



INTERNATIONAL FEDERATION
OF AUTOMATIC CONTROL

NEWSLETTER

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IFAC Diversity & Inclusion Committee: Update From the Chair

The Diversity and Inclusion Committee is delighted to announce that we will host a number of events in Busan during the IFAC World Congress as part of the D&I, Activity Fund and Education Forum. These events will take place on Thursday, 27 August 2026. Details will be available on the IFAC 2026 WC website closer to the date.

1. There will be a Diversity and Inclusion Panel session and we invite you to attend. Details are as follows:

Stronger Together: Collaboration, Inclusion, and the Power of Shared Stories

Focus: How partnerships and storytelling fuel meaningful participation and lasting impact in Control Research and Education in IFAC.

This year's Diversity and Inclusion Panel Session focuses on the transformative power of collaboration, outreach, and shared storytelling. By broadening participation and amplifying diverse voices, we create stronger networks, deeper engagement, and more inclusive communities. Together, we move beyond conversation into collective action.

Expanding Access. Deepening Engagement. Sharing Impact.

2. In addition, we are delighted to host a Diversity and Inclusion Luncheon, and all are warmly invited to attend. This informal gathering offers a wonderful opportunity to meet, reconnect, and engage with members of our IFAC community. Building on the positive experience of the 2023 World Congress, we look forward to coming together again for meaningful conversations and fruitful discussions in a collegial and welcoming setting.

3. We would like to bring your attention to the IFAC Foundation page where details of the Developing Countries Young Author's Support Program and The IFAC Foundation Diversity and Inclusion Award. If you are interested in applying for either opportunity, please submit your application at your earliest convenience, taking careful note of the respective closing dates and application requirements.

The winner of the IFAC Foundation Diversity and Inclusion Award will be formally presented with their award and will have the opportunity

to give a semi-plenary talk during the week's events.

The Diversity and Inclusion Committee extends a heartfelt welcome to all participants and looks forward to engaging with our community in this vibrant and welcoming setting.

Submitted by: Mary Doyle-Kent (IE), 2023-2026 D&I Committee Chair/ex-officio IFAC Council member

IFAC World Congress 2026 Update

The 23rd IFAC World Congress will take place in approximately four months (23-28 August 2026, in Busan, KR) and significant progress has been made, including the development of an engaging and dynamic program for the global control community. The preparation of the congress is progressing well. We encourage you to visit: ifac2026.org.



Congress Program

We are pleased to share that the Congress has received more than four thousand submissions across a wide range of topics. The IPC is currently reviewing them to develop the technical program. Participants can expect cutting-edge discussions reflecting the evolving landscape of control engineering. The program will also feature:

-Plenary and semi-plenary speakers: Alessandro Astolfi, Ken Goldberg, Lei Guo, Maurice Heemels, Jun Ho Oh, Laura Albert, Alessandro Chiuso, Ulrike Krewer, Sonia Martinez, Ying Tan, Lihua Xie, and the recipients of the Kwon Award and D&I Award.

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April 2026

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[Conference report from IFACx \(IT\)](#)

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[Upcoming IFAC Conferences](#)

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

- Pre-congress Workshop: We will soon announce around 25 pre-congress workshops.
- Tutorial Sessions: The main congress includes 9 tutorial sessions regarding the state-of-the-art technology.
- Back-to-Basics Tutorial: Four experts in their fields (Miroslav Krstic, Angelia Nedich, Andrew Teel, and Frank Chongwoo Park) will deliver two-hour tutorials for those who want to get an overview of those fields quickly.
- Forums: Seven forums organized by IFAC committees and TFs, five by industry, and two by academic groups will be held. For example, the Technical Board will present IFAC's key transformations in technical areas over the past 20 years. In another forum, Anuradha Anaswamy, Robert Bitmead, Magnus Egerstedt, Pramod Khargonekar, Maxim Raginsky, Victor Solo, Benjamin Van Roy, and Bo Wahlberg will discuss *"The Tension between Control and AI."*

Special Program

IFAC 2026 will offer a variety of special programs designed to enrich participants' congress experience:

- "inControl" podcast live recording: Featuring Mathukumalli Vidyasagar, Hassan Khalil, and Stephen Boyd, hosted by Alberto Padoan.
- Learn how to read and write Korean characters in 50 minutes: Participants will be able to read Korean characters, even if they do not understand their meanings.
- MathWorks sessions: Four sessions will be offered, including "Engineering education in the presence of generative AI."
- *Girls in Control*: Open to middle school students, this program offers an opportunity to interact with LeRobot SO101 and learn the concept of feedback control.
- IFAC Control Orchestra: Yoonhak Baek, a renowned conductor with a background in electrical engineering will lead the orchestra, featuring songs including *Golden* from K-pop Demon Hunters.
- Drone light show: Don't miss the control-themed symbols lighting up the night sky after the welcome reception.
- Public lecture: A lecture open to the general public to introduce the world of automatic control.

Call for Participation

- PhD Forum: It offers an excellent opportunity for recent PhD graduates and students nearing the completion of their PhD thesis to present their research to a broad audience from both

To register as an IFAC affiliate or to update your information please log in to the IFAC Portal.
affiliates.ifac-control.org/

academia and industry. Participants can establish valuable contacts to support their future careers, while industry and academic representatives gain insights into state-of-the-art research developments. Submissions due by 10 May.

