

CURRICULUM VITAE

PERSONAL INFORMATION	
<i>Name</i>	AMIT KUMAR
<i>Date of birth</i>	22 FEB 1982
<i>Nationality</i>	INDIAN
<i>Address</i>	VIA LANUSEI 25, CAGLIARI, ITALY
<i>Telephone</i>	+39-3468436877
<i>E-mail</i>	AMIT.KUMAR@UNICA.IT
<i>Position</i>	RESEARCHER (RTD-A)
PROFILE	
<i>Brief description</i>	Amit Kumar is currently working as an Assistant Professor (RTD-A) at Department of Electrical and Electronic Engineering (DIEE), Cagliari University of Cagliari. He has been visiting scientist at Center for Advanced Studies, Research and Development in Sardinia (CRS4), from 2011-2014. His principal research interests are in computer simulations, wide band gap devices, transformerless inverters and battery energy storage systems. He has participated to several projects, two sponsored by the European Union. He has authored several papers (articles, reviews) in peer-reviewed journals, and is also acting as Editor and Reviewer for International Journals indexed in databases Scopus and Web Of Science.
WORK EXPERIENCE	
<i>(01/02/2021 – ongoing)</i>	Researcher (RTD-A), Department of Electrical and Electronic Engineering (DIEE), University of Cagliari, Italy
<i>(22/06/2020 – 21/12/2020)</i>	Research Fellow, DIEE, University of Cagliari, Italy
<i>(17/04/2019 – 16/04/2020)</i>	Post-doctoral Researcher, DIEE, University of Cagliari, Italy
<i>(26/03/2018 – 25/03/2019)</i>	Post-doctoral Researcher, Department of Mechanical, Chemical and Materials Engineering (DIMCM), University of Cagliari, Italy
<i>(05/01/2016-04/01/2019)</i>	Co-Founder Yenetics SRL, Responsible for Scientific, Commercial and Marketing Management , Quartu S'Elena, Italy
<i>(03/08/2012 – 02/08/2013)</i>	Post-doctoral Researcher, Department of Biomedical Sciences, University of Cagliari, Italy
<i>(27/04/2011 – 26/05/2012)</i>	Term contract Worker (co. co. co), Department of Public Health and Clinical Molecular Medicine, University of Cagliari, Italy
<i>(19/01/2010 – 18/07/2010)</i>	Research Fellow, National Research Council (CNR), Department of Physics, University of Cagliari, Italy
<i>(16/12/2006 – 15/12/2009)</i>	Term contract Worker, Department of Physics, University of Cagliari, Italy
<i>(26/07/2005 – 15/12/2006)</i>	Researcher, Interdisciplinary Center for Scientific Computing (IWR), Heidelberg University, Germany
<i>(28/06/2004 – 12/07/2005)</i>	Junior Research Fellow, Department of Physics, Indian Institute of

	Technology (IIT) Bombay, Mumbai, India
EDUCATION	
(2014 - 2017)	International PhD in Innovation Sciences and Technologies, University of Cagliari, Italy
(2006 - 2009)	PhD Degree in Physics of Matter, Marie-Curie Junior Research Fellowship, University of Cagliari, Italy
(2002 - 2004)	Master's Degree in Physics (Specialization in Photonics), Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, India
(1999 - 2002)	Bachelor of Science (BSc Physics Honors), Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, India
ACADEMIC TITLES	
(2022)	Expert Evaluator for Italian National Agency of Universities and Research Institutes (ANVUR): 2015–2019 VQR
(2022)	External Reviewer for Government of Chile – Scientific and Technological research (Fondecyt)
(01/012023–till date)	Editorial Board Member of PLOS ONE
SKILLS	
	<ul style="list-style-type: none"> • Scientific computing experience • Teamworker (Responsibility & Dependability) • Scientific dissemination • Interpersonal Communication • Critical Thinking
LANGUAGES	
	English (Native Proficiency)
	Hindi (Mother Tongue)
	Italian (Professional Working Proficiency)
ACADEMIC ACTIVITY	
	<i>Teaching Activity</i>
(2023/2024) Cagliari, Italy	Reference Teacher for Professional Degree Course (LP-03) in “Industrial Technologies for the Energy and Digital Transition”, University of Cagliari
(2022/2023) – (2023/2024) Cagliari, Italy	Electromagnetic compatibility (20 hours) for Masters degree course in Energetic Engineering, University of Cagliari.
(2022/2023) Cagliari, Italy	Electromagnetic compatibility (20 hours) for PhD degree course in Industrial Engineering, University of Cagliari.
(08/2022 – 11/2022) Online	Electromagnetic Fields (22 hours) for Bachelors of Engineering (B.E.) degree course, Pollachi Institute of Engineering, and Technology, Coimbatore, India

