

Alfio Dario Grasso

Curriculum Vitæ et Studiorum

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Biographical Notes

Alfio Dario Grasso was born in Catania on 11 April 1978. The main milestones of his career are summarised below in chronological order.

Since June 2026 he has held the position of **Chairman of the Board of Directors of the Sicily Micro and Nano Systems Technological District**.

Since October 2024 he has held the position of **Full Professor**, Competition Sector **09/IINF-01 – ELECTRONICS**, Scientific Disciplinary Sector (SSD) **IINF-01/A – Electronics**, at the Department of Electrical, Electronic and Computer Engineering of the University of Catania.

In November 2023 he was elected **Chair of the Master’s Degree Programme in Electronic Engineering** at the University of Catania.

In **2017** he obtained the **National Scientific Qualification** (Abilitazione Scientifica Nazionale) for competition sector 09/E3 – Electronics, **first band (Full Professor level)** (reconfirmed in June **2023**).

In October **2015** he was appointed **Associate Professor**, Competition Sector **09/E3 – Electronics**, SSD **ING-INF/01 – Electronics**, at the Department of Electrical, Electronic and Computer Engineering of the University of Catania.

From **2011** to **2017** he was a **tenured Researcher**, SSD **ING-INF/01 – Electronics**, at the Department of Electrical, Electronic and Computer Engineering of the University of Catania.

In the **2009–2010** academic year he was an **adjunct lecturer** for the course in “*Electronics*” (ING/INF-01) within the Bachelor’s Degree in Telematics Engineering at the “Kore” University of Enna.

In the **2008–2009** and **2009–2010** academic years he was an **adjunct lecturer** for the course in “*Electronics for Telecommunications*” (ING/INF-01) within the Master’s Degree in Telematics Engineering at the “Kore” University of Enna.

From **2007** to **2011** he worked as a **freelance professional**, designing both analogue and digital electronic systems in integrated and discrete technology.

In **2007** he obtained the title of **PhD** in Electronic and Automation Engineering.

In **2005**, as part of his PhD activities, he carried out a research period abroad at the *Electronic Technology Group* of the *University of Seville*.

In **2003** he obtained **professional qualification** to practise the engineering profession and, from that same year, he has been **registered** with the Order of Engineers of the Province of Catania (A4481).

In **2003** he obtained his Master’s Degree in Electronic Engineering with a specialisation in Microelectronics, graduating with **110/110 cum laude** from the University of Catania.

Scientific Activity

Prof. Grasso is the author of **93** papers in **international journals**, **82** papers in **international conference proceedings**, **1 book** and **1 international patent** (list of scientific publications on: [Scopus](#), [Google Scholar](#)).

His **H-index** is **29** and the total number of citations is **2963** (source: Scopus, 11/05/2026, Author ID [12446187600](#)).

From **2019** to the present he has been continuously included in the **Top 2% World Scientists** (annual ranking) compiled by Stanford University and published by Elsevier (doi: [10.17632/btchxktzyw.1](#), [10.17632/btchxktzyw.2](#), [10.17632/btchxktzyw.3](#), [10.17632/btchxktzyw.4](#), [10.17632/btchxktzyw.5](#)). Since **2024** he has also been included in the “career-long” list.

His research activity has mainly concerned circuit microelectronics and electronic systems.

Scientific Responsibility for Research Projects

From **2025** to the present he is the **scientific coordinator** for the Catania unit of the **PRIN 2022 project** “Microscale Biosensing eNabled by Integrated Circuits with digital sensor interfaces and micromachined ultrasound transducers (MicroBioNIC)” (CUP E53C24002630006).

From **2024** to **2025** he was the **scientific coordinator** of the project “Development of calibration circuits and systems for digital image-analysis systems for urban monitoring (SINTESIS)” – cascade calls of the PNRR project M4C2 Investment 1.5 “Multilayered Urban Sustainability Action – MUSA” ECS_00000037 (CUP H43C22000550001 Spoke 1).

From **2022** to the present he is the **scientific coordinator** of work package 2 of the **European project** “Ultra-Low Design-Effort, Energy-Efficient and Battery-Indifferent Sensor Node for the Green Internet of Things (UBIGIoT)” – (ID: 101086359), HORIZON.1.2 – Marie Skłodowska-Curie Actions (MSCA).

From **2020** to **2023** he was the **scientific coordinator** for the Catania unit of the **PRIN 2017 project** “Autonomous In-vivo Brain-Machine-Interface in 28nm-CMOS technology with Ultrasound-based Power-Harvester and Communication-Link (Brain28nm)” (CUP: E64I17000360005).

