



## **Dr. K. Bhaskar**

B.E (A.U), M.Tech (NIT, Surathkal), Ph.D (IITK)

**Professor & Head of the Department**

**MIEEE**

Electrical & Electronics Engineering

### **Areas of Interest:**

Power System Operation and Control; HVDC & FACTS controllers; Forecasting & its applications in Electricity Market Operation, Wind & Solar participation in Day-ahead Markets; Deregulated Market Operation and Control; Artificial Intelligence and Heuristic methods in Power System Optimization; Wide Area Monitoring, State Estimation & Voltage Stability; Energy management and Distribution Automation.

**K. Bhaskar** received B.E. in Electrical Engineering from G.I.T.A.M. affiliated to Andhra University, Visakhapatnam, in 1999, M. E. in Power and Energy Systems from Regional Engineering College, Surathkal, Karnataka (presently known as N.I.T., Surathkal) , in 2001 and Ph.D. in Electrical Engineering from Indian Institute of Technology Kanpur, in 2014. Currently he is Professor of Electrical & Electronics Engineering, JNTUH College of Engineering, Science & Technology Hyderabad.

**Citations and H-Index:**

**Citations: 490** (as on 06.06.2023)

**h-index: 5**

**i10-index: 4**

Google Scholar: <https://scholar.google.co.in/citations?user=do8JGM0AAAAJ&hl=en>

ResearchGate: <https://www.researchgate.net/profile/Bhaskar-Kanna>

### **- ▶ Educational & Professional**

#### **- ▶ Academic Qualifications**

- ▶ Ph.D in Wind Power Forecasting, Bidding, Optimal Reactive Power Dispatch, Indian Institute of Technology Kanpur, Kanpur with CGPA (2010-2014)

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M.Tech in Power and Energy Systems, Regional Engineering College, Surathkal, Karnataka (Presently known as NIT) with First (1999-2001)

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B.E in ELECTRICAL AND ELECTRONICS ENGINEERING, GITAMS, ANDHRA UNIVERSITY with DISTINCTION (1995-1999)

#### **▶ Professional Experience**

#### **- ▶ Teaching Experience**

- ▶ Lecturer, Bapatla Engineering College, Bapatla, Guntur (10-06-2001 - 14-06-2003)

#### **- ▶ At JNTUH**

- ▶ Professor, JNTUH UCESTH (2019 - Till Date)

- ▶ Associate Professor, JNTUH College of Engineering Hyderabad (2012 - 2018)

- ▶ Assistant Professor, JNTUH College of Engineering, Hyderabad (2003 - 2012)

#### **- ▶ Research**

#### **- ▶ Research Projects**

- ▶ *Disaster Management*, funded by Center of Excellence (CoE) under TEQIP-II - 5 Crores (2013 - 2018)

## - ▶ **Publications**

### - **International Journals**

- ▶ P. Pavani, Kanna Bhaskar, *An Adjustable-Speed BLDC Motor Drive with Fuzzy Controller*, International Journal of Advances in Engineering and Management , Vol No.5, Issue No.1, pp.842-850, Jan, 2023
- ▶ Boggulapally Shravya, K Bhaskar, *Determination of ATC in Electricity Markets Considering the Effect of Reactive Power Flows*, Journal of Interdisciplinary Cycle Research , Vol No.14, Issue No.10, pp.476-488, Oct , 2022
- ▶ Gokul Vemula, Kanna Bhaskar, *Dynamic Simulation of STATCOM in Power System*, The International journal of analytical and experimental modal analysis, Vol No.12, Issue No.10, pp.400, Oct, 2020
- ▶ K. Bhaskar, *Wind Power Forecasting Methods: A Literature Survey*, International journal of Research, 2019
- ▶ Kanna Bhaskar, *A Multi-Objective Linear Integer Program Method Based Optimal PMU Placement*, Journal of Applied Science and Computations, Vol No.6, Issue No.2, Feb, 2019
- ▶ Kanna Bhaskar, *Wind Power Forecasting Methods: A Literature Survey*, International journal of Research, Vol No.8, Issue No.1, Jan, 2019
- ▶ Sreekanth, Kanna Bhaskar, *IOT Based Electrical Signal Measurement and Theft Calculation using ARDUINO*, Internatinal Journal of Research, Vol No.8, Issue No.5, May, 2019
- ▶ PARVEEN KUMAR, Kanna Bhaskar, *CONTROLLING VOLTAGE WITH ELECTRIC SPRING AND STATCOM*, International journal for Innovative Engineering and Management Research, Vol No.6, Issue No.4, June , 2017
- ▶ Kanna Bhaskar and S.N. Singh, *Towards Reactive Power Dispatch within a Wind Farm using Hybrid PSO*, International Journal of Electrical Power and Energy Systems, Vol No.69, pp.232-240, International Journal of Electrical Power & Energy Systems, July, 2015
- ▶ Kanna Bhaskar and S.N. Singh, *AWNN Assisted Wind Power Forecasting Using Feed-Forward Neural Network*, IEEE Transactions in Sustainable Energy, Vol No.3, Issue No.2, pp.306-315, April, 2012

