

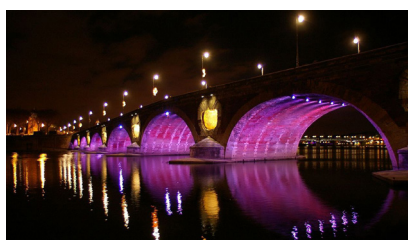
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## Preview of the 20<sup>th</sup> IFAC World Congress 9-14 July 2017 Toulouse, France

Dear Colleagues and Dear Friends,

At the time these lines are written, the Congress Organization is being finalized. Some last adjustments are made in order to fit with the unexpected large number of attendees. Over 3100 persons have registered. We are looking forward to welcoming all of you in beautiful and lively Toulouse for the World Congress.



This bridge over the Garonne River is replicated in the IFAC 2017 logo

The program of the Congress has been available online since 21 April at [ifac.papercept.net/conferences/conferences/IFAC17/program/](http://ifac.papercept.net/conferences/conferences/IFAC17/program/). It features 28 parallel oral sessions – 4 of which are interactive – and additional demonstrator sessions every day. Plenary sessions start at 8:30 each morning and the day closes on Monday, Tuesday and Wednesday with semi-plenary sessions.

Eight panel sessions provide also special opportunities to highlight and discuss important IFAC topics such as the IFAC Story and History of Automatic Control, Education and Outreach, Challenges for Industry and Social Systems, and a focus on Automated Vehicles. We hope that you will enjoy this rich and well-balanced program.

France, the Occitanie Region and Toulouse in particular are fantastic places for tourism and leisure. We hope all attendees will find the time to enjoy the local art, history, science and technology museums, the architecture, the cafés and restaurants, or sport opportunities offered within Toulouse and in the neighboring area. Details about social events, tourism opportunities and other logistic issues are regularly posted online. For the most up-to-date information, people are kindly invited to refer to the news on the World Congress homepage, as well as the postings on Twitter.



Dimitri Peaucelle, IFAC 2017 General Chair

I am extremely grateful to the hardworking Congress team that is making this major exciting event possible, and I look forward to welcoming you in Toulouse, in July.

News about 20th IFAC World Congress:  
[www.ifac2017.org](http://www.ifac2017.org) & [twitter.com/IFAC2017](https://twitter.com/IFAC2017)

International Program Committee:  
[www.ifac2017.org/IPC](http://www.ifac2017.org/IPC)

Organizing Committee:  
[www.ifac2017.org/national-organizing-committee](http://www.ifac2017.org/national-organizing-committee)

Information for preparing your venue:  
[www.ifac2017.org/venue](http://www.ifac2017.org/venue)

Program: [www.ifac2017.org/program](http://www.ifac2017.org/program)

Written by Dimitri Peaucelle,  
IFAC 2017 World Congress  
General Chair

and submitted by Janan  
Zaytoon, President of IFAC



Check the IFAC 2017 World Congress website for updates and useful information in planning your trip to Toulouse!

<http://www.ifac2017.org>

## No.3

June 2017

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### Forthcoming Events

### 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>

## IFAC Journals: Editorial Changes at *Automatica* Editor-in-Chief: Andrew Teel

Following the untimely passing of Roberto Tempo, whose obituary can be found in *Automatica*, Vol. 78, pp. 341-342, and in the Feb. Newsletter [http://www.ifac-control.org/newsletter\\_archive/IFAC\\_Newsletter\\_2017\\_1\\_February.pdf](http://www.ifac-control.org/newsletter_archive/IFAC_Newsletter_2017_1_February.pdf), IFAC has appointed Andrew R. (Andy) Teel as the new Editor-in-Chief of *Automatica*. Professor Teel's perspective on the transition can be found in *Automatica*, Vol. 79, p. 352. His biography appears in *Automatica*, Vol. 78, p. 343, and below.

Teel had been serving as *Automatica*'s area editor for nonlinear systems and control. In his place, Daniel Liberzon has graciously agreed to serve as editor for this area going forward. Professor Liberzon is very well known for his contributions to the analysis and design of nonlinear, quantized, and switched systems. His research profile and expertise enable this area to continue its leadership role in evaluating submissions pertaining to hybrid systems. Professor Liberzon's full biography can be found in *Automatica*, Vol. 79, p. 353.

In an unrelated transition, Thomas Parisini has taken over the role of area editor for control system applications effective April 1. He replaces Toshiharu Sugie, who is stepping down after serving in this role with distinction since July 2008. Parisini has a wealth of experience with control applications, both in research and in editorial work. More details about this transition, including Parisini's biography, can be found in *Automatica* Vol. 78, p. 344. With these transitions in editorship, the quality of *Automatica*'s editorial board remains second to none, positioning *Automatica* to remain arguably the premier control systems journal worldwide.

Andrew R. Teel received his A.B. degree in Engineering Sciences from Dartmouth College in Hanover, New Hampshire, in 1987, and his M.S. and Ph.D. degrees in Electrical Engineering from the University of California, Berkeley, in 1989 and 1992, respectively. After receiving his Ph.D., he was a postdoctoral fellow at the École des Mines de Paris in Fontainebleau, France. In 1992 he joined the faculty of the Electrical Engineering Department at the University of Minnesota, where he was an assistant professor until 1997. Subsequently, he joined the faculty of the Electrical and Computer Engineering Department at the University of California, Santa Barbara, where he is currently a Distinguished Professor and the Director of the Center for Control, Dynamical Systems, and Computation.

