

Federico Baronti was born in Pisa, Italy, in 1975. He obtained the M.Sc. degree in Electronic Engineering and the PhD in Land Vehicles and Transportation Systems from the University of Pisa in 2001 and 2005, respectively. From 2005 to 2011, he had held a post-doctoral position at the Dipartimento di Ingegneria dell'Informazione, University of Pisa. From 2011 to 2017, he was an assistant professor and since 2017 he is an associate professor at the same department.

Research and Awards

Federico Baronti has been working on the design and testing of innovative electronic systems aiming at improving the performance, safety and comfort of land vehicles. More recent activities are in the field of Li-ion battery modelling and the design of effective battery monitoring and management architectures, with particular attention to the development of accurate and low computationally intensive algorithms for battery state and parameter co-estimation and their implementation on affordable hardware platforms.

He received the best paper award for the IEEE Industrial Electronics Magazine in 2013, the top ten scored papers award at the ISIE 2012, and the best paper award for the work presented at the 2007 Electronic Group annual meeting.

He is a Senior Member of IEEE. He has been AdCom Member of the IEEE Industrial Electronics Society (IEEE-IES) and the chair of the IEEE-IES Technical Committee on Energy Storage 2016-2017.

He has co-authored 103 publications on peer review journals and international conference proceedings (indexed by Scopus). His works have received 1312 citations according to Scopus with an h-index of 19.

Project Coordination

He has been the Principal Investigator for the University of Pisa in the following European Projects: European Project 3Ccar "Integrated Components for Complexity Control in affordable electrified cars" (H2020 - ECSEL JU) [2015-2018]

AutoDrive "Advancing fail-aware, fail-safe, and fail-operational electronic components, systems, and architectures for fully automated driving to make future mobility safer, affordable, and end-user acceptable.", grant agreement No. 737469 con ECSEL Joint Undertaking [2017-2020]

and in the following funded projects:

Research grant "To achieve new BMS functionalities to use Lithium-ion batteries more efficiently" awarded by Toshiba (Japan) [2016]

Research grant "Design of the electronic system for the management and control of a multi-string, multi-module battery" awarded by ENEA (Italy) [2013-2015]

Research grant "Development of an advanced Battery Control System (BCS) for Sodium-Metal Halide Batteries developed by the Company under the designation: "Desert/Artic XEBRA" awarded by Ez-Energies (Germany) [2018-2020]

Editorial Activities

He has given talks and seminars in several international conferences and co-chaired regular tracks and special sessions in major international conferences. He has been program co-chair of the IEEE Industrial Electronics for Sustainable Energy Systems, 2018.

Since 2015, he is an associate editor of the IEEE Trans. on Industrial Informatics and IE Technology News and serves as reviewer for several journals and conferences.

He has been a guest editor of the special session on "Information and Control in e-Transportation Electronics" of the IEEE Trans. on Industrial Informatics 2014, of the special session on "Integration of Electrochemical Energy Storage in Sustainable Energy Systems" on IEEE Trans. on Sustainable Energy 2016, of the special session "Modelling, Control and Integration of Energy Storage Systems in e-Transportation and Smart-grid" on IEEE Trans. on Industrial Electronics 2018, and of special session "Cyber-Physical Systems in Green Transportation" on IEEE Trans. on Industrial Informatics 2018.

Publication

The list of publications is available here:

<https://arpi.unipi.it/browse?type=author&order=ASC&rpp=30&authority=rp07921>

Pisa, 9 July 2019

Federico Baronti