


FACULTY PROFILE

Name of Faculty	A KUMAR	
Department	Electrical & Electronics Engineering	
Qualification	B.E., M.S, M.Sc(Engg), (Ph.D)	
Designation	Associate Professor	
Area of specialization	Energy Management, Embedded System	
Date of Joining BNMIT	07-03-2005	
Nature of Association (Regular/Contractual/Adjunct)	Regular	
e-mail	akumar@bnmit.in, kumarbnmittee@gmail.com	
No. of years of Experience	Teaching:24 years	

Academic Qualifications

- **M.Sc (Engg) (2013)**, Research Center, Department of EEE, BNMIT, India.
- **M.S** (1999) in Electronics and Control, BITS Pilani, India (CGPA - 9.03).
- **B.E.** (1993) in Electrical & Electronics Engineering, GVIT, KGF (I Class), Affiliated to Bangalore University.

Working Experience Details

- Associate Professor, Dept. of EEE, BNMIT, Bangalore, India, (05/03/2012 - Till date).
- Asst. Professor, Dept. of EEE, BNMIT, Bangalore, India, (1/12-2005 - 04/03/2012).
- Senior Lecturer, Dept. of EEE, BNMIT, Bangalore, India, (7/3/2005 - 30/11/2005).
- Lecturer, Dept. of EEE, GVIT, KGF, India, (17/04/995 - 06/03/2005)

Courses taught

UG: Basic Electrical Engineering, Analog Electronics Circuits, Basic Electronics, Microprocessor, Microcontroller, OpAmp and Linear IC applications, Control Systems, Electrical Machine Design, Management & Entrepreneurship, Embedded System, Electrical power utilization, Energy Auditing & DSM, Peripherals and Microcontrollers, Unix and C, Computer organization

PG: Modeling and Analysis of Electrical machines, Microcontroller and application.

Research Experience Details

M. Sc(Engg) by Research:

Studied the effect of the switching elements on the harmonic level of circuits, As a part of the work build an Automatic power factor controller for a 3.7kW induction motor and studied its effect on power factor improvement of the machine

Ph.D:

Currently pursuing Ph.D in the area of Liquid dielectrics under VTU. As a part of the work an investigation on the dissolved gas concentration of various samples were done and the results were discussed in an IEEE International conference as a paper. The work has been published in IEEE Xplore.

Academic Positions and other Responsibilities (University Level)

1. Member BOE, VTU, Academic year 2014-2015.
2. Practical exam co-ordinator. co-opted member year 2016-17.
3. Video recording for VTU e-learning in the subject Electronics lab.(11/08/2016 - 22/08/2016)

Academic Positions and other Responsibilities (Institute Level)

1. **Faculty co-ordinator** for Skill development program - High frequency Transformer design and rotating machine design.
2. **NBA Co-ordinator**, Dept. of EEE, BNMIT (2017-18, 2018-19)
3. **NAAC CO-ordinator**, BNMIT (2016-17, 2017-18)
4. **Personality development program (T5 / TW5) mentor** (2017 - Till date).
5. **Personality development program (T5 / TW5) core committee member** (2017- Till date).
6. **Engineering Exploration Lab (EEL) core committee member (March 2019 - till date**
7. **Member**, IQAC, BNMIT (2017-18).
8. **Op-AMP and LIC lab incharge** (2016 - Till date)
9. **Electronic lab incharge** (2016-17)
10. **Member**, Library Advisory Committee, BNMIT (3/2/2014 - Till date).
11. **Institute level test co-ordinator for year 2014-2015.**
12. **AMR for ISO certification.**(2010-2014)
13. **Microcontroller lab incharge** (2007 - Till date).

Instruments Handled/Software's handled

- Power quality analyzer Hioki PW3198.
- Matlab.
- Keil software for 8051 program development, Flash Magic, IDE Bench work for MSP430, Aurdino.
- Digital storage oscilloscope.