Teel's research interests are in nonlinear and hybrid dynamical systems, with a focus on stability analysis and control design, as well as in model predictive control for stochastic and nonlinear systems. He has received National Science Foundation Research Initiation and CAREER Awards, the 1998 IEEE Leon

K. Kirchmayer Prize Paper Award, the 1998 George S. Axelby Outstanding Paper Award, and the 2010 IEEE Control Systems Magazine Best Paper Award. He was also the recipient of the first SIAM Control and Systems Theory Prize in 1998. He received the 1999 Donald P. Eckman Award and the 2001 O. Hugo Schuck Best Paper Award, both given by the American Automatic Control Council, and the 2016 Triennial Achievement Award of the IFAC Technical Committee on Nonlinear Control Systems (TC 2.3.) Teel is a Fellow of the IEEE and a Fellow of IFAC.



Teel has also been active in professional activities, contributing particularly to both IEEE and IFAC. For the former, he has served as Program Chair for the 53rd IEEE Conference in Decision and Control (CDC 2014), and will serve as General Chair of the CDC in 2018; he was also an elected member of the Board of Governors of the IEEE Control Systems Society from 2012–2014. In IFAC he was Program Co-Chair of the 10th IFAC Symposium on Nonlinear Control Systems (NOLCOS) in 2016 (Monterey, CA, USA), and also has had close to 20 years of association with *Automatica*— starting as an associate editor in 1999, becoming an editor in 2009, the Deputy Editor-in-Chief in 2016, and culminating in his current new position.

Submitted by Andy Teel,  
*Automatica* Editor-in-Chief

## Elsevier-IFAC Author and Reviewer Workshop, 9 July 2017 Toulouse, FR

IFAC and Elsevier will be holding a free workshop at the upcoming IFAC World Congress in Toulouse to give tips on how to be more effective as a reviewer and author. There will be three talks: Writing high quality reviews, How to get published, and How to promote your own paper. Each talk will feature guidelines for achieving success as an author and reviewer and will be followed with a Q&A session. We hope this will provide valuable guidance to those looking to further their success in publishing their research.

The Workshop will take place 9th July 2017 and the full schedule is available at:  
<https://www.ifac2017.org/ecole-macs#>

Please register as space is limited. You can login to the standard registration page (<http://ifac2017.gipco-adns.com/>) to indicate you will attend. Please also feel free to invite your students and postdocs.

Submitted by Alison Waldron, Elsevier

## Women in IFAC Lunch 14 July 2017 Toulouse, FR

The "Celebrating Women in IFAC Lunch." will take place on

Friday, **July 14 from 12:15 - 13:15**

Venue: Mercure Hotel building

Organizing Committee includes: Bozenna Pasik-Duncan (Chair), Linda Bushnell (Co-Chair), Antonella Ferrara, Sandra Hirche, Maria Elena Valcher, Dawn Tilbury, Kristin Pettersen, Lucy Pao, Maria Prandini, Francoise Lamnabhi-Lagarrique, Ruth Bars, Sarah Spurgeon, Jacquelin Scherpen, Emilia Fridman, Kirsten Morris

Purpose: Networking makes a great impact in women's lives. IFAC brings important visibility to women in various ways. There are many exciting opportunities for women in IFAC. In particular, this event will connect women who have been involved actively in IFAC with those who are interested in becoming involved in IFAC.

Program:

12:15 - 12:25 Welcome & Introductions:

Bozenna Pasik-Duncan & Linda Bushnell

12:25- 12:35 Keynote:

Kristin Pettersen & Dawn Tilbury

12:35 - 13:15 Light Lunch

Submitted by Bozenna Pasik-Duncan, Chair,  
Women in IFAC Lunch



Bozenna Pasik-Duncan  
IFAC Technical Board, Education Liaison and  
Chair of the Women in IFAC Lunch (Toulouse)

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**We encourage electronic distribution  
of this Newsletter, as well as reprinting  
in national and local automatic control  
periodicals. Acknowledgement to IFAC  
would be appreciated.**

## IFAC Informal Officers' Meeting Vienna/Laxenburg, AT 27-29 April 2017

The Informal Meeting 2017 took place from 27-29 April. The tradition of the informal officers' meeting started during the presidency of Prof. Sawaragi (JP) as a way for the IFAC officers to easily communicate during the days when international communications were much slower and more expensive than they are now. The tradition continues as often more can be accomplished with everyone together in one room. Additionally it is a time for IFAC to renew its ties with Austria, the permanent host country of the IFAC Secretariat since 1978, and acknowledge the generous support that Austria provides IFAC through the association support subsidy provided by the Austrian Federal Ministry for Transport, Innovation, and Technology (BMVIT). This support is noted in German in the section labeled "Impressum" of each issue of this Newsletter.

