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## Education

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M.Sc. Degree in Electronic Engineering, cum laude, from the University of Naples, Italy, March 1997 ♦ Ph.D. in Electronics and Information Technology from the University of Naples, Italy, March 2002.

## Career

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**Professor of Reliable Power Electronics at Aalborg University, Denmark, from 2014 to present** ♦ Section leader (with department vice-head functions) from February 2021 ♦ Visiting professor at the University of Parma, Italy, in 2021 ♦ Visiting professor at Huazhong University of Science and Technology, Wuhan, China, in 2019 ♦ Visiting Professor at Zhejiang University, China, in 2018 ♦ Visiting Professor at Aalborg University, Denmark, 2013 ♦ Associate Professor at the University of Cassino and southern Lazio, Italy, 2012 to 2014 ♦ Aggregate Professor at the University of Cassino and southern Lazio, Italy, 2006 to 2012 ♦ Researcher at the University of Cassino and southern Lazio, Italy, 2000 to 2006

## Research topics

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Reliability and non-destructive characterization of power devices in normal and extreme operating conditions (*overload, short circuit, over temperature*) ♦ Lumped-charge simulation models for power electronic devices ♦ Simulation and optimization of new driving topologies for reliability ♦ Condition monitoring ♦ Failure mechanisms of power devices and related modeling ♦ **Reliability of wide-bandgap power devices (SiC MOSFETs, GaN HEMTs), modeling and characterization**

## Membership of scientific communities and services

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IEEE-IAS Power Electronic Device and Component Committee vice-president ♦ Associated editor of IEEE Open Journal of Power Electronics, IEEE Transactions on Industry Applications, IEEE Journal of Emerging and Selected Topics in Power Electronics, EPE Journal and Elsevier Microelectronics Reliability ♦ General Chair of ESREF 2018, the 29<sup>th</sup> European Symposium on Reliability of Electron devices, Failure physics and analysis ([www.esref2018conf.org](http://www.esref2018conf.org)) ♦ **Appointed General Chair of EPE-ECCE Europe 2023**

## Scientific contributions and awards

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Total publications: 266 ♦ Journals/conferences/patents/book chapters: 130/127/4/5 ♦ Total citations (Publons/Scopus/Google Scholar): 1918/2638/3338 ♦ h-index (Publons/Scopus/Google Scholar): 20/25/27 ♦ Invited as tutorial lecturer or keynote speaker on reliability to first conferences, i.e. ECCE USA 2019, APEC 2019 (+3 times), PCIM 2022 (+5 times), ISPSD 2017, EPE 2022 (+5 times), IRPS 2020, VPPC 2021 (+1 time), ECPE Course on thermal management, 2022 (+2 times) ♦ Recipient of a number of best paper awards at first international conferences. W. Portnoy Award 2017 of the IEEE Industry Application Society ♦ **Edited the IET “Modern Power Electronic Devices: Physics, Applications, and Reliability” book (Dec. 2020)** ♦ **Founder of the “Power Electronic Devices and Components” Journal (Apr. 2021), published by Elsevier**

## Recent applications and running projects

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2021 (co-applicant) “DE-ICE - Drivetrains with efficient wide-bandgap inverters for the commercial-vehicle ecosystem”, ERC Horizon Europe, total amount/Aalborg University’s part: 5,9 MEur / 800KEur (applied) ♦ 2019 (co-applicant) “ELMAC: Electronic Systems Manufactured for Climate”, Denmark’s Innovations Foundation, total amount/Aalborg University’s part: 32.000.000 DKK / 4.500.000 DKK (running) ♦ **2019 (co-applicant) “X-Power - Power Electronics Reliability Test Facilities”**, supported by the Danish Agency for Science and Higher Education, Aalborg University: 62.000.000 DKK (running) ♦ 2017-2019 (main responsible) A number of consultancy projects with European companies, Aalborg University, in total: +2.000.000 DKK (running)

## Relevant publications

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R. Wu, F. Blaabjerg, H. Wang, M. Liserre and **F. Iannuzzo**, "Catastrophic failure and fault-tolerant design of IGBT power electronic converters - an overview," IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society, 2013, pp. 507-513 (cited 203 times) ♦ C. Abbate, G. Busatto and **F. Iannuzzo**, "High-Voltage, High-Performance Switch Using Series-Connected IGBTs," in IEEE Transactions on Power Electronics, vol. 25, no. 9, pp. 2450-2459, Sept. 2010 (cited 121 times) ♦ A. S. Bahman, K. Ma, P. Ghimire, **F. Iannuzzo** and F. Blaabjerg, "A 3-D-Lumped Thermal Network Model for Long-Term Load Profiles Analysis in High-Power IGBT Modules," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, vol. 4, no. 3, pp. 1050-1063, Sept. 2016 (cited 125 times)