

# OBJECTIVE

Working as a faculty and researcher with 19+ years of experience so far in several reputed institutions. Eager to provide progressive research and good academic for reputed University/institutions.

**Dr. K.NARASIMHAIAH ACHARI**

Professor & Head,

# Department of Electrical and Electronics Engineering,

**Navodaya Institute of Technology, Raichur, Karnataka.**

**.PROFILE**

### EDUCATIONAL BACKGROUND

### Graduation

Received B.Tech. degree (Department of Electrical and Electronics) in the year 2000, form Department of Electrical and Electronics Engineering, from Andhra University, Visakhapatnam, Andhra Pradesh State.



# CONTACT

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## Date of birth: 02/03/1976

### Post Graduation

Received M.Tech. degree in the year 2008 with the specialization of Power Electronics, from Department of Electrical and Electronics Engineering, Jawaharlal Nehru Technological University, Hyderabad.

### Doctor of Philosophy

Awarded Ph.D. degree in the year 2019 with the thesis title of “Performance Improvement of Sensor less Controlled IPMSM Drive with Adaptive Controllers”, from Department of Electrical and Electronics Engineering, Jawaharlal Nehru Technological University Anantapur, Anantapuramu, Andhra Pradesh State.

### WORK EXPERIENCE

### A total of 18+ years teaching, administration and research experience so far in various institutions:

* **Vasavi Polytechnic, Banaganapalli, Kurnool(Dt.), Andhra Pradesh State (From 24/04/2001 to 25/09/2004 – Total 3 years 5 months)**

Worked as an Associate Lecturer from April, 2001 to Sep, 2004. During this period the following rolls were played.



# MAILING ADDRESS

H.NO. 87/1108 – TC -3, GANESH NAGAR-2, KURNOOL-518002, ANDHRA PRADESH STATE.

# KEY SKILLS

* Integrity
* Leadership
* Teamwork
* Dependability
* Communication
* Work ethic
* Organizational skills
* Collaboration

# AREAS OF INTEREST

* Electrical Circuits
* Electrical Machines
* Power Electronics
* Power Semiconductor Drives
* Special Machines
* Electric Vehicles Design and Control

### Key Achievements:

* Taught 3 subjects for the diploma students
* Taken and lead as In charge of Electrical Machines Lab
* Guided two projects for the students.

### St.Johns College of Engg.&Tech., Yemmiganur, Kurnool(Dt.), Andhra Pradesh State (From 01/12/2005 to 31/05/2012 – Total 6 years 5 months)

Worked as an Assistant Professor from December, 2005 to May, 2008. Later promoted and worked as an Associate Professor from June, 2008 to May, 2012. During this period of experience in this institution the following achievements done.

### Key Achievements:

* Taught 6 under graduate subjects and 02 post graduate subjects
* Taken and lead as In charge of Electrical Machines Lab
* Guided and Supervised 06 projects for the B.Tech students and 02 projects for M.Tech Students.
* Enhancement of Electrical Machines Lab with advanced Machines

### G.Pullaiah College of Engg.&Tech., Kurnool, Andhra Pradesh State (From 01/06/2012 to 04/05/2019 – Total 6 years 11 months)

Worked as an Associate Professor from June, 2012 to May, 2019. During this period of experience in this institution the following achievements fulfilled.

### Key Achievements:

* Taught 6 under graduate subjects and 04 post graduate subjects
* Taken and lead as In charge of Electrical Machines Lab
* Guided and Supervised 07 projects for the B.Tech students and 06 projects for M.Tech Students.
* Act as project coordinator for the M.Tech programme
* Act as an Examination Section in charge
* Act as a Nodal Centre Coordinator for the J.N.T.U.A. spot valuation
* Worked as NBA Coordinator for the Criterion 1 and Criterion 7.
* Act as Coordinator for conducting the FDP
* Guest lecturer delivered on A.C. Drives at AVR&SVR College of Engg., Kurnool on 09/03/2012.



# MEMBERSHIPS

* Life Member of ISTE
* Member of IEEE.
* Member of IFERP

# AWARDS RECEIVED

* The best paper award received for the research paper presented in the International Conference ICREU on January 6th, 2016 at Coimbatore Institute of Technology (CIT), Coimbatore, Tamilnadu State.

# OTHER ACTIVITIES

* Acting as a Reviewer for one of the Springer series Journal in the research of area of Power Electronic Controlled Drives, Electric Vehicles and Smart Grid.