(27/05/2015) Online	Power Electronics (22 hours) for B.E. degree course, Pollachi Institute of Engineering, and Technology, Coimbatore, India
(12/2017 – 02/2018) Monserrato, Italy	Physics Tutor (40 hours) for Bachelors degree course in Medicine and Surgery, University of Cagliari.
(12/2017 – 02/2018) Monserrato, Italy	Physics Tutor (40 hours) for Bachelors degree course in Medicine and Surgery, University of Cagliari.
	Conferences, Webinars and Workshops
(13/12/2023 – 14/12/2023) Online	PowerUP Energy Event (10 hours), Organized by AspenCore Network, Italy.
(17/07/2023 – 19/07/2023) Online	Speaker at 7th AEIT International Conference of Electrical and Electronic Technologies for Automotive (AEIT AUTOMOTIVE 2023), Modena, Italy.
(27/06/2023 – 29/06/2023) Terrasini, Italy	Speaker at 8th International Conference on Clean Electrical Power (ICCEP), Terrasini, Sicily.
(22/06/2022 – 24/06/2022) Sorrento, Italy	Speaker at 26 th Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), Sorrento, Italy.
	Direction or participation in the activities of a research group at national or international level
(05/12/2022– Ongoing) Cagliari, Italy	Participant in project MOST – Sustainable Mobility Center” Project funded under the National Recovery and Resilience Plan (NRRP), Mission 4 Component 2 Investment 1.4 - Call for tender No. 3138 of 16/12/2021 of Italian Ministry of University and Research funded by the European Union – NextGenerationEU.
(07/11/2022– Ongoing) Cagliari, Italy	Participant in project e.INS – Ecosystem of Innovation for Next Generation Sardinia” funded by the Italian Ministry of University and Research under the Next-Generation EU Programme (National Recovery and Resilience Plan – PNRR, M4C2, INVESTMENT 1.5 – DD 1056 of 23/06/2022 , ECS00000038).
(10/10/2022– Ongoing) Cagliari, Italy	Participant in project Network 4 Energy Sustainable Transition – NEST”Project funded under the National Recovery and Resilience Plan (NRRP), Mission 4 Component 2 Investment 1.3 - Call for tender No. 1561 of 11.10.2022 of Ministero dell’Università e della Ricerca (MUR); funded by the European Union – NextGenerationEU.
(05/09/2022– Ongoing) Cagliari, Italy	Participant in project RETURN – Multi-Risk Science For Resilient Communities Under A Changing Climate, Extended Partnership and received funding from the European Union Next-GenerationEU (National Recovery and Resilience Plan – NRRP, Mission 4, Component 2, Investment 1.3 – D.D. 1243 2/8/2022, PE0000005).
(07/06/2021–28/02/2022) Cagliari, Italy	Participant in project RSE – Electricity System Research, in collaboration with ENEA, Program Agreement with Ministry of Economic Development (now Ministry of Ecological Transition) – ENEA.
(01/02/2021- Ongoing) Cagliari, Italy	Participant in project IAPC “Engineering and Automation of the traditional Carasau bread production process through the use of IOT technologies, Funds for Sustainable Growth "AGRIFOOD" (PON I&C 2014-2020).
(15/04/2020 – 14/04/2021) Cagliari, Italy	Participant in project E2READ – Efficientamento Energetico dei processi di Refrigerazione della catena alimentare della grande distribuzione. POR FESR SARDEGNA 2014-2020.
(02/02/2020 – 01/04/2020) Budapest, Hungary	Participant in Exchange of personnel for research and innovation at BIOTALENTUM (Budapest, Hungary). Title: "DRYNET" H2020-