From **2012** to **2013** Prof. Grasso was the **scientific coordinator** for DIEEI of the **research project**: “SVISISCA – *Experimental Development of an Intelligent System for Home Health*” (CUP G63F11001270004), Action line 4.1.1.2 of the POR FESR Sicily 2007-2013.

From **2012** to **2015** he was the **scientific coordinator** for DIEEI of the **research project**: “SISCA – *Intelligent System for Home Health*” (CUP: G63F12000100004), Action line 4.1.1.1 of the POR FESR Sicily 2007-2013.

Prof. Grasso has also taken part / is taking part in the following research projects:

- “Technologies for ENERGY and Energy Efficiency (ENERGETIC)” – PON 2007-2013 (CUP B61C12000860005)
- “Development of a multi-Sensor node for the monitoring of Work environments (SALVO)” – “Intelligent Factory” PON I&C 2014-2020 (CUP B68I20000120005)
- Sicilian Micro and Nano Technology Research and Innovation Center (SAMOTHRACE) – PNRR NextGenerationEU (CUP E63C22000900006)
- National Centre for HPC, Big Data and Quantum Computing – PNRR NextGenerationEU (CUP E63C22001000006)

- GaN for Advanced Power Applications (GaN4AP) – H2020-ECSEL-2020-1-IA-two-stage (CUP B82C21001520008)

Third Mission Activities

Since **2023** he has been the proposer and **scientific coordinator** of the **PCTO** (school-to-work transition programme) “NXP-DIEEI Summer Camp School”, organised in collaboration with NXP Semiconductors, where he delivers 24 hours of lectures annually. In addition, since 2012 he has actively participated in DIEEI’s incoming-student orientation activities and regularly gives seminars at high schools in the province of Catania.

Since 2026 he has been the **scientific coordinator** of a **third-party research contract** between DIEEI and the company Harvying Srl entitled “Design of a passive RFID tag”.

In 2025 he was the **scientific coordinator** of a **third-party research contract** between DIEEI and the company Movia spa entitled “PCB technology and design”.

In 2024 he was the **scientific coordinator** of a **third-party research contract** between DIEEI and the company Gruppo Altea Srl con Socio Unico entitled “Preparatory and support activities for the training project ‘Green-Inn: the digital transition supporting the ecological transition”.

In 2018 he was the **scientific coordinator** of a **third-party research contract** between DIEEI and the company REVEROD s.r.l. entitled “Technical-economic feasibility study for the creation of a commercial brokerage portal for IP blocks of integrated electronic systems”.

From **2015** to **2018** he was the **scientific coordinator** of **two third-party research contracts** between DIEEI and the company Movia spa entitled “Support for the design of advanced ultra-low-power embedded Electronic Systems for audio-video surveillance applications”.

International Experience

In **2023** Prof. Grasso was invited as a **visiting professor** at the National University of Singapore, where he gave the seminars: “Ultrasonic energy harvesting and communication for battery-less implanted medical devices” and “Ultra-low power amplifiers for battery-less IoT nodes”.

In **2005** he was a **visiting PhD student** at the Electronic Technology Group – Seville University Engineering School, Seville, Spain, under the supervision of Prof. A. Torralba and Prof. R.G. Carvajal. During this experience he explored topics related to low-power analogue circuits and began a fruitful collaboration that continues to this day.

Participation in National and International Research Groups

Prof. Grasso has consistently collaborated with both national and international research groups. The most significant collaborations are listed below.

- Research groups of Prof. Carlo Samori (**Politecnico di Milano**) and Prof. Antonio Strollo (**University of Naples Federico II**). Research project: “Novel RF frequency synthesiser architecture for GFSK/GMSK modulation transmission”.
- Escuela Técnica Superior de Ingeniería of the **University of Seville** (Spain). Contacts: Prof. Antonio Torralba, Prof. Ramon Gonzalez Carvajal, Dr. Elena Cabrera-Bernal. Research activity: “ultra-low voltage amplifiers for portable applications”.

