IFAC Industry Committee Newsletter

January 2026

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Report by Kevin Brooks, Chair, IFAC Industry Committee (kevin.brooks@wits.ac.za)

Welcome to the IFAC Industry Committee's newsletter. We aim to keep you informed of developments within the committee, but more importantly, to encourage you to become involved in its activities.

At the 2017 World Congress in Toulouse, France, IFAC established an Industry Committee (IndCom), reporting to the IFAC Council. The goals of the committee are to:

- Strengthen the engagement of industry and industry representatives in IFAC activities
- Enhance the value of IFAC to the industry
- Help control research realise its full potential for industry impact
- Provide industry perspective and guidance to assist research and education in academia to better address industry needs

The IFAC Industry Committee will commence its final year of this, its third triennium. The committee chair is also a Technical Board Vice Chair and an *ex officio* non-voting member of the IFAC Council.

An Executive Subcommittee (ExCom) has been established to oversee the task forces, manage membership, serve as a liaison to the Technical Board and the Council, and provide general direction to the committee. The ExCom comprises

Kevin Brooks (ZA)	Steve Kahne (US)	Atanas Serbezov (US)
Moncef Chioua (CA)	Iven Mareels (AU)	Bill Tubbs (CA)
Stefano Di Cairano (US)	Alisa Rupenyan (CH)	Alex van Delft (NL)
Philippe Goupil (FR)	Tariq Samad (US)	Kaiqiang Zhang (UK)

The Industry Committee currently has 117 members. The majority are affiliated with industry, and the substantial majority of those who are not currently in industry have spent some or most of their careers in industry. The table below gives some additional statistics.

Affiliation	Industry: 63; Academia: 48; Government: 4; Retired: 2
Geographic distribution	Europe: 56; N. America: 32; Asia-Pacific: 20; Africa: 7, C./S. America: 3; the total number of countries represented: 30
Countries with the highest representation	US: 23; Germany and Canada: 7; South Africa, France: 6 each; China, Italy, Finland, Australia: 5 each

The membership is diverse geographically, with members hailing from 30 countries on all continents except Antarctica. Central and South America are underrepresented. The membership represents all industry sectors, with a greater representation from the process industry sector than from other sectors. Recommendations for additional members from other sectors would be welcome. The roster can be found here: https://sites.ifac-control.org/industry/roster.

Below are past and current task forces through which most of the committee's work occurs:

Task Forces concluded (1)	• Control Concepts for Managerial Decision-making (Samad)
Active Task Forces (7)	• Communication and Metrics (Tubbs/Brooks) • Impact of Automatic Control Research on Industrial Innovation • IFAC Industry Connect Webinars (Tubbs) • Awards for Industry Impact of Control (Di Cairano) • Benchmarking for Industrial Control Practices (Zhang) • Startups and Entrepreneurship (Rupenyan) • Preparing graduate students for industry employment (van Delft)
Task Forces suspended (1)	• Open Access Resources for Practitioner Education (Serbezov)

Achievements

A major achievement has been the preparation of an edited volume, *The Impact of Automatic Control Research on Industrial Innovation: Enabling a Sustainable Future*, for the book series on "Control Systems: Theory and Applications" of IEEE Press, an imprint of John Wiley & Sons. The book consists of separate chapters on the process industry, robotics and manufacturing automation, data industry, energy and power conversion, automotive, and building automation.

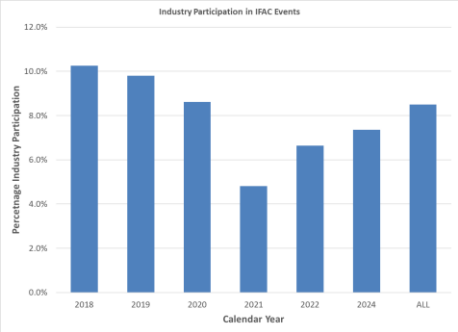
Our IFAC Industry Connect Webinars faced some challenges, but one event was held on September 17:

- Benchmarking for Industrial Control Practice
  Panellists: Mehmet Mercangöz, Peter Fogh Odgaard and Maarten Schoukens
  Moderator: Kai Zhang
- The webinar will appear on YouTube shortly.

We are always keen to hear about topics that would be of interest for a panel discussion of this type.

Tracking Industry Participation in IFAC Events

The committee uses IFAC Event Reports to track industry participation in IFAC events. The figure below gives the percentage of industry participants in events per year since 2018.



