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## Winner of the Quazza Medal 2011 Professor Hidenori Kimura



Giorgio Quazza Medal



Hidenori Kimura

Among the major awards in IFAC, the Quazza Medal is undoubtedly the oldest one. First awarded in 1981 and named after the late Giorgio Quazza, a leading Italian electrical and control engineer who served IFAC in many capacities in a most distinguished manner, the winners of the Quazza Medal have always been among the most prestigious of control engineers, ranging from John Coales in 1981 to Graham Goodwin in 2008.

At its annual Council Meeting in Baltimore, on July 2, 2010, the Council members had to make a difficult choice from among several excellent candidates that had been nominated for this Medal. The result of the vote was the election of **Hidenori Kimura** to be Quazza Medal Winner in 2011. The citation reads:

***“For Outstanding Contributions to Multivariable and Robust Control”***

The Medal will be presented in the framework of the Opening Ceremony of the IFAC World Congress in Milan, Italy, on August 28, 2011.

Dr. Hidenori Kimura got the Bachelor, Master and Doctor Degrees from the University of Tokyo in 1965, 67 and 70, respectively. From 1970, he worked at Osaka University and was engaged in research and education of control theory and its applications. In 1996, he moved to the University of Tokyo. Meanwhile, he was nominated to be the leader of the Biological Control Systems Laboratory, the Institute of Physical and Chemical Research (RIKEN), the biggest governmental research institute in Japan in 2001. Since 2007, he has been the Director of the RIKEN BSI-Toyota Collaboration Center.

His academic contributions range from theory to applications, from control to biology, among which linear multivariable and robust control theory occupied his major research life. His results on pole-assignment by output feedback in 1975 ignited the new field of mathematical system theory based on algebraic geometry. Mathematicians developed deep nonlinear structures of linear systems disclosed in his 1975 paper. He first addressed a theory of robust stabilization in 1984, which turned out to be equivalent to the control. He proposed a new framework of control theory, which is now known as chain-scattering approach.

He has been actively involved in applications of

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control theory. Multivariable control of aluminum cold mill and automobile active suspension control were examples of successful commercialization of control theory among his industrial collaborations.

After he joined RIKEN, he has devoted his research life to widen the horizon of control theory to other fields. Quantum mechanics, biology and physiology, brain-based robot control became his favorite fields to apply control principles actively. His contributions have been published in main journals of each field. In RIKEN, he is leading a strong research group working at the interface between control systems and biology. Recently, he was appointed to be a Principal Fellow of the Japan Science and Technology Agency, and is responsible for long-term strategy to promote systems science including control in Japan.

He published more than 150 papers, most of which appeared in the major journals of control; According to the ISI Web of Knowledge, the average citation number of these 40 papers is 26.5.

He received the Automatica Paper Prize Award from IFAC twice in 1984 and in 1990, first for his theoretical contribution to high gain feedback, and second for his industrial applications of multivariable control theory to aluminum rolling. He received the George Axelby Paper Award from IEEE Control Systems Society in 1985 for his pioneering work on robust stabilization. He received the Distinguished Member Award from IEEE in 1998. Recently, he received the Outstanding Paper Award from the International Conference on Biomedical Engineering in 2008 and General Chairs' Recognition Award for Interactive Papers at IEEE CDC in 2009. He has been an IEEE Fellow since 1990 and an IFAC Fellow since 2006.

In Japan, he received the Paper Award from the Society of Instrument and Control Engineers (SICE) five times in 1972, 1983, 1993, 1997 and 2007. He also received the Book Author Award from SICE twice in 1998 and in 2004. He has been a Fellow of SICE since 1988 and Honorable Member of SICE since 2005. He was elected to be a member of the Japan Science Council for 2003-2005. He has served IFAC in many important positions and is currently a Council member of the Federation.

