

Short curriculum vitae

Massimiliano Mattei

Full Professor of Flight Mechanic at the Engineering Department Università della Campania “Luigi Vanvitelli”, Via Roma n.29, Aversa (CE), C.A.P., 81031, tel.081-5010406, e-mail: massimiliano.mattei@unicampania.it

Curriculum Studiorum and Academic Positions

- 1993 Laurea cum laude Aeronautical Engineering - Università di Napoli “Federico II”
Laurea Prize *Consorzio Napoli Ricerche*.
- 1993-97 PhD in Electronic Engineering Università di Napoli “Federico II”
- 1997-98 On contract Professor “Teoria dei Sistemi” (DU) Università di Napoli Federico II.
- 1997-01 Assistant Professor Università di Reggio Calabria, S.S.D. Automatica ING-INF/04
- 2001-04 Associate Professor Università di Reggio Calabria, S.S.D. Automatica ING-INF/04
- 2005-08 Full Professor Università di Reggio Calabria, S.S.D. Automatica ING-INF/04
- 2008-18 Full Professor Flight Mechanics Università della Campania L.Vanvitelli S.S.D. Meccanica del Volo ING-IND/03

Main Scientific, Technical and Administrative Activities

- 1993-94 Collaboration with CIRA (Italian Aerospace Research Center) on “Parabolic Flights”
- 1994-96 Garteur FM-AG08 on “Robust Flight Control”
- 1997-98 Research contract - Università Napoli Federico II
“Modelling and Control of space vehicle during rendez-vous and docking phases”
- 1997-00 Research contract on “Modelling and Control of the Scirocco Plasma Wind Tunnel” with CIRA
- 1998-99 Participation to the project PRIN 9809073286_002 on
“Shape control of plasmas for nuclear fusion in tokamaks”
- 2001-04 Participation to the Brite-Euram V Programma Quadro ADFCSII (5th European Framework) on
Flight Control
- 2001-03 Participation to the project PRIN 2001091179_003, on inverse problems for fusion plasmas in tokamaks
- 2003-05 Participation to the project PRIN PRIN 2003090472_001, on scenario optimization in tokamaks
- 2003-05 Participation to the project PON GAFACS on Flight Control
- 2004-06 Scientific coordinator for a research project on “Fault Detection and Isolation for Robotics, Fusion Tokamaks and Aircrafts” granted by the CARICAL foundation
- 2005-07 Participation to the project PON “PILOT – Piattaforma di Interoperabilità per la LOGistica ed i Trasporti”
- 2005-07 Participation to the project AUTOMA (AUTOMobile Logistic Management)
- 2005-07 Participation to the project LOGICA
- 2005-07 Participation to the project “ICT LAB” (POR Calabria)
- 2005-06 Scientific Coordinator of experiments on the JET tokamak (www.jet.efda.org)
- 2005-07 Responsible for EFDA contract on ITER and DEMO (EQUIL contract)
- 2006-07 FIRB project on Nuclear Fusion, MIUR N. RBNE03TZZB_003
- 2007-08 Responsible for EFDA contract on ITER operation Scenarios (OPSCE contract).
- 2007-09 Participation to the project PRIN “Modelling and Control of plasma instabilities in tokamaks on the resistive time scale”
- 2010-11 F4E GRANT on the optimization of PF and CS ITER coils (GRT-017 F4E), local coordinator
- 2010-12 F4E GRANT on optimization and simulation of ITER Scenarios (GRT-255 F4E), local coordinator
- 2009-11 EFDA ITM Task Order JW9-O-ENEA-8, ITC task order JW10-TA-EX-ITC-06), ITM (ITM-09-IMP1-T2)
- 2009-11 Local coordinator PRIN 2008CSS4W3_004 on Flight Control
- 2010-11 Reserach contract with ALENIA-Aeronautica of flight simulation of Regional Aircrafts
- 2014- Participation to the preliminary design of the ITER Plasma Control System
- 2018- F4E OPE883 contract on plasma magnetic reconstruction
- 2011-18 Other research contracts and Grants on modelling and control of fusion plasmas in tokamaks
ITER (www.iter.org), JT60SA (www.jt60sa.org), DEMO (<https://www.euro-fusion.org>)
- 2011-13 Scientific responsible contract DIAM-SELEX Sistemi Integrati on mobile robots control (SSI-CTR-2010-13A)
- 2012-13 Scientific responsible - reserach contract DIAM-CIRA Fault Detection and Isolation for General Aviation aircraft (CIRA-CF-11-0799)
- 2014-17 Scientific responsible – research contract DIII-Caltec on Control Algorithms for a VTOL UAV EPTERON