### GATES Institute of Technology, Gooty, Anantapur (Dt.), Andhra Pradesh State (From 28/05/2019 to 06/01/2021 – Total 1 year 8 months)

Worked as an Associate Professor from May, 2019 to January, 2021. During this period of experience in this institution the following achievements fulfilled.

### Key Achievements:

* Taught 02 under graduate subjects and 02 post graduate subjects.
* Guided and Supervised 02 projects for the B.Tech students and 02 projects for M.Tech Students.
* Contributed in preparing the data and submitting for the AQAR through online.
* Act as one of the Resource Person and deliver the session on the topic Modern Control techniques for the control of Electric Vehicles for the Five Days FDP.
* Acted as a resource person for the webinar conducted on 03/10/2020 at Vidya Jyothi Institue of Technology (Autonomous), Hyderabad.

### Srinivasa Ramanujan Institute of Technology, Anantapur, Anantapur (Dt.), Andhra Pradesh State (From 19/01/2021 to 14/02/2023 – Total 2 years)

* + Worked as an Associate Professor and Head of the Department, Department of E.E.E. since from January 19th, 2021 to February 14th, 2023.
  + Acted as Board of Studies Chairman to frame the syllabus for UG and PG programmes.

### Key Achievements:

* Taught 02 under graduate subjects and Supervised 02 projects for the B.Tech students.
* Acted as a resource person for the webinar conducted on “Challenges and Innovations in Electric Vehicles” on January 3rd, 2021 at Madhyanchal Professional University, Bhopal.
* Acted as a resource person for the webinar conducted on “Electric Drives for Electric Vehicle Applications” on March 15th, 2021 at Bansal Institute of Science and Technology (BIST), Kokta, Anand Nagar, Bhopal.

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# ACREDATION AND ACADEMIC WORK

# Contributed to prepare the NBA and NAAC documents for the department and institution.

# Prepared the syllabus as a Board of Studies Chairman for UG/PG programmes.

# Contributed as a Coordinator to conduct FDPs, STTPs and Webinars.

# SUBJECTS EXPERT

* Electrical Machines
* Power Electronic Controlled Drives
* Special Electrical Machines for EV application

# CURRENT RESEARCH WORK

# Presently doing the research apart from regular teaching in the area of Electric Vehicles Design and Control with the Battery Management System (BMS) for Smart Grid Applications.

* Acted as a Resource Person and delivered a topic on “Integration of the Vehicle – to – Grid (V2G) System” on June 24th, 2021 for the Five – Day faculty development program on “Recent Trends and Development in Electrical Power Engineering “ held from 21st June, 2021 to 25th June, 2021.
  + Acted as a Session chair for the IEEE Conference Global Conference for Advancement in Technology (GCAT 2021), on 01st – 03rd Oct 2021 at Nagarjuna College of Engineering & Technology, Bangalore.

### Ashoka Women’s Engineering College, Kurnool,

### Andhra Pradesh State (16/02/2023 to 07/08/2024 –Total

### year 6 months)

* Worked as a Professor and Head of the Department, Department of E.E.E. since from February 16th, 2023 to August 8th, 2024.
* Acted as a NBA coordinator and Board of Studies member for the department of E.E.E.

# PATENTS

### Australian Government has certified and published for an Innovation Patent on “An Improvement in DTH With Solar Energy Panel” on April 28th, 2021 for a term of eight years from April 28th, 2021.

* + Indian Government has certified and published for an Innovation Patent on “Method and System for Providing Integrated Solutions to Internet-Of Things (IoT) Based Power Grids” on April 28th, 2021 for a term of eight years from October 29th, 2021.
* Indian Government has certified and published for an Innovation Patent on “Method and System for Post-Collision Electrical Vehicle Analysis using Block chain Technology” on April 28th, 2021 for a term of eight years from March31st, 2023.

**PAPERS PUBLISHED**

# OTHER ACADEMIC ACTIVITIES INTERESTED TO PARTICIPATE

* As a Resource Person in the FDP’s on Sensor less Controlled Drives for EV applications and Smart Grid.
* In delivering the Guest lecture on Special Electrical Machines and their Control.
* Interested in Conducting FDP’s, STTP’s and Conferences in the University/Institution.

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The following publications have done during the period of teaching and research experience. A total of 08 papers were published in various reputed Journals and 08 papers were published in various International Conferences.

