Name: Dr. M. Pandu Ranga Prasad



Designation: Associate Professor
Department: Electrical Engg.,
Organization: Central University of Karnataka

Educational Qualifications:
Ph.D. from NIT Kurukshetra, Haryana
M.Tech from NIT Calicut, Kerala
B.Tech from Sri Venkateswara University, Tirupati, Andhra Pradesh

Address:
Associate Professor
Central University of Karnataka
Kadaganchi 585367
Aland Road
Kalaburagi District (Gulbarga)
Karnataka State
Email: mprprasad@cuk.ac.in

Area of Interest:
Control Applications to Marine Robotic Vehicles, Industrial Automation, Process Control, Instrumentation, Model Predictive Control

Experience :
Currently working as an Associate Professor in the Department of Electrical Engineering, Central University of Karnataka w.e.f. Nov.2024.
Working as an Assistant Professor in the Department of Electrical Engineering, NIT Kurukshetra since May 2013 to Nov. 2024.
Worked as an Assistant Professor Sr. in Embedded Systems Division, School of Electronics, VIT University Vellore from May 2009 to May 2013

Funded Projects:
1. Bureau of Indian Standards, New Delhi sanctioned R& D project on Study of Safety and Performance parameters of Electrical timer relays for industrial purposes - Pneumatic, Motorised and Electronic. 2024. Amount: 6.15 Lakhs
PI: Dr Shelly Vadhera; Co-PI: **Dr.M P R Prasad**
2. Ministry of Micro, Small & Medium Enterprises (MSME) sanctioned two Grants-in-Aid General (non-recurring) schemes/projects on Data Science Entrepreneurship and Handicraft Entrepreneurship Development to Dr. Chandra Sekhar (Nodal Officer and Principal Investigator), Dr. Lov Kumar and **Dr. M.P.R. Prasad** as (Co-Principal Investigators). 2024-25. Amount Rs: 18 Lakhs.

Research Publications:
Selected List of Journal Papers SCI and Scopus Only.

List of Journals:

1. **Modi P R Prasad** and Arvind K Singh, "FPGA based object parameter detection for Embedded Vision Application", International Journal of Computing and Digital Systems, Vol. 14.,pp.1091-1099, Sept. 2023. (Scopus Indexed)

2. Buts, Kumaril, Dewan, Lillie, **Prasad, M.P.R.**, "PI-based hybrid control for load-stress management of a fuel cell-based hybrid power system" International Journal of Modelling, Identification and Control Vol. 43, Issue.3, year 2023, Inderscience Publishers, doi: 10.1504/IJMIC.2023.133171. (Scopus Indexed).

3. Buts, Kumaril, Dewan, Lillie and **Prasad, M. P. R.** "Development of renewable energy-based power system for the irrigation support: case studies" Energy Harvesting and Systems, 2023. doi:10.1515/ehs-2022-0123. (Scopus Indexed).

2. **Prasad M P R**, and Swarup A "Position and velocity control of remotely operated underwater vehicle using model predictive control", Indian Journal of Geo Marine Sciences, vol no 44(12), Dec 2015 pp. 1920-1927 (SCI)

5. **Prasad M P R**, and Swarup A, "Sliding mode based predictive controller of a spheroidal underwater vehicle", International Journal of Maritime Engineering, RINA transactions UK (Vol. 159, June 2017 issue, listed in SCI), DOI 10.3940/rina.ijme.2017.a2.418 (SCI)

6. **Prasad M P R**, and Swarup A, "Model Predictive Control of an AUV using Decoupled Approach "International Journal of Maritime Engineering, RINA transactions UK (Trans RINA, Vol 160, Part A1, Intl J Maritime Eng, Jan-Mar 2018) DOI 10.3940/rina.ijme.2018.a1.459. (SCI)

7. **Prasad M P R**, and Swarup A, "Control of Remotely Operated Underwater Vehicle using MPC" International Journal of Maritime Engineering, Trans RINA, Vol 161, Part A2, Apr-Jun 2019, DOI No: 10.3940/rina.ijme.2019.a2.533. (SCI)

8. **Prasad M P R**, "Set point trajectory control of ROV using MPC". International Journal of Maritime Engineering, Trans RINA, Vol 162, Part A1, pp. A85-90, 2020 (DOI No: 10.3940/rina.ijme.2020.a1.592) (SCI)

9. Venugopal.P, Sai Parimal Rohit, Suresh.Y, **Modi Pandu Ranga Prasad,** "Design of Renewable Energy Harvester using smart IC and System", International Journal of Applied Engineering Research, