals on sliding mode control on the first day, followed by technical talks in the next five days. There were five talks on each day with three in the morning session followed by two talks in the afternoon session after the lunch break. Most of the talks were on the advanced topics of sliding mode control, such as high-order sliding mode control, constrained sliding mode control, sliding mode observer, discrete-time sliding mode control, event-triggered sliding mode control, etc., including a few introducto-

ry sessions. Many topics on the applications of sliding mode control theory were also a part of this school, e.g., robotics, microgrids, nuclear reactors, and power converters. The participants were allowed to interact with the speaker at the end of each talk and informally during the break. The last session of the school ended with a valedictory function and certificate distribution to all participants with photo sessions.

The organizing committee is very thankful to Prof. Avinash K. Agarwal, Director, IIT Jodhpur, Prof. Bharat Singh Rajpurohit, Head, Department of Electrical Engineering, IIT Jodhpur and the administration of IIT Jodhpur, for providing us with the necessary support to run the school. Many volunteers (Ankita, Dev Vrat, Mohit, Rahul) were actively involved in various activities from the very beginning of this school at Jodhpur. We also succeeded in arranging accommodation for all our participants and speakers on the IIT Jodhpur campus.

Many thanks to the IFAC Activity Fund Committee Chair for approving the funds used for the travel costs of all the speakers, providing free accommodation for 14 young women participants during the whole event duration, and also reimbursing the return travel fare from their workplace, etc. We also acknowledge the support received from Electronic Devices Worldwide Pvt. Ltd, Mumbai. Finally, we are truly confident that all attendees have enjoyed their stay at the six-day long event on the campus and also visited the historic city of Jodhpur, which has a rich cultural heritage.

Submitted by: Bijnan Bandyopadhyay, Chair of the Graduate School on ASMC

Invitation to Upcoming IFAC Technical Lecture given by Dr. Dimitri Peaucelle (FR, LAAS)

Date: 10 April 2025
Location: TU Wien in Vienna, Austria (Zoom link for remote participation will be posted on the IFAC website as the date gets closer)

Title: *Descriptor System Modeling for Robustness in Control*

Abstract: The robust control framework considers systems regulated close to an equilibrium point or a trajectory. Under these assumptions the systems are linear but dependent of many intricate features such as uncertainties, neglected dynamics, time-dependent parameters, isolated non-linearities, time-delays… Robustness is achieved when some performance can be assessed even for the worst configuration of these features. Mathematically, it boils down to proving that some complicated non-linear function of many indeterminates is negative when these indeterminates are constrained in sets that are themselves described by non-linear equations. In this talk we show that for many cases the Descriptor System Modeling that

combines Algebraic and Differential Equations is highly useful to simplify (linearize) the problems. Combined to the S-variable approach which cleverly exploits Finisler's lemma, it provides easy to code Semi-Definite Programming relaxations. These numerically tractable relaxations are conservative, yet Descriptor-based liftings of the model allows to build hierarchies of relaxations with decreasing conservatism. In the talk we will give an insight on these theoretical results illustrated on some simple examples.

Lecturer Bio: Dimitri Peaucelle (FR) was born in Leningrad, USSR, in 1974. He obtained his Ph.D. degree in 2000 from Toulouse University (FR). Since 2001 he is a full-time researcher at the French National Center for Scientific Research (CNRS), working at LAAS in Toulouse.

His research interests are in robust control, and extend to convex optimization over linear matrix inequalities (LMIs), positive systems, time-delay systems, time-varying systems, static output-feedback design and direct adaptive control. He is also involved in computer-aided control design activities and is the main contributor to the Randomized and Robust Multi-Objective Control (R-RoMulOC) Toolbox. He has been involved in several industrial projects with aerospace partners for launcher, aircraft, and satellite robust control. He is the co-author (with Yoshio Ebihara and Denis Arzelier) of the monograph *"S-Variable Approach to LMI-Based Robust Control"*. Since 2021 he is Head of the French national network on Modeling, Analysis and Control of Dynamical Systems (GdR MACS).

D. Peaucelle has been a member of the IFAC TC 2.5 on Robust Control since 2009. He participated in the organisation of IFAC-ROCOND in 2006 and served as General Chair for the 20th IFAC World Congress held in Toulouse, FR in 2017. He was Program Chair for the European Control Conference held (online from Saint Petersburg) in May 2020 and for the IFAC-ROCOND symposium held (online from Kyoto) in September 2022.

In IFAC he also served as Deputy Editor-in-Chief for *IFAC-PapersOnLine* from 2015 till 2020. Starting from July 2020 he is IFAC Vice-President for Operations, Secretary and Editor-in-Chief of the IFAC *Newsletter.*

IFAC Affiliates portal

The portal gives access to IFAC services:

- Share with and consult information about other Affiliates
- Receive the IFAC Newsletter
- Receive alerts about the IFAC Conferences in
your field/s of interest
- Get reduced registration fees at IFAC Conferences. Conferences are typically 10€ (or the local equivalent) less expensive for IFAC Affiliates, than for non-affiliates
- Participate in IFAC Technical Activities
- Organize IFAC Conferences
- Participate in IFAC Journals
- Be nominated to IFAC Awards
- Apply to the IFAC Activity fund
- More to come in the future!