It may be early days, but the percentage seems to be picking up slowly from a low in 2021.

An Appeal

Currently, the communication and metric portfolio is shared, which is not ideal. If you are interested in becoming more involved in the committee's work and could see yourself helping with the key area of communications, please contact me at **kevin.brooks@wits.ac.za**.

IFAC Industry Committee Awards – Stefano di Cairano

The IFAC Industry Committee is proud to introduce two new awards to recognise significant contributions of control theory with an impact on industry.

IFAC Industry Committee Doctoral Thesis Award

The award recognises a PhD thesis in the field of control with demonstrated potential of significant business impact on an Industry Entity (a Company, a corporation, or a major Industry Organisation).

Eligibility criteria: The individual must be affiliated with IFAC and have defended a PhD Thesis up to 3 years before the deadline, with a focus on the development/application of control in industry.

PhD theses for which the IndCom Chair or evaluation committee members are part of the PhD thesis committee or collaborators (based on published papers) are not eligible.

Criteria for evaluation: significance of potential of business impact, likelihood of business impact to actually occur, novelty of the methods developed, societal impact of the product/service involved, and included documentation.

IFAC Industry Committee Practitioner Award

The award recognises practitioners (Individual/Team) in the field of control with demonstrated significant business impact on a specific Industry Entity (Company, a corporation, or a major Industry Organisation).

Eligibility criteria: The individual/Team must be affiliated with IFAC, being prevalently in Industry (if Individual, the principal, if Team, the lead contributor and more than 50% of the Team). A key milestone of the contribution nominated for the award must have occurred within the previous 6 years before the deadline, with a focus on the development/application of control in industry.

Contributions, including the current IndCom Chair or current evaluation committee members (based on published papers and other public information), are not eligible.

Criteria for evaluation: significance of business impact, novelty of the methods developed, societal impact of the product/service involved, and included documentation.

Timeline & Procedure

A nomination form is located at: https://sites.ifac-control.org/industry/task-forces/awards. Submit via email to the IFAC Industry Committee Chair: Kevin Brooks, kevin.brooks@wits.ac.za

- Form Submission deadline: January 30th, 2026
- Support letter Submission: February 6th, 2026

- Awardees notification: April 17th, 2026
- Award Ceremony: IFAC World Congress 2026, August 23-26, Busan, KR

Taskforce Report

"The impact of automatic control research on industrial innovation: enabling a sustainable future". Edited Volume. Chairs: Silvia Mastellone (CH) and Alex van Delft (NL)

We are happy to announce that our Edited Volume: "The Impact of Automatic Control Research on Industrial Innovation: Enabling a Sustainable Future", is published by Wiley, as part of the IEEE Press series on Control Systems Theory and Applications. With this book, we aim to contribute to closing the gap between theory and practice in this important (but often hidden and therefore undervalued) area of technology. More information on the book is available in the enclosed link:

[The Impact of Automatic Control Research on Industrial Innovation: Enabling a Sustainable Future | Wiley]

The volume has been the result of a great cooperation between several contributors from Industry and Academia. A special thank you to the key contributors and Editorial Board members: Iven Mareels, Alisa Rupenyan, Stefano Di Cairano, Amritam Das, Scott Bortoff, and Tariq Samad of the University of Minnesota, US, for his fruitful advice and Foreword in this volume.

The book provides:
- Insights on industrial and commercial applications of automatic control theory.
- Detailed discussions of industrial sectors, including automotive, power conversion, process industry, robotics and manufacturing, building automation and data industry.
- Industrial viewpoints from representatives from, amongst others, IBM, ABB and Mitsubishi.
- An applied research roadmap for each sector.

Since the publication of the edited volume, the Taskforce has focused on bringing the book and the topic of closing the gap to the attention of our control colleagues both in academia and industry. At the 2024 European Control Conference in Stockholm, a successful tutorial session was organised, and it is the intention to have this volume accompanied by training courses and webinars, in cooperation with the Editorial Board. We will also engage industries at more application-oriented conferences, through webinars, and via end-user associations for each region. We plan to spend another "IFAC Industry Connect webinar" on the book or one of the chapters. Moreover, the IFAC Industry Committee is preparing a Taskforce "Preparing and Engaging Students for a career in Industry", in which the volume could be used as a standard "curriculum part" as well.