	EU.1.3.3. MSCA-RISE-2016.
(17/04/2019 – 16/04/2020) Cagliari, Italy	Participant in project PRELuDE3 – PRotocollo ELaborazione Dati per l'Efficienza Energetica in Edilizia (POR FESR 2014-2020).
(20/09/2018 – 19/01/2019) Bordeaux, France	Participant in Exchange of personnel for research and innovation at Imogene (Bordeaux, France). Title: "DRYNET H2020-EU.1.3.3. MSCA-RISE-2016.
(16/12/2006 – 15/12/2009) Cagliari, Italy	Participation in the human resources and mobility program (Marie Curie Actions) - Marie Curie Researcher - "Translocation - Molecular basis of antibiotics transport through Bacterial porins".
(26/07/2005 – 15/12/2006) Heidelberg, Germany	Participation in the research at Interdisciplinary research center for scientific computing (IWR), Heidelberg University.
(28/06/2004 – 12/07/2005) Mumbai, India	Participation in project "MultiChannel Source for WDM Applications", Indian Institute of Technology Bombay (IITB).
PUBLICATIONS	
CORRESPONDING AUTHOR	Ramasamy, S.; Baccoli, R.; Meo, S.; Gatto, G.; Kumar, A. Neutral Point Clamped Non-Isolated Three Phase Grid-Integrated PV Inverter Topologies for Leakage Current Reduction. Int. Rev. Electr. Eng. (IREE) 2023, 18, 88, doi:10.15866/iree.v18i2.23629.
CORRESPONDING AUTHOR	Sivasubramaniam, V.; Ramasamy, S.; Venkatraman, M.; Gatto, G.; Kumar, A. Carbon Nanotubes as an Alternative to Copper Wires in Electrical Machines: A Review. Energies 2023, 16, 3665, doi:10.3390/en16093665.
FIRST AND PRESENTING AUTHOR	Kumar, A. ; Ramasamy, S.; Losito, M.; Gatto, G. Comparative Analysis of Three Phase Hybrid Transformerless Inverters for PV Applications. In Proceedings of the 2023 International Conference on Clean Electrical Power; IEEE, 2023, doi: 10.1109/ICCEP57914.2023.10247435
LAST AND PRESENTING AUTHOR	Ramasamy, S.; Sivasubramaniam, V.; Gatto, G.; Kumar, A. DC Link Voltage Control Based Energy Management Strategy for Standalone Solar PV Fed Hybrid System. In Proceedings of the 2023 AEIT International Conference on Electrical and Electronic Technologies for Automotive (AEIT AUTOMOTIVE); IEEE, 2023, doi:10.23919/AEITAUTOMOTIVE58986.2023.10217257
FIRST AND CORRESPONDING AUTHOR	Kumar, A. ; Moradpour, M.; Losito, M.; Franke, W.-T.; Ramasamy, S.; Baccoli, R.; Gatto, G. Wide Band Gap Devices and Their Application in Power Electronics. Energies 2022, 15, 9172, doi:10.3390/en15239172.
LAST AUTHOR	Ramasamy, S.; Gatto, G.; Kumar, A. Various Non-Isolated Three Phase Grid-Integrated PV Inverter Topologies for Leakage Current Reduction - A Simulation-Based Study. In Proceedings of the 2022 IEEE International Power and Renewable Energy Conference (IPRECON); IEEE, 2022, doi:10.1109/IPRECON55716.2022.10059530.
FIRST AND CORRESPONDING AUTHOR	Kumar, A. ; Losito, M.; Moradpour, M.; Gatto, G. Current Source Gate Driver for SiC MOSFETs in Power Electronics Applications. In Proceedings of the 2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM); IEEE, 2022, doi: 10.1109/SPEEDAM53979.2022.9842111.
CO-AUTHOR	Majumder, A.; Innamorati, R.; Frattolillo, A.; Kumar, A. ; Gatto, G. Performance Analysis of a Floating Photovoltaic System and Estimation of the Evaporation Losses Reduction. Energies 2021, 14, 8336, doi:10.3390/en14248336.
CO-FIRST AUTHOR	Perra, C.; Kumar, A. ; Losito, M.; Pirino, P.; Moradpour, M.; Gatto, G. Monitoring Indoor People Presence in Buildings Using Low-Cost Infrared Sensor Array in Doorways. Sensors (Basel) 2021, 21, 4062,

	doi:10.3390/s21124062.
CO-AUTHOR	Pirino, P.; Losito, M.; Kumar, A. ; Gatto, G.; Meo, S.; Frank, W.-T.; Moradpour, M. Multi-Objective Gate Driver Design for a GaN-Based Half-Bridge Converter to Optimize Efficiency and near-Field EMI. Int. Rev. Electr. Eng. (IREE) 2021 , 16, 95, doi:10.15866/iree.v16i2.20477.
CO-AUTHOR	Baccoli, R.; Kumar, A. ; Frattolillo, A.; Mastino, C.; Ghiani, E.; Gatto, G. Enhancing Energy Production in a PV Collector – Reflector System Supervised by an Optimization Model: Experimental Analysis and Validation. Energy Convers. Manag. 2021 , 229, 113774, doi:10.1016/j.enconman.2020.113774.
CO-AUTHOR	Moradpour, M.; Pirino, P.; Losito, M.; Franke, W.-T.; Kumar, A. ; Gatto, G. Multi-Objective Optimization of the Gate Driver Parameters in a SiC-Based DC-DC Converter for Electric Vehicles. Energies 2020 , 13, 3720, doi:10.3390/en13143720.
According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV	

12 January 2024, Cagliari

Signature
