CURRICULUM VITAE

Dr. P. BHARAT KUMAR   Phone: +91-9154733316
ANANTHAPURAMU   Email: pbk.eee@jntua.ac.in

_____

CAREER OBJECTIVE:

To work in a globally competitive environment on challenging assignments that keeps in touch with latest technologies. And to work in the Organization where there is an ample scope for individual as well as Organization's growth and development.

ACADEMIC QUALIFICATION:

- **Ph.D.** in **Electrical Engineering (Control Systems)** from **JNTUA** during 2011-2017.

- **M. Tech** in **Control Systems** from **JNTUA CEA** with aggregate **79.85%** during 2007-2009.

- **B. Tech** in **Instrumentation and Control Engineering** from JNTU (SKTRMCE) with aggregate **72.89%** during 2003-2007.

- **Intermediate (M.P.C)** from Board of Intermediate Education with aggregate **83.70%** during 2001-2003.

- **S.S.C** from Board of Secondary Education with aggregate **78.00%** during 1999-2000.

SOFTWARE SKILLS:

- **Programming languages** : C, C++, Python
- **Operating systems**   : Windows
- **Applications**   : MS-OFFICE
- **Software tools**   **:** MATLAB, Scilab, PLC

WORK EXPERIENCE:

- Working as Assistant Professor (Adhoc) in EEE Dept., JNTUA College of Engineering, Ananthapuramu from September, 2008 to till date.

SUBJECTS TAUGHT:

- Control Systems
- Non-Linear Control Theory
- Neural Networks & Fuzzy Logic
- Intelligent Control
- Digital Control Systems
- Estimation of Signals and Systems
- Advanced Digital Signal Processing
- Modern Control Theory
- Instrumentation
- Advanced Control Systems
- Digital Signal Processing
- Microprocessors and Microcontrollers
- Python Programming
- Research Methodology & IPR

Workshops /Seminars/FDPs Attended:

1) Two day faculty development program on "Embedded Systems and Technology" during 29-30th December, 2008 conducted by JNTUA CEA and Honeywell Technologies.
2) Two day National workshop on "Neural Networks and Fuzzy Systems" during 30-31st March, 2009 conducted by Department of EEE and Mathematics, JNTUA CEA.
3) One day workshop on "Smart Grid" organised by Department of EEE, JNTUA CEA on 06th January, 2012.
4) Presented a Paper on "Design of Different Control strategies for a Digital excitation Control Systems" at the International conference: ICEEE at Bangalore on 4th November, 2012.
5) One day workshop on "Technology Enhanced Learning through IEEE for imparting Quality Higher Education" on 19th April, 2014 at JNTUA CEA.
6) One day workshop on "Human values and Professional Ethics (Engineering Inner Excellence)" on 5th July, 2014 at JNTUA CEA.
7) DST sponsored one day Technology awareness workshop on "Induction Motor Efficiency Monitoring System" on 28th November, 2014 at CSIR, Chennai.
8) One day Faculty Development Programme on "Agile Methodologies" on 25th February, 2015 at JNTUA CEA.
9) One day National level workshop sponsored by UGC on "Training program for NBA criteria and Accreditation Process" on 3rd March, 2015 at JNTUA CEA.
10) Two days Faculty Development Programme on "Programming in C & Data Structures" at JNTUA CEA during 25-26th March, 2015.
11) Two weeks Faculty Development Programme on "Entrepreneurship" at JNTUA CEA during 06-18th July, 2015.

12) One day workshop on "Awareness on IT/ITES job roles & big data analytics" at JNTUA CEA on 20th August, 2015.

13) One day PRDC workshop on "Awareness on Power Systems Simulation Analysis using Mi Power software" at JNTUA CEA on 22nd September, 2015.

14) One day workshop on "Cyber Security" at JNTUA CEA on 8th October, 2015.

15) Orientation on "MATLAB, Simulink & Related tool boxes for Engineering Education" by Capricot Technologies Pvt. Ltd., at JNTUA CEA on 07th October, 2015.

16) Two days DST sponsored National level workshop on "Application of Soft Computing Techniques in Engineering Sciences" at Guntur Engineering College, Guntur during 30-31st January, 2016.

17) One week International Workshop on "Signal Processing using Machine Learning: Applications and Hands-on (online) during 31-08-2022 to 06-09-2022 conducted by VIT AP in association with Mathworks and IEEE Guntur subsection.