- Benchmark problems: Already announced two benchmark problems: (1) Thermal Management Strategy Design for Electric Vehicles under Connectivity and (2) Process Control Research of Outdoor Microalgae Raceway Reactors. Submissions due by 1 July.

- Competitions: Three competitions will be held: (1) RoboRacer Grand Prix (registration due: 30 June), (2) MathWorks Minidrone Competition (due: 25 May), and (3) IFAC Wearable Robot Challenge (due: 30 April). There are online orientations and tutorial sessions for participation so that anyone who is interested can participate.

Visit the homepage submission menu for more details for the above opportunities.

Registration

Early-bird registration for the Congress is now open. Discounted rates available until 31 May. Please also note that the Final Paper Submission deadline is 15 May, and authors are encouraged to complete their submissions ahead of the deadline.

Travel Information

Busan—the maritime capital of Korea and the country's second-largest city—is easily accessible via direct domestic and international flights, as well as a 2.5-hour high-speed train from Seoul.

Beyond the congress, participants can enjoy Busan's coastal scenery and vibrant port-city culture, including local markets, seafood cuisine, and cultural attractions—ideal for exploring before or after sessions. Further visitor information and optional activities will be shared as updates become available.

Tourist information is available on the official website: (ifac2026.org/fairContents.do?FAIR-MENU_IDX=21678&hl=ENG)
Official hotels with discounted rates are available here: (ifac2026.org/fairContents.do?FAIR-MENU_IDX=23385&hl=ENG)

Submitted by the IFAC 2026 team

All material proposed for publication in the IFAC Newsletter should be sent to NEWSLETTER@IFAC-CONTROL.ORG.

Emails to this email address are seen by Dimitri Peaucelle (Newsletter EiC) and Elske Haberl (IFAC Secretariat).

The latest edition of the IFAC Newsletter is available on the IFAC homepage, as well as an online archive dating back to the early 2000s.

From the IFAC President

Dear IFAC Friends & Colleagues,

This edition focuses on two developments that will strengthen IFAC activities in the coming triennium: the full implementation of the IFAC Distinguished Lecturer Program and a revised timeline for Technical Committee (TC) membership.

First, I would like to highlight the IFAC Distinguished Lecturer Program. Although established in 2020, its implementation was delayed due to COVID-19. Since 2023, the program has been fully operational.

Sixteen Distinguished Lecturers have been appointed for this triennium. Eight of them were originally selected in 2020 and reappointed in 2023 due to COVID-19. Lectures have been delivered globally since then. Those who have delivered at least one lecture include: Lucy Pao, Mustafa Khammash, Hyungbo Shim, Na Li, J. Geoffrey Chase, Bruno Siciliano, Alexandre Dolgui, Lei Guo, Hideaki Ishii, and Larry Stapleton.

Only lecturers who have delivered talks will receive IFAC Distinguished Lecturer certificates at the Closing Ceremony of the 2026 IFAC World Congress in Busan.

A program only creates value when it is used. I encourage NMOs, TC Chairs, and conference organizers to actively invite Distinguished Lecturers and integrate this program into their activities.

Second, I would like to explain a change in the timeline for TC membership selection. Previously, TC members were nominated after the World Congress, often completing the process around November. This resulted in a significantly delayed start for TC activities in the new triennium.

To address this, incoming TC Chairs for 2026-2029 have already been appointed and are preparing their TC rosters in advance of the Busan World Congress. TC member nominations are expected to be completed by August 1, 2026, enabling TCs to begin activities immediately.

This will only work if action is taken now. Incoming TC Chairs should actively and promptly solicit their TC members. NMOs are expected to respond without delay.

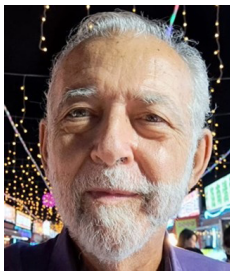
I expect to see this implemented across all TCs by the IFAC World Congress in Busan. Delays at this stage will directly reduce TC activity for the entire triennium and must be avoided.

Sincerely,

Dongil "Dan" Cho
IFAC President, 2023–2026

Transition: Pedro Albertos 1943- 2026

On the morning of March 4th, I received a WhatsApp message from our colleague José Luis Diez, concisely delivering the following news: "I regret to inform you that Pedro Albertos passed away last night, March 3rd." Unfortunately, although not entirely unexpected given the progression of his illness in recent days, it was nonetheless a devastating and heartbreaking blow to all of us who had the good fortune to know him, interact with him, and consider ourselves his friends.



Professor Emeritus Pedro Albertos was born in Valencia (ES) in 1943. His parents, both high school mathematics and natural science teachers, were instrumental in fostering his passion for science and mathematics. He completed his primary and secondary education in Valencia, where he also earned a degree in Agricultural Technical Engineering in 1963—the only degree available in the city at that time. He later received his degree in Industrial Engineering from the Higher Technical School of Industrial Engineers (ETSII) at the Polytechnic University of Madrid in 1968. In 1973, he earned his PhD in Industrial Engineering from the same institution with the highest honors, and was appointed Tenured Professor at ETSII Madrid that same year. In 1975, he was appointed Full Professor of Automatic Control at the ETSII in Bilbao. Two years later, he joined the Polytechnic University of Valencia (UPV), the institution where he has since conducted his lifelong teaching and research activities. His multidisciplinary background is further complemented by a degree in Computer Science.

