Curriculum vitae of Roberto Guidorzi

Since the Academic Year 1980/81 Roberto Guidorzi has been holder of the Chair of Systems Theory at the Faculty of Engineering of the University of Bologna where he has teached several courses, among them System Theory and Dynamic System Identification. Other courses hold at Bologna and Ferrara universities have been Computer Science Principles, Advanced Control Systems, Modeling and Control of Environmental Systems and Control Systems. He has been appointed Alma Mater Professor in January 2012.

He has, besides, been Director of the Computing Centre of the Faculty of Engineering of Bologna University (C.C.I.B.) from 1987 to 1992 and, from 1997 to 2005, of CITAM (Centro Interfacoltà per le Tecnologie Didattico-Educative Teleaudiovisive "Guglielmo Marconi" dell'Università di Bologna).

He is the author of more than 200 publications dealing with both methodological and application topics. The methodological contents concern mainly the analysis of the structural properties of dynamic systems, the development of canonical state-space and input-output representations, identification in equation-error and errors-in-variables contexts, blind channel identification, optimal errors-in-variables filtering. Most applications describe the modelling, by means of identification techniques, of industrial (electric, chemical, petrochemical), natural (reservoirs and storages of natural gas, Lakes Erie and Ontario and the Adriatic Sea) and economic (models of the Dutch and Italian economies) processes. His last book, *Multivariable System Identification: From observations to Models*, has been published in 2003 (first edition) and reprinted in 2005 (second edition).

He is also interested in the application of advanced instruments in teaching with particular emphasis on e-learning methodologies both in blended-learning and in distance-learning environments. In this context he has coordinated the AlmaWeb project at Bologna University and has carried out some dual-delivery tests on the modular course Dynamic System Identification. He has been responsible of the Distance Learning section of Project Apennine, concerning the use of ICT in some schools of the Apennine region and has coordinated the development of the e-learning platform of Bologna University, AlmaChannel. E-learning activities have also been coordinated in the context of the Special Interest Group on Web-based Open and Distance Learning of the European Commission initiative Prometeus (PROmoting Multimedia access to Education and Training in the EUropean Society).

He has served as reviewer for several magazines (IEEE Transactions on Automatic Control, Automatica (for which he has acted as Associate Guest Editor), C-TAT, Systems & Control Letters, International Journal of Control, Zentralblatt für Mathematik, Mathematical Reviews, Ricerche di Automatica, The International Journal of Modelling and Simulation and others) and has acted as Chairman of international congresses like the IFAC Symposium on Identification and System Parameter Estimation, MTNS, etc.

He has been visiting professor at Washington University (St. Louis, Missouri), Brown University (Providence, Rhode Island), the University of Florida (Gainesville, Florida) and the Technische Hogeschool Eindhoven (Eindhoven, Holland) and has held invited seminars at Italian and foreign universities, among them Washington University, ETH Zürich, University of Florida, Technische Hogeschool Eindhoven, Kaiserlautern Polytechnic, Katholieke Universiteit Leuven, University of Athens as well as research organizations like the International Institute of Applied Systems Analysis, the International Atomic Energy Agency and UNESCO, Benelux Meeting on Systems and Control.

He has collaborated with various industries in the development of relevant projects, among them management systems for gas pipeline networks (SNAM, Milan), satellite navigation systems (Elettronica, Rome), computerized injection systems for gasoline propulsors (Weber, Bologna), identification of natural gas reservoirs (Agip Mineraria, Milan), tracking and data fusion (ITALTEL, Milan), early diagnosis in railway systems (SASIB, Bologna), structural health monitoring (Teleco, Lugo). He has also developed a specific package concerning the simulation of Comacchio Valleys for Emilia-Romagna Region and has been a consultant of the Bologna Province in the evaluation of educational projects for industry workers.

Prof. Guidorzi has served as Coordinator of the subgroup Systems and Control Theory of G.R.A.S. (Group of Researchers of Automatics and System Science), as representative of the research personnel in G.N.A.S. (National Group of Automatics and Science Systems) in the G.N.A.S. Scientific Council. He has been one of the founding members of the Interdepartmental Research Centre on Sea Sciences of the University of Bologna and has coordinated the research group of Bologna University in the national project *Identification, Control and Optimization of Dynamical Systems*. He has coordinated also the group of Bologna researchers participating to the European project SIMONET (System Identification and MOdelling NETwork) and the research group STING (System Theory and IdentificatioN Group).

He has been Chairman of the Special Interest Group on Web-based Open and Distance Learning of the initiative Prometeus (PROmoting Multimedia access to Education and Training in the EUropean Society) of the European Commission and member of the Prometeus Steering Committee.

Prof. Guidorzi is mentioned in the International Directory of Distinguished Leadership of the American Biographical Institute, in Longman's Who's Who in Science, in Marquis' Who's Who in the World and Who's Who in Science and Engineering and in Who's Who in World Oil and Gas of the Financial Times.