He has acted as a human hub in the network of Asian control communities. In 1996, he was one of the creators of the Asian Control Professors' Association which aims to enhance the communications and dialogues among control professors in Asia. It was soon transformed to a larger body, the Asian Control Association (ACA), which is now responsible for organizing the Asian Control Conference and publishing the Asian Journal of Control.

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**Acknowledgement to IFAC would be appreciated.**

## Winner of the Industrial Achievement Award 2011 Dr. Anton van Zanten

This IFAC award was introduced in 2000 and is given to an individual, or a team of individuals, who has made a significant contribution to industrial applications of control. The award, together with a certificate, is presented to the recipient by the President at each IFAC Congress.

Again at this year's Council Meeting in Baltimore, on July 2, 2010, the Council members voted for a winner from among candidates proposed by the IAA Selection Committee. The result of the vote was the election of **Dr. Anton van Zanten** to be Industrial Achievement Award Winner in 2011. The citation reads:

*"For the development and industrial realization of Antilock-Brake-Systems (ABS) with slip control and model-based Electronic Stability Control (ESC) for automobiles."*

The Award will be presented in the framework of the Opening Ceremony of the IFAC World Congress in Milan, Italy, on August 28, 2011.



Anton van Zanten

Anton T. van Zanten was born in Kota Radja, Indonesia, in 1940. He received his MSc degree in Mechanical Engineering from the University of Technology in Eindhoven, The Netherlands, in 1968 and his Ph.D. degree from the Cornell University in Ithaca, USA in 1973. He worked as a Lecturer at the Pahlavi University, Iran, from 1968 to 1970 teaching courses in machine design, engineering drawing and measurement laboratory. From 1973 to 1977 he worked as a systems and graphics programmer at the computer center of the University of Stuttgart, Germany. In 1977 he joined the Robert Bosch Company in Germany where he stayed until his retirement as a department head in 2003.

In 1977 he started in Engineering at Bosch for the development of ABS for trucks doing computer simulation of the total system. He also worked in Engineering for the development of engine knock control, diesel injection control and gasoline injection control. In 1982 he proposed the investigation of vehicle stabilization during ABS control which finally led to the development of the Electronic Stability Control system (ESC). Based on his Ph.D. research "Optimal Control of the Tractor Semitrailer Truck" he investigated ways for an industrial solution of the stability control of cars and identified the wheel slip as the key control variable. In 1984 he became a group leader with responsibility for the control algorithms, micro-

computer implementation of the control software, hydraulic system, and sensor cluster for ESC. Key to the stability control of the car was the design of a novel wheel slip controller by his group which could control the wheel slip in any situation, at any slip level and also during ABS. The wheel slip controller used special adaptation phases during ABS and a Kalman Filter to estimate the vehicle longitudinal velocity and thus a vehicle velocity sensor was not required. In 1987 an experimental car equipped with an experimental control system could demonstrate the car stability at any maneuver, any velocity and on any homogeneous road surface, including polished ice, during ABS-braking. The vehicle dynamic forces at the tires were set by control of individual wheel slip values. In addition to the guaranteed stability during handling, braking distances were also substantially reduced to unknown low values as compared with standard ABS-braking.

While in the beginning of the industrial realization the vehicle stability was controlled using a Riccati control, later realizations used various situation dependent PID-controllers together with a set of design rules. Also the lateral motion of the vehicle was estimated initially by a Kalman Filter but later reduced to a simple integration of an approximation of the slip angle velocity together with some design rules. Traction Control was also based on tire slip so that the realization of ESC resulted in a hierarchical control structure in which the wheel slip was the fundamental control variable. With the introduction of ESC on off road vehicles the estimation of the vehicle longitudinal velocity was extended to include fuzzy logic. In 1992 the complete industrial realization of ESC could be demonstrated in an experimental car using a set of industrial sensors. In the same year his group started the series development of ESC together with a group of DaimlerBenz. During the series development extensive software was developed in parallel to the control software for the safe operation of the car in case a system component would fail. Series production of ESC started under the name "Electronic Stability Program (ESP)" in March 1995 for the S-class Mercedes cars.