His long-standing involvement with IFAC began in September 1974 in Manchester at the IFAC Symposium on Multivariable Technological Systems. This pivotal meeting laid the foundation for a lifelong friendship and professional collaboration with Peter Kokotovic, then at the University of Illinois. This relationship culminated in a sabbatical year at Urbana-Champaign in 1987, a world-leading center for control theory. In 1977, he served on the NOC for the IFAC Symposium Trends in Automatic Control Education that preceded the ACE series, a commitment that necessitated monthly travel between Bilbao and Barcelona. Later, during the 1984 Budapest IFAC World Congress, he identified an opportunity to revitalize the Technical Committee on Components by organizing the inaugural Low Cost Automation (LCA) IFAC

Symposium in Valencia (1986). This marked the beginning of his executive ascent in IFAC, leading to his appointment as Chair of the Technical Committee and organizer of subsequent symposia in Milan (1989), Vienna (1992), and Buenos Aires (1995).

Spain's successful bid to host the 15th IFAC World Congress in 2002 began to take shape in July 1991 during the IFAC/IMACS/IFIP Symposium on Computer Aided Design in Control Systems in Swansea, Wales. While his counterparts were established members of the IFAC Council, the Spanish bid led by Albertos was initially perceived as a long shot. However, his leadership within the Comité Español de Automática (CEA) and the insights gained during his stay at Newcastle University (Australia) with Brian Anderson and Graham Goodwin, organizers of the upcoming 1993 IFAC World Congress in Sydney, were decisive. Ultimately, the Council awarded the Congress to Barcelona, with Gabriel Ferraté as NOC Chair and Juan de la Puente and Luis Basanez as IPC co-chairs and Pedro Albertos as IFAC President 1999-2002.

Professor Albertos received Honorary Doctorates from the Polytechnic University of Bucharest and the University of Oulu. He served as President of IFAC (1999–2002) where he is Fellow and Advisor and President of the Spanish Committee of Automatic Control (CEA) for over six years. In 2002, he received the National Automation Award from CEA in recognition of his effective and brilliant leadership of the Association. Among his many distinctions, he held the Commander's Cross of the Order of Alfonso X the Wise and the Computer Science Award from the Polytechnic University of Valencia. He was the driving force behind and founder of the journal *Revista Iberoamericana de Automática e Informática industrial* (RIAI), of which he has been the Director since its inception.

Pedro Albertos served as the founding Chair of the IFAC Foundation Board from 2005/2006 and guided the Foundation through its formative years with exceptional vision and dedication. His leadership was instrumental in establishing many of the Foundation's early initiatives, including the regional courses and the Young Author Support (YAS) program, which have since become central to the Foundation's mission. *

Pedro's unwavering commitment to advancing control education and fostering international collaboration left an enduring mark on the IFAC community. We remember him with profound gratitude and respect for his outstanding contributions, his generosity of spirit, and his steadfast belief in the Foundation's purpose.

Near Christmas 2018, during a meal at the UPV faculty dining room, he told me a node had been detected. Fortunately, the biopsy indicated it was not malignant, but due to its size, surgery was required. He seemed encouraged and hopeful. Unfortunately, during the operation in January 2019, it was found to be malignant, and in March, he began radiotherapy. During

his final battle with illness Pedro maintained his inexhaustible energy. He continued his frequent travels to China, where he held a distinguished professorship at Northeastern University in Shenyang and received the Chinese Friendship Award and continued a significant level of publications in top-tier journals and leading RIAI, where he was eventually named honorary editor.

His book *Feedback and Control for Everyone*, co-authored with Iven Mareels, received the Harold Chestnut Control Engineering Textbook Award in 2017. This award recognizes authors of textbooks that have contributed most significantly to the education of control engineers. Perhaps few people know that all the illustrations in the text—which are a true delight—are Pedro's personal work.

He also launched a highly impactful MOOC titled *Dynamics and Control*, a basic six-week course that focuses on concepts rather than complex mathematics. One of his closest friends, Alfons Crespo, mentioned that in recent weeks, Pedro expressed concern about whether he could travel to Busan for the IFAC World Congress this August, where he had submitted two papers.

Last December 30th, as I did every year, I wrote to him to wish him a Happy New Year. His reply left me in a state of shock; he literally wrote the following: "Sebastián, I am in a difficult moment as it seems the throat cancer is recurring and I am constantly dizzy. Tomorrow I have a medical appointment and I hope to improve. Take care. A hug, Pedro". At that moment, I became aware that we were inexorably in a countdown. Since then, barely three months have passed, during which I maintained almost weekly telephone contact to inquire about his health. I would call Esther so as not to disturb him directly, and in many cases, halfway through the conversation, he would take the phone and discuss work matters with me, telling me how he maintained hope, fighting against everything to move forward with a commendable spirit and giving us all a life lesson.

Pedro was a man of profound and genuine goodness, in the truest sense of the word. His open spirit, sharp wit, and ability to listen earned him respect worldwide. He maintained an extraordinary balance between complex research and a deep commitment to teaching.