### International Journals

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* + **K.Narasimhaiah Achari, et al., “**A Hybrid Artificial Intelligence Based IoT Model for Generation of Renewable Energy Sources” Journal of Propulsion Technology, Vol. 44, Issue no.44, 2023, pp. 2062-2075.
  + **K.Narasimhaiah Achari, et al., “**A Novel approach to improve the dynamic performance of IPMSM drive for sensor less speed control using EKF” JARDCS, special issue no.17, April 2018, pp. 1580-1593.
  + **K.Narasimhaiah Achari, et al.,** “Sensor less Control of IPMSM Drive using EKF with Electromagnetic Noise Effect”, IJPEDS, Vol. 9, No. 1, March 2018, pp. 157~165.
  + **K.Narasimhaiah Achari, et al.,** Digital Implementation and Intelligent Control of DTCSVM Based PMSM Drive”, Global Journal of Trends in Engineering, March 2015, pp. 108- 115.
  + **K.Narasimhaiah Achari, et al., “**A Modified C-Dump Converter for PMSM Machine Used in A Flywheel Energy Storage System” International Journal of Electronics and Electrical Engineering, Volume 2, Issue 3, January 2014, pp. 164-168.
    - **K.Narasimhaiah Achari, et al.,** “Sensor less speed control of IPMSM Using an improved sliding mode observer", Elsevier India Pvt. Ltd, 2012 pp. 189-196.
    - **K.Narasimhaiah Achari, et al.,** “A Novel MATLAB/Simulink Model of PMSM Drive using Direct Torque Control with SVM", International Journal of Computer applications (IJCA) 2012. *IF:3.25.*
* **K.Narasimhaiah Achari, et al., “**A Novel MATLAB/Simelectronics Model of PV Array with MPPT Controller” International Journal of Electronics and Electrical Engineering, Volume 2, Issue 1, 2012, pp. 37-41.



# BOOK CHAPTER

# One book chapter with the title “EV Charging Infrastructure in Micro grid” accepted to publish in Wiley Publication.

# OTHER CONTRIBUTIONS

# Contributed as a resource person in FDP’s and on delivering the guest lectures. And also participated as a Session Chair in the International Conferences.

**International Conferences**

* + - **K.Narasimhaiah Achari, et al., “**Design of High-Power Single Phase Bidirectional On-Board Charger for V2G and G2V Applications ” accepted in the International Multi-Conference AITCES-2024, 22nd – 24th January 2024 at Dr.Ambedkar Institute of Technology, Bangalore,
    - **K.Narasimhaiah Achari, et al., “**An Approach to Mitigate the EMI Noise Effect in Vehicle-to-Grid (V2G) System” presented in the 2021 IEEE Global Conference for Advancement in Technology (GCAT 2021), on 01st – 03rd Oct 2021 at Nagarjuna College Of Engineering & Technology, Bangalore.
    - **K.Narasimhaiah Achari, et al., “**Reduction of EMI Noise Effect in Sensor less Control of IPMSM Drive for EV Application” presented the paper in the 9th World Conference (WCSEM 2020) at American Business School, Paris, France on 17-18 December, 2020.
    - **K.Narasimhaiah Achari, et al.,** “An Approach for the Mitigation of EMI Noise in Sensor less Controlled IPMSM Drive" presented the paper in the conference ICSARQCSMM, at J.N.T.U.A., December 11th – 13th , 2019.
    - **K.Narasimhaiah Achari, et al., “**Reduction of Electromagnetic Noise Effect in Sensor less Control of IPMSM Drive” presented the paper in IEEE conference (ICNTET ), September 7th – 8th, 2018.
    - **K.Narasimhaiah Achari, et al.,** “Sensor less control of Interior Permanent Magnet Synchronous Motor Drive by using EKF with Noise Disturbance” was presented in an International Conference at Coimbatore Institute of Technology, Coimbatore on January 6th, 2016.
    - **K.Narasimhaiah Achari, et al.,** “A MATLAB/Simulink Model for Field Oriented Control of PMSM Using SVPWM Technique", An International conference paper presented on Feb 28th - 29th, 2012 at RITS, Hyderabad.
    - **K. Narasimhaiah Achari, et al.,** “A new FOC technique based on predictive current control for PMSM drive powered with Photovoltaic Array", An International Conference CISCON-2011, on November 3rd-6th, 2011, at Manipal University, Manipal.