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In 1989 he became department head with the responsibility of the systems development of ESC for cars. In 1992 with the start of the series development he became also the project leader of the Bosch-team. After the successful introduction of ESC on the market in 1995 he became responsible for the series development of ESC worldwide and for the cost reduction of the system.

ESC has been honored by many international awards like the SAE-Henry Ford II Distinguished Award for Excellence in Automotive Engineering in 1995, the Porsche Award for Automotive Engineering in Vienna in 1999, the Golden Dieseling for Traffic Safety in Germany in 2000 and the FIA-World Prize for Road Safety, Environment and Mobility in 2007. Also some papers related to the ESC development have been honored by international awards like the SAE Ralph H. Isbrandt Automotive Safety Engineering Award in 1991.

Anton van Zanten now teaches courses on Vehicle Dynamics Control in industry and at the Universities of Applied Science in Heilbronn and Esslingen in Germany and develops ABS control software for a novel brake by wire system as a consultant.

## Computer Applications in Biotechnology CAB 2010 IFAC Symposium Leuven, BE, 7 - 9 July, 2010

The symposium on Computer Applications in Biotechnology (CAB 2010) was held in Leuven (Belgium) from 7 to 9 July 2010. CAB is organized every three years and aims at stimulating contacts between specialists active in academic research and industrial development in all major areas in biotechnology, where computers are used to support bioprocess design, supervision, diagnosis, operation, optimization and control.

In 2010, the CAB symposium was organized in coordination with the DYCOPS 2010 (Dynamics and Control Process System) IFAC symposium, that was held also in Leuven, on July 5-7, in the same facilities. See report on page 4.

108 papers were submitted to the CAB Symposium. The final selection resulted in a Program of 70 oral presentations and 18 posters, coming from a total of 252 authors. The sessions brought together contributions from 133 participants representing 24 different countries. The papers covered a range of topics, including strong traditional areas, such as system identification, dynamics and control, optimization, sensors and monitoring and environmental (wastewater treatment), and also emerging topics, namely systems biology and metabolic modeling, microalgae bioreactors, process analytical tools and multi-scale modeling. The Symposium also featured three invited plenary speakers: Olivier Bernard (INRIA, France), Uwe Sauer (ETH Zurich, Switzerland) and Michel Perrier (École Polytechnique de Montréal, Canada).

We would like to thank the many individuals who played a key role in the organization of the Symposium: the IPC members, especially the Area co-Chairs, the reviewers, the NOC and the local organizing team.

Julio R. Banga, IPC Chair

## Winner of the Nathaniel B. Nichols Medal 2011 and Election to IFAC Fellow 2010 Siva Banda

This IFAC award was created in 1996 and 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. It is named after Nathaniel B. Nichols, a leading contributor in the USA to control engineering and applications.

At this year's Council Meeting in Baltimore, on July 2, 2010, the Council members voted for a winner from among candidates proposed by the Nathaniel Nichols Selection Committee. The result of the vote was the election of **Dr. Siva Banda** to be the Nathaniel Nichols Medal Winner in 2011. The citation reads:

*"For his outstanding technical leadership and innovative contributions to the development of advanced flight control critical to the performance and reliability of modern air and space platforms"*

It is an additional pleasure to announce that Dr. Siva Banda was also nominated and elected **IFAC Fellow 2010** with the following citation:

*"For technical leadership and innovative development of advanced control design techniques for aerospace applications"*

The Nichols Medal will be presented in the framework of the Opening Ceremony of the IFAC World Congress in Milan, Italy, on August 28, 2011. The Fellow Ceremony will take place in a specially dedicated Session in the framework of the Congress.



