NEWSLETTER

INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

IFAC Council- and Related Meetings 2018
1-3 September 2018
Florianópolis, BR

No.5

October 2018

The annual IFAC Council- and Related Meetings 2018 were held in Florianópolis, Brazil from 1-3 September, held in conjunction with the ROCOND/LPVS. This was the first time since 1989 that the annual meetings had been held on the continent of South America, and the very first time that they had taken place in Brazil.

The IFAC Council, which reports to the General Assembly (consisting of all IFAC National Member Organizations/NMOs) is responsible for the management of IFAC. It receives its mandate from the IFAC General Assembly and reports to it on the state of the Federation not less frequently than at each Triennial Congress.

Subject only to the directions of the General Assembly, the Council will formulate the policies of the Federation, in relation to the world community of control engineers, the National Member Organizations, intergovernmental and other non-governmental international professional organizations. It shall develop the long-term plans of the Federation for approval by the General Assembly and shall instruct the various boards and committees of IFAC accordingly.

The Council shall direct and supervise the functioning of the Federation, including both the technical and the executive activities. It will delegate particular functions to the appropriate boards and committees and will from time to time receive activity reports from those boards and committees. Further information about the structure and mandate of the IFAC Council can be found in Articles 23-28 of the IFAC Constitution.

https://www.ifac-control.org/structure/IFAC%20Constitution-and-By-Laws.pdf

The names and contact information (email address) of all current IFAC Council members is available at:

https://www.ifac-control.org/structure/council

In addition to the IFAC Council other meetings were held including Technical Board, Executive Board, Industry Committee, PUMB, Berlin WC IPC, Policy, Awards, Publications, and A&F.

Special thanks are extended to the Brazilian organizers, especially Eugênio B. Castelan, Daniel Coutinho, João Manoel Gomes da Silva Jr. and Carlos Eduardo Pereira and the SBA (the IFAC NMO for Brazil) for their assistance with all of the local ar-

rangements and the hospitality and generosity that they extended to the IFAC community.

Participants of the IFAC meetings were all invited to social events hosted by the Brazilian organizers, including a Brazilian *Churrascaria* barbecue dinner on 1 September, a welcome reception evening on 2 September, and the ROCOND/LPVS conference banquet on 4 September.

Council meeting topics included: the proposed new IFAC Executive Structure, IFAC NMO Membership Criteria, a task force on IFAC Diversity and Inclusion Strategy (led by Bozenna Pasik-Duncan), a task force to look into standard event websites (led by Nikolay A. Kuznetsov), a formula for non-binding membership fee suggestions, approval of an additional IFAC Journal Award (for the journal *Annual Reviews in Control,* to be chaired by Arjan van der Schaft), proposed standardized IFAC TC awards, updates on preparations for upcoming IFAC World Congresses (Berlin, DE in 2020, and Yokohama, JP in 2023), IFAC Foundation, as well as the standard reports presented by the respective IFAC officers and officials.

Additionally the five NMOs who had submitted initial Expressions of Interest for the 2026 IFAC World Congress (AT, CN, IN, KR, NL) gave their preliminary short presentations. After discussions and votes which were held in closed session (this closed session was only for Council members who are not from bidding countries) two of the NMOs (Korea and the Netherlands) were invited to present longer, more extensive bids at the 2019 IFAC Council meeting, where the final decision regarding the 2026 IFAC World Congress and IFAC president will be made.

Plans for the 2019 IFAC Council-and Related Meetings, to be held in Vienna, Austria in September 2019 in conjunction with the IFAC joint Symposia Mechatronics/NOLCOS, are already underway. Council and Related Meetings are scheduled afterward the technical events, from 6-8 September 2019. Information concerning the technical events can be found at:
http://www.mechatronicsnolcos2019.org/

The IFAC Journals

Automatica
http://www.journals.elsevier.com/automatica

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

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

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

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

Journal on Mechatronics
http://www.journals.elsevier.com/mechatronics

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

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

IFAC-PapersOnLine
http://www.journals.elsevier.com/ifac-papersonline

New NMO for Azerbaijan: Introducing *ARAS*

Editor's Note: For each country/geographical area, one scientific or professional engineering organization, having a strong interest in automatic control and a sound professional background, or one council formed by two or more such organizations, shall be eligible for membership of IFAC. Such organizations, after admission to IFAC, will be known as National Member Organizations (NMOs) and shall have a responsibility for furthering the aims and objectives of IFAC within their respective countries. Following the membership approval process and culminating with the payment of the first membership fee Azerbaijan has become one of the newest additions to the IFAC National Membership Organizations. Below Newsletter readers have the opportunity to learn more about Azerbaijan Robotics & Automation Society (ARAS), the new NMO for Azerbaijan. The full list of IFAC National Member Organizations (NMOs) can be found at: https://www.ifac-control.org/structure/nmo

Modern Azerbaijan hosts many global events and research in science, technology, education, culture, politics, sports and other areas. Technology, automation and robotics are some of the hottest topics nowadays among youth and academia in the country as is the case all around the world. Therefore, in 2016 young Azerbaijani researchers formed a group with the support of senior scientists in Azerbaijan to co-operate internationally and play a role in development of those areas in the country. Within months the group formed a non-government organization and registered as a Public Union called ARAS – Azerbaijan Robotics and Automation Society. ARAS is the new IFAC National Member Organization representing Azerbaijan.

