Emanuele Cardillo

Curriculum Vitae

22/01/2022

Personal information

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Research and professional experience

01/10/2021 – Current job	Assistant Professor (Ricercatore a tempo determinato, art. 24, comma 3, lett. a), at the Department of Engineering, University of Messina.
18/03/2021 – 17/06/2021	"Design of Down Converter 2-18 GHz for spatial applications (Cubesat)" within the Research and Development project "ARAMIS 2", at Italspazio S.r.l., via V. Emanuele Orlando n. 7 - 95037 - San Giovanni La Punta (Italy).
08/03/2021 – Current job	Faculty advisor for the *Nett-1* project (University of Messina) aimed to design, realize, test and launch of a nanosatellite CubeSat.
27/10/2020 – Current job	Chair of the Technical Committee "Microwave and Millimeter-Wave Radar Sensors" at the IEEE Sensors Council Italy Chapter.
30/09/2020 – Current job	Faculty advisor for the *Zancle E-Drive, ZED* teams (University of Messina) for the student competition *Formula SAE*.
23/06/2020 – Current job	Research fellow (IT: Assegno di ricerca di tipo A), CUN area 09, SSD ING-INF/01. Project title: "Design, development and test of short-range microwave radar systems for monitoring, diagnostics and surveillance applications", Department of Engineering, University of Messina. Resp.: Prof. Alina Caddemi.
15/02/2019 – 14/02/2020	Post-doctoral researcher: "Characterization of electronic devices by means of noise measurements", Department of

	Engineering - University of Messina. Resp.: Prof. Carmine Ciofi.
20/05/2019 – 31/05/2019	"Research and development activity of the product SmartBlue. In detail, design of the GPS/GNSS sensor, Bluetooth, GSM/GPRS, CAN, I2C and SPI interfaces, SD card management, power and battery charger management, A/D conversion, sensors, debug and update", at SmartMe.IO S.r.l. (Spin-off society of University of Messina), via Osservatorio, n. 1 - 98121 – Messina (Italy).
01/02/2018 – 31/01/2019	Post-doctoral researcher: "Electrical and noise measurement on advanced electronic devices", Department of Engineering - University of Messina. Resp.: Prof. Carmine Ciofi.
03/11/2014 – 31/10/2017	Research activity within the Ph.D course: Ingegneria Civile, Ambientale e della Sicurezza – Curriculum: "Scienze e Tecnologie, Materiali, Energia e Sistemi Complessi per il Calcolo Distribuito e le reti – XXX cycle, S.S.D. ING-INF/01. Tutor: Prof. Alina Caddemi. The PhD course has been focused on the microwave electronics field, mainly on: • Design of active and passive planar hybrid microwave integrated circuits (HMIC). • Linear and noise modeling of microwave transistors. • Linear and noise microwave measurements (1 - 50GHz). • Design of micro-radar systems. • Realization of HMIC circuits and systems.
26/05/2014 – 15/10/2014 *10/01/2015 – 09/06/2015*	N. 2 research contracts: "Design and development of microwave circuits" - P.O.N. "Ricerca e Competitività" 2007-2013 - Asse I - Ob. Oper. 4.1.1.4, Az. I, PON01_01322: "Packaging based on nanomaterials for compact receivers and exciters. Radar applications with beam scanning antenna (PANREX)" - University of Messina. Resp. Prof. Alina Caddemi.
25/11/2010 –02/11/2014	Electronics technician at C.G.T. S.r.l. (Palermo). Main activities: hardware and software services on surveying instruments (GNSS, laser and optical measurements). Co-management of the electronics laboratory

Teaching experience

01/12/2021 - current	Teacher of *Principles and Applications of Microwave Electronics I* (6 CFU) - Master Degree in Electronics Engineering for Industry.

01/12/2021 - current Teacher of *Programmable Logic Devices* (*Dispositivi Logici Programmabili)* (6 CFU) Bachelor Degree in Electronics and Informatics Engineering.

01/10/2019 - presente Expert of "Microwave Electronics" (S.S.D. ING-INF/01), bachelor degree in Electronics and Informatics Engineering.

02/05/2017 – 26/10/2017 Mentor of Physics for engineers.