Nathaniel Nichols Medal



Siva Banda

Dr. Siva S. Banda is the Director of the US Air Force Center of Excellence in Control Science at the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base, Ohio. Dr. Banda has dedicated his career to ensuring that the aerospace industry possesses the cutting-edge flight control solutions essential to fielding revolutionary air and space platforms for both military and commercial applications. He has been a part of AFRL's scientific professional research staff since 1981.

Dr. Banda's personal professional contributions have been recognized in multiple forums and in multiple ways, most notably through: the Institute of Electrical and Electronics Engineers (IEEE) Control Systems Technology Award; the Royal Aeronautical Society (RAeS) Silver Medal; the Meritorious Presidential Rank Award; the Distinguished Presidential Rank Award; election as a Fellow of RAeS, the American Institute for Aeronautics and Astronautics, and IEEE; and Membership of the National Academy of Engineering. He serves on Advisory Boards at the University of Southern California, the Society for Industrial and Applied Mathematics, the NASA

Langley Research Center, and the Idaho National Laboratory. He also serves as an Advisor to the Air Force Office of Scientific Research, the Office of Naval Research, the Army Research Office, the Defense Advanced Research Projects Agency, the National Research Council, and The National Science Foundation and leads several international technical activities within the NATO Research and Technology Organization and The Technical Cooperation Program. He has served on the Editorial Boards of the IEEE Transactions on Control Systems Technology, the International Journal of Robust & Nonlinear Control, and the AIAA Journal of Guidance, Control & Dynamics.

Dr. Banda received his B.E. in Electrical Engineering from the Regional Engineering College, Warangal, India; his M.E. in Aeronautical Engineering from the Indian Institute of Science, Bangalore; an M.S. in Systems Engineering from Wright State University; and a PhD in Aerospace Engineering from the University of Dayton in 1974, 1976, 1978 and 1980 respectively. He has authored over 200 technical papers, reports and books, holds two patents, and has delivered more than 100 invited lectures worldwide.



## **Call for Fellow Nominations 2011 TO IFAC FELLOW NOMINATORS**

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 even excluded from consideration. For a list of IFAC Fellows elected so far, please go to the IFAC website at: <http://www.ifac-control.org/awards/ifac-fellows>

### **Nominator**

Any person is eligible to serve as a nominator with the exception of members of the Fellows Selection Committee (FSC), and IFAC Council Members. The nominator is responsible for the information provided. The nominator is asked to read the **Nominator Information**, complete the **Nomination Form** according to the requirements given below and to alert the persons given as references that they have been named referees.

Fellow Nomination Forms must reach the IFAC Secretariat (by e-mail: [secretariat@ifac-control.org](mailto:secretariat@ifac-control.org)) by

**December 31, 2010**

### **Fellow Candidates**

The IFAC Fellow award provides a distinction of excellence in the Federation and is conferred to a small number of outstanding scientists or engineers by the IFAC Council, based on the proposal of the Fellow Selection Committee (FSC). The FSC Committee shall consider:

1. Outstanding and extraordinary individual contributions in the fields of interest of IFAC in the role as an Engineer/Scientist, Technical Leader or Educator. These achievements shall be recorded as technical publications, patents, reports, systems products, applications, services and demonstrable teaching innovations.
2. Opinions of Fellow references.
3. Involvement in IFAC activities.

Any control scientist or engineer (with the exceptions listed below) can be a candidate for the IFAC Fellow position. Past involvement in IFAC activities, publications and events is relevant and desirable but not mandatory.

Current members of the Fellow Selection Committee (FSC) are not eligible to be considered as Fellow Candidates; in addition, the President and President-Elect of IFAC are not eligible to be nominated/considered for selection as Fellows, but other IFAC Council members could be nominated and selected. In this case, any candidate Council Members would be obliged to excuse themselves from any form of participation in any selection process of IFAC Fellows.