Awards/Achievements/Membership

- Awarded as Best Faculty of the year 2018-19 by M/s Cognizant
- Letter of appreciation from Management of BNMIT for securing faculty appraisal of 91.33 during 2016-17.
- Awarded Best Paper of the conference for the paper titled, “**Implementation of digital PID for speed control of DC motor**”, at the National conference on Advanced Techniques in Electrical Engineering (NCATEE - 2008), SJBIT, Bangalore on 26th March 2008.

Professional Memberships

- **Life Member, Indian Society for Technical Education (ISTE)-LM20605**

Workshops /Seminars Organized

1. Convener for 1 week workshop on “Modern power electronics drives: Design and future trends”, from 16th to 20th Jan 2018
2. Convener for 1 week workshop on “Role of IT in Power sector” from 9th – 13th Jan 2017.
3. Convener for 1 week workshop on “Integration of Green Energy to smart grids – opportunities and challenges”, from 11th to 16th July 2016.
4. Member of Organizing committee for 1 week workshop on “Recent Trends in Power Quality Issues and mitigation”, from 18th - 23rd Jan 2016.
5. Member of organizing team for ICPACE 2015 held between 12th – 14th Aug 2015 at BNMIT.
6. Convener for 1 week workshop on “PLC and SCADA systems” from 19th to 23rd January 2015.

Research Publications

International Journals

International Journals:

1. **A.Kumar,**” **Demand side management: case study at educational institute**”, at IJAERD, ISSN(online):2348-4470, ISSN(print):2348-6406, Volume 06, Issue 03, March-2019, pp 27- 30. [Impact factor: SJF:5.71]
2. Chetan.S. **A.Kumar,**” **Mathematical modeling of three phase Induction motor and its speed control by SPWM and SVPWM techniques**”, at IJAERD, ISSN(online):2348-4470, ISSN(print):2348-6406, Volume 04, Issue 05, May -2017, pp 393-401. [Impact factor: 4.72]
3. Ashitha S Kumar, Dinari Kiran kumar, **A.Kumar,** Shruthi Vaidya, ” **Reduction Of Harmonics In Power Distribution Systems Using Hybrid Active Filter**”, at IJAERD, ISSN(online):2348-4470, ISSN(print):2348-6406, Volume 04, Issue 05, May-2017, pp 48-55. [Impact factor: 4.72]
4. **A.Kumar,**” **Energy conservation: a case study on energy conservation in residential apartment complex**”, at IJAERD, ISSN(online):2348-4470, ISSN(print):2348-6406, Volume 04, Issue 04, April-2017, pp 1056 – 1059. [Impact factor: 4.72]

5. Shishir Chandra, P Vivek, **A.Kumar**, “ **A smart system of a AC motor speed control based on room temperature**”, at IJRET, eISSN:2319-1163, pISSN:2321-7308, Vol 5, issue 9, Sept 2016, pp 212-216.
6. Chaitanya, **A.Kumar**, “ **A Novel High efficiency converter for renewable energy generation application**”, at IJRET, eISSN:2319-1163, pISSN:2321-7308, Vol 5, issue 5, May 2016, pp 290-294.
7. Champa P N, **Kumar A**, “**Implementation of interleaved soft switching boost converter with PV source**” at International Journal of Science and Technoledge, ISSN : 2321-919x, Vol 11, issue VI, June 2014.
8. Shravanthi, **Kumar A**, “**Implementation of synchronous buck converter with PV source**”, at International Journal of Science and Technoledge, ISSN : 2321-919x, Vol 11, issue VI, June 2014.
9. **A.Kumar**, Dr. G R Gurumurthy, “**Influence of Switching Elements on Harmonics and Power Factor Improvement**”, at International Journal of Engineering Research and Development, p-ISSN:2278-800x, vol 7, issue 12, July 2013, pp 18-24.

Papers presented in International/National Conferences

International

1. **A.Kumar**, Dr. Vidya H A, Bala Gopal Reddy G, “**Modified Fuzzy logic technique for Power Transformer fault prediction**” at IEEE-ICSPACE-2017 held at GAT, Bangalore between 17-19th August 2017. The paper was published in IEEE Xplore.
2. Shashidhar, **A.Kumar**, “**Smart DC micro-grid for effective utilization of solar energy**” at IC on RTPES-2016 held at AMC Engineering college, Bengaluru on 4th April 2016
3. Archana, **A.Kumar**, “**Modelling of Industrial Drives for Simulation and PQ considerations**”, at ICICE-2013 held at Bangalore on 28th June 2013.
4. Kruthi Jayaram, **A.Kumar**, “**Design and implementation of Drive control for electric vehicle**”, at ICICE-2013 held at Bangalore on 28th June 2013.

National

1. Nivedhita, Shobitha, Sushme, **A.Kumar**, “**Energy efficient lighting system**”, at National conference on Advanced Techniques in EEE-15 held on 9th May 2018 at SJBIT, Bengaluru
2. Chaitanya, **A.Kumar**, “**High Efficency wide input range LLC resonanat converter for Renewable energy generation system with fixed frequency PWM control method**” at NCESM – 2016 held on 23rd and 24th March 2016 organized by SIET, Tumukuru
3. Meghana, **A.Kumar** “ **Simulation of dynamic voltage restorer during 3-phase fault**” at National conference on Advanced Techniques in EEE-15 held on 9th May 2015 at SJBIT, Bengaluru
4. Champa, **A.Kumar**, “**Simulation study of single and Interleaved soft switching boost converter with PV source**”, National Conference on Advanced techniques in EEE (NCATEEE – 14), SJBIT, Bangalore on 10th May 2014.
5. Shravanthi, **A.Kumar**, “**Soft switching synchronous buck converter with PV source**”, National Conference on Advanced techniques in EEE (NCATEEE – 14), SJBIT, Bangalore on 10th May 2014.

6. Deepak K Srivatsa, Preethi B, Parinitha R, Sumana G, **A.Kumar**, “**Smart Street Lights**”, India Educators Conference (TIEEC) – 2013, Texas Instruments, between 4th – 6th April 2013, Published in IEEE Explore
7. Manjunath H P, **A.Kumar**, “**PF improvement and its effects on harmonic distortion for a 1-phase fully controlled rectifier with RL-load**”, at NCRE³CT-2011 held at BNMIT on 14th October 2011.
8. **A.Kumar**, Dr. G.R.Gurumurthy, “**Power factor improvement and its effect on Harmonic Distortion**”, at National Conference on Energy Systems and Energy Issues (ESEI – 2011) at BMSCE, Bangalore held on 18th and 19th February 2011.
9. **A.Kumar**, K.Venkatesha, “**Implementation of Digital PID for speed control of DC motor**” at National conference on Advanced Techniques in Electrical Engineering (NCATEE - 2008), SJBIT, Bangalore on 26th March 2008.
10. K.Venkatesha, **A.Kumar**, “**Fuzzy logic based closed loop speed control of separately excited DC motor**” at National symposium on “Scenario of scientific and information technology in power and electronic systems(SSITPES-2008)” at DSCE, Bangalore held on 3rd and 4th April 2008.

Invited Talks Delivered

1. **Analog Electronics and applications** “at Sairam College, Anekal on 09th Nov 2017.
2. ”**Analog Electronics and applications** “at Sairam College, Anekal on 20th Oct 2016.
3. “**Analog Electronics**” at SSEC, Anekal on 15th Sept 2015.
4. “**DSM customer perspective**” at AMCCE, Bengaluru on 11/02/2015.
5. “**Control Engineering applications in Electrical Engineering**” at SJBIT, Bangalore on 12/04/2014.
6. “**Energy Auditing and Demand side management**” at DSCE, Bangalore on 28/09/2011.

Chairmanships at National/ International Conference / Seminars / Project exhibitions

1. **Jury member** for the project exhibition “Pradarshana 2019” held at MSRIT, Bengaluru on 25th May 2019.
2. **Chair person** for the National conference on Power control and signal processing at GCE, Ramanagaram on 8th April 2015
3. **Jury member judge** for the Final Project Exhibition held at BMSCE, Bangalore on 21st May 2014.
4. **Jury member** for the project and paper contest at CIT Gubbi in the National level symposium “KNEW 2011” on 30th March 2011
5. **Jury member** for the project and paper contest at CIT Gubbi in the National level symposium “KNEW 2008” on 7th November 2008.