A.A. 2015/2016 – A.A. 2017/2018 Expert of "Wireless Technologies" (S.S.D. ING-INF/01), Master Degree in Engineering and Computer Science.

2015 - current Research assistant for the following degree thesis:

- The electromagnetic compatibility: analysis and measurements on electrical and electronic systems.
- Analysis and simulation of a vectorial reflectometer.
- Design and simulation of a short-range radar system.
- Micro-radar characterization for microwave applications.
- Electromagnetic compatibility measurements: conducted emissions.
- Design and simulation of a Doppler pulsed radar system.
- Design and analysis of energy harvesting circuits.
- Effects of the laser radiation exposure on Microwave HEMTs.
- Characterization of mm-waves GaAs pHEMTs.
- Electromagnetic analysis of microwave SIW structures.
- Electromagnetic analysis of a low-noise X-band amplifier performance.
- Effects of the laser radiation on a microwave HMIC LNA.
- Design and simulation of a S-band FMCW radar.
- Characterization of a K-band radar board.
- Design and simulation of a Wilkinson divider in planar technology.
- Applications of UWB technology.
- Analysis and design of a patch antenna for microwave applications.
- Design and simulation of a K-band Doppler radar.
- Design and development of a energy harvesting circuit.
- Microwave radar systems for meteorological applications.

Education

17/05/2018 Ph.D in "Ingegneria Civile, Ambientale e della Sicurezza – Curriculum: "Scienze e Tecnologie, Materiali, Energia e Sistemi Complessi per il Calcolo Distribuito e le reti" – XXX ciclo, S.S.D. ING-INF/01 - University "Mediterranea" of Reggio Calabria, judgment: *Excellent*. Thesis title: "Microwave radars for short-range applications: from the

transistor characterization to the system development". Tutor: Prof. Alina Caddemi.

July 2015 Engineering License – Sez. A – Information Engineering.

07/11/2013 Master's degree: Electronic Engineering – University of Messina - grade: 110/110. Thesis title: "Modeling and design of circuits with GaN HEMT for X-band power-radar".

10/03/2010 Bachelor's degree: Electronic Engineering - University of Messina - grade: 106/110. Thesis title: "Development of oscillating circuits for the electronic characterization of Surface Acoustic Wave (SAW) devices".

International conferences as a speaker

[1] E. Cardillo, C. Li, and A. Caddemi, "Radar-based monitoring of the worker activities by exploiting range-Doppler and micro-Doppler signatures" *IEEE International Workshop on Metrology for Industry 4.0 and IoT*, Rome, Italy, pp. 412-416, Jun. 2021.

[2] E. Cardillo, G. Sapienza, C. Li, and A. Caddemi, "Head motion and eyes blinking detection: a mm-wave radar for assisting people with neurodegenerative disorders," *European Microwave Conference*, Ultrecht, The Netherland, pp. 925-928 Jan. 2021.

[3] E. Cardillo, C. Li, and A. Caddemi, "Empowering blind people mobility: a millimeter-wave radar cane," *IEEE International Workshop on Metrology for Industry 4.0 and IoT*, Rome, Italy, Jun. 2020.

[4] A. Caddemi, and E. Cardillo, "Automotive anti-abandon systems: a millimeter-wave radar sensor for the detection of child presence," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2019.

[5] A. Caddemi, and E. Cardillo, "A laser beam for boosting the power added efficiency of an X-band GaN MMIC amplifier," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2019.

[6] E. Cardillo, and A. Caddemi, "Feasibility study to preserve the health of an Industry 4.0 worker: a radar system for monitoring the sitting-time," *IEEE International Workshop on Metrology for Industry 4.0 and IoT*, Jun. 2019.

[7] E. Cardillo and A. Caddemi, "A virtual test-bench for noise figure measurements of mismatched devices," *IEEE International Workshop on Metrology for Aerospace*, Jun. 2018.

[8] A. Caddemi, E. Cardillo, and G. Crupi, "HEMT Sensitivity to Optical Radiation: Distinguishing Microwave Noise Aspect," *The 12th International Symposium on SiO2 Advanced Dielectrics and Related Devices*, pp. 52-53, Jun. 2018 (Keynote speaker).