In this final period, following our respective retirements, we used to see each other at least once a year in our national Control Conference during the first week of September. The last time was in 2024 at the XLV edition held in Málaga, where Pedro also delivered a nice plenary lecture titled "*Control Design of Systems with Multiple Time Delays*," a topic he had been working on and obtaining very interesting results in this final stage.

During the Málaga conference, on Thursday, September 5th, I received the following email from Pedro: "Hello Sebastián, tomorrow afternoon we plan to go on an excursion to Nerja/Frigiliana. Are you in?, Pedro"; my immediate

reply was: "Of course Pedro, count on us. Sebastián". So on Friday, once the CEA General Assembly was concluded, we left immediately to pick up Esther and Mari, who were waiting for us at the hotel. It was a luminous day; we ate as soon as we arrived in Nerja on a terrace and from there, we continued uphill toward Frigiliana, a wonderful village located in the Axarquía region. Despite the illness, he maintained an enviable physical state as we walked the steep streets of Frigiliana. I recall him using his "slope sensor"—a typical example of his technical wit—to joke about our climb. The following day, Saturday, Mari and I departed by high-speed train for Madrid, while Pedro and Esther left in their car for Valencia. It was our last encounter in person, and at that moment, nothing made me imagine it would be the last time we would see each other.

Professor, colleague, a friend to his friends, and a good person to all; his contributions always opened a new angle, a new perspective that often helped us see what was not so evident. His visionary ideas, his non-conformity with the conventional, and his desire to go further—traveling that distance that marks the difference between the good and the best—were remarkable; but perhaps, what ultimately marks that difference is human quality. His quality as a professional and as a person is what managed to group around him a team of people who shared the excitement of a common project called CEA in Spain and IFAC at international level. That humble leadership, recognized by all, is what differentiates individuals who, like Pedro, leave a lasting mark. His distance from the comfortable and the easy, and his pursuit of dreams until finally living them, are an example of what it means to live intensely. Now I realize that the friendship we created from the beginning was solid enough to continue as great friends throughout our entire university lives without asking for anything in return. His professional and scientific activity was always marked by his human personality, an intelligent being like few others, vitalistic, a good person, with an almost permanent smile, a good conversationalist, passionate about reading and music, a lover of sports and nature, and capable of enjoying—and making those around him enjoy—every moment of his life; possessing a sometimes incredible ingenuity that was born from limitless nobility. His integrity and ethical sense of life have been an example for all of us who consider ourselves his friends. As the American writer Theodor Seuss said, "Don't cry because it's over, smile because it happened". It is said that one does not truly die as long as their memory endures among friends. If this is so, I am certain that your legacy, Pedro, will endure for many years to come. Rest in peace, master, colleague, and friend.

Submitted by: Sebastián Dormido (ES)

*IFAC Foundation information taken from the IFAC Foundation's website and used with permission from the IFAC Foundation

IFAC Major Awards 2023-2026

first in a series

Giorgio Quazza Medal

The Giorgio Quazza medal recognizes outstanding lifetime contributions of a researcher and/or engineer to conceptual foundations in the field of systems and control. This IFAC award, created in 1979, is a memorial to the late Giorgio Quazza, a leading Italian electrical and control engineer who served IFAC in many capacities in a most distinguished manner. The medal is presented by the President at each IFAC Triennial Congress at the Opening Ceremony. A prize is presented to the recipient together with the medal.

For the 2023 - 2026 triennial period, the Quazza Medal Selection Committee has the following composition: Tamer Basar (Chair), Members: Brian Anderson, Alberto Isidori, Françoise Lamnabhi-Lagarrigue, Lennart Ljung, Stephen Morse, Kristin Y. Pettersen.

Winner: Arthur J. Krener (For fundamental contributions to the analysis, estimation, control, and optimization of nonlinear systems). is a mathematician whose research interests are in developing methods for the control and estimation of nonlinear dynamical systems and stochastic processes.

He was born in Brooklyn, NY, in 1942 and graduated from the College of the Holy Cross in 1964. In 1971 he received the PhD in Mathematics from the University of California, Berkeley and joined the faculty of the University of California, Davis. He retired from UCD in 2006 as a Distinguished Professor of Mathematics and he currently is a Distinguished Research Professor of Applied Mathematics at the Naval Postgraduate School in Monterey, CA. He has held visiting positions at Harvard University, Imperial College, NASA Ames Research Center, the University of California, Berkeley, the University of Paris, the University of Maryland, the University of Padua and North Carolina State University.



During his career A.J. Krener has contributed on many topics among which one can mention: Krener's Theorem on the sets of accessible points; differential geometric tools for the observability and controllability of nonlinear systems; High Order Maximum Principle providing additional necessary conditions for optimality to Pontryagin's Maximum Principle; existence and construction of decoupling and nonin-

teracting control laws for nonlinear systems; complete realization theory for the input-output map of linear acausal systems; theory for reciprocal diffusions; theory of control bifurcations; observation properties of the extended Kalman filter. These theoretical developments have been associated to a suite of MATLAB routines that implement a variety of the latest methods of nonlinear control. More recently A.J. Krener oriented his research to the control of distributed parameter systems and is still active in this field. His research has led to many articles among, which "Nonlinear controllability and observability", by R. Hermann, A. Krener, 1977, that received honorable mention for Best Paper of the Year in the IEEE Transaction on Automatic Control and was later cited by the IEEE Control Systems Society as one of Twenty Five Seminal Papers in Control, published in the twentieth century.