18) One Week International Workshop (Online) on "Recent Trends in Optimization Techniques for Challenging Engineering Applications" at VIT, Andhra Pradesh during 21-27, October 2022

19) One week FDP on "Recent Advancements in Power Systems" at Godavari Institute of Engineering and Technology, Andhra Pradesh during 28/11/2022 to 03/12/2022

20) Workshop on "Emerging Trends in Power Engineering" organized by NIT Warangal during 30-31, January 2023

21) Online FDP on "Recent Trends in Green Energy Initiatives and Soft Computing Techniques" organized by MGIT, Hyderabad during 11-15, July 2023

22) Workshop on "VLSI to System Design: Silicon to End Application approach" organized by AICTE, ARM Education and STMicroelectronics during 31st July-04th August, 2023

23) FDP on "Design and Development of Power Converters for Electric Vehicles" organized by Department of EEE, JNTUA CEA during 11-15, September 2023

24) Online FDP on "Artificial Intelligence" organized by Narsimha Reddy Engineering College, Secunderabad during 21-26, October 2024

25) PDP on "EV Design and Applications to Aerospace Systems" organized by Department of EEE, JNTUA CEA during 25-29, November 2024

Resource Person:

- Visited Global College of Engineering, Kadapa on 16-10-2018 to deliver a talk on Control Systems using MATLAB
- Acted as resource person to deliver a talk on "Essential Research Databases for Engineering Faculty" during 24-25, May 2021
- Acted as resource person for a three day national level work shop on "Design & Analysis of Modern Control System using Real time case studies" during 10-12, March 2022 organized by Presidency University, Bengaluru

Research Publications:

1. P. Bharat Kumar, P. Sujatha and K.S.R. Anjaneyulu, "Design and Analysis of different control strategies for BLDC Motor", International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Vol. 2, Issue 9, September, 2013.

2. P. Bharat Kumar, P. Sujatha, "QFT based multi area Load Frequency Controller Design for multi area Power System", International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, Vol.5, Issue 6, June, 2017.

3. V. Jyothi and P. Bharat Kumar, "Tuning Controller parameters and Load Frequency Control of Multi area multi source Power system by Particle Swarm Optimization technique", International Research Journal of Engineering and Technology, Vol.2, Issue. 8, November, 2015.

4. K.Naresh, P. Bharat Kumar and K.S.R. Anjaneyulu, "Simulation of Energy Recycling Technique for an Electric Scooter using MATLAB/Simulink Environment, International Research Journal of Engineering and Technology, Vol.2, Issue. 6, September, 2015.

5. V. Naveen and P. Bharat Kumar, "Fuzzy and Adaptive Control strategies of Voltage Source Converter for Correction of Power factor", International Research Journal of Engineering and Technology, Vol.2, Issue. 6, September, 2015.

6. P. Bharat Kumar, P. Sujatha "Robust QFT controller design for Aircraft Pitch angle Control", IJER, June, 2017.

7. M. Dilip Kumar, P. Bharat Kumar, P. Sujatha, "A study on Low Frequency oscillation, FACTS, and Self Tuning Controllers", i-manager's Journal on Instrumentation and Control Engineering, Vol.5, No.1, Nov,2016-Jan,2017, pp.31-39.

8. Mulinti Raju, P. Bharat Kumar, R. Kiranmayi, "Robust-Fractional order PID Controller design using GA for a Fractional order system", International Journal of Pure and Applied Mathematics, Vol.114, No.7, 2017, pp.153-163. (SCI)

9. V. Lakshmi Devi, P. Bharat Kumar, P. Sujatha, "A Hybrid BAT-GA Optimisation of Security Constrained Unit Commitment Problem for 10-unit system", IJCTA, 2017, pp.823-830. (SCI)

10. V. Lakshmi Devi, P. Bharat Kumar, P. Sujatha, "A new Hybrid BAT search algorithm for solving constrained unit commitment problem using 3-unit system", Journal of Advanced Research in Dynamical and Control Systems, Issue.13, 2017, pp.236-245. (SCI)

11. C. Sudhakar, P. Bharat Kumar, "ANFIS approach based on MPPT for Multi-intersection Solar Cell PV Energy systems", Journal of Advanced Research in Dynamical and Control Systems, Vol.9, Issue.14, 2017, pp.1349-1362. (SCI)

12. Narendra, P. Bharat Kumar, "Fractional order PID controller design using Genetic Algorithm for Fractional order system", Journal of Advanced Research in Dynamical and Control Systems, Vol.9, Issue.14, 2017, pp.1484-1496. (SCI)

13. M.S.G.Smitha, P.V.Satyaramesh, P.Sujatha, P. Bharat Kumar, "A Novel method for allocation of transmission cost in a multiple transaction framework", International Journal of Applied Engineering Research, Vol. 12, No. 20, 2017, pp.9674-9678. (SCI)

14. D. Himabindu and P. Bharat Kumar, "Design and Analysis of Nonlinear Fuzzy Logic based Predictive Controller for Grid tied Photovoltaic Inverter", Proceedings of the International Conference on Intelligent Computing and Sustainable System (ICICSS 2018), IEEE, ISBN: 978-1-5386-4344-0, pp.30-35, 2018.

15. K. Ramesh and P. Bharat Kumar, "A Nonlinear Controller design for Variable Speed Wind Turbines using ANFIS", Proceedings of the International Conference on Communication and Electronics Systems (ICCES 2018), IEEE, ISBN: 978-1-5386-4764-6, pp.642-647, 2018.

16. Syed Suraya, P. Sujatha, P. Bharat Kumar, "A Novel Control strategy for compensation of Voltage Quality problem in AC Drives", International Journal of Power Electronics and Drive System (IJPEDS), Vol. 9, No. 1, pp.8-16, March, 2018.