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### **National Journals**

- ▶ Kanna Bhaskar and S.N. Singh, *Wind Speed Forecasting using MRA based Adaptive Wavelet Neural Network*, in proceedings of National Power System Conference (NPSC), pp.18-25, Osmania University, 15-17, Dec, 2010

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### **International Conference**

- ▶ K. Bhaskar, P. Hemanth, *Electrical Energy Extraction from Unused Heat Energy of Hybrid EVs using Peltier Panel for Auxiliary Loads*, International power and Renewable Energy Conference, ISBN No.978-1-7281-6186-0, 30th Oct - 1st Nov , 2020
- ▶ Kanna Bhaskar, Sri Niwas Singh, *Predictive Short-Term ORPD in Large Wind Farms for Minimization of Losses and OLTC Tap Movements*, National Power System Conference 2016, IIT Bhuvaneshwar, 19-21 Dec, 2016
- ▶ Kanna Bhaskar and S.N. Singh, *Improved RNN and AWNN Based Wind Power Forecast Using Meteorological Inputs*, in proceedings of Power, Energy and Engineering Conference (PEEE), 26 - 27 Aug, 2013, Singapore.
- ▶ Kanna Bhaskar and S.N. Singh, *Wind Power Bidding Strategy in a Day-ahead Electricity Market*, in proceedings of IEEE PES General Meeting, 27-31 July, 2014, Washington DC, USA.
- ▶ Bhaskar Kanna, Sri Niwas Singh, *Long Term Wind Power Forecast Using Adaptive Wavelet Neural Network*, 3rd IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics (IEEE UPCON-2016), IIT BHU, Varanasi, 9-11 Dec 2016

## - ▶ Events Participated/Organized

### - Organized

- ▶ Organized a Workshop on Two-Day workshop on "REAL TIME SIMULATIONS OF ELECTRICAL SYSTEMS", under TEQIP-III, Dept. of Electrical and Electronics Engineering, JNTUH College of Engineering Hyderabad, 17-08-2018 to 18-08-2018

### - Participated

- ▶ Participated in a Workshop on *SCILAB an Open Source Substitute for MATLAB*, JNTU Jagityal, 25-05-2020 to 30-05-2020

- ▶ Participated in a Training on *Industrial Short-Term Training on "Futuristic Technology in Power System"*, ABB PowerTec, ABB India Ltd., Baroda., 10-12-2018 to 14-12-2018

- ▶ Participated in a Workshop on *NBA Accreditation and SAR filling*, JNTUH College of Engineering, Hyderabad, 14-12-2017 to 16-12-2017

- ▶ Participated in a Refresher Course on *Strategies for Research Oriented Teaching*, UGC-HRDC, JNT University, Hyderabad, 05-06-2017 to 24-06-2017

- ▶ Participated in a Training on *Smart Technologies and Emerging Trends*, Initiated by SPFU-TS and Hosted by JNTUH CEH, Hyderabad, 22-02-2016 to 26-02-2016

- ▶ Participated in a Training on *FDP on "Management Capacity Enhancement Programme"*, IIM TRICHY (Chennai Campus), 18-01-2016 to 22-01-2016

- ▶ Participated in a Workshop on *Smart Grid and Renewable Energy (SGRE)*, CPRI, Bangalore, 26-11-2015 to 27-11-2015

- ▶ Participated in a Workshop on *Computer Applications to Power Systems using Mi-Power*, JNTUH College of Engineering, Hyderabad, 18-03-2015 to 20-03-2015

- ▶ Participated in a Workshop on *Solar PV Certificate Training Programme*, Hyderabad, 21-01-2015 to 23-01-2015

- ▶ Participated in a Workshop on *One Day Workshop on NBA Accreditation*, EEE Dept. JNTUH CEH, 12-12-2014

- ▶ Participated in a Training on *Wavelets and its Applications*, UGC ASC, JNTU, Hyderabad, 22-09-2014 to 27-09-2014

- ▶ Participated in a Training on *Smart Transmission Grid using Synchrophasor Technology*, Dept. of Electrical Engineering, IIT Kanpur, 10-12-2013 to 14-12-2013

- ▶ Participated in a Training on *Power System Economics*, Dept. of Electrical Engineering, IIT Kanpur, 26-07-2013 to 30-07-2013

- ▶ Participated in a Training on *Power Markets: Economics & Management*, Dept. of Electrical Engineering, IIT Kanpur, 29-10-2012 to 02-11-2012

- ▶ Participated in a Workshop on *Wide Area Monitoring and Control of Power Systems Using Synchrophasor Technology*, Dept. of Electrical Engineering, IIT Kanpur, 13-04-2012 to 14-04-2012

- ▶ Participated in a Training on *Operation and Management of Emerging Power Systems*, Dept. of Electrical Engineering, IIT Kanpur, 21-11-2011 to 25-11-2011

- ▶ Participated in a Training on *RTDS Simulator Introductory Training Course*, Dept. of Electrical Engineering, IIT Kanpur, 22-07-2011

- ▶ Participated in a Training on *Intelligent System Applications to the Smart Electric Grid Solutions*, Dept. of Electrical Engineering, IIT Kanpur, 15-11-2010 to 19-11-2010

- ▶ Participated in a Refresher Course on *Real Time Operation and Control of Power Systems*, UGC ASC, JNTU Hyderabad, 16-02-2009 to 07-03-2009

- ▶ Participated in a Workshop on *VLSI Design Software*, Dept. of Electronics and Communications Engineering, JNTU Kakinada, 27-09-2008 to 28-09-2008

- ▶ Participated in a Workshop on *Artificial Intelligence and Meta-Heuristic Techniques Applications in Power Systems*, Dept. of Electrical Engineering, NIT Warangal, 01-08-2008 to 03-08-2008

- ▶ Participated in a Workshop on *Power System Operation, Dynamics & Control*, University College of Engineering, OU, Hyderabad, 04-07-2008 to 05-07-2008

- ▶ Participated in a Refresher Course on *Recent Advances in Digital Image Processing*, UGC ASC, JNTU Hyderabad, 03-03-2008 to 22-03-2008

- ▶ Participated in a Training on *Electric Power System Operation and Control: Modern Trends and Future Challenges*, Dept. of Electrical Engineering, IIT Kanpur, 28-08-2006 to 01-09-2006

- ▶ Participated in a Orientation Course on *Orientation Course-I*, UGC ASC, JNTU Hyderabad, 22-08-2005 to 20-09-2005

## - ▶ **Honors & Professional Activities**

### - ▶ **Professional Activities**

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Industrial Visit:

6x150 MW Srisailem Under Ground Hydal Power Plant  
during Aug 2017

accompanied with B.Tech III Year II Sem students

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Industrial Visit:

1. 2000MW Simhadri Super Thermal Power Station, Visakhapatnam

2. 500kV Back to Back HVDC system, Vizag

during 16/02/2018 to 17/02/2018

accompanied with IV B.Tech I sem (Reg & IDP) students

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Delivered a lecture in Two-Day Workshop on "Emerging Trends in Electrical and Electronics Engineering ", at Dept. of EEE, Ashoka Institute of Engineering and Technology, Hyderabad, during 30th-31st Jan 2018.

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Delivered a Lecture in AICTE sponsored FDP on "Applications of Power Electronics in Renewable Energy Systems", at Dept. of EEE, CVR College of Engineering, Hyderabad, during 20th Nov-4th Dec 2017

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Delivered a Seminar Lecture on "**Intelligent Methods to Power System Problems**", at Dept. of EEE, Holy Mary Institute of Technology and Science, Hyderabad, on 8th Sep 2016.