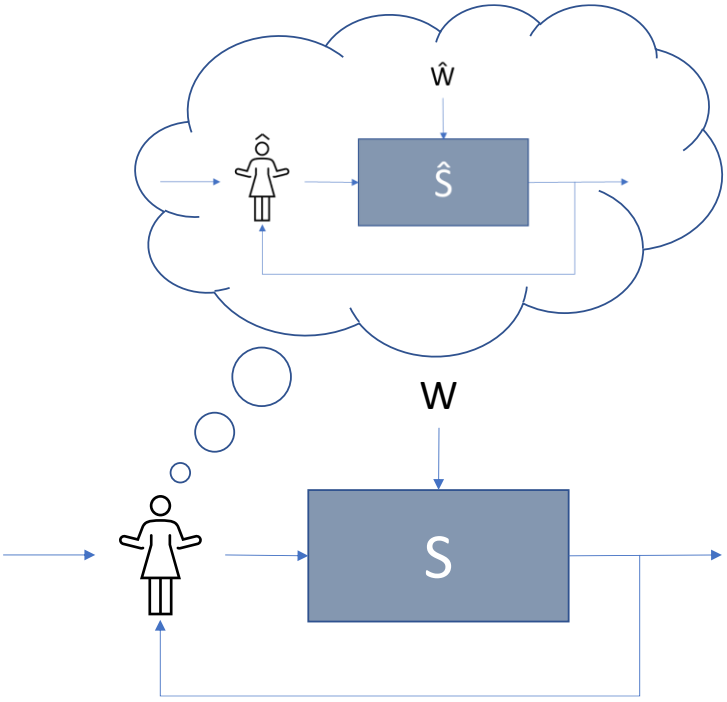
Control concepts for managerial decision making

Task Force Wrap-up

Tariq Samad, tsamad@umn.edu

In December 2020, the Industry Committee launched a task force on "Control Concepts for Managerial Decision Making," chaired by the author. After four-plus years of many engaged meetings and discussions, and some outcomes in terms of sessions and publications, we have successfully concluded this task force!

The motivation for this effort was to bring a broader perspective to the controls community—to engender the realisation that control methodologies and tools are relevant beyond the realm of engineering systems. A primary focus was on human decision-making in organisational contexts. The figure below suggests the analogy—human managers of organisational systems are practising (mental-)model-based control.



Source: T. Samad, "Control Systems — Concepts and Insights for Managerial Decision Making," *Proc. IEEE 10th International Conference on Intelligent Systems*, Varna, Bulgaria, August 2020. Copyright IEEE.

The task force held Zoom meetings approximately every 6-7 weeks, often featuring guest speakers from within and outside the control field. Presentations and discussions were broad ranging, including topics such as supply chains, enterprise analytics, research management, medical device regulation, professional education, policy making, operations management, linguistic reasoning, and more.

In addition, two conference sessions were organised, each of which included several task force members:

- A tutorial session was held at the 2022 American Control Conference (Atlanta, June), titled "Managerial Decision Making as an Application for Control Science and Engineering." The session included papers by D. Abramovitch, F. Cuzzola, B. Grossman, O. Gusikhin, E. Juuso, M. Lees, B. Patil, S. Pickl, R. Rhinehart, and T. Samad. The main paper for the session is an extensive discussion of the topic.
- An invited session was organised for the IEEE TEMSCON Global 2025 conference (San Diego, August). This session included papers by task force members F. Cuzzola (which won a conference best-paper award), E. Juuso, S. Pickl, R. Rhinehart, and T. Samad (in several cases with coauthors).

Thanks to the task force members for their sustained interest and participation: D. Abramovitch (US), L. Chiang (US), F. Cuzzola (IT), L. Desborough (US), B. Grosman (US), O. Gusikhin (US), E. Juuso (FI), Z. Kowalczuk (PL), M. Lees (AU), I. Mareels (AU), B. Patil (IN), S. Pickl (DE), R. Rhinehart (US), D. Rivera (US), B. Sawicki (CH), B. Tubbs (CA)!

The chair of this concluded task force welcomes feedback and expressions of interest from other IndCom members. The topic is by no means exhausted!

Industry Committee Forums for the World Congress in 2026

At the World Congress in 2023, the Industry Committee hosted several successful forums. We hope to repeat this for the World Congress in Busan. Currently, the proposed topics are:

1. Benchmarking, including robotic and control use cases (Zhang)
2. AI and Control (Rupenyan)
3. Making Practice Publishable (Brooks)

If you have a topic that would be of interest, please let us know.