17. Syed Suraya, P. Sujatha, P. Bharat Kumar, " A Novel Control strategy based Dynamic Voltage Restorer for Compensation of Voltage Harmonics in Distribution system", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 7, No. 2, pp. 338-347, August, 2017.

18. Y. Bharathi Devi, P. Bharat Kumar, P. Sujatha, "Control of variable speed variable pitch wind turbines using MPC and QFT", International Journal of Innovative Technology and Exploring Engineering (IJITEE), Elsevier, Vol. 8, Issue. 12, Pg. No. 4712-4717, October, 2019.

19. M.V. Maheswaramma, P.Sujatha, P. Bharat Kumar, "IMC and GA based Fractional order controller design for Load Frequency Control problem", Vol.8, Issue.6, IJRTE, March, 2020. (SCOPUS)

20. Vasudeva Rao Kothakotla and Bharat Kumar P, " Analysis and Design of Robust PID Controller for Grid voltage control of Islanded Microgrid using Genetic Algorithm", IEEE International Conference on Intelligent Computing and Control Systems, 2021

21. D Y Kiran Kumar and P. Bharat Kumar, "Performance Enhancement of Large scale Industrial Processes using IMC-PI controller design", Design Engineering, 2021

22. Hariprasad. B, P. Bharat Kumar, P. Sujatha, G. Sreenivasan, "A Novel Hybrid (Active & Passive) Islanding detection method for Distributed generation system", Vol. 13, Issue. 9, International Transaction Journal of Engineering, Management, Applied Sciences and Technologies, 2022

23. S. Maheswari and P. Bharat Kumar, "PID Controller tuning for Wind Power Generation system based on Optimization Techniques", High Technology Letters, Vol. 28, Issue. 7, 2022

24. B. Sreeja and P. Bharat Kumar, "Implementation of FRT capability of a Multi level Grid connected PV Inverter to Enhance Voltage and Transient Stability", 2nd International Conference on Sustainable Computing and Data Communication Systems, ICSCDS 2023 (IEEE), pp. 1004-1012, 2023

25. N. Muni Sekhar and P. Bharat Kumar, "Design and Implementation of Model Predictive Control for Multilevel Inverter based BDFIG-Wind Power Generation System under Grid

Voltage unbalance Condition", 5th IEEE International Conference on Advances in Electronics, Computers and Communications, ICAECC 2023 (IEEE)

26. G. Pravallika, P. Sujatha and P. Bharat Kumar, "Different Traction Motor topologies with lithium-air Battery for Electric Vehicles: A Review", Materials Today Proceedings (Elsevier), October 2023

27. G. Venkata Supriya, M. Ramasekhara Reddy and P. Bharat Kumar, "Optimal tuning of PID Controller parameters for AGC of a Wind Integrated Interconnected Power System", Journal of Engineering and Technology for Industrial Applications, Vol. 10, Issue. 46, pp. 33-41, 2024

- **No. of M. Tech Projects Guided:** 24
- **No. of B. Tech Projects Guided:** 13

Reviewer:
- Acting as a reviewer for IAES International Journal of Artificial Intelligence

Project Work :

Ph.D: QFT based controller design of SISO and MIMO systems using Intelligent Techniques under the guidance of Prof. K.S.R. Anjaneyulu/Prof. P. Sujatha, Professor of EEE, JNTU Anantapur

M.Tech: "Design of PI and PID controllers using Transient performance Specifications and Intelligent Techniques for dynamical systems" under the guidance of Prof. N. Yadaiah, Former Professor of EEE, JNTU Hyderabad and Member, TGPSC

B.Tech: Title: "Bio-medical Transmission and Monitoring using Embedded Systems."

Administrative Works Supported:

- NBA work for the department of EEE and College (As coordinator) in the years 2013, 2015, 2019, 2021 and 2022.
- NAAC work for JNTUA in the year 2017 & Coordinator, 2019 and 2022.
- NIRF ranking framework for past five years.
- QS i-Gauge ranking frame work in 2019 and 2022
- THE ranking frame work for the years: 2020, 2021 and 2022
- AICTE approval for the Institution for the year 2022-2023
- ADF scheme implementation for College and University
- ISO certification
- UGC Autonomy
- Board of Studies for both the College and University level.
- Preparation of course content for various Control System domain subjects.

- Preparation of various Research proposals for AICTE, UGC, BRNS, etc.
- Observer for various National level and State level examinations.
- Development of Control Systems and DSP Laboratories in the department.

PERSONAL PROFILE:

Name	: P. Bharat Kumar.
Father Name	: P. Malayadri Chowdary.
Date of Birth	: 04-06-1985
Marital Status	: Married
Languages Known	: English, Hindi and Telugu
Permanent Address	: P. Bharat Kumar
	H. No. 10-92/14, Opp. to New Bus stand
	Shantinagar, Jogulamba Gadwal (Dist.)
	Telangana - 509126

DECLARATION

I hereby declare that above said information is true to the best of my knowledge. Thanking you,

Date: 26-03-2025

Place: Ananthapuramu   (Dr. P. BHARAT KUMAR)