The objectives of ARAS are to provide a medium in which robotics, automation and control related people can interact, create a medium for interaction, and to act as the Azerbaijani National Member Organization for the International Federation of Automatic Control (IFAC) and to the representatives of IFAC Technical Committees; to coordinate and promote the practice and science of control, automation and systems engineering in Azerbaijan; to organize annual lectures promoting interest in control, automation and systems engineering, to actively support the ARAS conferences; to act as a focal point for informed views about control, automation and systems engineering

ARAS openly attracts membership from professional institutions and societies with a commitment to control automation and systems engineering and does not discriminate based on race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental disability. Currently ARAS has more than 40 active members, a number which is expected to increase.

After registration ARAS started organizing lectures, joint-lectures, events and conferences on related areas. Now, with the support of IFAC (International Federation of Automatic Control) - the world's most influential organization in the field of automation - the 18th International Conference on Technology, Culture and International Stability - TECIS (Editor's note: This event series was formerly known as SWIIS) took place from 13-15 September 2018 in Baku and organized by ARAS. TECIS 2018 has come a long way since ARAS members started organizing the event with high enthusiasm and motivation. ARAS is sure that this will be one of the flagship events of IFAC and a unique starting conference for ARAS. The conference was attended by IFAC President Frank Allgöwer (DE).

Over 200 articles were submitted to TECIS by 370 co-authors representing 30 different countries, from which the US, Austria, Australia, Germany, Switzerland, Russia, Turkey, Kuwait, India, Hungary, Italy, France, Ireland, the UK, and other countries are among them. Azerbaijani scientists – the members of ARAS and supporters submitted 25% of the articles, which shows the motion in academia in those areas in the country and the support and trust in IFAC by ARAS.

Bahadur Ibrahimov, NMO representative of Azerbaijan Robotics and Automation Society (ARAS), the NMO of Azerbaijan.

It is interesting to note that IFAC's first and last meeting in Baku took place from 2-6 April 1980 and was organized by the National Member Organization of the Soviet Union (the applicable NMO at that time) and was highly supported by the local government of that time. After 38 years, the main goals of bringing this prestigious international event to Baku was to introduce new research findings in technology, culture and international stability, bring together scientists and experts of industry and academia to exchange ideas and experiences. ARAS aims to not wait for further decades to pass for the next IFAC event in Azerbaijan and plans to apply to host more IFAC technical events in Azerbaijan in the near future.

Submitted by Dr. techn. Bahadur Ibrahimov, National Member Organization representative for ARAS (AZ)

Check out IFAC's YouTube channel for new and historical IFAC video materials!

https://www.ifac-control.org/

From the IFAC President

Dear Friends and Colleagues,

How about an email address which stays the same while you might change your affiliation – possibly multiple times– your whole life long? An email address that you can keep wherever you are situated or move to? IFAC offers such an email address, or to be more precise, such an email alias. An IFAC email address is an email forwarding alias that does not change even if your email provider or your affiliated institution or company changes. All emails sent to your IFAC email address will be forwarded to an email account that you choose – no need to check or maintain an additional account and remember yet another password. The email aliases end in the domain name: '@ifac-mail.org', which, conveniently, can already indicate your affiliation with IFAC and your involvement in the broad field of systems and control.

The process to obtain such an email alias is really easy. Simply enter the email address with which you registered as an IFAC affiliate on the website https://hera.ifac-control.org/ifacmail/. You can then choose from different email aliases generated from your first and last name. After entering your choice, you have the possibility to review your choice of IFAC alias and target address carefully before confirmation – and that's it! If you have any questions or problems with this process, you can always contact the IFAC Secretariat via secretariat@ifac-control.org

How much does the IFAC email address cost you? The IFAC forwarding email is free of charge and can be obtained by all IFAC affiliates. 'But then I need to pay to become an IFAC affiliate?', you might ask, but becoming an IFAC affiliate is also free. You simply have to sign up on https://www.ifac-control.org/about/ifac-affiliate-registration to become an IFAC affiliate. As a consequence, you will also receive further benefits such as subscription to IFAC Journals at a reduced rate and the IFAC Newsletter. Actually, the fact that you are reading this Newsletter right now suggests that you are already an IFAC affiliate anyways.

There is also no other business model involved. Remember that IFAC, as stated in the constitution, 'does not engage in any activity with financial or political aims' and has the primary objective to 'serve all those concerned with the theory and application of automatic control and systems engineering'. The IFAC email alias shall simply be a convenience for you. Needless to say, IFAC has no access to your emails in any way and any personal data from the IFAC affiliate form 'will be processed only within our organisation and only for purposes of such organisation', as stated in our Privacy Policy. https://www.ifac-control.org/about/privacy-policy

Therefore, I invite you all to sign up for and use an IFAC email address for your convenience. Furthermore, if you have any additional ideas about which other kinds of convenient services IFAC could offer to the systems and control community – please let me know via frank_allgower@ifac-mail.org :-)

Best wishes from Stuttgart,
Frank Allgöwer

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18ᵗʰ IFAC Symposium on System Identification (SYSID 2018)
9-11 July 2018
Stockholm, SE

The 18th IFAC Symposium on System Identification (SYSID 2018) took place at the AlbaNova University Center of KTH Royal Institute of Technology in Stockholm, Sweden from 9-11 July 2018. The scope of the symposium covered all major aspects of system identification, experimental modelling, signal processing and adaptive control, ranging from theoretical, methodological and scientific developments to a large variety of application areas.

The International Program Committee, which was chaired by Prof. Marco Campi, University of Brescia (IT), received 226 papers out of which 185 were selected after a review process where all papers appearing in the program had at least three reviews.

There were three busy conference days with 255 delegates from 37 countries criss-crossing between 36 sessions, including five invited sessions and a software session, intensely interacting during the luncheons and coffee breaks, and crowding the Oskar Klein Auditorium to attend the lectures of the six distinguished plenary speakers. Johan Schoukens (Vrije University of Brussels/Eindhoven University of Technology, NL) digressed upon the key issues in non-linear system identification. Michael I. Jordan (Univ. of California- Berkeley, US) elaborated on the computational grand challenges in large-scale statistics from an optimization perspective. Csaba Szepesvári (Deepmind/Univ. of Alberta, CA) gave an inspirational talk on why reinforcement learning is of interest to the system identification community. Paul M.J. Van den Hof (IFAC Vice-President/Executive Board chair/ Eindhoven University of Technology, NL) brought the audience up-to date on the rapid developments in identification of networked systems. In a very pedagogical talk Gianluigi Pillonetto (Univ. of Padova, IT) elucidated the breakthroughs and potential of regularization in identification. In the final lecture, Roy Smith (ETH Zürich, CH) described the fascinating problem of harvesting energy from kites. Overall, the program ran smoothly without a single no-show.

The first Young Author Award in SYSID's history received 21 nominations. At the closing session, SYSID Awards Committee Chair Prof. Brett Ninness (University of Newcastle, AU) was pleased to announce that the committee had selected two winners: Tommi Reinikka (Tampere University of Technology, FI) for the paper *PHIL Test Bench for Online-Identification Methods of Complex Power Grid,* co-authored with Roni Luhtala, Henrik Alenius, Tomi Roinila and Tuomas Messo, and Masoud Moravej Khorasani (The University of Melbourne, AU) for the paper *Non-Asymptotic Confidence Regions for Errors-In-Variables Systems*, which was co-authored with Erik Weyer. Runner-ups were Fed-

erico Bianchi (Politecnico di Milano, IT), and Oliver Kost (University of West Bohemia, CZ).

The conference offered ample opportunities for networking and socializing. Mats Berglund, Vice Chair of the Stockholm Municipal Assembly, greeted the delegates in the Golden Hall at the welcome reception that was held in the Stockholm City Hall. From Operaterrassen, banquet guests could enjoy the food of Master Chef Stefano Catenacci while facing the Royal Palace and watching the waters of Lake Mälaren reach and blend with the archipelago. Wednesday afternoon the conference slowly faded away with the last guests at the closing reception.

Young Author Award (SYSID) from left to right: Runners-up Oliver Kost (CZ) and Federico Bianchi (IT), with winners Masoud Moravej Khorasani (AU) and Tommi Reinikka (FI)

The SYSID organisers are most obliged to everyone that contributed to make SYSID 2018 a successful event: Authors, participants, the International Program Committee reviewers, sponsoring TCs 1.1., 1.2., 1.3., and 1.4., sponsors Control Systems Society, Stockholms Stad, KTH ACCESS Linneaus Center, ABB, KTH, and the many people at KTH that provided invaluable support.

The technical program, plenary slides and photos can be obtained from the conference website at:
http://www.ee.kth.se/sysid2018

Submitted by: Håkan Hjalmarsson (SE), SYSID 2018 General Chair

16ᵗʰ IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2018)
11-13 June 2018
Bergamo, IT

The 16th IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2018) was held from 11-13 June 2018 in the beautiful venue of the campus of the University of Bergamo, a former monastery complex of Sant'Agostino, in the upper town of Bergamo, Italy. The Symposium was jointly organised by Politecnico di Milano (IT) and University of Bergamo (IT), and sponsored by the Technical Committees (TCs) of IFAC's Coordinating Committee on Manufacturing and Logistics Systems (CC 5). The technical co-sponsors were

four other IFAC TCs (TC 1.3., TC 4.2., TC 4.3., and TC 9.2.), the IEEE Italy Section and its affiliated chapters, as well as IFIP, IFORS, AIDI (Italian Association of Industrial Systems Engineering Professors) and GDR MACS/CNRS (French National Council for Scientific Research).

Chaired by Prof. Sergio Cavalieri (University of Bergamo, IT) and Prof. Marco Macchi (Politecnico di Milano, IT), the Symposium could count on the scientific support of an International Program Committee composed by 106 members and chaired by Prof. László Monostori (MTA Sztaki Budapest, HU) with 28 associated editors in charge of the peer review process. Some distinctive figures of the symposium: 371 papers were submitted from 46 countries, and 297 papers from 928 contributors were finally selected for presentation in regular, invited and special sessions, with a total of 403 participants at the conference.