[9] A. Caddemi and E. Cardillo, "Optical control of gain amplifiers at microwave frequencies," *Computing and Electromagnetics International Workshop (CEM)*, Barcelona, Spain, pp. 51-52, Jun. 2017.

[10] A. Caddemi and E. Cardillo, "A study on dynamic threshold for the crosstalk reduction in frequency-modulated radars," *Computing and Electromagnetics International Workshop (CEM)*, Barcelona, Spain, pp. 29-30, Jun. 2017.

[11] V. Di Mattia, A. Caddemi, E. Cardillo, G. Manfredi, A. De Leo, P. Russo, L. Scalise, and G. Cerri, "A Feasibility Study of a Compact Radar System for Autonomous Walking of Blind People," *2016 IEEE 2nd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI)*, Bologna, Italy Sept. 2016, 3 p.

[12] E. Cardillo and A. Caddemi, “Flexible CAD methodology for UWB filter with a tailored notch,” *IEEE Mediterranean Microwave Symposium (MMS)*, Lecce, Italy, Dec. 2015.

[13] N. Boukortt, A. Caddemi, E. Cardillo, G. Crupi, B. Hadri, and S. Patanè, “Inverse Modeling of an AlGaAs/GaAs HEMT from DC and Microwave Measurements Illumination,” *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2015.

[14] A. Caddemi, E. Cardillo, G. Crupi, and G. Salvo, “Performance Analysis of a Microwave Low-Noise Amplifier under Laser Illumination,” *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2015.

[15] A. Meazza, G. Sivverini, A. Colzani, M. Fumagalli, A. Traversa, and E. Cardillo, “A New Methodology to Estimate E-band pHemt Linearity Optimum Load from Low Microwave Frequency Load Pull Measurements” *IEEE International Workshop on Integrated Nonlinear Microwave and Millimeter-wave Circuits (INMMiC)*, Taormina, Italy, 3 p., Oct. 2015.

Participation to research projects

- 2021-2023. Partecipant as R.T.D.a) to the project "Sviluppo di sistemi e processi innovativi per tecnologie altamente avanzate nella produzione di imbarcazioni eco-compatibili a bassa segnatura magnetica ed elevata schermatura elettromagnetica (DAS PHANTOMSHIFFE)”, Programma MISE PON “Imprese e Competitività” 2014-2020, Fondo crescita Fabbrica Intelligente e Agrifood.
- 2021-2023. Partecipant as R.T.D.a) to the project “TETI – TEcnologie innovative per il controllo, il moniToraggio e la sIcurezza in mare”, Asse II “Sostegno all’innovazione”.
- 2014 - “Design and development of microwave circuits” - P.O.N. “Ricerca e Competitività” 2007-2013 - Asse I - Ob. Oper. 4.1.1.4, Az. I, PON01_01322: "Packaging based on nanomaterials for compact receivers and exciters. Radar applications with beam scanning antenna (PANREX)" – Budget: € 1.208.400 – 36 months (University of Messina).

Participation to national and international research groups

- Research activities with Italspazio S.r.l. (Ref. CEO Ing. Paolo Vita), San Giovanni La Punta (CT), Italy. Main topic: satellite systems development.
- Research activities with RF and Analog Research Group (Ref. Prof. Changzi Li) - Department of Electrical & Computer Engineering - Texas Tech University – TX – U.S.A. Main topic: microwave and millimeter-wave portable radars.
- Research activities with Istituto di Radioastronomia IRA INAF (Ref. Dr. Gino Tuccari), Noto, Italy. Main topic: ultra low-noise microwave filter for radioastronomy applications.
- Research activities with Microwave Engineering Research group (Ref. Prof. Vera Markovic), Faculty of Electronic Engineering - University of Nîs, Serbia. Main topic: microwave transistor modeling with neural networks.
- Research activities with U.S. Naval Research Laboratory (Ref. Dr. Luciano Boglione), Washington D.C., U.S.A. Main topic: microwave transistor characterization and electrical modeling.
- Research activities with Electromagnetism Research group (Ref. Prof. Graziano Cerri), Università Politecnica delle Marche, Ancona, Italy. Main topic: short range portable radars as an electromagnetic aid for visually impaired people.
- Research activities with SIAE Microelettronica - Milano, Italy, (Ref. Dr. Giuseppe Sivverini). Main topic: optimum load search for E-band pHEMT.