### **References**

A 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 Fellows themselves. It is to be noted that the choice of references is important for the success of the candidate's nomination. Members of the IFAC Council and the Fellow Selection Committee are not eligible to serve as referees. If you have been asked to act as reference, please read the **Reference Information** and complete the **Reference Form**

Fellow Reference Forms must reach the IFAC Secretariat (by e-mail: [secretariat@ifac-control.org](mailto:secretariat@ifac-control.org)) by

**February 1, 2011**

The Call for Nominations, the Nominator Information and the Reference Information are available for download at the IFAC website at

<http://www.ifac-control.org/news/fellow-nominations-2011>

The Fellow Nomination Form and the Fellow Reference Form are available at

<http://www.ifac-control.org/news/fellow-nominations-2011>

and can be submitted directly to the Secretariat. **A nomination or reference is valid only if confirmed by e-mail by the IFAC Secretariat.**

### **New Fellows Announcement**

The election of newly elected Fellows will be announced shortly after the completion of the vote taken by the IFAC Council. IFAC will inform all candidates and their nominators of the election results by e-mail and/or first class mail. Nominators of unsuccessful candidates will be notified by e-mail and/or first class mail.

# Winner of the High Impact Paper Award 2011 D.Q. Mayne, J.B. Rawlings, C.V. Rao, P.O.M. Scokaert

At its meeting held in London, 26 June 2009, Council approved the institution of a major new IFAC award to acknowledge the impact of a paper published in any of the official IFAC journals on the broad areas of Automatic Control theory and application.

At this year's Council Meeting in Baltimore, on July 2, 2010, the Council members voted for a winning paper from among candidate papers proposed by the High Impact Paper Award Selection Committee. The result of the vote was the election of the following paper to win the High Impact Paper Award in 2011:

***“Constrained Model Predictive Control: Stability and Optimality”***  
***by D.Q. Mayne, J.B. Rawlings, C.V. Rao, and P.O.M. Scokaert,***  
***published in the IFAC Journal Automatica, vol. 36, pp. 789-814, 2000.***



D.Q. Mayne



J.B. Rawlings



C.V. Rao



P.O.M. Scokaert

**David Mayne** received the B.Sc. and M.Sc. degrees in Engineering from the University of the Witwatersrand, South Africa, the Ph.D. and D.Sc. degrees from the University of London, England, and the degree of Doctor of Technology, *honoris causa*, from the University of Lund, Sweden. During 1950-1959, he held the posts of Lecturer at the University of the Witwatersrand, and, for two years, Research and Development Engineer at the British Thomson Houston Company, Rugby, England. From 1959 to 1989, he was at Imperial College London where he was appointed Professor in 1971. From 1989 until 1996 he held the post of Professor in the Department of Electrical and Computer Engineering at the University of California, Davis. In 1996 he returned to Imperial College London as Senior Research Investigator. He has spent considerable periods at Harvard University, the University of California, Berkeley, the University of Newcastle, Australia, and the Lund Institute of Technology in collaborative research. His research interests include optimization, optimization based design, nonlinear control, model

predictive control, and adaptive control. Dr Mayne is the recipient of numerous prestigious awards. He is a Fellow of the Royal Society, a Fellow of the Royal Academy of Engineering, a Fellow of the IEEE, a Fellow of the IEE, a Fellow of IFAC and a Fellow of Imperial College.

**James B. Rawlings** was born in the USA in 1957. He studied in the USA, where he received his Ph.D. in Chemical Engineering in 1985. After one year as NATO postdoctoral fellow in Stuttgart, he joined the faculty at the University of Texas. He moved to the University of Wisconsin and is currently the Paul A. Elfers Professor of Chemical Engineering. His research interests are in the areas of chemical process modelling, monitoring and control, nonlinear and predictive control, moving horizon state estimation, particulate systems modelling, and crystallization.