The technical program of INCOM 2018 was organized around the following main topics: Advanced Manufacturing Technologies and Systems, Advanced Reliability, Maintenance and Safety Engineering and Technologies, Enterprise Modelling and Information Systems, Modelling and Optimization for Complex Engineered Systems, Simulation, Control and Monitoring of Evolutionary and Adaptive Production Systems, Robotics and Autonomous Systems, Operations Management in Production Systems and Logistics, Human and Social Factors in Production Systems, Lifecycle Management and Product-Service Systems (PSSs), and Industry 4.0: Strategies, Models and Technologies For Next-Generation Production Systems.

CC 5 chair Herve Panetto (FR)
at INCOM 2018

Two exceptional keynote talks were delivered: Dr. Esti Peshin, General Manager of the Cyber Division at the Israel Aerospace Industries (IL), provided a speech on "National Level Cyber Security in the Age of IoT". Prof. Andrew Kusiak (US), Director of the Intelligent Systems Laboratory at the University of Iowa, discussed "Engineering Smart Systems: A Big-Data Perspective". Additionally an academic-industrial panel "From Industry 4.0 to Enterprises 4.0", which was coordinated by Prof. Marco Taisch (IT), Politecnico di Milano, brought together experts from industry and academia to discuss the main issues and challenges for research deriving from the digital transformation of industrial companies.

INCOM 2018 was also a playground for a debate on the future of IFAC CC 5 and its Technical Committees in a specific plenary session coordinated by Prof. Hervé Panetto (FR), Chair of CC 5. Industrial tutorials were also organised

on Collaborative Robotics, on IoT, Cloud and Big Data towards Industry 4.0, and on Supply Chain Efficiency and Production Flexibility. As post-conference events, some industrial visits gave conference attendees the chance to gain better insight on the technological excellence of some primarily Italian companies. In conjunction with INCOM 2018, two associated events were also organised: the 8th edition of the SOHOMA (Service Orientation in Holonic and Multi-Agent Manufacturing) Workshop and the doctoral workshop on Product and Asset Lifecycle Management that were held in Florence.

The steering committee proposed at its meeting that the next edition should take place in Budapest (HU) in 2021.

Submitted by: Prof. Sergio Cavalieri (University of Bergamo, IT) and Prof. Marco Macchi (Politecnico di Milano, IT)

6th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 2018)
11-13 July 2018

The 6th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 2018) was held at the Department of Computer Science, University of Oxford, from 11-13 July 2018. The event was hosted within FLOC 2018, the Federated Logic Conferences, which ran during July 6-19 at Oxford, and benefitted from a number of activities organised within FLOC.

ADHS 2018 has a long and rich history. The previous conferences in the series were held in St. Malo, France (2003), Alghero, Italy (2006), Zaragoza, Spain (2009), Eindhoven, The Netherlands (2012), and Atlanta, GA, USA (2015). In addition, the ADHS series was preceded by the successful conference series *Automation Of Mixed Processes*: ADPM 92 in Paris (France), ADPM 94 in Brussels (Belgium), ADPM 98 in Reims (France) and ADPM 2000 in Dortmund (Germany).

Further information on the ADHS 2018 can be found at
http://www.cs.ox.ac.uk/conferences/ADHS18

93 members of the International Program Committee helped to provide at least three reviews for each of the 72 submitted contributions. Based on the reviews and PC discussions, 50 high-quality articles were accepted and presented during the 14 sessions (organised in two parallel tracks) at the three-day conference.

The contributions were bundled into eight thematic sessions, ranging over the following topics: Verification, Reachability and Safety Analysis, Formal Synthesis, Stochastic Systems, Switched Systems, Networked Systems, Observation and Estimation, Stability, Control Synthesis, Optimal and Model Predictive Con-

trol, and Applications. These contributions appear as full papers in the ensuing proceedings. The colocation within FLOC helped emphasising the thematic connection between control theory and formal verification in the context of research on hybrid systems.

Alessandro Abate (UK), ADHS 2018 NOC chair

ADHS 2018 also hosted a poster session running through the three days, with a dozen posters, and gave the opportunity to young researchers and students to present their work in a less formal way. Bursaries helped to boost student participation in ADHS18.

A highlight of ADHS 2018 was the presence of three high-profile invited speakers:

- Prof. Raphaël Jungers from the Université Catholique de Louvain (BE), giving a lecture on the topic of ``Provably Efficient Algorithms on Hybrid Automata"

- Prof. Calin Belta from Boston University (US), giving a lecture on the topic of ``Formal Synthesis of Control Strategies for Dynamical Systems"

- Prof. Erika Ábrahám from RWTH Aachen University (DE), giving a lecture on the topic of ``Old-Established Methods in a New Look: How HyPro Speeds Up Reachability Computations for Hybrid Systems"

ADHS 2018 hosted the ARCH workshop on 13 July (Applied Verification of Continuous and Hybrid Systems), which included the presentation of the ARCH-COMP verification competition. Further details on the ARCH workshop can be found on the website: https://cps-vo.org/group/ARCH

ADHS 2018 was a success, as despite concurrent control and verification conferences throughout the summer of 2018, it counted an excess of 100 registered participants. Participation was diverse (20% female, with numerous students and young researchers) and global, with a noticeable presence from the US (23%), France (20%) and the UK (17%). A conference banquet was organised at Balliol College, Oxford. ADHS also hosted an SC dinner, an SC meeting, and a joint meeting of the IFAC TC 1.3 (Hybrid and Discrete-Event Systems) as well as that of the IEEE CSS TC on Hybrid Systems.