Awards

- Best Student paper Award @IEEE Sensors Journal 2017-2018.
- IEEE Microwave Theory and Techniques (MTT-S) award 2018.
- Best Conference Paper Award - 2nd classified at the 2021 IEEE International Workshop on Metrology for Industry 4.0 & IoT.
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Peer review activity

- IEEE Transactions on Microwave Theory and Techniques
- IEEE Sensors Journal.
- IEEE Transaction on Nanotechnology
- IEEE Journal of Electromagnetics, RF, and Microwaves in Medicine and Biology
- IET Microwaves, Antennas & Propagation
- IET Electronics Letters
- IET Signal Processing
- IET Communications
- Journal of Micromechanics and Microengineering
- Semiconductor Science and Technology
- Measurement
- Engineering Computations
- Magnetic Resonance Imaging
- Sensors
- Electronics
- Remote Sensing

Participation to conference committees

- Member of the Technical Program Committe: "Mediterranean Microwave Symposium (MMS) 2022".
- Member of the Technical Program Committe: "Radio and Wireless Week (RWW) 2022".
- Member of the organizing committee of the: "IEEE International Workshop on Integrated Nonlinear Microwave and Millimeter-wave Circuits (INMMiC)", Taormina (Italy), 01-02/10/2015.
- Member of the scientific committee of the: "The First International Conference on Microelectronic, Devices and Technologies (MicDAT).

International and national society affiliations

2020 – current	MECSA (Microwave Engineering Center for Space Applications)
2018 - current	IEEE Sensors Council
2015 - current	IEEE Microwave Theory and Techniques Society (MTT-S) Member
2018 - current	IEEE Member
2015 - 2017	IEEE Student Member

2016 - current Italian Society of Electronics (SIE)

Courses and certifications

- "I finanziamenti dello European Research Council (ERC) in Horizon Europe: Starting e Consolidator Grant", 09/06/2021, by Agenzia per la Promozione della Ricerca Europea (APRE).
- "Lo European Innovation Council Pathfinder", 23/03/2021, by Agenzia per la Promozione della Ricerca Europea (APRE), Messina, Italy.
- "Horizon Europe: scenario e prospettive del nuovo programma europeo per la ricerca e l'innovazione", 25/02/2021, by Agenzia per la Promozione della Ricerca Europea (APRE), Messina, Italy.
- "How to Write an Effective Research Paper (Advanced)", 21/05/2020, Enago Academy.
- "How to Submit a Journal Article and Get it Published (Advanced)", 21/05/2020, Enago Academy.
- "H2020 - Societal Challenges - SC6 Europe in changing world: inclusive, innovative and reflective societies - Horizon Europe", 21/05/2020, Agenzia per la Promozione della Ricerca Europea (APRE), Messina, Italia.
- "Horizon 2020 Executive", acquisition of the competences in: writing Horizon 2020 projects, long/mid-term strategy to build a Horizon 2020 wining project. 17-21/06/2019, by "E-ducation in progress", Messina, Italy.
- "ERC Starting projects: budget", 20/09/2019, by Agenzia per la Promozione della Ricerca Europea (APRE).
- "How to write an ERC Starting Grant Council project", 13/09/2019, by Agenzia per la Promozione della Ricerca Europea (APRE).
- Webinar: "Starting Grant funding scheme of the European Research Council", 06/09/2019, by Agenzia per la Promozione della Ricerca Europea (APRE).

Current research interests

- Design and realization of active and passive planar hybrid microwave integrated circuits (HMIC).
- Linear and noise modeling of microwave transistors.
- Linear and noise microwave measurements (1 - 50GHz).
- Design of microwave and millimeter-wave radar systems.

Publication list

[1] E. Cardillo, C. Li, and A. Caddemi, "Heating, ventilation, and air conditioning control by range-Doppler and micro-Doppler radar sensor" accepted for publication in *European Radar Conference*, London, U.K., Feb. 2022.