In addition to the IFAC officers Paul van den Hof (Executive Board chair for 2017-2020) and Hajime Asama (IFAC President-Elect for 2020-2023) travelled to Austria to attend the meetings and learn about their upcoming roles. Dong-il (Dan) Cho, Technical Board chair for 2017-2020, was represented by upcoming Technical Board Vice-Chair Carlos Eduardo Pereira.

27 April began with a visit to the production facilities and historic wine cellar at Schlumberger, which produces and bottles award-winning Austrian sparkling wines at their headquarters in the Döbling district of Vienna. Special thanks go to Florence Zaytoon, wife of IFAC President Janan Zaytoon, who arranged for the Schlumberger visit. The group continued on to Vienna's historic First District for a tour at the Albertina art museum. There the officers were able to experience some of the rich cultural offerings of Vienna, including works by Monet and Picasso.

Each year a technical lecture is held in conjunction with the officers' meeting to provide the Austrian control engineering community with access to internationally renowned expert knowledge. This year's lecture, title, Human-System Interaction for Service RT (Robot Technology) Systems was given by IFAC President-Elect (2020-2023) Hajime Asama (JP). Special thanks go to Prof. Georg Schitter, Dipl. Ing. Peter Reichel, and Andrea Schelmberger at Österreichischer Verband für Elektrotechnik (ÖVE), Vienna, for hosting this year's lecture at Haus der Ingenieure. Kurt Schlacher, IFAC Secretary and Editor-in-chief of this Newsletter, moderated the post-lecture discussion/Q&A session. Lecture abstract:

**Needs-driven Research and Development is essential for social dissemination of Robot Technology (RT) in services. In this presentation, needs of RT in services are introduced and robotic research to understand the human and technology for the human-system interaction are discussed. For per-**

**sonal service RT, the concept of service media, interactive ambient service system equipped with RT, and application examples for various services are introduced such as guidance, skill learning, etc.**

**For public service RT, technology for human interface and novel visualization of environment for teleoperating robots for disaster response is introduced as well as for de-commissioning of Fukushima Daiichi Nuclear Power Stations. Finally, as a basic research on embodied-brain systems science to understand the human function to generate adaptive motion is mentioned as well as a research on sense of agency, which is very important for designing the human-machine systems that are friendly for humans to use them.**

Each year the President's Dinner is held, attended by the IFAC officers with invited guests from the BMVIT, as well as from other international organizations and members of the Austrian control engineering community. This year's dinner was held at the restaurant EF 16 in Vienna's first district. The president of the International Federation of Information Processing (IFIP), Prof. Mike Hinchey, travelled from Ireland to be in attendance. As with IFAC, IFIP is one of several international organizations with their office premises located in Laxenburg, a village located just south of Vienna. The IFAC Secretariat continues to be located in the premises at Schlossplatz 12 in Laxenburg, where it has been located since the 1978 move to Austria,

On Friday the officers came to the Secretariat office for the working meetings. Final decisions are never undertaken at the informal officer's meeting but they are used for discussion and planning purposes. An important topic was the 2017 IFAC General Assembly, which will take place on Monday, 10 July in Toulouse, FR in conjunction with the IFAC World Congress, as well as the agendas for the Council. Other topics included updates from task forces, officer reports, etc. On Friday evening several officers attended the opera at the Vienna State Opera.

The working meetings continued at the Secretariat on Saturday morning. As has been the tradition for the past several years the meetings concluded with a lunch (also attended by the accompanying spouses) at the restaurant "3er Haus" in nearby Gumpoldskirchen.

Planning and preparations for the 2018 meeting, which is scheduled to take place in Vienna and Laxenburg, is already underway.

**The program of the IFAC 2017 World Congress is available at**

<https://ifac.papercept.net/conferences/conferences/IFAC17/program/>



IFAC Treasurer John Lygeros (CH) at the President's Dinner.



IFAC Technical Board Chair Francis "Frank" Doyle III (US) with his wife Diana Doyle at the President's Dinner



Left: IFAC President-Elect (2020-2023) and current CC7 Chair Hajime Asama (JP). Right: IFAC Immediate Past President Ian K. Craig (ZA) attending his last Informal Officer's meeting.



IFAC President Janan Zaytoon (FR) with his wife Florence Zaytoon at the President's Dinner



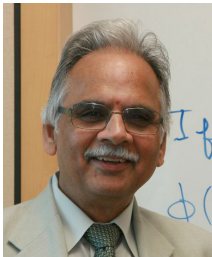
IFIP President Prof. Mike Hinchey, who travelled from Ireland to celebrate with the IFAC community



## Introducing the IFAC Fellows 2014-2017 continuation of a series

### Mathukumalli Vidyasagar

Mathukumalli Vidyasagar was born in Guntur, India on September 29, 1947. He received the B.S., M.S. and Ph.D. degrees in electrical engineering from the University of Wisconsin (Madison, WI, USA) in 1965, 1967 and 1969 respectively. Between 1969 and 1989, he was a Professor of Electrical Engineering at Marquette University, (Milwaukee, WI, USA) from 1969-70, Concordia University (Montreal, Canada) from 1970-80, and the University of Waterloo (Waterloo, Canada) from 1980-89. In 1989 he returned to India as the Director of the newly created Centre for Artificial Intelligence and Robotics (CAIR) in Bangalore, under the Ministry of Defence, Government of India. Between 1989 and 2000 he built up CAIR into a leading research laboratory with about 40 scientists and a total of about 85 persons working in areas such as flight control, robotics, neural networks, and image processing.