Special thanks are extended to the ADHS 18 sponsors: Toyota Motors and Denso GMBH, as well as the Alan Turing Institute, London (UK), and the John Fell Fund of Oxford University Press, the Department of Computer Science

at the University of Oxford, and the members of the OXCAV (Oxford Control and Verification) research group.

Submitted by: Alessandro Abate, (University of Oxford, UK), ADHS 2018 NOC chair

Who's Who in IFAC
IFAC Council Member

Jaime A. Moreno (MX) was born in Colombia. He received his PhD degree (Summa cum Laude) in Electrical Engineering (Automatic Control) from the Helmut-Schmidt University (Hamburg, DE) in 1995, the Diplom-Degree in Electrical Engineering (Automatic Control) from the Universität zu Karlsruhe (Karlsruhe, DE) in 1990, and the Licentiate-Degree (with honors) in Electronic Engineering from the Universidad Pontificia Bolivariana (Medellin, CO) in 1987.

Since 1995 J. Moreno is a researcher at the Institute of Engineering at the National University of Mexico (UNAM) in Mexico City (MX), where he was appointed Full Professor of Automatic Control and Head of the Electrical and Computing Department in 2011. He has served as the chair of the Technical Committee on Biosystems and Bioprocesses (TC 8.4) of the International Federation of Automatic Control (IFAC) from 2008 to 2011, and from 2014 to 2017 he was the Chair of the Coordinating Committee of CC 8 (Bio & Ecological Systems) of IFAC. He has served as an ordinary member of the IFAC Council since 2017.

J. Moreno was the president of the Mexican Control Society and has been member of the NOCs and IPCs of several national and international conferences. He has also served as Associate Editor or invited editor of international journals. He has also held visiting positions at University Catholique de Louvain and University of Mons in Belgium, Universities of Stuttgart and Ilmenau in Germany, University of Graz in Austria, and INRIA Lille in France, among others.

He is the author and editor of eight books, nine book chapters, holds one patent, and is the author and co-author of more than 400 papers in refereed journals and conference proceedings. He has supervised 19 PhD and 33 M.Sc. theses. J. Moreno's current research interests include robust and non-linear control, in particular, with emphasis on Lyapunov methods for higher order sliding modes control, with applications to biochemical (wastewater treatment) and electromechanical processes, and the design of nonlinear observers.

IFAC Fellows 2017-2020 Call for Nominations

IFAC is seeking nominations for 2017-2020 IFAC Fellows. The IFAC Fellow award provides a distinction of excellence in the Federation and is conferred on a small number of outstanding scientists or engineers by the IFAC Council, based on the proposal of the Fellow Selection Committee. With the appointment as an IFAC Fellow, IFAC honors outstanding contributions with a high impact in the fields of interest of IFAC in the role as a Scientist, Engineer, Technical Leader or Educator. These contributions may be technical publications, patents, control solutions, products, software, and leadership in research, development and education.

Any control scientist or engineer (with the exceptions listed below) can be a candidate for the title of an IFAC Fellow. Past involvement in IFAC activities, publications and events is desirable and an asset but not absolutely mandatory. For a list of IFAC Fellows elected so far, please go to the IFAC website at:
https://www.ifac-control.org/awards/ifac-fellows

Current members of the IFAC Council, Fellow Search Committee or the Fellow Selection Committee are not eligible to be considered as Fellow Candidates.
https://www.ifac-control.org/structure/council

IFAC Fellow candidates must be proposed by a separate nominator.

Nominations

Any person is eligible to serve as a nominator with the exception of members of the IFAC Council, Fellow Search Committee or Fellow Selection Committee. The nominator is responsible for the information provided about the candidate. The nominator is asked to read the Nominator Information, complete the Nomination Form according to the requirements given below, and inform the persons indicated as referees that they have been named as such.

If you plan to submit an IFAC Fellow Nomination Form, please find instructions below to assist you in this nomination process. Strict adherence to this procedure is essential; otherwise, a candidate may be placed at a serious disadvantage and possibly excluded from consideration this triennium.

Fellow Nominations should be uploaded electronically at
https://ifac.papercept.net/conferences/scripts/submissionwizard.pl?ConfID=349 by
January 6, 2019
References

Each nomination must be supported by at least three, but no more than five references from internationally reputed experts in the field who are aware of the candidate's contributions. These referees need not be IFAC Fellows themselves. Note that the choice of referees is important for the success of the candidate's nomination. Members of the IFAC Council, Fellow Search Committee or the Fellow Selection Committee are not eligible to serve as referees. If you have been asked to act as a referee, please read the Reference Information and complete the Reference Form.

Fellow References should be uploaded electronically at https://ifac.papercept.net/conferences/scripts/submissionwizard.pl?ConfID=349 by
January 15, 2019

The Call for Nominations, the Nominator Information, as well as the Reference Information are available at the IFAC website at
https://www.ifac-control.org/awards/nominations-2020

Fellow Announcement

The announcement of the newly elected Fellows will be made shortly after the completion of the vote taken by the IFAC Council in September 2019. IFAC will inform all successful candidates and their nominators of the election results by e-mail. Nominators of unsuccessful candidates will be notified by e-mail. The new elected IFAC Fellows will be honored in a ceremony at the 2020 IFAC World Congress (scheduled to take place in Berlin, Germany from 12-17 July 2020).