[2] E. Cardillo, C. Li, and A. Caddemi, "Millimeter-wave radar cane: a blind people aid with moving human recognition capabilities," IEEE Journal of Electromagnetics, RF, and Microwaves in Medicine and Biology, Sept. 2021.

[3] G. Scandurra, A. Arena, E. Cardillo, G. Giusi, and C. Ciofi, "Portable and Highly Versatile Impedance Meter for Very Low Frequency Measurements," *Applied Science*, 11(17), Sept. 2021.

[4] E. Cardillo, G. Scandurra, G. Giusi, C. Ciofi, "A Two Channels DFT Spectrum Analyzer for Fluctuation Enhanced Sensing based on a PC Audio Board," *Sensors*, vol. 21, Issue 12, n. 4307, Jun. 2021.

[5] E. Cardillo, C. Li, and A. Caddemi, “Embedded Heating, Ventilation, and Air Conditioning control systems: from traditional technologies towards radar advanced sensing” *Review of Scientific Instruments*, vol. 92, Issue 6, 061501, pp. 1-14, Jun. 2021.

[6] E. Cardillo, C. Li, and A. Caddemi, “Radar-based monitoring of the worker activities by exploiting range-Doppler and micro-Doppler signatures” *IEEE International Workshop on Metrology for Industry 4.0 and IoT, Rome*, Italy, pp. 412-416, Jun. 2021.

[7] E. Cardillo, and A. Caddemi, “Radar range-breathing separation for the automatic detection of humans in cluttered environments,” *IEEE Sensor Journal*, vol. 21, Issue 13, pp. 14043-14050, Jul. 2021.

[8] E. Cardillo, C. Li, and A. Caddemi, “Vital sign detection and radar self-motion cancellation through clutter identification,” *IEEE Transactions on Microwave Theory and Techniques*, vol. 69, Issue 3, pp. 1932-1942, March 2021.

[9] A. Caddemi, L. Boglione, E. Cardillo, G. Crupi, and Jason Roussos, “Cross-laboratory experimental validation of a tuner-less technique for the microwave noise parameters extraction,” *IEEE Transactions on Microwave Theory and Techniques*, vol. 69, Issue 3, pp. 1733-1739, March 2021.

[10] G. Scandurra, E. Cardillo, G. Giusi, C. Ciofi, E. Alonso, and R. Giannetti “Portable knee health monitoring system by impedance spectroscopy based on audio-board,” *Electronics*, vol. 10, Issue 4, 460, Feb. 2021.

[11] E. Cardillo, G. Sapienza, C. Li, and A. Caddemi, “Head motion and eyes blinking detection: a mm-wave radar for assisting people with neurodegenerative disorders,” *European Microwave Conference*, Ultrecht, The Netherland, pp. 925-928, Jan. 2021.

[12] A. Caddemi, E. Cardillo, and G. Crupi, “Optical Sensitivity of HEMT-based Devices and Low-Noise Amplifiers”, *International Journal of Electronics*, vol. 108, Issue 3, pp. 361-377, 2021.

[13] V. Đorđević, E. Cardillo, Z. Marinković, O. Pronić-Rančić, A. Caddemi, and V. Marković, “Wave approach to the noise modeling of the GaAs HEMT under optical illumination,” *Microwave Review*, vol. 26, Issue 2, pp. 19-25, Dec. 2020.

[14] E. Cardillo, and A. Caddemi, “A review on biomedical MIMO radars for vital sign detection and human localization,” *Electronics*, vol. 9, issue. 9, 1497, Sept. 2020.

[15] E. Cardillo, C. Li, and A. Caddemi, “Empowering blind people mobility: a millimeter-wave radar cane,” *IEEE International Workshop on Metrology for Industry 4.0 and IoT,* Rome, Italy, pp. 213-217, Jun. 2020.

[16] A. Caddemi, E. Cardillo, and G. Crupi, “Equivalent-circuit based modeling of the scattering and noise parameters for multi-finger GaAs pHEMTs”, *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, vol. 33, Issue 3, pp. 1-7, May. 2020.