In 2000 he moved to the Indian private sector as an Executive Vice President of India's largest software company, Tata Consultancy Services (TCS). In the city of Hyderabad he created the Advanced Technology Center, an industrial R&D laboratory of around 80 engineers, working in areas such as computational biology, quantitative finance, e-security, identity management, and open source software to support Indian languages.

In 2009 he retired from TCS and joined the Erik Jonsson School of Engineering & Computer Science at the University of Texas at Dallas (USA), as a Cecil & Ida Green Chair in Systems Biology Science. In March 2010 he was named as the Founding Head of the newly created Bioengineering Department. His current research interests are in the application of stochastic processes and stochastic modeling to problems in computational biology, and control systems.

In addition to becoming an IFAC Fellow Vidyasagar has received a number of awards in recognition of his research contributions, including fellowships in The Royal Society (UK), the world's oldest scientific academy in continuous existence, the IEEE Control Systems (Field) Award, the Rufus Oldenburger Medal of ASME, and others. He is the author of eleven books and more than 140 papers in peer-reviewed journals.

### John S. Baras

John S. Baras received the Diploma in Electrical and Mechanical Engineering from the National Technical University of Athens, Greece, 1970; and the M.S., Ph.D. in Applied Mathematics from Harvard University in 1971 and 1973, respectively. Since 1973, Baras has served as a faculty member in the Electrical and Computer Engineering (ECE) Department, and in the Applied Mathematics, Statistics and Scientific Computation Program, at the University of Maryland College Park, and as a faculty member in the Fischell Department of Bioengineering since 2000. Additionally since 2014 Baras has served as a faculty member in the Mechanical Engineering Department. He was the Founding Director of the Institute for Systems Research (ISR) from 1985 to 1991. Since 1990 he has been the Lockheed Martin Endowed Chair in Systems Engineering and Permanent Joint Faculty Appointment between the ISR and the ECE Department and since 1991, the Founding Director of the Maryland Center for Hybrid Networks (HYNET). Additionally in 2013 he was Guest Professor at the Royal Institute of Technology (KTH), Sweden.



Baras' awards and honors include IEEE Life Fellow, SIAM Fellow, AAAS Fellow, NAI Fellow, and a Foreign Member of the Royal Swedish Academy of Engineering Sciences (IVA). Received the 1980 George Axelby Award from the IEEE Control Systems Society, the 2006 Leonard Abraham Prize from the IEEE Communications Society, the 2014 Tage Erlander Guest Professorship from the Swedish Research Council, and a three year (2014-2017) Senior Hans Fischer Fellowship from the Institute for Advanced Study of the Technical University of Munich, Germany. He has held visiting scholar positions at Harvard, MIT, UC Berkeley, Stanford, INRIA (France), and KTH (Sweden.)

Baras has coauthored more than 800 technical papers in refereed journals and conferences, one book (Path Problems in Networks, 2010), and co-edited three others. He has educated 90 doctoral students, 112 MS students and has mentored 48 postdoctoral fellows. Many of his students are on the faculty of major uni-versities, have had successful careers in major companies or have founded and developed successful companies in the United States and abroad.

Professor Baras' research interests include systems and control, optimization, communication networks, signal processing and understanding, robotics, computing systems and networks, network security and trust, and mod-

el-based systems engineering. He has given many keynote and plenary lectures in major international conferences including IEEE CDC, SIAM Conf. on Control & Its Applications, IFAC, ECC, MTNS, CCC, MobiCom, FITCE, WiOpt, PIMRC, ECAI, IJCAI, DYCOPS, MED, EBCCSP, ICS-CSR.

Baras has been awarded sixteen patents, has four patents pending as of this writing, and has been honored with many awards as innovator and leader of economic development (c.f. his selection as Fellow of the National Academy of Inventors (NAI)). He has led (or co-led) many large multi-year, multi-university projects from NSF, NASA, ARO, ONR, ARL, DARPA, AFOSR, RDECOM. He has led several successful commercialization efforts and technology transfer efforts. He is an international authority in creating and managing industry-university collaborative centers of excellence and innovation programs.

### Li-Chen Fu

Li-Chen Fu received the B.S. degree from National Taiwan University in 1981 and the Ph.D. degree from the University of California- Berkeley (USA) in 1987. In 1987 he joined National Taiwan University, and was awarded Lifetime Distinguished Professorship and Irving T. Ho Chair professorship in 2007. He has also served as the university Secretary General from 2005 to 2008. His areas of research interest include Robotics, Visual Detection and Tracking, and Control Theory & Applications.