IFAC Major Awards 2017-2020 Call for Nominations

Call for Nominations for: Giorgio Quazza Medal, Nathaniel B. Nichols Medal, Manfred Thoma Medal, Industrial Achievement Award, High Impact Paper Award

According to the provisions as outlined for the IFAC Major Awards, the IFAC NMOs and the IFAC Technical Committee Chairs as well as other individuals are invited to nominate a candidate (candidates) for one or more of these awards. The nomination should be uploaded electronically at

https://ifac.papercept.net/conferences/scripts/submissionwizard.pl?ConfID=349

no later than: February 15, 2019

The nominations should in general contain a curriculum vitae of the candidate, a summary of his/her major contributions, a proposed citation and the names of three referees. Specific details for the awards are listed below. Nominations should be submitted through PaperCept.

It is the nominator's role to inform the people listed as referees to send in an electronic reference form with an assessment of the candidate(s). The reference form should be uploaded to PaperCept as well (see above).

Reference forms are available at
https://www.ifac-control.org/awards/major-awards-reference-forms-in-pdf

For each of the Major Awards, a selection committee has been appointed. All awards will be presented by the IFAC President at the Opening Ceremony of the 2020 IFAC World Congress in July 2020 in Berlin, Germany.

Every individual can act as nominator or referee, with the exception of members of the corresponding Major Award Selection Committee, the Major Awards Search Committee, IFAC Officers and members of the IFAC Council. Self-nominations are not allowed. It may be useful to consider the list of past winners on the IFAC website, at
https://www.ifac-control.org/awards

Please note that it is possible to resubmit a nomination that was made in the past.

A more detailed description of the several Awards, including selection criteria, follows below:

GIORGIO QUAZZA MEDAL
(Created 1979)

This IFAC award recognizes lifetime achievements in science and engineering in any of the technical fields covered by IFAC. The contributions should be manifested in technical publications. A nominee should have served IFAC in some capacity, formally or informally. The selection criteria are:

- Quality of publications
- Impact of publications
- Engineering significance
- Service to IFAC
- International recognition

Nominations should contain a curriculum vitae of the candidate, a summary of his/her major contributions and an account of their impact, a proposed citation and the names of three referees.

NATHANIEL B. NICHOLS MEDAL
(Created 1996)

This IFAC award recognizes industrial leadership, outstanding contributions of an individual to design methods, software tools and instrumentation, or significant projects in major applications and advancement of control engineering.

The award is given for contributions in any of the technical fields of IFAC. The contributions should be manifested in technical publications, patents or reports documenting completed projects or developed products. The selection criteria are:

- Quality of publications
- Impact of publications
- Innovation level of patents
- Impact of patents
- Engineering significance of products and projects
- International recognition

Nominations should contain a curriculum vitae of the candidate, a summary of his/her major contributions and an account of their impact, a proposed citation and the names of three referees.

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MANFRED THOMA MEDAL
(Created 2015)

This is an IFAC award for early career achievements that 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. For the award to be given at the 2020 World Congress candidates are eligible that were born after January 1, 1980. (Age verification, such as passport copy, may be requested.)

Candidates are assessed by their scientific and technical contributions to the field of systems and control. The selection criteria are:

- Quality and impact of publications
- Engineering significance
- International recognition

Involvement in IFAC is not part of the criteria.

Nominations should contain a curriculum vitae of the candidate, a summary of the major achievements in terms of the selection criteria above, a proposed citation and the names of three referees.

INDUSTRIAL ACHIEVEMENT AWARD
(Created 2000)

The IFAC Industrial Achievement Award is given to an individual, or a team of individuals, who has made significant contributions to industrial applications of control in any of the technical fields covered by IFAC. The award can be given for a single achievement (an invention or the leadership of a major project) or a record of achievements over a period of time. There is no requirement that the nominated candidates must have been involved in IFAC. The selection criteria are:

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

Nominations should contain a curriculum vitae of the candidate(s), a summary of the major achievements in terms of the selection criteria above, a proposed citation and the names of three referees.

HIGH IMPACT PAPER AWARD
(Created 2009)

This award is to acknowledge the impact of a paper published in any of the official IFAC journals on the broad areas of automatic control theory and applications. At most two such awards will be made in any triennium.

Eligible papers must have been published in any of the official IFAC Journals (*Automatica*, *Control Engineering Practice*, *Annual Reviews in Control*, *Journal of Process Control*, *Engineering Applications of Artificial Intelligence*, *Mechatronics*, *Nonlinear Analysis: Hybrid Systems*). For the award(s) to be given at the 2020 Congress, only papers published within the time period from 1 January 1990 through 31 December 2011 are eligible.

The selection criteria are:

- Evidence of high number of citations, as obtainable from either (or both) the engineering databases: Thompson ISI's Web of Science and Elsevier's SCOPUS.

- Evidence that the work under consideration has been actually used by others in their research/professional activity.

- Opinions expressed by three references from internationally reputed experts in the field who are personally aware of the contributions of the nominated paper.