- 2014-15 Scientific responsible DIII-DEMA contract on the development of the UAV ULTRAS
- 2015- Local coordinator of the UCLV research unit in SCAVIR project
- 2015- Local coordinator of the UCLV research unit in MISTRAL project
- 2018 Local coordinator of the UCLV research unit in the MIB (Modular Iron Bird) project
- 2015 One Star Innovation Award MBDA
- 1994-15 Member IEEE, Senior Member 2006
- 1995-15 Member AIAA, Senior Member 2010
- 2007-13 Associate Editor *IEEE Transactions on Control Systems Technology*
- 2011-16 Member of the Scientific Committee of the CREATE Consortium
- 1994-18 Author and co-author of about 180 scientific papers
h-index: 25 (Scopus), 27 (Google Scholar).
Reviewer for the main journals in the area of Automatic Control and Flight Mechanics
(e.g. *Acta Astronautica, Aerospace Science and Technology, AIAA Journal on Guidance, Control and Dynamics, ASME Journal of Dynamic Systems, Measurement and Control, Automatica, Control Engineering Practice, Fusion Engineering and Design, IEE Proceedings, IEEE Transactions on Aerospace, IEEE Control Systems Magazine, IEEE Transactions on Automatic Control, IEEE Transactions on Circuits and Systems, IEEE Transactions on Control Systems Technology, IEEE Transactions on Robotics and Automation, International Journal of Control, International Journal of Robust and Nonlinear Control, International Journal of Adaptive Control and Signal Processing, ISA Transactions, Journal of Process Control, Neural Networks, Nuclear Fusion, Robotica, ...*), member of the scientific Committee of the following conferences *MERCEA 2008* (Reggio Calabria, IT), *ADC 2010* (Ferrara, IT), *ICONS 2013* (Chengdu, China), *CoDiT 2019* (Paris, France)
- 2005-18 Co-author of scientific Software for the simulation, magnetic reconstruction and control of plasmas for nuclear fusion in tokamak reactors. (e.g. Software *XSCTools, MSWTools, CREATE-NL*)
- 1993-18 Teaching experience: System Theory, Automatic Control, Process Control, Industrial Automation, Flight Mechanics, Flight Dynamics, Flight Control, Aircraft Design.
- 1993-18 Other technical and scientific activities on *Flight Control Systems, UAV, Guidance and Navigation, Nuclear Fusion in tokamaks, Fault detection and isolation, Control theory*
- 2000-08 Responsible of the Control and Automation Laboratory at the Università di Reggio Calabria www.unirc.it
- 2003-06 Ph.D. Course coordinator, Electrical and Automation Engineering
(Università di Reggio Calabria www.unirc.it, DIMET www.dimet.unirc.it).
- 2006-08 Director of the Dept. “Dipartimento di Informatica, Matematica, Elettronica e Trasporti”
(Università di Reggio Calabria www.unirc.it , DIMET www.dimet.unirc.it)
- 2013-15 Member of the Administration board of CRdC Tecnologie Scrl (www.crdctecnologie.it)
- 2012-14 Director of the Dept. Dipartimento di Ingegneria Industriale e dell’Informazione
Seconda Università di Napoli www.diii.unina2.it
- 2015- Member of the Administration board RIMIC Scrl (Rete di Interconnessione Multiservizio Interuniversitaria Campana) www.rimic.it
- 2016- Member of the Administration board Consorzio CREATE www.create.unina.it
- 2014-16 Vice-Rector for Reserach - Seconda Università di Napoli

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Prof. Massimiliano Mattei