[17] A. Caddemi, E. Cardillo, S. Patanè, and C. Triolo, “Noise performance of an AlGaN/GaN MMIC low-noise amplifier under laser exposure,” *IET Microwaves, Antennas and Propagation*, Vol. 14, Issue 5, pp. 409-413, Apr. 2020.

[18] L. Boglione, A. Caddemi, E. Cardillo, G. Crupi, and Jason Roussos, “Device noise parameter characterization: towards extraction automation,” 94th ARFTG Microwave Measurement Conference, San Antonio TX, United States, pp. 1-4, Jan. 2020.

[19] A. Caddemi, E. Cardillo, G. Crupi, L. Boglione, and Jason Roussos, “Microwave linear characterization procedures of on-wafer scaled GaAs pHEMTs for low-noise applications,” *Electronics*, vol. 8, Issue 11, 1365, pp.1-13, Nov. 2019.

[20] A. Caddemi and E. Cardillo, “Systematic experimental analysis of an optical sensing microwave low-noise amplifier,” *IET Microwaves, Antennas and propagation*, vol. 13, Issue 15, pp. 2678-2681, Dec. 2019.

[21] E. Cardillo, and A. Caddemi, “Insight on electronic travel aids for visually impaired people: a review on the electromagnetic technology,” *Electronics*, vol. 8, Issue 11, 1281, pp. 1-12, Nov. 2019.

[22] A. Caddemi, and E. Cardillo, “Automotive anti-abandon systems: a millimeter-wave radar sensor for the detection of child presence,” *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, pp. 94-97, Oct. 2019.

[23] A. Caddemi, and E. Cardillo, “A laser beam for boosting the power added efficiency of an X-band GaN MMIC amplifier,” *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, pp. 307-310, Oct. 2019.

[24] A. Caddemi, E. Cardillo, S. Patanè, and C. Triolo, “Light exposure effects on the dc kink of AlGaN/GaN HEMT's,” *Electronics*, vol. 8, Issue 6, pp. 9, Jun. 2019.

[25] E. Cardillo, and A. Caddemi, “Feasibility study to preserve the health of an Industry 4.0 worker: a radar system for monitoring the sitting-time,” *IEEE International Workshop on Metrology for Industry 4.0 and IoT*, pp. 254-258, Naples, Italy, Jun. 2019.

[26] A. Caddemi and E. Cardillo, “On the microwave noise figure measurement: a virtual approach for mismatched devices,” *Measurement*, vol. 137, pp. 116-121, Apr. 2019.

[27] A. Caddemi, E. Cardillo, S. Patanè, and C. Triolo, “An accurate experimental investigation of an optical sensing microwave amplifier,” *IEEE Sensors Journal*, vol. 18, Issue 22, pp. 9214 – 9221, Nov. 2018.

[28] A. Caddemi and E. Cardillo, “A low-cost smart microwave radar for short range measurements,” *Lecture Notes in Electrical Engineering*, vol. 512, pp. 41-47, Jul. 2018.

[29] E. Cardillo and A. Caddemi, “A virtual test-bench for noise figure measurements of mismatched devices,” *IEEE International Workshop on Metrology for Aerospace*, Rome, Italy, Jun. 2018.

[30] A. Caddemi, E. Cardillo, and G. Crupi, “HEMT Sensitivity to optical radiation: distinguishing microwave noise aspect,” *The 12th International Symposium on SiO2 Advanced Dielectrics and Related Devices*, pp. 52-53, Bari, Italy, Jun. 2018 (Keynote speaker).

[31] A. Caddemi, E. Cardillo, and G. Crupi, “Light activation of noise at microwave frequencies: a study on scaled GaAs HEMT’s,” *IET Circuits, Devices and Systems*, Vol. 12, Issue 3, pp. 242-248, May. 2018.

[32] E. Cardillo, V. Di Mattia, G. Manfredi, P. Russo, A. De Leo, A. Caddemi, and G. Cerri, “An electromagnetic sensor prototype to assist visually impaired and blind people in autonomous walking,” *IEEE Sensors Journal*, Vol. 18, Issue 6, pp. 2568-2576, Mar. 2018.