**Christopher V. Rao** received the B.S. degree from Carnegie Mellon University and the Ph.D. degree from the University of Wisconsin, Madi-

son, both in chemical engineering, in 1994 and 2000, respectively. From 2000 to 2004, he was a research associate with the Howard Hughes Medical Institute and Lawrence Berkeley National Laboratory. In 2005, he moved to the University of Illinois at Urbana-Champaign, where he is currently an assistant professor in the Department of Chemical and Biomolecular Engineering. His current research focuses on feedback control in context of cell biology with specific interests in bacterial pathogenesis and synthetic biology.

**Pierre Scokaert** was born in Belgium in 1968. He studied in England at Reading University, where he obtained the B.Eng degree in 1990, and at Oxford University, where he obtained the D.Phil degree in 1994. Between 1994 and 1996, Pierre held positions at the University of Texas at Austin, the University of Wisconsin at Madison and the University of California at Davis. Since 1996, he has been working in the IT industry. Between 1996 and 2000, he worked for France Telecom R&D. He now works for Opensugar S.A., a company he founded in 2000.



## FORTHCOMING EVENTS

2010  
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October

Title	2010	Place	Further Information
IFAC Workshop (4th) Fractional Differentiation and its Applications – FDA'10	October 18 – 20	Badajoz Spain	<a href="http://ees.fberg.tuke.sk/fda10">http://ees.fberg.tuke.sk/fda10</a> e-mail: <a href="mailto:fda10@tuke.sk">fda10@tuke.sk</a>
IFAC Workshop Supplemental Ways for Improving International Stability – SWIIS	October 27 – 29	Prishtina Kosovo	<a href="http://www.ubt-uni.net/swiis">http://www.ubt-uni.net/swiis</a> e-mail: <a href="mailto:ehajrizi@ubt-uni.net">ehajrizi@ubt-uni.net</a>
CASIM/IFAC Conference Automation in the Mining Industry - AUTOMINING 2010	November 10 – 12	Santiago Chile	<a href="http://www.automining2010.com">http://www.automining2010.com</a> e-mail: <a href="mailto:automining@automining2010.com">automining@automining2010.com</a>
IFAC Conference Modelling and Control in Agriculture, Horticulture and Post-Harvest Processing AGRICONTROL 2010	December 06 – 08	Kyoto Japan	<a href="http://elam.kais.kyoto-u.ac.jp/agricontrol2010/">http://elam.kais.kyoto-u.ac.jp/agricontrol2010/</a> e-mail: <a href="mailto:agrictrl@energy.kais.kyoto-u.ac.jp">agrictrl@energy.kais.kyoto-u.ac.jp</a>