Dr. Fu has been extremely active and highly regarded in his technical field. He has served as the Program Chair of the 2004 IEEE Conference on Control Applications (CCA). In terms of editorial work, he has served as associate editor of the journal Automatica from 1996 to 1999. In 1999, he started a new international control journal, called Asian Journal of Control and served as its Editor-in-Chief of the journal, a role which he still holds. Due to his profound academic reputation, he was appointed as Vice-President for Publication of Asian Control Association (ACA) since 2006, and then was elected as President of ACA during 2012-2013. Due to his active role in the international control community, he was elected as a member of the Board of Governors of IEEE Control Systems Society (CSS) from 2014 to 2016.

Dr. Fu has received numerous recognitions for his outstanding performance in research and education during his almost thirty year technical career. Domestically, he has received mul-

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continued from page 4

multiple Distinguished Research Awards from Ministry of Science & Technology (MOST) before 2000, Outstanding Youth Medal in 1991, Ten Outstanding Young Persons Award in 1999, Outstanding Control Engineering Award from Chinese Automatic Control Society (CACS) in 2000, Industry-Academia Collaboration Award from Ministry of Education (MOE) in 2004, TECO Technology Award in 2005, Outstanding Research Award from Pan Wen Yuan Foundation in 2012, and Academic Award from MOE in 2015. Internationally, in addition to becoming an IFAC Fellow he was awarded IEEE Fellow in 2004, has been elected as a Distinguished Lecturer for IEEE Control Systems Society from 2013~2015, and was awarded the Wook Hyun Kwon Education Prize from the Asian Control Association in 2015.

**Babatunde Ayodeji Ogunnaike**

Babatunde A. ("Tunde") Ogunnaike is the William L. Friend Chaired Professor of Chemical Engineering and Dean of the College of Engineering at the University of Delaware (USA.) He received the B.Sc. degree in Chemical Engineering from the University of Lagos (Nigeria); the M.S. degree, in Statistics and the Ph.D. degree in Chemical Engineering, both from the University of Wisconsin-Madison (US). He is the author or co-author of four books including a widely used textbook, *Process Dynamics, Modeling and Control*, and *Random Phenomena: Fundamentals of Probability and Statistics for Engineers*. He is also an Associate Editor of the journal *Industrial and Engineering Chemistry Research*.



Ogunnaike's research interests include modeling and control of industrial processes (polymer reactors, extruders, distillation columns); the application of process analytical technology for control of pharmaceutical processes; identification and control of non-linear systems; biological control systems; and systems biology with application to neuronal responses and cancer.

Awards include the American Institute of Chemical Engineers 1998 CAST Computing Practice Award, the 2004 University of Delaware's College of Engineering Excellence in Teaching Award, the 2007 ISA Eckman Award, and the 2008 AACC Control Engineering Practice Award. He was named a fellow of the American Institute of Chemical Engineers in 2009. He was elected to fellowship of the Nigerian Academy of Engineering

**Robert E. Skelton**

Robert E Skelton, received the BS EE from Clemson University, MS EE from the University of Alabama-Huntsville, and his Ph.D at the University of California- Los Angeles. He has taught at Purdue (22 years), University of California- San Diego (Daniel Alspach Chair, 15 years), and at Texas A & F (TAMU) University (TEES Distinguished Professor, 1 year). He created Systems and Control programs at Purdue and UCSD and is creating an interdisciplinary systems engineering program at TAMU.

Skelton's research focus is integrating the disciplines of structure, signal processing, and control design. He spent 12 years at Lockheed Missiles and Space Co and Sperry Rand, designing control systems for spacecraft. Additionally he serves on the external review committee for Hubble Space Telescope repair missions and is a NASA NIAC Fellow for 1g space habitat from growable tensegrity concepts. Skelton invented station-keeping buoys/UAV in deep seas, extracting electric power from wave energy and additionally designs lightweight, shape-controllable structures, autonomous construction of structures (habitats) in space.



Some of Skelton's honors and awards include being Fellow of the American Institute of Aeronautics and Astronautics (AIAA), Fellow of IEEE, Fellow of Texas Institute for Advanced Studies, and recipient of the Norman Medal of ASCE. Additionally Skelton was a visiting Springer Chair at the University of California- Santa Barbara, a winner of the Alexander von Humboldt Award, and a winner of the Japan Society for the Promotion of Science Award. He is a member of the National Academy of Engineering, the Clemson Academy of Engineering and Science, and, the Academy of Medicine Engineering and Science of Texas. In addition Skelton has written and/or edited several books.

**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>

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

<https://www.youtube.com/channel/UCLcWoqbVNxo9rVSS9NKQDeA>

**Marios M. Polycarpou**

Marios M. Polycarpou is a Professor of Electrical and Computer Engineering and the Director of the KIOS Research Center for Intelligent Systems and Networks at the University of Cyprus. He received undergraduate degrees in Computer Science and in Electrical Engineering, both from Rice University, Houston, TX, USA in 1987, and the M.S. and Ph.D. degrees in Electrical Engineering from the University of Southern California, Los Angeles, CA, USA in 1989 and 1992, respectively. In 2001, he relocated from USA to Europe to become the first faculty to join the newly established Electrical and Computer Engineering (ECE) Department at the University of Cyprus (the first ECE department in the country), where he served as founding Dept. Chair between 2001--2008.