Participation in Training courses / Seminars / Workshops

1. 1 week FDP on “**Working model of Industry 4.0**” from 08th July to 12th July 2019 at NTTF, Bangalore.

2. 1 week short term course on “**Introductory course on Machine learning**” from 21st to 26th Jan 2019 at **TKMCE, Kollam**
3. 1-day workshop on “**Patenting**” on 11th April 2018 at BNMIT
4. 2-day workshop on “**A to Z of Transformer Design**”, from 17th and 18th February 2018 at BNMIT.
5. 1-week FDP on, “**Modern Power Electronic Drives: Design and Future trends**”, from 16th to 20th January 2018 at BNMIT.
6. 1-week workshop on “**Role of IT in power sector**”, from 9th – 13th Jan 2017 at BNMIT.
7. 1-week workshop on “**Integration of Green Energy to smart grids – opportunities and challenges**”, from 11th to 16th July 2016 at BNMIT.
8. 3-day CWF-2016 conference on, “**Cities in Transition**”, from 28th - 30th November, 2016 at Palace Ground, Bengaluru
9. 1-week FDP on “**Recent trends in Power quality issues and mitigation**” from 18th to 23rd Jan 2016.
10. 3-day workshop on “**Quality initiative in technical and higher educational institutions through accreditation and assessment**”, from 5th – 7th Nov 2015, at GEC, Hassan.
11. 1-week workshop on “**Programmable logic controller and SCADA systems**” from 19th to 23rd January 2015 at BNMIT, Bengaluru
12. 1-week workshop on “**Energy Management & Energy Audit**” organized by RVCE, Bangalore on 20th – 24th Jan 2014.
13. 3-day workshop on “**Microcontroller MSP 430 and its applications**” held from 30th Jan to 1st Feb 2012 at HKBK College of Engineering, Bangalore.
14. 1-week SDP on “**LabVIEW and its applications in Engineering**” organized by BMSCE, Bangalore between 11th July 2011 to 16th July 2011.
15. 2-day FDP on “**Energy auditing and DSM**” at JNNCE, Shimoga on 24th and 25th August 2010.
16. 2-day workshop on “**Research methodologies and report writing**” organized by VTU at MSRIT, Bangalore on 28th and 29th May 2009.
17. 1-day seminar on “**Introduction to research investigations in recent years in Electrical and Electronics Engineering**”, at BNMIT, Bangalore held on 16th March 2009.
18. 2 – day workshop on “**Recent trends in power electronics**” at UVCE, Bangalore conducted on 25th and 26th September 2008.
19. 3-day short term training programme on “**Microcontrollers and HDL lab**” at RNSIT, Bangalore held on 30th Jan to 1st Feb 2008.
20. 5- day workshop on “**Soft Skills**” held at Infosys, Bangalore from 21st to 25th January 2008.
21. 3-day workshop on “**State of Art Approaches to power system modeling and simulation**” at NMIT, Bangalore between 22nd to 24th Feb 2007
22. 3-day FTP on “**RF measurements**” at East West Institute of Technology, Bangalore between Aug 10 -12 2005.
23. 15-day course on “**DIGITAL CONTROLLER DESIGN & APPLICATION**” at BMSCE, Bangalore between 15th June 2002 to 28th June 2002
24. 2-day Workshop on “**Control system laboratory**” held on 22nd and 23rd March 2001 at RVCE, Bangalore.

Training undergone

1. Internal auditor training for ISO 9001:2008 by TUV Rheinland, India.

Personal Details

- **Date of Birth:** 22 - 09 -1969; **Gender:** Male.
- **Family Details: Wife:** Mrs. A.Rajasree and **Two sons:** Arun Ganesh and Naren Karthik.
- **Languages known:** English, Hindi, Kannada, Telugu, Tamil

17th July 2019

A.KUMAR