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Delivered a Lecture on "Optimal Bidding in Day-ahead Electricity Markets", in International Workshop on **Agent Based Self-Healing Energy Systems: Design and Implementation**, at Dept. of Electrical Engineering, IIT Kanpur, during 21st-22nd Feb 2017.

### - ▶ **Teaching**

- ▶ Digital Protection of Power Systems in EPE M.Tech II Sem (2022-2023)

- ▶ HVDC Transmission in EEE (IDP) B.Tech IV Year, I Sem (2022-2023)

- ▶ PSOC in III B.TECH- II Sem (IDP) I Sem (2022-2023)

- ▶ APSA in M.TECH - I Sem (EPE) I Sem (2022-2023)

- ▶ SITPS in 12 M.Tech EPE II Sem (2018-2019)

- ▶ CMPS in 42 EEE IDP II Sem (2018-2019)

- ▶ EOPS in 11 M.Tech EPE I Sem (2018-2019)

- ▶ PSOC in 41 B.Tech EEE Reg I Sem (2018-2019)

- ▶ APSP in 12 M.Tech EPE II Sem (2017-2018)

- ▶ CMPS in 32 B.Tech Reg II Sem (2017-2018)

- ▶ RPCM in 11 M.Tech EPE I Sem (2017-2018)

- ▶ CMPS in 41 B.Tech EEE Reg I Sem (2017-2018)

- ▶ FACTS in 12 M.Tech EPE & PE II Sem (2016-2017)

- ▶ EM-II in 22 B.Tech Reg II Sem (2016-2017)

- ▶ APSA in 11 M.Tech EPE I Sem (2016-2017)

- ▶ CMPS in 41 B.Tech EEE Reg I Sem (2016-2017)

- ▶ APSA in 11 M.Tech EPE I Sem (2015-2016)

- ▶ EM-II in 22 EEE Reg II Sem (2015-2016)

- ▶ FACTS in 51 IDP EEE I Sem (2015-2016)

- ▶ **Administrative Positions Held**

- ▶ Officer Incharge of Examinations, JNTUH UCEST Hyderabad, 01 Feb 2022 - Present
- ▶ Coordinator, TS EAMCET - 2023, JNT University, 01 Jan 2023 - 30 Jun 2023
- ▶ Coordinator, Singareni Collieries Company Ltd Recruitment Test 2022, JNT University, 01 May 2022 - 30 Sep 2022
- ▶ Coordinator, TS ECET - 2022, JNT University, 01 Feb 2022 - 31 Aug 2022
- ▶ Co-ordinator, Research and Development, JNT University, 30 May 2019 - 31 Oct 2021
- ▶ Coordinator, TSLPRBT 2018, JNT University, 01 Feb 2018 - 15 May 2019
- ▶ OIE, JNTUH College of Engineering, Hyderabad, 23 Oct 2015 - 18 Oct 2017
- ▶ Hostel Manager, JNTUH College of Engineering, Hyderabad, 18 Aug 2014 - 21 Oct 2016
- ▶ Officer In-charge of Examinations, JNTU College of Engineering, Kakinada, 01 Jul 2005 - 16 Oct 2007
- ▶ Project Engineer, Electrical, JNTUH College of Engineering, Hyderabad, 06 Jul 2014 - 02 Feb 2015

- ▶ **Project/Research Guidance**

- **Students**

Student Name	Title	Year	Download
R. PALLAVI RATHOD	Harmonic Estimation Using Filters	2016	
G. SONY	Performance of SVPWM Based Vector Controlled HVDC Light Transmission System Under Balanced Fault Condition	2015	
V. MANIKARNIKA	Electricity Price Forecasting in Deregulated Power Markets	2015	
P.VINOD KUMAR	Wind Integrated Power and its Dynamic Analysis	2015	

- ▶ **Consultancy**

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2. Involved in Proof checking of Electrical works pertaining to Indoor Stadium at JNTUH (of worth 114.98 lakhs), Boys and Girls Hostels at JNTUH College of Engineering, Jagityal (of worth 86.83 lakhs)

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1. Involved in Quality checking of TSEWIDC-Solar Water Heaters of worth 1442.50 lakhs installed at KGBV Schools and TS-Model Schools in each Mandal of Telangana State.

**Contact :**

**Dr. K. Bhaskar**

Electrical & Electronics Engineering

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