## FORTHCOMING EVENTS (ctd.)

Title	2011	Place	Further Information
Intl. Conference on Computer Aided Systems Theory - EUROCAST 2011	February 06 – 11	Las Palmas de G.C Spain	<a href="http://www.iuctc.ulpgc.es/spain/eurocast2011/">http://www.iuctc.ulpgc.es/spain/eurocast2011/</a> e-mail: <a href="mailto:eurocast@iuctc.ulpgc.es">eurocast@iuctc.ulpgc.es</a>
American Control Conference - in co-operation with IFAC -	June 29 – July 01	San Francisco CA, USA	<a href="http://a2c2.org/conferences/acc2011/">http://a2c2.org/conferences/acc2011/</a>
IFAC WORLD CONGRESS – 18th Milano 2011	August 28 – Sept. 02	Milan Italy	<a href="http://www.ifac2011.org/">http://www.ifac2011.org/</a> e-mail: <a href="mailto:info@ifac2011.org">info@ifac2011.org</a>
SAE/IFAC Intl. Symposium Future Active Safety Technology towards zero-traffic-accident - FAST-zero'11	September 05 – 08	Tokyo Japan	<a href="http://www.fast-zero11.info/">http://www.fast-zero11.info/</a> e-mail: <a href="mailto:fast-zero11@ics-inc.co.jp">fast-zero11@ics-inc.co.jp</a>
Title	2012	Place	Further Information
IFAC Conference Advances in PID Control	March 28 – 30	Brescia Italy	<a href="http://pid12.ing.unibs.it">http://pid12.ing.unibs.it</a> (not yet operative) e-mail: to be announced
IFAC Symposium Information Control Problems in Manufacturing – INCOM 2012	May 23 – 25	Bucharest Romania	<a href="http://incom12.org">http://incom12.org</a> (not yet operative)
IFAC Workshop Automatic Control in Offshore Oil and Gas Production	May 31 – June 1	Trondheim Norway	<a href="http://www.ifac-oilfield.no/">http://www.ifac-oilfield.no/</a> e-mail: to be announced
IFAC Workshop Dynamics and Control in Agriculture and Food Processing - DYCAF	June 13 – 16	Plovdiv Bulgaria	<a href="http://">http://</a> to be announced e-mail: to be announced
IFAC Symposium Advanced Control of Chemical Processes - ADCHEM-2012	July 10 – 13	Singapore Singapore	<a href="http://www.adchem2012.org/">http://www.adchem2012.org/</a> e-mail: <a href="mailto:ivan@adchem2012.org">ivan@adchem2012.org</a>
IFAC Symposium System Identification – SYSID 2012	July 11 – 13	Brussels Belgium	<a href="http://www.sysid2012.org/">http://www.sysid2012.org/</a> e-mail: <a href="mailto:secretariat@sysid2012.org">secretariat@sysid2012.org</a>
IFAC Symposium Robot Control – SYROCO 2012	September 05 – 09	Dubrovnik Croatia	<a href="http://">http://</a> to be announced e-mail: to be announced
IFAC Symposium Control in Transportation Systems - CTS'12	September 12 – 14	Sofia Bulgaria	<a href="http://">http://</a> to be announced e-mail: to be announced
Title	2013	Place	Further Information
IFAC Symposium Advances in Control Education	August 28 – 30	Sheffield UK	<a href="http://">http://</a> to be announced e-mail: to be announced
IFAC Symposium Nonlinear Control Systems - NOLCOS	September 04 – 06	Toulouse France	<a href="http://">http://</a> to be announced e-mail: to be announced

## Dynamics and Control of Process Systems - DYCOPS 2010

### IFAC Symposium Leuven Belgium, 5 - 7 July, 2010

The 9th IFAC International Symposium on Dynamics and Control of Process Systems (DYCOPS 2010) was held in Leuven, Belgium from July 5 - 7, 2010. DYCOPS is organized every three years and brings together scientists and engineers from universities, R&D laboratories, vendor companies and process industries to focus attention on new methodologies and emerging applications within Process Systems Engineering.

In 2010, continuing the trend established at the 2007 DYCOPS, the symposium was organized in close co-ordination with the 11th International Symposium on Computer Applications in Biotechnology (CAB 2010) which was also held at the same venue in Leuven from July 7-9, 2010 with one day of overlap - Wednesday, July 7, 2010. See report on page 5.

A total of 200 papers, including 14 invited contributions and 4 plenaries, were received. Following a rigorous peer review, the final program included 141 regular and invited papers, 4 plenaries and 6 keynotes for a total of 147 presentations. As part

of the co-ordination with CAB 2010, an additional 20 papers from CAB were cross listed with DYCOPS resulting in 5 joint DYCOPS-CAB sessions on topics related to control of bioprocessing, systems biology and bioprocess analytical tools. One of the 4 keynotes in DYCOPS 2010 was jointly hosted with CAB 2010.

The symposium attracted 172 registered participants from 32 countries, clearly indicating the international interest in the conference. A range of topics covering all aspects of control and dynamics as they relate to processing systems were represented in technical program. Highlights included two invited sessions on control of energy and environmental systems; three sessions on systems biology; and plenary sessions covering control of networks (John Baras, US), control of solid oxide fuel cells (Biao Huang, Canada), industrial challenges of process control (Marc Lacroix, Belgium) and control of microalgae (Olivier Bernard, France).

Professor Mayuresh V. Kothare, IPC Chair

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