Nominations should include:

- A statement specifying the number of citations, as obtainable from either (or both) the engineering databases: Thompson ISI's Web of Science and Elsevier's SCOPUS;

- Excerpts of technical papers documenting work and progress made possible due to the prior contributions of the nominated paper. Papers (co)authored by one of the authors of the nominated paper cannot be used for this purpose.

- A description (if appropriate) of industrial achievements made possible due to the prior contributions of the nominated paper.

- The names of three internationally reputed experts that can serve as referees.

If you have any questions regarding the nomination process please contact the relevent chair or the IFAC Secretariat.

**Selection Committee
Chairs 2017-2020 are:**

**Quazza Medal
Alberto Isidori (IT)**

**Nichols Medal
Pramod Khargonekar (US)**

**Thoma Medal
Lei Guo (CN)**

**Industrial Achievement Award
Alf Isaksson (SE)**

**High Impact Paper Award
James Rawlings (US)**

**Fellow Selection Committee Chair
Anders Rantzer (SE)**

**Awards Committee Chair
Karl Henrik Johansson (SE)**

Please note:

The receipt of nomination and reference materials will be confirmed. However please be advised that submitted materials will be checked to see that they meet eligibility requirements. A confirmation of receipt for a nomination or reference should not necessarily imply that a submitted nomination or reference has been accepted/meets the eligibility requirements.

IFAC Privacy Policy

IFAC - the International Federation of Automatic Control - values the privacy of its members, affiliates and visitors to its website and is strongly committed to each visitor's right to privacy. The privacy policy explains IFAC's information gathering and handling practices. It describes how we gather and protect individually identifiable information ("Personal Information"), how we use, process, transfer, and share personal information, and sets forth your personal data privacy rights.

Responsibility in accordance with applicable data protection laws lies with IFAC, Physikstrasse 3, 8092 Zürich, Switzerland; (IFAC Secretariat: Schlossplatz 12, 2361 Laxenburg, Austria, phone: +43 2236 71 447), e-mail: secretariat@ifac-control.org. Any reference in this policy statement to "we" or "us" refers to the above organisation.

If you have any questions regarding IFAC's privacy policy or do not feel that your concerns have been otherwise addressed, please contact us at the above address.

You have the right at any time to request that we stop processing your personal information. We will promptly adhere to such requests unless we can establish legitimate reasons for continuing the processing which prevail over your interests and rights, or unless the processing is necessary to enforce or defend our rights and interests in law.

The full IFAC privacy policy is available on the IFAC website at: https://www.ifac-control.org/privacy-policy

Readers of this Newsletter are kindly requested to keep their contact details updated with the IFAC Secretariat.
https://www.ifac-control.org/about/ifac-affiliate-registration

IFAC is on social media!
Direct links to IFAC's presence on Facebook, LinkedIn, and Twitter can be found on the IFAC website.

**In addition check out
the IFAC Blog at
http://blog.ifac-control.org/**

IFAC Email Aliases are available! Sign up with the address with which you are registered with IFAC at:

https://hera.ifac-control.org/ifacmail/

If you need any assistance to complete the process please contact the IFAC Secretariat via email at secretariat@ifac-control.org.

Calendar of IFAC Events

Title	2018	Place	Further information
5th IFAC Conference on Analysis and Control of Chaotic Systems CHAOS 2018	Oct./Nov. 30 – 01	Eindhoven Netherlands	http://chaos2018.wtb.tue.nl/ chaos2018@tue.nl
IEEE CSS, ACA et al. Conference on Australian and New Zealand Control Conference (in cooperation with IFAC), ANZCC 2018	December 07 – 08	Melbourne Australia	http://anzcc.org.au/ANZCC2018/index.php e-mail: not yet available
2nd IFAC Conference on Cyber-Physical and Human Systems CPHS 2018	December 13 – 15	Miami, FL USA	http://www.cphs2018.org/ cphs2018org@gmail.com

