Curriculum Vitae and Research Activity of Mara Tanelli, May 2017

Mara Tanelli was born in Lodi, Italy, in 1978. Since April 2015, she is Associate Professor of Automatic Control at the Dipartimento di Elettronica e Informazione of the Politecnico di Milano, where she obtained the Laurea degree in Computer Science Engineering in 2003 and the Ph.D. in Information Engineering in 2007. She also holds a M.Sc. in Computer Science from the University of Illinois at Chicago.

For her Ph.D. research activities, in 2007 she has been awarded with the **Dimitri N. Chorafas Ph.D. Thesis Award** and the **Claudio Maffezzoni Ph.D. Thesis Award**, second edition.

Her main research interests focus on active control systems design for ground vehicles, estimation and identification techniques with application to automotive systems, energy management of electric vehicles, control for the energy aware IT systems and sliding mode control.

She is author and co-author of **more than 120** peer-reviewed scientific publications (among which 42 international journals and 80 international conferences) and **7 patents** in these research areas. She is co-author of the monograph "Active braking control systems design for vehicles", published in 2010 for the Springer Series "Advances in Industrial Control", which has a Chinese edition also, and she is co-editor a book on "Modelling, simulation and control of two-wheeled vehicles", published by Wiley & Sons in 2014.
Her research papers have been **cited over 1100** times and her **h-index is 18** (Scopus database, May 2017).

On April 2017, she obtained the National Academic Qualification as Full Professor of Automatic Control.

For her research activities, she has been awarded with the 2008 ASME Dynamic Systems and Control **Rudolf Kalman Best Paper Award** for the paper "Mixed slip-deceleration control in automotive braking systems" published in the ASME Journal of Dynamic Systems, Measurement and Control in 2007. In September 2011, she received the 2011 **Control Engineering Practice Best Paper Prize** for the paper "On optimal motorcycle braking". In 2014, she obtained the **IEEE–CSS Italian Chapter Best Young Author Journal Paper Award** 2013 for the work "Enhancing Robustness and Performance via Switched Second Order Sliding Mode Control", published in the IEEE Transactions on Automatic Control on April 2013.

Since 2012, she is **Senior Member** of the IEEE and since 2013 she is a member of the **Conference Editorial Board** of the IEEE Control Systems Society. Since January 2016, she is **Associate Editor** of the IEEE Control Systems Technology. She was **member of the committee** for selecting the award winner of the 2017 edition of the Control Engineering Practice Best Paper Prize.

She currently teaches the course of Fundamentals of Automatic Control to the undergraduate students in Control and Automation Engineering at the Politecnico di Milano, 2nd year. She was instructor for the PhD courses on "Active management of IT systems" and "Sliding Mode Control" at the Politecnico di Milano.

She was co-principal investigator of the "Green Active Management of IT Systems" GAME-IT project funded by the Politecnico di Milano in 2009, and of the 2011 Honda Initiation Grant Europe (HIGE) project E-SURF: Enhancing vehicle stability and handling via active aerodynamic SURFaces (a one year, 30kEUR project).
She is currently co-task leader for the Cluster Project TIVANO (Innovative technologies for new-generation aviation systems), funded by the Italian Ministry of Economic Affairs (total budget 10MEUR) focusing on the design novel anti-skid controllers for small aircraft. She is the PI of the PoliMI unit of the project iSHARE, funded by Regione Lombardia (total budget 828kEUR, of which 227kEUR for the PoliMI unit).
She was and currently is involved in many different projects funded both by industrial partners and public entities.