## International Federation of Automatic Control (IFAC) Activities' Report - Year 2016

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IFAC is an organization of nations founded in 1956. Each nation is represented by a "National member Organization" (NMO). From the very beginning, CNR is the Italian NMO for IFAC. There are currently 50 nations participating to IFAC. In 2016, the Italian delegates were Roberto Tempo (Titular) and Patrizio Colaneri (Alternate).

At the beginning of 2017 the international control community and CNR were hit by a severe and unexpected loss. The italian CNR delegate for IFAC Roberto Tempo passed away prematurely. He was a first level outstanding researcher of CNR working at IEIIT in Turin, and enthusiastic volonteer in IFAC. His death left us with an incredible sense of loss in so many respects. His strong involvement in IFAC will be hardly replacaeble.

The new delegates have been appointed in March 2017 for the rest of the triennium 2015-2018 and are Patrizio Colaneri (Politecnico di Milano & IEIIT-CNR) and Fabrizio Dabbene (IEIIT-CNR).

IFAC activities are mainly focussed on the organization of scientific events (about 40 per year) and publications (7 journals) in a variety of diverse control disciplines. The scientific areas are articulated in 9 Coordinating Committee (CC), each of them includes a few Technical Committees (TC). The flagship event is the triennal world congress (Milan 2011, Cape Town 2014, Toulouse 2017), but IFAC also sponsors Symposia, Conferences and Workshops. Additional information are in the IFAC web site: http://www.ifaccontrol.org/.

The italian delegate partecipates to the works of the General Assembly (GA), the most important parliamentary body of IFAC. The GA dictates the rules for partecipating nations, discusses the entrance of new members, according to the articles of the IFAC constitution, listen and reports the works of the Executive Board and technical Board. As an example, in 2016 Italy voted in favor of the entrance of Malaysia. The italian delegate is also responsible for the IFAC events running in our country. Finally the italian delegate proposes to the TC chairs new members of the various Technical Committees.

## Italian participation in IFAC.

The italian participation in IFAC has always been very important. The main positions held in 2016 are here indicated:

Roberto Tempo – CNR-IEIIT (Editor in Chief IFAC journal AUTOMATICA, member of the "Fellow Selection Committee", Chair Italian NMO)

Sergio Bittanti – Politecnico di Milano and CNR-IEIIT – (IFAC Vice President, chair dell' Executive Board')

Alberto Isidori – Università di Roma La Sapienza (IFAC Advisor, Chair of the "High Impact Paper Award Committee", Chair of IFAC Foundation)

Patrizio Colaneri – Politecnico di Milano and CNR-IEIIT – (Member of the Technical Board, alternate representive of Italy)

Paolo Bolzern – Politecnico di Milano and IEIIT-CNR - (E-media Editor of IFAC youTube channel, member of IFAC "Publication committee")

Diego Pareschi – ABB (member of "Policy Committee")

Alessandro Giua - Università di Cagliari (Editor in Chief IFAC journal "Nonlinear Analysis – Hybrid Systems")

Alessandro Astolfi – Università Roma Tor Vergata (Chair CC2 Design Method).

Marco Campi – Università di Brescia (Chair TC 1.1 Modelling, Identification and Signal Processing)

Laura Menini – Università di Roma Tor Vergata (Chair TC 2.1 Control Design)

Giuseppe Conte – Università Politecnica delle Marche (Chair TC 2.2 Linear Control Systems)

Lorenzo Marconi- Università di Bologna (Chair TC 2.3 Nonlinear Control Systems)

Fabrizio Dabbene – CNR-IEIIT (Chair TC 2.5 Robust Control)

Thomas Parisini – Università di Trieste (Chair TC 6.4 Fault Detection)

Since 2015 Prof. Sergio Bittanti, professor at Politecnico and Associate to IEIIT-CNR, is Vice Chair of IFAC and the chair of the Executive Committe. He coordinates all executive committes (Administration and Finance, Awards, Policy, Publications) and external relations of the Federation.

## The impact on the national scientific community is highly remarkable.

The italian control community is very active in the participation to events sponsored by IFAC, in the organization of such events, in the revision process of the papers presented in IFAC events, in the rosters of technical committees and editorial boards of IFAC journals. In particular, two out of seven IFAC journals are chaired by italian researchers. The members of the italian control community gather every year for the SIDRA (Società Italiana dei Ricercatori di Automatica) workshop and the assembly, where in general the IFAC activities are reviewed. This year the workshop will be held in 2017 in Milan. The CNR president M. Inguscio has been invited, through the rector of the Politecnico di Milano, to interveen and provide a report on the role that CNR plays in supporting the research in Automatic Control in Italy. During the three-days meeting a workshop will be held in memory of Roberto Tempo, Italian representiive of CNR in IFAC.

IFAC activities in IFAC are in good shape, both form the qualitative and quantitative viewpoints. In 2017, Congress year, according to the constitution, there are no events sponsored by IFAC. In 2018 there will be a milestone event in Italy, specifically the "15° IFAC Symposium on Control in Transportation Systems (CTS), to be held in Savona in June". Moreover, there are two events co-sponsored by IFAC, precisely "IFAC/IEEE Workshop on Discrete-time Systems, Sorrento", and IFAC/IEEE Symposium on Information Control Problems in Manufactoring, Bergamo".

Signature

Milano, March 17, 2017