Title	2019	Place	Further information
12th IFAC Symposium on Dynamics and Control of Process Systems, including Biosystems, DYCOPS 2019	April 23 – 26	Florianópolis Brazil	http://dycopscab2019.sites.ufsc.br/ dycops.cab2019@gmail.com
3rd IFAC Workshop on Control of Systems Governed by Partial Differential Equations, CPDE 2019	May 22 – 24	Oaxaca Mexico	http://www.smm.org.mx/eventos/cdps-cpde/ smm@smm.org.mx
15th IFAC Symposium on Large Scale Complex Systems LSS 2019	May 26 – 28	Delft Netherlands	https://sites.google.com/view/ifaclss19 k.k.bhugwansing@tudelft.nl
SICE, ISCIE, JSME, IEEE, IFAC Conference on Asian Control Conference (in cooperation with IFAC) ASCC 2019	June 09 – 11	Kitakyushu, Fukuoka Japan	www.ascc2019.org/ ascc2019@ascc2019.org
IFAC Workshop on Control of Smart Grid and Renewable Energy Systems CSGRES 2019	June 10 – 12	Jeju Republic of Korea	http://csgres2019.com/ yilee@seoultech.ac.kr
9th IFAC Symposium on Advances in Automotive Control AAC 2019	June 24 – 27	Orléans France	https://aac19.sciencesconf.org/ aac2019@univ-orleans.fr
Conference on European Control Conference (in cooperation with IFAC) ECC 2019	June 25 – 28	Naples Italy	http://ecc19.eu/ technical@ecc19.eu
1st IFAC Workshop on Control of Transportation Systems WCTS 2019	June – July 30 – 01	Haifa Israel	https://wcts2019.net.technion.ac.il/ wcts2019@technion.ac.il
10th IFAC Symposium on Intelligent Autonomous Vehicles IAV 2019	July 03 – 05	Gdansk Poland	http://www.konsulting.gda.pl/iav2019/ iav2019@konsulting.gda.pl
3rd IFAC Workshop on Thermodynamic Foundations for a Mathematical Systems Theory, TFMST 2019	July 03 – 05	Louvain-la-Neuve Belgium	https://sites.uclouvain.be/tfmst2019/ denis.dochain@uclouvain.be
12th IFAC Symposium on Advances in Control Education ACE 2019	July 07 – 09	Philadelphia, PA USA	http://not yet available e-mail: not yet available
Conference on American Control Conference (in cooperation with IFAC) ACC 2019	July 10 – 12	Philadelphia, PA USA	http://acc2019.a2c2.org/ e-mail: not yet available
13th IFAC Workshop on Intelligent Manufacturing Systems IMS 2019	August 12 – 14	Oshawa Canada	http://not yet available e-mail: not yet available

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Calendar of IFAC Events

Title	2019	Place	Further information
5th IFAC Conference on Intelligent Control and Automation Sciences ICONS 2019	August 21 – 23	Belfast United Kingdom	http://www.qub.ac.uk/icons2019/ s.mcloone@qub.ac.uk
9th IFAC IEEE IFIP IFORS et al. Conference on Manufacturing Modelling, Management and Control MIM 2019	August 28 – 30	Berlin Germany	https://blog.hwr-berlin.de/mim2019/ mim2019@hwr-berlin.de
18th IFAC Symposium on Control, Optimization and Automation in Mining, Mineral and Metal Processing MMM 2019	August 28 – 30	Stellenbosch South Africa	https://www.ifacmmm2019.org/ e-mail: not yet available
11th IFAC Symposium on Nonlinear Control Systems NOLCOS 2019	September 04 – 06	Vienna Austria	http://www.mechatronicsnolcos2019.org/ contact@mechatronicsnolcos2019.org
8th IFAC Symposium on Mechatronic Systems MECHATRONICS 2019	September 04 – 06	Vienna Austria	http://www.mechatronicsnolcos2019.org/ contact@mechatronicsnolcos2019.org
7th IFAC Symposium on System Structure and Control SSSC 2019	September 09 – 11	Sinaia Romania	http://www.ace.ucv.ro/sssc2019 sssc-tds@automation.ucv.ro
15th IFAC Workshop on Time Delay Systems TDS 2019	September 09 – 11	Sinaia Romania	http://www.ace.ucv.ro/tds2019 sssc-tds@automation.ucv.ro
14th IFAC Sympsium on Analysis Design and Evaluation of Human Machine Systems, HMS 2019	September 16 – 19	Tallinn Estonia	https://cs.ttu.ee/hms2019/ secretariat-IFACHMS2019@ttu.ee
8th IFAC Workshop on Distributed Estimation and Control in Networked Systems, NECSYS 2019	September 16 – 17	Chicago, IL (Wintrust Hall) USA	http://not yet available e-mail: not yet available
12th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles, CAMS 2019	September 18 – 20	Daejeon Republic of Korea	http://not yet available e-mail: not yet available
1st IFAC Workshop on Control Methods for Water Resource Systems CMWRS 2019	September 19 – 20	Delft Netherlands	http://www.cmwrs2019.org/ e-mail: not yet available
5th IFAC Symposium on Telematics Application TA 2019	September 25 – 27	Chengdu China	http://not yet available e-mail: not yet available
19th IFAC Conference on Technology, Culture and International Stability TECIS 2019	September 26 – 28	Sozopol Bulgaria	http://www.tecis19.tu-plovdiv.bg/ tecis@tu-plovdiv.bg
8th IFAC/CACHE Conference on Foundations of Systems Biology in Engineering FOSBE 2019	October 14 – 19	Valencia Spain	http://fosbe2019.ai2.upv.es/ e-mail: not yet available
16th IFAC/IEEE (Czechoslovakia Section) Conference on Programmable Devices and Embedded Systems PDES 2019	October 29 – 31	High Tatras Slovakia	http://not yet available e-mail: not yet available
15th European Workshop on Advanced Control and Diagnosis ACD 2019	November 21 – 22	Bologna Italy	https://eventi.unibo.it/acd2019 acd2019@unibo.it
Title	**2020**	**Place**	**Further information**
Conference on American Control Conference (in cooperation with IFAC) ACC 2020	July 01 – 03	Denver, CO USA	http://acc2020.a2c2.org/ e-mail: not yet available
21st IFAC World Congress 2020	July 12-17	Berlin Germany	http://www.ifac2020.org/ info@ifac2020.org

The IFAC Calendar of Events is constantly updated as addditional technical events (Workshops, Symposia, and Conferences) are approved. The online version of the IFAC Calendar of Events is available at:
https://www.ifac-control.org/events/