A.J. Krener has held a variety of administrative posts, including Chair of Mathematics, UC Davis, and founding Chair of the SIAM Activity Group on Control and Systems Theory. He has given numerous invited addresses at professional meetings. He has organized several major conferences including the SIAM Conferences on Control and its Applications in 1989 and 2007 in San Francisco and the IFAC Nonlinear Control Symposia (NOLCOS) at Lake Tahoe, CA in 1996 and again in 2016 at Monterey, CA.

A.J. Krener is a Fellow of the American Mathematical Society (AMS), the Society for Industrial and Applied Mathematics (SIAM), the Institute of Electrical and Electronic Engineers (IEEE) and the International Federation for Automatic Control (IFAC). He has won numerous awards including a Guggenheim Fellowship (2002), the SIAM W. T. and Idalia Reid Prize (2004), the IEEE Henrik Bode Lectureship (2006), the IFAC Certificate of Excellent Achievements (2010), the Richard E. Bellman Control Heritage Award from the American Automatic Control Council (2012) and the IEEE Field Award in Control (2016).

He resides with his wife, Jeanne, in Carmel Valley, CA (US) and is still active in research on distributed parameter systems.

Nathaniel B. Nichols Medal

The Nichols Medal, created in 1996, recognizes outstanding contributions of an individual to design methods, software tools and instrumentation, or to significant projects resulting in major applications and advancement of control engineering. The spirit is captured by the name of Nathaniel Nichols, one of the pioneers of control engineering. The medal is awarded by the IFAC Council on the recommendation of a selection committee. A monetary prize is presented at the IFAC World Congress to the recipient together with the medal.

For the 2023 - 2026 triennial period, the Nichols Medal Selection Committee has the following composition: Masayoshi Tomizuka (Chair), Members: Sandra Hirche, Jun-Ichi Imura, Lennart Ljung, Hyoun Jin Kim, Reza Moheimani, Lucy Pao.

Winner: Stephen P. Boyd (*Foundational contributions to the field of control through research, teaching, and leadership that advanced and developed convex optimization as a cornerstone of modern control theory and engineering*) is the Samsung Professor of Engineering, Professor of Electrical Engineering, and a member of the Institute for Computational and Mathematical Engineering. His current research focus is on convex optimization applications in control, signal processing, machine learning, and finance.



Professor Boyd received an AB degree in Mathematics, summa cum laude, from Harvard University in 1980, and a PhD in EECS from U. C. Berkeley in 1985. In 1985 he joined the faculty of Stanford's Electrical Engineering Department. He holds honorary doctorates from Royal Institute of Technology (KTH), Stockholm, and Catholic University of Louvain (UCL).

Professor Boyd is the author of many research articles and four books: *Introduction to Applied Linear Algebra: Vectors, Matrices, and Least-Squares* (with Lieven Vandenbergh, 2018), *Convex Optimization* (with Lieven Vandenbergh, 2004), *Linear Matrix Inequalities in System and Control Theory* (with L. El Ghaoui, E. Feron, and V. Balakrishnan, 1994), and *Linear Controller Design: Limits of Performance* (with Craig Barratt, 1991). His group has produced many open source tools, including CVX (with Michael Grant) and CVXPY (with Steven Diamond), widely used parser-solvers for convex optimization. His group's CVXGEN software is used in many applications, including the SpaceX Falcon 9 and Heavy landing systems.

He is a member of the US National Academy of Engineering (NAE), a foreign member of the Chinese Academy of Engineering (CAE), and a foreign member of the National Academy of Engineering of Korea (NAEK). He has been invited to deliver more than 100 plenary and keynote lectures at major conferences in control, optimization, signal processing, and machine learning. He has developed and taught many courses; his graduate convex optimization course attracts 300 students from 25 departments and has been replicated at many universities worldwide.

Industrial Achievement Award

This is an IFAC award to an individual, or a team of individuals, who has made a significant contribution to industrial applications of control. The award is given in technical fields covered by IFAC.

The selection is based on industrial achievements measured in terms of:

- Inventions in the control area
- Engineering significance of products and projects
- Industrial leadership
- Promotion of control technology in industry
- Impact of patents
- International recognition

For the 2023 - 2026 triennial period, the Industrial Achievement Award Selection Committee has the following composition: Francesco Borrelli (Chair), Members: Greg Stewart, Changliu Liu, Alessandra Parisio, Yeonsik Kang, Erik Weyer, Andrés Marcos.

Winner: Raffaello D'Andrea (*For pioneering, high-impact contributions to distributed robotic and aerial systems*) is a Canadian-Italian-Swiss engineer, artist, and entrepreneur, celebrated for his pioneering contributions to robotics, autonomous systems, and artistic innovation.

Raised in Canada from age nine, D'Andrea graduated valedictorian from Anderson Collegiate in Whitby, Ontario. He earned his Bachelor of Applied Science in Engineering Science from the University of Toronto in 1991 and received the prestigious Wilson Medal as the top graduating student. He then pursued a Ph.D. in Electrical Engineering at the California Institute of Technology, completing it in 1997 under the guidance of John Doyle and Richard Murray.