Polycarpou's research interests are in intelligent systems and networks, adaptive control and learning systems, fault diagnosis, computational intelligence, and distributed information processing. He has worked and published in several application domains, including automation in healthcare devices (six patents), water distribution networks, smart buildings, autonomous vehicles, and transportation systems. He has published more than 300 articles in refereed journals, edited books and refereed conference proceedings, as well as co-authored seven books.

In addition to being an IFAC Fellow, Polycarpou is a Fellow of the IEEE and past Distinguished Lecturer of Computational Intelligence. He is the recipient of the 2016 IEEE Neural Networks Pioneer Award and the 2014 Best Paper Award for the journal *Building and Environment* (Elsevier). He has served as the President of the IEEE Computational Intelligence Society (2012-2013), and as the Editor-in-Chief of the *IEEE Transactions on Neural Networks and Learning Systems* (2004-2010). He is currently the Vice President of the European Control Association (EUA). Polycarpou has participated in more than 60 research projects/grants funded by several agencies and industry in Europe and the United States, including the prestigious European Research Council (ERC) Advanced Grant.

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

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



## 4<sup>th</sup> IFAC Symposium on Telematics Application TA 2016, 6-9 November Porto Alegre, BR

The 4th IFAC Symposium on Telematics Application was held in Porto Alegre (southern Brazil) from 6-9 November 2016. This symposium is the flagship event of IFAC TC 3.3 AND CC 3. Telematics applications benefit from the tremendously increasing capabilities in Web technology, telecommunication, machine-to-machine communication, and information processing. The concepts of Cyber Physical Systems, Industrial Internet and of Internet of Things enlarge the scope of classical remote control and offer several new applications.

However, beyond sound reference examples of new technology one needs appropriate theory, methods, proof of concepts and industrial standardization as well. All these aspects were covered during the conference. Six outstanding keynote plenaries were presented covering topics such as "Connected Vehicles" by Prof. Magnus Jonsson (Halmstad University, Sweden), "Digital Twin", Dr. Arquimedes Martinez Canedo (Siemens Corporate Technology, USA), "Digital Health Care" by Prof. Sri Krishnan (Ryerson University, Canada), "Cognitive Internet of Things" by Luis Liguori, CTO of IBM Brazil, "Brazilian Army Command and Control Telematics Applications" by Cel. Jorgito Stocchero from the Brazilian Army and "Brazilian Satellite Applications" by Carlos Gurgel, Director of the Brazilian Space Agency.

Additionally, two panel discussions were held: "Future Internet Challenges" with the participation of researchers from IBM Research (Brazil) and Hella (Germany) and moderated by representative from Brazilian Internet Steering Committee and "Petrobras Telematics Applications in the Pre-Salt Area", which was presented by Luis Soares from Petrobras, a Brazilian oil and gas company. Around 10% of the participants were female researchers who actively participated in the conference. Additionally 15 representatives were from industry, with 101 attendees in total.

The technical sessions included lively discussions on topics such as Industrial Internet of Things, Telematics Applications to Education, Cyber-Physical Systems, Computer Assisted Living, Smart Cities, and Maintenance Applications. The active participation of all attendants in all technical sessions was noteworthy, as the final technical session was attended by around 80% of the conference attendees, which was a good indicator of the very high level of interest of conference participants in all sessions.

Submitted by Carlos Eduardo Pereira, NOC Chair and IFAC Council Member (BR)

## 1<sup>st</sup> Conference on Advanced Systems and Electrical Technologies IC\_ASET 2017, 14-17 January Hammamet, TN

The 1st Conference on Advanced Systems and Electrical Technologies (IC\_ASET 2017) was held in Hammamet, Tunisia from 14 to 17 January 2017. It was organized by the Tunisian Association of Specialists in Electric Sciences (ASET), the Tunisian National Member Organization (NMO) of IFAC and sponsored by IEEE Industry Applications Society in cooperation with IFAC, IEEE Tunisia, Algeria and Morocco sections, and National Instruments.

The National Organizing Committee (NOC) was chaired by Prof. Abdessattar Ben Amor, President of ASET. The International Program Committee (IPC) was presided by Prof. Naceur Benhadj Braïek (TN) and by Ahmed Rubaii (USA) as Vice-President and 25 members from 7 countries.



**Tomy Sebastian IEEE IAS President with  
Abdessattar Ben Amor, IC\_ASET General  
Chair and Habib M. Kammoun, IEEE Tunisia  
Section President**

The fields of research covered by this event are multiple and cover different fields: automatic control systems, Bioinformatics and Biomedical Engineering, Communication Engineering, Industrial Informatics and Robotics, Manufacturing Engineering, Measure and Instrumentation, Micro Electronics and Embedded Systems, Power Electronics and EMC, Power Systems, Renewable Energy and Smart Grid, and Signal and Image Processing. In total, 133 submissions were received and 86 papers were accepted and presented in 20 Sessions. Half of them dealt with automatic control systems.

The program included three invited keynote lectures by internationally recognized experts. Prof. Tomy Sebastian (US), Prof. Fakhri Karray (CA) and Prof. Ahmed Chemori (FR), in the areas of automotive electrification, smart mobility and biomimetic underwater robotics. The conference introduced an information session on opportunities for international cooperation in scientific research and on the protection of innovation. A labview certification workshop on the sidelines of the conference was well received and attended by postgraduate students.