[33] V. Đorđević, E. Cardillo, Z. Marinković, O. Pronić-Rančić, A. Caddemi, and V. Marković, “Wave approach to noise modeling of scaled on-wafer GaAs HEMTs,” *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2017.

[34] E. Cardillo and A. Caddemi, "A novel approach for crosstalk minimization in FMCW radars," *Electronics Letters*, Vol. 53, Issue 20, pp. 1379-1381, Sept. 2017.

[35] A. Caddemi and E. Cardillo, "Optical control of gain amplifiers at microwave frequencies," *Computing and Electromagnetics International Workshop (CEM)*, Barcelona, Spain, pp. 51-52, Jun. 2017.

[36] A. Caddemi and E. Cardillo, "A study on dynamic threshold for the crosstalk reduction in frequency-modulated radars," *Computing and Electromagnetics International Workshop (CEM)*, Barcelona, Spain, pp. 29-30, Jun. 2017.

[37] A. Caddemi, E. Cardillo, G. Salvo, and S. Patanè, "Microwave effects of UV light exposure of a GaN HEMT: Measurements and model extraction," *Microelectronics Reliability*, Vol. 65, Issue 1, pp. 310-317, Oct. 2016.

[38] A. Caddemi and E. Cardillo, "A straight-line equation for the notch tailoring of a microwave extra wideband filter," *Journal of Electromagnetic Waves and Applications*, Vol. 30, Issue 16, Nov. 2016.

[39] V. Di Mattia, G. Manfredi, A. De Leo, P. Russo, L. Scalise, G. Cerri, A. Caddemi, and E. Cardillo "A feasibility study of a compact radar system for autonomous walking of blind people," *2016 IEEE 2nd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI)*, Bologna, Italy Sept. 2016, 3 p.

[40] A. Caddemi, E. Cardillo, and G. Crupi, "Comparative analysis of microwave low-noise amplifiers under laser illumination," *Microwave and Optical Technology Letters*, Vol. 58, No. 10, pp. 2437-2443, Oct. 2016.

[41] N. Boukortt, B. Hadri, S. Patanè, A. Caddemi, G. Crupi, and E. Cardillo, "Electrical characteristic of SOI TG n-FinFET," *Materials for Advanced Metallization (MAM)*, Leuven, Belgium, Mar. 2016.

[42] A. Caddemi, E. Cardillo, and G. Crupi, "Microwave noise parameter modeling of a GaAs HEMT under optical illumination," *Microwave and Optical Technology Letters*, Vol. 58, No. 1, pp. 151-154, Jan. 2016.

[43] E. Cardillo and A. Caddemi, "Flexible CAD methodology for UWB filter with a tailored notch," *IEEE Mediterranean Microwave Symposium (MMS)*, Lecce, Italy, Dec. 2015.

[44] N. Boukortt, A. Caddemi, E. Cardillo, G. Crupi, B. Hadri, and S. Patanè, "Inverse modeling of an AlGaAs/GaAs HEMT from DC and microwave measurements illumination," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2015.

[45] A. Caddemi, E. Cardillo, G. Crupi, and G. Salvo, "Performance analysis of a microwave low-noise amplifier under laser illumination," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2015.

[46] A. Meazza, G. Sivverini, A. Colzani, M. Fumagalli, A. Traversa, and E. Cardillo, "A new methodology to estimate E-band pHemt linearity optimum load from low microwave frequency load pull measurements" *IEEE International Workshop on Integrated Nonlinear Microwave and Millimeter-wave Circuits (INMMiC)*, Taormina, Italy, 3 p., Oct. 2015.

[47] A. Caddemi, E. Cardillo, and G. Tuccari, "Ultra Wide-Band HTS filter for new geodetic VLBI front-ends," *European VLBI Group for Geodesy and Astronomy (EVGA)*, Azores, Portugal, 3 p. May 2015.

[48] D. Aloisio, A. Caddemi, E. Cardillo, "Amplificatore di potenza ibrido compatto in banda X per radar marittimi di nuova generazione" - *VI Convegno SEA-MED*, Messina, Italy, pp. 204 – 208, Jul. 2014.