Any individual interested in Control Engineering should sign up at affiliates.ifac-control.org!

How do I connect?

- If you are not yet connected to IFAC and wish to join for free, select 'Sign-Up' and then 'Register for an IFAC Account'. Meanwhile you may also browse the Web public data.

- If you receive this Newsletter in your mailbox, this means you are already connected to IFAC and listed in our database. To create your access to the portal for the first time, please select 'Sign-Up' and then 'Register for an IFAC Account' as above. In order to link your access to your existing data and save some time, please complete the form with the exact email address at which you receive the Newsletter.

Detailed instructions are available at: ifac-control.org/about/affiliate-registration

Free and Exclusive

Signing in as an IFAC Affiliate is free and you keep of the control of the shared data which shall not be used for commercial or non IFAC purpose.

Signing in as IFAC Affiliate is mandatory to benefit from IFAC services and to participate in IFAC activities. Affiliates who do not connect to the portal within a year will have their data removed from the database. They will still have the possibility to become an affiliate again, but it may temporarily prevent access to services.

For any additional information, or if you require any assistance, please contact secretariat@ifac-control.org

7th IFAC Workshop on Mining, Minerals and Metal Processing (MMM 2024)
4-6 September 2024
Brisbane, AU

The 7th IFAC Workshop on Mining, Minerals and Metal Processing (MMM 2024) took place in Brisbane, Australia, from 4-6 September 2024. It is the first time that an IFAC MMM event was held in Australia, after the previous workshop was held in Nancy, France in 2021.

The NOC consisted of Mohsen Yahyaei (Chair), Jie Bao, Chris Aldrich, Ross McAree, Neville Plint (industry), Damian Vassallo (industry) and Lidia Auret (Editor), with IPC Chair Morten Hovd and IPC Vice Chair Chunhua Yang.

This workshop saw the gathering of experts in automation and control in mining and metallurgy from industry and academia. This year there was a strong focus on the growing role of artificial intelligence in mining, mineral and metal processing, as well as the status of advanced control systems in mining and mineral processing plants. The workshop was well-attended by the local mining industry in particular, as it was held back-to-back with a forum on mining innovation.

MMM 2024 attracted contributions from a number of countries, with strong representation from especially Australia, China, Austria, South Africa, and Italy. In this single-track event, 22 regular papers were presented, interspersed with keynote and plenary lectures, as well as an industry panel discussion. In addition to the technical sessions, the venue of the workshop in Brisbane's CBD with its attractive amenities and easy access to the Gold Coast and other popular tourist destinations was well-received.

A Young Author Award was part of the workshop. Seven young authors were nominated and Vedant Bhandari from the University of Queensland (AU) was the winner in a tight contest.

This successful event has led to greater insight in the latest trends and developments in automation in the mining and metallurgical process industries and stronger networking by the international MMM community.

Submitted by: Chris Aldrich (AU) on behalf of the NOC Chair.

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ifac-control.org/publications/cartoons

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Calendar of IFAC Conferences

Title	2025	Place	Further Information
12th IFAC Symposium on Intelligent Autonomous Vehicles IAV 2025	May 08 – 10	Phoenix, AZ USA	events.engineering.asu.edu/iav-2025/
1st IFAC Workshop on Engineering Diabetes Technology EDT 2025	May 08 – 09	Valencia Spain	conferences.ifac-control.org/edt2025/ edt25@upv.es
10th IFAC Conference on Networked Systems NECSYS 2025	June 02 – 06	Hong Kong Hong Kong (CN)	necsys25.org/
14th IFAC Symposium on Dynamics and Control of Process Systems, including Biosystems DYCOPS 2025	June 16 – 19	Bratislava Slovakia	www.dycops2025.org/ miroslav.fikar@stuba.sk
11th IFAC Symposium on Advances in Automotive Control AAC 2025	June 16 – 18	Eindhoven Netherlands	aac2025.tue.nl/
14th IFAC Symposium Advances in Control Education ACE 2025	June 17 – 21	Budapest Hungary	conf.uni-obuda.hu/ifac_ace_2025/ ifacace2025@uni-obuda.hu
5th IFAC Workshop on Control of Systems Governed by Partial Differential Equations CPDE 2025	June 18 – 20	Beijing China	cpde2025.bjut.edu.cn/index.html#/home jyzhan@bjut.edu.cn
IFAC Workshop on Smart Energy Systems for efficient and sustainable smart grids and smart cities SENSYS 2025	June 18 – 20	Bari Italy	conferences.ifac-control.org/sensys2025/
EUCA/IFAC Conference on European Control Conference (in cooperation with IFAC) ECC 2025	June 24 – 27	Thessaloniki Greece	ecc25.euca-ecc.org/ ecc2025@symvoli.gr
2nd IFAC Workshop on Control of Complex Systems COSY 2025	June/July 30 – 02	Gif-sur-Yvette France	sssc-tds-cosy-2025.sciencesconf.org/ sssc-tds-cosy-2025@sciencesconf.org
9th IFAC Symposium on System Structure and Control SSSC 2025	June/July 30 – 02	Gif-sur-Yvette France	sssc-tds-cosy-2025.sciencesconf.org/ sssc-tds-cosy-2025@sciencesconf.org
19th IFAC Workshop on Time Delay Systems TDS 2025	June/July 30 – 02	Gif-sur-Yvette France	sssc-tds-cosy-2025.sciencesconf.org/ sssc-tds-cosy-2025@sciencesconf.org
11th IFAC Conference on Manufacturing Modelling, Management and Control MIM 2025	June/July 30 – 03	Trondheim Norway	conferences.ifac-control.org/mim2025/ mim2025@mtp.ntnu.no
9th International Conference on Control, Automation and Diagnosis ICCAD 2025	July 01 – 03	Barcelona Spain	iccad-conf.com/ contact@iccad-conf.com
11th IFAC Symposium on Robust Control Design ROCOND 2025	July 02 – 04	Porto Portugal	conferences.ifac-control.org/rocond2025/ rocond2025@ifac-mail.org
6th IFAC Workshop on Linear Parameter Varying Systems LPVS 2025	July 02 – 04	Porto Portugal	conferences.ifac-control.org/lpvs2025/
15th IFAC Workshop on Adaptive and Learning Control Systems ALCOS 2025	July 02 – 04	Mexico City Mexico	alcos2025.itam.mx alcos2025@itam.mx
AACC, IFAC, et al. Conference on American Control Conference (in cooperation with IFAC) ACC 2025	July 08 – 11	Denver, CO USA	acc2025.a2c2.org/ paulson.82@osu.edu
5th IFAC Workshop on Thermodynamics Foundations of Mathematical Systems Theory TFMST 2025	July 13 – 16	Hangzhou China	tfmst2025.net/#/ gaochou@zju.edu.cn