Submitted by Abdessattar Ben Amor, NOC Chair, ASET, IFAC Tunisian NMO

## From the IFAC President-Elect

Dear Friends and Colleagues,

The IFAC World Congress in Toulouse is not only an exciting and memorable event but also the start of the new triennium and hence the start of my term as president of IFAC. I feel honored and excited to have the opportunity to further shape this non-profit organization together with countless other volunteers in the upcoming three years.

The primary objective of IFAC is to serve all those concerned with the theory and application of automatic control and systems engineering, as stated in the IFAC constitution. Hence, I want to focus on the benefit generated by IFAC for the systems and control community as a whole as well as for its individual members. In the following, this very general goal is illustrated by two examples.

One special task in promoting the Science and Technology of Control in the upcoming years will be to emphasize the importance of control in application areas such as autonomous driving and smart manufacturing/Industry 4.0 as well as at the interface to computer science in the areas machine learning and artificial intelligence. IFAC can offer a broad field of expertise at these research fields, which have all gained a lot of attention in the media in recent years. Our goal is to show to governments, media, funding agencies and also to the general public that the broad field of automatic control is important for these exciting new developments and that we have methods, tools and expertise to help generate advances in those fields for the benefit of society.

For individuals, as another example, it is important that IFAC symposia and conferences are affordable experiences of high quality. While the conferences are organized and financially administered by the National Member Organizations (NMOs), IFAC should ensure that the events are well-organized and the registration fees are as low as possible. IFAC does not receive any income from these events and will help NMOs to organize conferences efficiently and such that low registration fees can be achieved.

As experts in systems analysis and controller design, we are all very inclined to the positive effects of feedback. Hence, I am always happy to receive any additional ideas, suggestions for improvement, as well as any other comments.

This short note is the start of a more or less regular news column of the IFAC President in the IFAC Newsletter, with which I want to keep you informed about goals, issues, changes and achievements during the upcoming triennium.

Looking forward to meeting you at one of the various upcoming IFAC events,

Frank Allgöwer  
(IFAC President 2017-2020)

# Calendar of IFAC Events

Title	2017	Place	Further information
20th IFAC World Congress 2017	July 09 – 14	Toulouse France	<a href="https://www.ifac2017.org">https://www.ifac2017.org</a> e-mail: <a href="mailto:contact@ifac2017.org">contact@ifac2017.org</a>
14th INSTICC Conference on Informatics in Control, Automation and Robotics (in cooperation with IFAC) ICINCO 2017	July 26 – 28	Madrid Spain	<a href="http://www.icinco.org/">http://www.icinco.org/</a> e-mail: <a href="mailto:icinco.secretariat@insticc.org">icinco.secretariat@insticc.org</a>
SACAC IFAC Conference on Control Conference Africa CCA 2017	December 07 – 08	Johannesburg, South Africa	<a href="https://sacac.org.za/pages/cca/">https://sacac.org.za/pages/cca/</a> e-mail: <a href="mailto:cca2017@sacac.org.za">cca2017@sacac.org.za</a>
IEEE - CSS, IFAC, SICE, ICROS Conference on Asian Control Conference (in cooperation with IFAC) ASCC 2017	December 17 – 20	Gold Coast Australia	<a href="https://www.ascc2017.com/">https://www.ascc2017.com/</a> e-mail: <a href="mailto:l.vlagic@griffith.edu.au">l.vlagic@griffith.edu.au</a>
Title	2018	Place	Further information
5th Conference on Advances in Control and Optimization of Dynamical Systems ACODS 2018	February 18 – 22	Hyderabad India	<a href="https://www.drdo.gov.in/acods2018/">https://www.drdo.gov.in/acods2018/</a> e-mail: <a href="mailto:acods2018@gmail.com">acods2018@gmail.com</a>
9th TU Wien/IFAC Vienna International Conference on Mathematical Modelling MATHMOD 2018	February 21 – 23	Vienna Austria	<a href="http://www.mathmod.at/">http://www.mathmod.at/</a> e-mail: <a href="mailto:info@mathmod.at">info@mathmod.at</a>
6th IFAC/IEEE (TC on DPS) Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control LHMNC 2018	May 02 – 04	Valparaíso / Viña del Mar, Chile	<a href="http://www.lhmn18.org/">http://www.lhmn18.org/</a> e-mail: <a href="mailto:juan.yuz@usm.cl">juan.yuz@usm.cl</a>
3rd IFAC Conference on Advances in Proportional-Integral-Derivative Control PID 2018	May 09 – 11	Ghent Belgium	<a href="http://www.pid18.ugent.be/">http://www.pid18.ugent.be/</a> e-mail: not yet available
15th IFAC Conference on Programmable Devices and Embedded Systems PDES 2018	May 23 – 25	Ostrava Czech Republic	<a href="http://not-yet-available.com">http://not yet available</a> e-mail: not yet available
14th IFAC/IEEE Workshop on Discrete Event Systems WODES 2018	May - June 30 – 01	Sorrento Coast - Castellammare di Stabia (NA) Italy	<a href="http://wodes2018.unisa.it">http://wodes2018.unisa.it</a> e-mail: not yet available
3rd IFAC Workshop on Automatic Control in Offshore Oil and Gas Production OOGP 2018	May - June 30 – 01	Esbjerg Denmark	<a href="http://ifac-oogp2018.org/">http://ifac-oogp2018.org/</a> e-mail: <a href="mailto:secretariat@ifac-oogp2018.org">secretariat@ifac-oogp2018.org</a>
15th IFAC Symposium on Control in Transportation Systems CTS 2018	June 06 – 08	Savona Italy	<a href="http://not-yet-available.com">http://not yet available</a> e-mail: not yet available
3rd IFAC Conference on Embedded Systems, Computational Intelligence and Telematics in Control CESCIT 2018	June 06 – 08	Faro Portugal	<a href="http://not-yet-available.com">http://not yet available</a> e-mail: not yet available
16th IFAC et al. Symposium on Information Control Problems in Manufacturing INCOM 2018	June 11 – 13	Bergamo Italy	<a href="http://www.incom2018.org">http://www.incom2018.org</a> e-mail: not yet available
IFAC Workshop on Networked & Autonomous Air & Space Systems NAASS 2018	June 13 – 15	Santa Fe, NM USA	<a href="https://sites.google.com/site/naass2018/">https://sites.google.com/site/naass2018/</a> e-mail: <a href="mailto:richardscotterwin@gmail.com">richardscotterwin@gmail.com</a>