- Department of Information, Electronic and Telecommunications Engineering of the **University of Rome “La Sapienza”**. Contact: Prof. A. Trifiletti. Research activity: “ultra-low voltage analogue circuits”.
- **SIELTE spa** (Rome). Contact: Eng. Roberto Giusto. Research contract entitled: “Optimisation of a photovoltaic system for powering telecommunications, remote-sensing and video-surveillance equipment in road environments”.
- Automotive Product Group of **STMicroelectronics** Catania (Italy). Contact: Eng. Mario Paparo. Research activity: “Development of innovative electronic systems for detecting the operating conditions of spark-ignition engines through inductive-discharge analysis”.
- Department of Electrical and Electronic Engineering, **Public University of Navarra** (Spain). Contact: Prof. Antonio Lopez-Martin. Research activity: “High-performance analog integrated circuits”.
- **National Institute for Astrophysics** (INAF) – Astrophysical Observatory of Catania. Contacts: Dr. G. Bonanno, Eng. D. Marano. Research activity: “Development of front-end electronics for SiPM sensors”.
- IPG and AMS groups (contact Eng. Antonio Imbruglia) and IPC group (contact Eng. Giuseppe Nastasi) of **STMicroelectronics** (Catania). PON research project “Technologies for ENERGY and Energy EfficiETICy (ENERGETIC)”.
- Analog MEMS R&D Group, **STMicroelectronics** Catania. Contacts: Eng. G. Bruno, Eng. U. Ferlito. Research activity: “Development of front ends for MEMS sensors”.
- Department of Electrical Engineering, **Payame Noor University**, Tehran (Iran). Contact: Prof. H. Aminzadeh. Research activity: “Multistage OTAs”.
- Faculty of Engineering, **Shizuoka University**, Hamamatsu (Japan). Contact: Prof. T. Tanzawa. Research activity: “Power management integrated circuits”.
- **Politecnico di Torino**. Contact: Prof. P.S. Croveti. Research activity: “Low power circuits for biomedical applications”.
- **National University of Singapore**. Contact: Prof. Massimo Alioto. Research activity: “Ultra-Low Design-Effort, Energy-Efficient and Battery-Indifferent Sensor Node for the Green Internet of Things”.

Organisation of International Conferences

Prof. Grasso has served as:

- **general co-chair** of the international conference “20th International Conference on PhD Research in Microelectronics and Electronics (PRIME) 2025”, Taormina (Italy).
- **general co-chair** of the international conference “39th Conference on Design of Circuits and Integrated Circuits (DCIS) 2024”, Catania (Italy); to date he is a **member of the technical program committee**;
- **local arrangements co-chair** of the international conference “13th Conference on PhD Research in Microelectronics and Electronics (PRIME) 2017”, Giardini Naxos (Italy); to date he is a **member of the technical program committee**;
- **local arrangements co-chair** of the international conference “4th International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD) 2017”, Giardini Naxos (Italy);

- **special session chair** and **member of the technical program committee** of the international conference “23rd European Conference on Circuit Theory and Design (ECCTD) 2017”, Catania (Italy).

Editorial Activity

From **2025** to the present, **Guest Editor** of the Special Issue “Innovations in Mixed-Signal and Digital Circuit Design” in the journal **MDPI Electronics**.

From **2024** to the present, **Guest Editor** of the Collection ‘Fully-Integrated Low-Power Electronic Circuits and Systems for the Emerging Applications’ in the journal **Discover Electronics**, Springer Nature.

From **2022** to the present, **Associate Editor** of the journal **International Journal of Circuit Theory and Applications**, John Wiley & Sons.

From **2021** to the present, member of the **Editorial Board** of the journal **MDPI Sensors**.

In **2021** he was **Guest Editor** of the Special Issue “Advances in Low-Voltage Design Techniques for Scaled CMOS Technologies” in the journal **MDPI Applied Sciences**.

From **2020** to the present, **Associate Editor** of the journal **IET Electronics Letters**.

In **2020** he was **Co-Guest Editor** of the Special Issue “Advanced Interface Circuits and Systems for Smart Sensors” in the journal **MDPI Sensors**.

From **2017** to **2022** he was **Associate Editor** of the journal **Journal of Circuits, Systems and Computers**, World Scientific Publishing.

From **2013** to **2022** he was a member of the **Editorial Board** of the Hindawi journal **Journal of Engineering** (Electrical Engineering section).

Teaching Activity

In the 2023-2024 and 2024-2025 academic years, Prof. Grasso co-taught the course “**Electronics**” within the Bachelor’s Degree in Industrial Engineering at the University of Catania.

In the 2022-2023 and 2023-2024 academic years, he taught the course “**Digital IC Design**” (ING/INF-01, 3 CFU) in the Second-Level Master in Power Electronics Devices and Technologies at the University of Catania.

From the 2020-2021 academic year to the present, he has held the course “**Electronic Systems**” (ING/INF-01, 15 CFU, 14 CFU since 2021-2022) within the Master’s Degree in Electronic Engineering at the University of Catania.