Calendar of IFAC Conferences

Conference	Date	Location	Contact
14th IFAC Symposium on Robotics ROBOTICS 2025	July 15 – 18	Paris France	ifac2025-msrob.com
10th IFAC Symposium on Mechatronic Systems MECHATRONICS 2025	July 15 – 18	Paris France	ifac2025-msrob.com
11th IEEE, IFAC et al International Conference on Control, Decision and Information Technologies CoDIT 2025	July 15 – 18	Split Croatia	codit2025.org/
13th IFAC Symposium on Nonlinear Control Systems NOLCOS 2025	July 23 – 25	Reykjavik Iceland	conferences.ifac-control.org/nolcos2025/
23rd IFAC Symposium on Automatic Control in Aerospace ACA 2025	August 02 – 06	Harbin China	
17th IFAC Symposium on Large Scale Complex Systems: Theory and Applications LSS 2025	August 12 – 14	Dublin Ireland	
16th IFAC Conference on Control Applications in Marine Systems, Robotics and Vehicles CAMS 2025	August 25 – 28	Wuhan China	conferences.ifac-control.org/cams2025/
8th IFAC Conference on Sensing, Control and Automation Technologies for Agriculture AGRICONTROL 2025	August 27 – 29	Davis, CA USA	
15th IFAC Symposium on Intelligent Manufacturing Systems IMS 2025	September 11 – 12	Koszalin Poland	ims2025.pl/
7th IFAC Symposium on Telematics Applications TA 2025	September 15 – 18	Padova Italy	j3c.org/ info@j3c.org
1st IFAC Workshop on Engineering and Architectures of Automation Systems EAAS 2025	September 15 – 18	Padova Italy	j3c.org/ info@j3c.org
7th IFAC Conference on Intelligent Control and Automation Sciences ICONS 2025	September 15 – 18	Padova Italy	j3c.org/ info@j3c.org
66th International Conference of Scandinavian Simulation Society SIMS 2025	September 23 – 24	Stavanger Norway	nfea.no/arrangementer/sims-2025/ damiano.rotondo@uis.no
5th AACC Conference on Modeling, Estimation and Control MECC 2025	October 5 – 8	Pittsburgh, PA USA	mecc2025.a2c2.org/
Optimization and Automation in Mining, Minerals and Metal Processing MMM 2025	October 5 – 8	Lima Peru	conferences.ifac-control.org/mmm2025/ mmm2025@pucp.edu.pe
16th INSTICC et al. International Workshop on Enterprise Integration, Interoperability and Networking EI2N 2025	October 23 – 24	Marbella Spain	in4pl.scitevents.org/EI2N.aspx
6th INSTICC et al International Conference on Innovative Intelligent Industrial Production and Logistics IN4PL 2025	October 23 – 24	Marbella Spain	in4pl.scitevents.org/ in4pl.secretariat@insticc.org
16th IFAC Symposium on Analysis, Design and Evaluation of Human -Machine Systems HMS 2025	November 3 – 6	Beijing China	conferences.ifac-control.org/hms2025/ yinzhong@usst.edu.cn
3rd IFAC Workshop on Control Methods for Water Resource Systems CMWRS 2025	November 6 – 7	Douai France	
1st IFAC Workshop on Blockchain Intelligence and Knowledge Automation BIKA 2025	November 8 – 9	Macao China	