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Bundesministerium  
 für Verkehr,  
 Innovation und Technologie

# Calendar of IFAC Events

Title	2018	Place	Further information
Conference on American Control Conference (in cooperation with IFAC) ACC 2018	June 27 – 29	Milwaukee, WI USA	<a href="http://acc2018.a2c2.org/">http://acc2018.a2c2.org/</a> e-mail: not yet available
14th IFAC Workshop on Time Delay Systems TDS 2018	June 28– 30	Budapest Hungary	<a href="http://not yet available">http://not yet available</a> e-mail: not yet available
18th IFAC/IEEE CSS Symposium on System Identification SYSID 2018	July 09 – 11	Stockholm Sweden	<a href="https://www.ee.kth.se/sysid2018/">https://www.ee.kth.se/sysid2018/</a> e-mail: <a href="mailto:hanna.holmqvist@ee.kth.se">hanna.holmqvist@ee.kth.se</a>
6th IFAC Conference on Analysis and Design of Hybrid Systems ADHS 2018	July 11 – 13	Oxford United Kingdom	<a href="http://not yet available">http://not yet available</a> e-mail: not yet available
7th CACHE, IFAC Conference on Foundation of Systems Biology in Engineering FOSBE 2018	August 05 – 08	Chicago, IL USA	<a href="https://www.fosbe.org/">https://www.fosbe.org/</a> e-mail: <a href="mailto:rcraven@fosbe.org">rcraven@fosbe.org</a>
5th IFAC Workshop on Mining, Mineral and Metal Processing MMM 2018	August 23 – 25	Shanghai China	<a href="http://not yet available">http://not yet available</a> e-mail: not yet available
10th IFAC/Polish Academy of Sciences Symposium on Fault Detection, Supervision and Safety for Technical Processes SAFEPROCESS 2018	August 29 – 31	Warsaw Poland	<a href="http://safeprocess18.uz.zgora.pl/">http://safeprocess18.uz.zgora.pl/</a> e-mail: <a href="mailto:safeprocess18@uz.zgora.pl">safeprocess18@uz.zgora.pl</a>
9th IFAC/IEEE CSS Symposium on Robust Control Design ROCOND 2018	September 03 – 05	Florianópolis Brazil	<a href="http://rocond18.ufsc.br/">http://rocond18.ufsc.br/</a> e-mail: <a href="mailto:rocond18@gmail.com">rocond18@gmail.com</a>
10th IFAC Symposium on Biological and Medical Systems BMS 2018	September 03 – 05	São Paulo Brazil	<a href="http://not yet available">http://not yet available</a> e-mail: not yet available
18th IFAC Conference on Technology, Culture and International Stability TECIS 2018	September 13 – 15	Baku Azerbaijan	<a href="http://not yet available">http://not yet available</a> e-mail: not yet available
5th IFAC Conference on Engine and Powertrain Control, Simulation and Modeling E-COSM 2018	September 20 – 22	Changchun China	<a href="http://www.ascl.jlu.edu.cn/ecosm2018/">http://www.ascl.jlu.edu.cn/ecosm2018/</a> e-mail: <a href="mailto:gaobz@jlu.edu.cn">gaobz@jlu.edu.cn</a>
Title	2019	Place	Further information
10th IFAC Symposium on Intelligent Autonomous Vehicles IAV 2019	July 03 – 05	Gdansk Poland	<a href="http://not yet available">http://not yet available</a> e-mail: not yet available
9th IFAC IEEE IFIP IFORS et al. Conference on Manufacturing Modelling, Management and Control MIM 2019	August 28 – 30	Berlin Germany	<a href="https://blog.hwr-berlin.de/mim2019/">https://blog.hwr-berlin.de/mim2019/</a> e-mail: not yet available