

Ivan Arsie

Full Professor of Energy Conversion Systems

Dept. of Engineering - University of Naples "Parthenope"

EDUCATION

Ph.D. in "Thermo-Mechanical Systems Engineering" from University of Naples "Federico II" (1999).
Degree cum laude in Mechanical Engineering from University of Salerno (1995).

POSITIONS HELD

Full Professor of Energy Conversion Systems, 2020 – present, University of Naples "Parthenope".

Associate Professor of Fluid Machines, 2012-2019, University of Salerno.

Assistant Professor of Fluid Machines, 2002-2011, University of Salerno.

Research Associate at the Energy and Propulsion Lab, 1999-2002, University of Salerno.

Visiting researcher, 2000, Measurement and Control Laboratory of the Swiss Federal Institute of Technology (ETH), Zurich.

Visiting scholar, 1997, Institute of Automation of the Technical University of Denmark (DTU), Lingby (DK).

Visiting scholar, 1995, Istituto Motori – CNR (National Research Council), Naples.

BIBLIOMETRIC INDICATORS and PUBLICATIONS

(as of September 30, 2021)

Scopus ID 6602375699: h-index = 18; citations = 1029.

Google scholar: h-index = 26; citations = 2104.

120+ articles published on international journals or presented at international conferences with referees.

RESEARCH PROJECTS

Involved, as coordinator or member of the research team, in more than 50 research projects funded by Italian Government, EU, industrial partners (e.g. Magneti Marelli, FCA, Telecom) on the following topics:

- Multi-zone modeling of combustion and emissions in SI and CI engines for control application
- Optimal energy management of hybrid electric vehicles
- In-cylinder pressure based control of SI and CI engines
- Simulation and optimization of engine waste heat recovery technologies
- Modeling and control of after-treatment systems for engine exhaust gas

- Control and diagnosis of Solid Oxide and PEM Fuel Cell for mobile and stationary application
- Optimal energy management in Telecom operative centers

TEACHING

2020 – present: Lecturer of ‘Energy Systems Operation’ and ‘Internal Combustion Engines’ at University of Naples ‘Parthenope’.

2005 – 2020: lecturer of ‘Fluid Machines’, ‘Experiments and Control of Internal Combustion Engines’ and ‘Hybrid Vehicles’ at University of Salerno.

2008-2015: Lecturer of ‘Engine control systems’ at the Master Course in Automotive Engineering for graduated students at University of Naples ‘Federico II’.

2005-2011: Teaching staff member of the Ph.D. in Mechanical Engineering at University of Salerno

2012-2019: Teaching staff member of the Ph.D. in Industrial Engineering at University of Salerno Engineering and supervisor of 7 PhD Students.

STUDENTS ADVISED

Advisor of 50+ Master theses and 7 PhD theses.

INVITED TALK AND KEYNOTES

He acted as lecturer of scientific seminars on Engine and HEV Modeling and Control at Swiss Federal Institute of Technology (ETH - Zurigo), Linkoping University (SE), Budapest University of Technology and Economics (HU), Universidad de Sevilla (S), Magneti Marelli Powertrain – Bologna and FCA (former Fiat/Élasis) - Pomigliano D’Arco (NA).

He acted as lecturer at the Master Course of Internal Combustion Engines at the CMT of Universitat Politecnica de Valencia.

EDITORIAL WORK AND CONFERENCE ORGANIZATION

He has served as reviewer for many international journals, among which “Control Engineering Practice”, “Applied Energy”, “Energy Conversion and Management”, “Applied Thermal Engineering”, “SAE Journal of Engines”, “IEEE Transactions on Vehicular Technology”, “ASME Journal of Engineering for Gas Turbines and Power”, “Mechanical Systems and Signal Processing”, “International Journal of Mechanical Sciences”, the biennial SAE-ICE conference and the triannual IFAC World Congress.

Member of the Editorial board of the journal Energies – MDPI.

Member of the editorial board of the journal “Periodica Polytechnica Transportation Engineering” of Budapest University of Technology and Economics, Hungary.

Member of the Organization Committee of 1st IFAC Symposium on “Advances in Automotive Control” at University of Salerno (april 2004) and 62nd Conference of National Association of Thermo-techniques (ATI) at University of Salerno (sept. 2007).

Associate Editor of track 7.1 "Transportation and Vehicle Systems - Automotive Control" for the 19th IFAC World Congress, august 24-29 2014, Cape Town.

Session Chair of track 2.2 "Automotive Systems – Engine and Powertrain" for the 12th Biennial Conference on "Engineering Systems Design and Analysis – ASME ESDA 2014", june 25-27 2014, Copenhagen.

Member of the International Program Committee (IPC) and Associate Editor for Combustion Engine Control - Conventional Drive Train, Design and Engineering at the 8th IFAC Symposium on "Advances in Automotive Control" - AAC 2016, june 20-23 2016, Norrkoping (Sweden).

Guest Editor of Energy Procedia (vol. 101 - Proceedings of 71° Congresso ATI).

Member of the International Program Committee (IPC) and Associate Editor of track 7.1. Transportation and Vehicle Systems - Automotive Control for the 20th IFAC 2017 World Congress, Toulouse, France, july 9-14, 2017.

Member of the International Program Committee (IPC) and Associate Editor for Combustion Engine Control - Conventional Drive Train, Design and Engineering at the 9th IFAC Symposium on "Advances in Automotive Control" - AAC 2019, Orleans (F).

Session Organizer for "Hybrid and Electric Powertrain" for 14th SAE International Conference on Engines & Vehicles", Capri (I), september 15-19 2019.

Member of the International Program Committee (IPC) and Associate Editor of track 7.1. Transportation and Vehicle Systems - Automotive Control for the 21st IFAC 2020 World Congress, Berlin, Germany, july 12-17, 2020.

In 2010 he was member of the External Evaluation Committee of the HAN Automotive Research Centre at HAN University of Applied Sciences, Arnhem (NL).

In 2016 he revised research projects in the field of Automotive Control for the Dutch funding agency for academic research in the field of applied sciences - Technology Foundation STW.

He acted as external reviewer for several PhD theses at Politecnico di Torino, University of Bologna, Politecnico di Bari, University of Naples "Federico II", Universitat Politecnica de Valencia, Linkoping University.

AWARDS and PRIZES

In 2004 received the Best Paper Award in the area "Control of Vehicle Propulsion & Motorcycles" at the AVEC '04 Symposium on Advance Vehicle Control Technologies (HAN - University, Arnhem, The Netherlands, August 23-27).

In 2005 received the SAE Award for Excellence in Oral Presentation at the SAE World Congress and Exposition (Detroit, April 11-15).

In 2010 received the prize 'Energy and Mobility' at the H2Roma show.

PROFESSIONAL MEMBERSHIP

IFAC Technical Committee on Automotive Control.

SAE (Society of Automotive Engineers).

THIRD MISSION (PUBLIC AND SOCIAL ENGAGEMENT) and PATENTS

Co-founder of the spin-off innovative start-up companies EPROINN s.r.l. and MINERVAS s.r.l.

Inventor of three international patents on topics related to conventional and hybrid powertrains for automotive application and advanced driving assistance systems.