D'Andrea joined the Cornell University faculty in 1997. There, he helped establish the Systems Engineering program and led the Robot Soccer Team to four RoboCup world championships—a defining achievement in autonomous robotics competitions. In recognition of his early-career contributions, he received the Presidential Early Career Award in 2002.



Taking a sabbatical in 2003, D'Andrea co-founded Kiva Systems (later Amazon Robotics) with Mick Mountz and Peter Wurman. Under his technical leadership in systems architecture, robot design, navigation, coordination, and learning-based control algorithms, the company revolutionized warehouse automation using swarms of mobile robots.

In 2008, D'Andrea was appointed Professor of Dynamic Systems and Control at ETH Zurich, where he founded the Institute for Dynamic Systems and Control. His ETH research is charac-

terized by hands-on, visually compelling robotics platforms—like the Flying Machine Arena, Cubli, CyberRunner, Blind Juggling Machines, and the Distributed Flight Array—all serving to probe the frontiers of autonomous systems.

In 2013, he co-founded ROBO Global, launching the world's first robotics- and AI-focused exchange-traded fund; it was later acquired by VettaFi in 2023. In 2014, together with Markus Waibel and Markus Hehn, he co-founded Verity, a company at the forefront of revolutionizing mobile intelligence. Verity's autonomous indoor drones operate at the edge, capturing high-value operational data that is streamed to its cloud-based platform. There, the data is aggregated—across one site or many—to deliver insights that are doing for warehouse operations what Six Sigma did for manufacturing. One of the few companies to have deployed cloud-edge automation solutions at scale, Verity's systems are in use by global leaders including IKEA, Maersk, and UPS.

His impactful work has earned him numerous honors—including the IEEE Robotics and Automation Award (2016), the Engelberger Robotics Award (2015), induction into the National Academy of Engineering (2020), and the National Inventors Hall of Fame (2020).

D'Andrea is also a celebrated new media artist, exploring the expressive potential of autonomous machines in both gallery spaces and large-scale performances. His creations—such as The Table, The Robotic Chair, and Flight Assembled Architecture—have been exhibited internationally at the Venice Biennale, the National Gallery of Canada, and the FRAC Centre. In parallel, his drone-based artistic works have illuminated major live events for artists including Metallica, Drake, Céline Dion, Justin Bieber, and Cirque du Soleil, merging robotics with choreography, light, and music to create immersive experiences.

Blending engineering precision with creative vision, D'Andrea creates systems that learn, adapt, and inspire. From CyberRunner's physical intelligence to Verity's edge-cloud automation at scale, and from the art gallery to the concert stage, his work challenges assumptions about autonomy and reveals how machines can enrich both industry and imagination.

Manfred Thoma Medal

The Manfred Thoma Medal, created in 2015, recognizes outstanding contributions of a young researcher and/or engineer under the age of 40 to the field of systems and control in its widest sense. It is named after Manfred M. Thoma, a leading contributor to the field of control and to IFAC, and supporter of the careers of many young scientists. The medal is awarded by the IFAC Council on the recommendation of a selection committee. A monetary prize is presented to the recipient together with the medal.

Winner: Yongxin Chen is an Associate Professor in the School of Aerospace Engineering at the Georgia Institute of Technology. He previously served on the faculty at Iowa State University (2017–2018) and was a postdoctoral fellow at the Memorial Sloan Kettering Cancer Center from 2016 to 2017. He received his B.Sc. in Mechanical Engineering from Shanghai Jiao Tong University in 2011 and Ph.D. in Mechanical Engineering from the University of Minnesota in 2016.



Yongxin Chen's research interests lie at the intersection of control theory, machine learning, and robotics. His work focuses on developing algorithms and theoretical frameworks to address real-world challenges in these areas. He has made notable contributions to multiple research areas, including stochastic analysis and control, optimal transport, Markov chain Monte Carlo, and diffusion generative models. Yongxin has been an associate editor for the IFAC journal *Automatica*, as well as of *Systems & Control Letters*.

He is the recipient of several awards, including the George S. Axelby Best Paper Award from the IEEE Transactions on Automatic Control (2017) and the Best Paper Prize from the SIAM Journal on Control and Optimization (2023). He was awarded the NSF Career Award in 2020, the A.V. "Bal" Balakrishnan Award in 2021, and the Donald P. Eckman Award in 2022.

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IFACx Italy: The PhD Winter School on Autonomous Systems 19-23 January 2026 Bari, IT

The PhD Winter School on Autonomous Systems 2026 was held at the Politecnico di Bari, Italy, from January 19 to 23, 2026, and brought together PhD students and early-stage researchers with interests in autonomous and intelligent systems.

The School was organized by the Politecnico di Bari, Department of Electrical and Information Engineering, in collaboration with the Italian Society of Teachers and Researchers in Automatics, the IEEE CSS, RAS, and SMC Italian Chapters, IFAC Italy, and the IEEE RAS Technical Committee on Automation Cluster.

The School took place in person from January 19 to January 22, offering an intensive and well-structured program of lectures, discussion sessions, and networking activities. The scientific program was designed to provide participants with a clear and coherent overview of current research directions in autonomous systems, spanning control systems, robotics, machine learning, distributed and networked systems, and decision making, with strong links between theory and applications.