From the 2013-2014 to the 2019-2020 academic year, he held the course “**Electronic Systems**” (ING/INF-01, 15 CFU; 6 CFU until 2016-2017) within the Master’s Degree in Electronic Engineering at the University of Catania.

From the 2014-2015 to the 2016-2017 academic year, he held the course “**Microelectronics mod. B**” (ING/INF-01, 6 CFU) within the Master’s Degree in Electronic Engineering at the University of Catania.

In 2013 he taught the course “**Teaching and Laboratory of Industrial Electronics**” (ING/INF-01, 3 CFU) within the TFA programme (formerly SISIS), class A034, at the University of Catania.

In the 2012-2013 academic year he taught the course “**VLSI Systems**” (ING/INF-01, 6 CFU) within the Master’s Degree in Electronic Engineering at the University of Catania.

In the 2009-2010 academic year he was an adjunct lecturer for the course “**Electronics**” (ING/INF-01, 6 CFU) within the Bachelor’s Degree in Telematics Engineering at the “Kore” University of Enna.

In the 2008-2009 and 2009-2010 academic years he was an adjunct lecturer for the course “**Electronics for Telecommunications**” (ING/INF-01, 6 CFU) within the Master’s Degree in Telematics Engineering at the “Kore” University of Enna.

Within the research topics of interest related to the scientific disciplinary sector ING-INF/01, Prof. Grasso has been **supervisor of 60 Master’s theses, co-supervisor of 10 Master’s theses and co-supervisor of 48 Bachelor’s theses.**

Prof. Grasso teaches in the PhD programme in Systems, Energy, Computer and Telecommunications Engineering at the University of Catania (DOT1308902) and in the National PhD programme in micro- and nano-electronics (DOT1322809). Overall, he has served as **Advisor or Co-Advisor** for 7 PhD students.

Prof. Grasso has delivered the following courses **by invitation**:

- “Ultra-low power amplifiers for IoT nodes” – Topics on Microelectronics, University of Milano Bicocca – September 2020
- “Energy harvesting and communication for implanted medical devices” – IEEE Italy Section PhD Summer School of Information Engineering, Bressanone, July 2021
- “Ultrasonic energy harvesting and communication for implanted medical devices” – 2024 PhD School of the Italian Society of Electronics (SIE), Genoa, June 2024.

Institutional and Management Activities

- Since the 2024-2025 academic year, member of the **scientific committee** of the Second-Level Master in “Quantum Science and Technologies” – University of Catania.
- Since November 2023, **Chair of the Master’s Degree Programme in Electronic Engineering (LM-29)** at the University of Catania.
- Since **2022**, member of the **faculty board** of the **national PhD programme** in Micro- and Nano-Electronics – DOT1322809 (University of Pavia).
- Since **2022**, **delegate for outgoing-student career guidance** for the Department of Electrical, Electronic and Computer Engineering of the University of Catania.
- Since 2022, **representative** of the Department of Electrical, Electronic and Computer Engineering on the thematic committee “Telecommunications, Automation, Electronics and Computer Science” at the Foundation of the Order of Engineers of the Province of Catania.
- From **2021 to 2023**, **quality assurance manager** of the Master’s Degree Programme in Electronic Engineering (LM-29) at the University of Catania.
- From **2018 to 2020**, **member of the joint teacher-student committee** for the Department of Electrical, Electronic and Computer Engineering of the University of Catania.
- Since **2013**, **member of the faculty board** of the **PhD programme** in Systems, Energy, Computer and Telecommunications Engineering – DOT1308902 (University of Catania).

Participation and Service in Scientific Societies

- Since **2022**, **secretary of the Central & South Italy Chapter of the IEEE** Circuits and Systems Society (**CASS**).
- Since 2025, **vice-president of the Catania section** of the Italian Association of Electrical Engineering, Electronics, Automation, Information Technology and Telecommunications (**AEIT**).
- Since 1999, member of the **IEEE** (**senior member** since 2015).
- Since 2012, member of the Italian Society of Electronics.

Awards and Honours

- **2006: Silver Leaf Certificate** for the contribution “Reversed Double Pole-Zero Cancellation Frequency Compensation Technique for Three-Stage Amplifiers” presented at the international conference “PhD Research in Microelectronics and Electronics 2006”.
- **1997: Alfieri del Lavoro** (the “Alfieri del Lavoro” Award consists of a medal awarded by the President of the Italian Republic and is conferred on the 25 best students in Italy).

Catania, 21/06/2026