

# Curriculum Vitæ

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## Biographical Profile

Luigi Glielmo (LG) holds a Master in Electronic Engineering (5-year “laurea”) degree in Electronic Engineering and a research doctorate in Automatic Control, from University of Naples Federico II, where subsequently he returned to teach after also having taught at University of Palermo.

Currently, he is a Professor of Automatic Control, and Coordinator of the PhD program in *Information Technologies for Engineering* at University of Sannio (Unisannio) in Benevento, where he has been Head of the Department of Engineering (2001-2007), and Rector’s Delegate for Technology Transfer (2009-2019). He also leads GRACE, the Group for Research on Automatic Control Engineering, pursuing active research interests over the years including: singular perturbation methods, model predictive control methods, automotive controls, deep brain stimulation modeling and control, smart-grid control, satellite autonomy, modelling of protein transport in eukariotic cells, Boolean control network control. He has co-authored more than 170 papers published in international journals or international conference proceedings, co-edited two books, and holds two patents. A senior member of IEEE and member of SIAM, his other leadership roles include: current editorial board member of various leading journals as *IEEE Control Systems Society Letters*; co-proposer and chair of the *IEEE Control Systems Society Technical Committee on Automotive Controls*; ordinary member of the Conference Board of *IFAC, the International Federation of Automatic Control* (2020–2023); and General Co-Chair of the *2019 European Control Conference* (Naples, June 2019).

## Professional Highlights

### LEADERSHIP

#### International Conferences/Professional Bodies:

Conference Board of *IFAC, International Federation of Automatic Control*; **Board Member** 2020–2023  
*European Control Conference*, Naples-Italy, June 25–28, 2019; **General Co-Chair**

*IEEE Control Systems Society Workshop on the Future of Control in Transportation Systems*, May 27–29, 2010, Benevento, with IEEE CSS Outreach support; **Chair**

*IEEE Control Systems Society Technical Committee on Automotive Controls*; **Chair** (2001–2004), having proposed the constitution thereof in 2000.

### RESEARCH

#### Principal Investigator (PI):

Research projects with various automotive companies such as Magneti Marelli Powertrain Division, Centro Ricerche FIAT, ELASIS, FMA, Centro Sviluppo Materiali SpA.  
Research programs funded by the Italian Ministry of Research

**Local PI and/or Coordinator of the Italian Partners:**

*HAEOLUS, Hydrogen-Aeolic Energy with Optimised eLectrolysers Upstream of Substation*, FCH JU (Fuel Cells and Hydrogen – Joint Undertaking) H2020 EU project (Ongoing)

*AFarCloud, Aggregate Farming in the Cloud*, ECSEL JU H2020 EU project (Ongoing)

*ICT based Intelligent management of Integrated RES for the Smart Grid optimal operation - I3RES*, FP7 European project, 2012–2015

*Sustainable-Smart Grid Open System for the Aggregated Control, Monitoring and Management of Energy, e-Gotham*, Artemis European project, 2012–2015

**Selected Research Contributions (Methodologies, Applications):**

Lyapunov stability [4, 6, 8]

Singularly perturbed systems [3, 2, 21]

Kalman filtering [10, 5]

Plasma shape identification [1]

Nonlinear systems analysis [9, 7]

Automotive controls [16, 15, 12, 19, 14, 17, 23]

Three-Way Catalytic Converter modeling and control [11, 18, 13]

Deep Brain Stimulation modeling and control [22, 20]

Energy grids [24, 25, 29, 33]

Energy production from water distribution networks [28, 31, 34]

Graph analysis [36]

Epidemiological models of certain genetic illnesses [27, 26, 30]

Satellite autonomy [32, 35]

Modelling of eukariotic cell protein transport [37]

Boolean network control [38]

LG also edited two books for Springer-Verlag and was the associate editor for the Automotive controls section of the *Encyclopedia of Systems and Control* (2015, Springer-Verlag), and is the associate editor for the Automotive controls section for the 2nd edition of the Encyclopedia.

**PATENTS**

G. Catapano, S. Santaniello, L. Glielmo, and G. Fiengo, *Retractor system for surgical applications for detecting characteristic parameters of organic tissues*, US Patent US20090259106A1, 2006.

L. Glielmo, D. Del Cogliano, and C. De Santis, *System for Remotely Controlling and Monitoring a Food Refrigerator and its Content*, US Patent US20090282859A1, 2006.

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