The lecture series opened with Michele Cucuzella (University of Groningen), who introduced participants to passivity-based control and consensus methods for interconnected systems. On the following day, Nicanor Quijano (Universidad de los Andes) presented game theoretic tools and evolutionary dynamics for autonomous systems, while Jan Jantzen (University of the Aegean) offered a broader perspective on control methods applied to global warming and large-scale systems.

Midweek lectures were delivered by Umberto Montanaro (University of Surrey), who focused

on model reference adaptive control, and by Carlos Ocampo-Martinez (UPC BarcelonaTech), who discussed predictive control approaches for networked microgrids and energy systems. The final lecture day featured contributions from Bruno Siciliano (Università di Napoli Federico II), addressing key challenges in robotics and interaction technologies, Stefania Santini (University of Naples Federico II), who presented control methods for multi agent systems with time delays, and Birgit Vogel-Heuser (Technical University of Munich, DE), who concluded the program with lectures on machine intelligence and industrial automation.

Throughout the week, the Winter School emphasized interaction and community building. Coffee breaks, shared lunches, daily aperitifs, and a dedicated social event on January 21 created an informal and welcoming environment that encouraged discussion and networking among participants and lecturers.

The 2026 edition confirmed the PhD Winter School on Autonomous Systems as a high-quality educational initiative, successfully combining advanced training, scientific exchange, and international networking in a focused academic setting.

Scientific Committee

- Mariagrazia Dotoli, Polytechnic University of Bari
- Raffaele Carli, Polytechnic University of Bari
- Alberto Cavallo, University of Campania Luigi Vanvitelli
- Laura Giarrè, University of Modena and Reggio Emilia
- Federica Pascucci, Roma Tre University

Local Arrangement Committee

- Paolo Scarabaggio, Polytechnic University of Bari
- Nicola Mignoni, Polytechnic University of Bari

The event was funded by the European Union – NextGenerationEU, within the framework of the National Recovery and Resilience Plan (PNRR).

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We encourage electronic distribution of this Newsletter, as well as reprinting in national and local automatic control periodicals.

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 **Federal Ministry
Innovation, Mobility
and Infrastructure
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IFAC Activity Fund Report

Seminar Series & Workshop on Biological Control Systems

The IFAC Activity Fund supported a successful Seminar Series and Workshop on Biological Control Systems. The activity aimed to foster interdisciplinary collaboration and knowledge exchange between control engineers and biologists regarding the modeling, analysis, and control of complex biological systems. The series included lectures from leading experts and a hands-on workshop, attracting a diverse group of participants and initiating new research collaborations in this emerging field.

Project Lead: Christian Cuba Samaniego, Carnegie Mellon University; ccubasam@andrew.cmu.edu

IFAC Sponsor: TC 2.1 Control Design

Activity details

During 2024 and 2025, supported by the IFAC Activity Fund grant, we organized monthly online seminars and an annual online workshop at the intersection of Control Theory and Biological Systems. We coordinated the logistics to identify and invite early-career researchers from both theoretical and experimental backgrounds. Each seminar was promoted through our social media channels and Slack community, and recordings of the talks were uploaded to our YouTube channel. We also fostered engagement within the Slack community by hosting discussions on recent papers related to biocontrol. For the annual workshop, we managed all organizational aspects, including defining the program structure, inviting and selecting speakers, and promoting the event. During the workshop, we also organized an online poster session to create an interactive space for members of the community to connect and discuss their work.

Accomplishments

The IFAC Activity Fund support played an important role in enabling the development of this community initiative. Key outcomes include the establishment of a sustained international seminar series, the organization of large-scale online workshops attracting hundreds of participants, the creation of an active Slack community with more than 500 members, and engagement of researchers across control theory, systems biology, and biotechnology. Importantly, the initiative has helped expose researchers in biology and biotechnology to control-theoretic approaches, while also highlighting new theoretical challenges to the control community.

biocontrolseminars.org/workshop-2025

youtube.com/@BiocontrolSeminars/videos

IFAC Activity Fund Report

The Control Engineering Exercises Journal

The Control Engineering Exercises Journal – IT infrastructure costs for the startup period

We are piloting a mechanism aimed at promoting the sharing of open-access control education resources. This initiative revolves around a journal-like publication of conceptual exercises accompanied by their solutions. The ultimate objective is to establish a framework where exercises are published with Digital Object Identifiers (DOIs), making them citable and interconnected within the academic community. Authors will be able to reference related exercises, thereby fostering a network of educational content that can serve multiple purposes.

Activity Organizer: Damiano Varagnolo, Norwegian University of Science and Technology, Norway, and University of Padova, Italy; damiano.varagnolo@ntnu.no

IFAC Sponsor: IFAC Education Activities Committee

Description

We are currently piloting a mechanism aimed at promoting the sharing of open-access control education resources. This initiative revolves around a journal-like publication of conceptual exercises accompanied by their solutions. The ultimate objective is to establish a framework where exercises are published with Digital Object Identifiers (DOIs), making them citable and interconnected within the academic community. Authors will be able to reference related exercises, thereby fostering a network of educational content that can serve multiple purposes:

Source of Inspiration and Assessment: The platform will provide educators with a diverse repository of assessment materials linked to concepts in automatic control.

