Faculty Name	**Dr. ARUN KUMAR M**
Designation	**Associate Professor**
Educational Qualification	**BE, M.E., Ph.D**
Experience in Years	**Teaching: 20 years** **Industry: 2 years**
Areas of Interest	**Embedded Systems, Power Electronics and Energy Systems**
Subjects Taught	**Digital Signal Processing, Control Systems, Signals and systems, Network Analysis, Basic Electrical Engineering, Power Electronics, Programming in C, Programming in C++, Embedded Systems, Real Time Embedded Systems, Industrial Drives and Applications, Artificial Intelligence Applications for Electric Vehicles, Renewable Energy Systems, Java Programming, Operating Systems, Real Time Operating Systems.**
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EDUCATIONAL DETAILS:-

Examination / Degree	College/University	Year of Passing
B.E	University Visvesvaraya College of Engineering, Bangalore University, Bangalore.	2000
M. E	University Visvesvaraya College of Engineering, Bangalore University, Bangalore.	2004
Ph.D	Visvesvaraya Technological University	2020

PUBLICATIONS:-

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Journal Publications:
- Manu D K, Arun Kumar M, Gopala Krishnamurthy C R, Dinesh kumar D S, "Solar Energy Based Air Quality Monitor And Purifier For Automotive Application," International Journal of Creative Research Thoughts, Vol 13, Issue 7, July 2025.
- Arun Kumar M, Dr Sanjay Lakshmi Narayanan, "Evaluation of Different Multilevel Inverter Topologies for Harmonic and Power Losses", International Journal for Research in Applied Science & Engineering Technology, vol 5, Issue XI, November 2017.
- Vinay K M, Arun Kumar M, Dr Prakash, Megana M C, "Selective Harmonic Elimination for Multilevel Inverters", International Journal for Research in Applied Science & Engineering Technology, vol 5, Issue VIII, August 2017.
- Amruth K J, Arun Kumar M, Kundu Priyabrata, "Functional Verification of Register using UVM RAL Methodology", International Journal of Latest Trends in Engineering Science and Technology, vol 1, Issue 5, July 2014.
- Gayathri V, Arun Kumar M, "MPSoc Design Approach of FPGA Based Controller for Induction Motor Drive", International Journal of Engineering Research and Technology, vol 3, Issue 3, March 2014.
- Arun Kumar M, Gowdra Vinay Kumar, Sanjay Laxminarayanan, "Design of Gating Pulse Generation on FPGA Using Cordic Algorithm for Cascaded Multilevel Inverter", International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, vol. 2, Issue 8, August 2013.
- Indu M, Arun Kumar M, "Design of Low Power Pipelined RISC Processor", International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, vol. 2, Issue 8, August 2013.

Conference Papers :
- Manu D K, Arun Kumar M, Dinesh kumar D S, Gopala Krishnamurthy C R, "Development Of Wireless Mobile Computing Platform For Fall Risk Prediction", International conference on "Next generation devices &smart computing application" (ICNGSDSCA-2024), December 2024, Cambridge Institute of Technology, Bangalore - 560036.
- Manu D K, Arun Kumar M, Gopalakrishnamurthy C R, Dinesh kumar D S, "Solar Energy Based Air Quality Monitor And Purifier For Automotive Application," TWO DAYS INTERNATIONAL CONFERENCE on "Recent Challenges and Innovations in Engineering Science and Technology" 9th and 10th MAY 2025, K S Institute of Technology and Management, Bangalore - 560109.
- Arun Kumar M, Sanjay Lakshminarayanan, "Multilevel Inverter Configuration for Open End Winding Induction Motor", International Conferance on Current Trends in Engineering, Science and Technology, ICCTEST, Don Bosco Institute of Technology, Bangalore - 74
- Vinay Kumar A V, Arun Kumar M, Chandrashekariah, "Study of Substation Automation System using IEC 61850 Protocol", International Conferance on Current Trends in Engineering, Science and Technology, ICCTEST, Don Bosco Institute of Technology, Bangalore – 74
- Arun Kumar M, Sanjay Lakshminarayanan, "Cost Effective Gate Drive Circuit for MLI with Constant Number of Conducting Switches", IEEE International Conference on Recent Trends In Electronics Information Communication Technology, May 2016, pp 637 – 642.
- Anitha C, Arun Kumar M, Sanjay Laxminarayanan, "Design, Simulation and Implementation of Embedded Controller for Diode Clamped Multilevel Inverter

using FPGA", National Conference on "Emerging Trends in Power System", conducted by DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, ACHARYA INSTITUTE OF TECHNOLOGY, BANGALORE – 560 090, 2012.

- Arun Kumar M, Sanjay Laxminarayanan, "A Simple Multilevel Inverter with Reduced Switch Count", in 55th Annual Technical Convention on "AMPERE – Paradigm Shifts and Impact of ICT", conducted by INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS, NEW DELHI and BANGALORE, 2012.
- Taranath H B, Arun Kumar M, "Buffer Overflow Protection for Embedded System", in Conference on "Evolutionary Trends in Information Technology", conducted by DEPARTMENT OF PG STUDIES, VISVESVARAYA TECHONOLOGICAL UNIVERSITY, BELGAUM – 560 018, 2011.
- Prashant Hebbale, Arun Kumar M, "Comparative Study of Different Deadlock Avoidance Strategies in Distributed Real Time Embedded Systems", in Conference on "Evolutionary Trends in Information Technology", conducted by DEPARTMENT OF PG STUDIES, VISVESVARAYA TECHONOLOGICAL UNIVERSITY, BELGAUM – 560 018, 2011.
- Nagesh N, Arun Kumar M, "Fast Identification of Critical Lines and Weak Load Buses in Power Systems" in National Conference on "Innovative Strategies on Power Systems and Power Electronics Drives" conducted by SONA COLLEGE OF TECHNOLOGY, SALEM – 635 005.
- Arun Kumar M, T S Prassana, "Power Factor improvement Through Fixed and Dynamic Compensation in Highly Variable Load Environment." in International Conference on "Emerging Technologies in Intelligent System and Control" conducted by KUMARAGURU COLLEGE OF TECHNOLOGY, COIMBATORE – 641 006.

Completed Following courses from NPTEL and SWAYAM.

"*From Digital Society from Theory to Practice*", NPTEL, Feb – March 2023. "*Innovation Business Model and Innovation*", NPTEL, Aug – Oct 2021. "*Patent Search for Engineers and Lawyers*", NPTEL, Aug – Oct 2021.
"*NBA Accreditation and Teaching – Learning in Engineering (NATE)*", NPTEL, Jan – Apr 2020. "*Assessment of Practical and Social Skills in Higher Education*", SWAYAM - ARPIT, Feb – 2020.
"*Managing Intellectual Property in Universities*", NPTEL, Jan – Feb 2019. "*Intellectual Property*", NPTEL, Jul – Oct 2018.
"*Technical English for Engineers*", NPTEL, Aug – Sep 2018.
"*Patent Drafting for Beginners*", NPTEL, Feb – March 2018.
"*Patent Law for Engineers and Scientists*", NPTEL, Jan – April 2018.

Achievement

NPTEL CERTIFICATE – "*FACULTY DOMAIN ADVANCED*"

Patent Applied and Published on "Intelligent Gesture Controlled Wireless Wheelchair" Design Accepted and Published, Journal No is 17/2024 and Journal Date is 26/04/2024.

Professional Membership

1. Fellow Member of The Institute of Electronics and Telecommunication Engineers (IETE)

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