Peer Sharing Mechanism: Contributors will be able to share high-quality assessment materials, promoting collaboration and knowledge exchange among educators.

Learning Resource for Students: Students will have access to well-structured educational exercises, enhancing their learning experiences.

Platform Development and Funding

The IFAC grant has been instrumental in supporting the operational aspects of the platform, particularly through funding the web hosting costs of <https://faceittools.com/>. This platform functions as the searchable database that underpins the envisioned journal. While the grant has not directly funded the development of the journal itself, it has ensured the stability and accessibility of the essential database infrastructure.

Additional developments to enhance user experience have been supported by funds from other projects, alongside voluntary contributions from students primarily from the Norwegian University of Science and Technology and the University of Padova. Their efforts have significantly advanced the platform's capabilities, ensuring a more intuitive and engaging user experience.

Progress and Innovations

The project is progressing toward its goal of establishing a high-quality, user-friendly journal. A notable advancement introduced in January 2024 is the feature that enables educators to search for relevant assessment materials by simply uploading a PDF or text document. This innovation is guided by the user story: "As a teacher, I want to find questions related to my slides with just a click."

Furthermore, the initiative maintains strong ties with the Control Advent Calendar project. This collaborative endeavor involves authors submitting materials, which are then reviewed by nominated reviewers before being accepted or rejected. This process mirrors the peer-review mechanism envisioned for the journal, thereby reinforcing quality standards and community engagement.

Community Engagement and Future Plans

We have actively contributed to the academic discourse by submitting two papers to the IFAC Symposium on Advances in Control Education. Additionally, we are organizing a dedicated four-hour, free workshop at CODIT 2025, targeting educators interested in innovative pedagogical tools. The workshop will provide participants with hands-on experience using the database and the integrated AI features, further fostering engagement and practical knowledge-sharing.

This initiative is designed to be a long-standing contribution to the control education community. Consequently, we do not anticipate a definitive "completion" but rather envision continuous evolution and periodic advertisement activities to sustain and expand community involvement.

Financial Overview

The operational costs for maintaining the platform, including web hosting, AI services, and domain reservations, have averaged around USD 70 per month. However, these costs may increase with the anticipated growth in user activity and platform utilization.

**IFAC Cartoon Archive
is available!**
ifac-control.org/publications/cartoons

Calendar of IFAC Conferences

Title	2026	Place	Further Information
AACC, IFAC, et al. Conference on American Control Conference (in cooperation with IFAC)	May 25 – 29	New Orleans, LA USA	acc2026.a2c2.org/
EUCA/IFAC Conference on European Control Conference (in cooperation with IFAC)	July 7 – 10	Reykjavik Iceland	hecc26.euca-ecc.org/ ecc26@euca-ecc.org
10 th IEEE/IFAC International Conference on Control, Automation and Diagnosis ICCAD 2026	July 7 – 9	Lisbon Portugal	iccad-conf.com/ contact@iccad-conf.com
International Symposium on Mathematical Theory of Networks and Systems (in cooperation with IFAC) MTNS 2026	August 17 – 21	Waterloo, ON Canada	uwaterloo.ca/international-symposium-mathematical-theory-networks-systems
23 rd IFAC World Congress WC 2026	August 23– 28	Busan Republic of Korea	ifac2026.org ifac2026@ifac2026.org
17 th APCA International Conference on Automatic Control and Soft Computing CONTROLO 2026	September 9 – 11	Coimbra Portuga	controlo2026.apca.pt/ controlo2026@apca.pt
67 th SIMS/IFAC International Conference of Scandinavian Simulation Society SIMS 2026	September 16 – 17	Eskilstuna Sweden	scansims.org/events.php?sid=41&src=db1557571001&udpview=show-event
6 th AACC/IFAC Conference on Modeling, Estimation and Control MECC 2026	October 25 – 28	Phoenix, AZ USA	
6 th IFAC Workshop on Cyber-Physical Human Systems CPHS 2026	December 11 – 12	Redondo Beach, CA USA	
Title	2027	Place	Further Information
8 th IFAC Conference on Analysis and Control of Nonlinear Dynamics and Chaos ACNDC 2027	June 9 – 11	Monte Porzio Catone (Rome) Italy	
13 th IFAC Symposium on Fault Detection, Supervision and Safety for Technical Processes SAFEPROCESS 2027	June/July 29 – 02	Delft Netherlands	
AACC, IFAC, et al. Conference on American Control Conference (in cooperation with IFAC)	July 5 – 9	Philadelphia, PA USA	acc2027.a2c2.org/
21 st IFAC Symposium on System Identification - Learning models for decision and control SYSID 2027	July 7 – 9	Lyon France	
EUCA/IFAC Conference on European Control Conference (in cooperation with IFAC) ECC 2027	July 12 – 16	Brussels Belgium	ecc27.euca-ecc.org/
14 th IFAC Conference on Fractional Differentiation and its Applications ICFDA 2027	August 23 – 26	Delft Netherlands	

The IFAC Calendar of Conferences is constantly updated as additional IFAC Conferences (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: ifac-control.org/events/

The IFAC Council and Related Meetings 2026 will take place in conjunction with the 2026 IFAC World Congress in Busan, KR in August 2026.

The schedule is constantly updated and is available at:

ifac-control.org/news/meeting-schedule-busan-korea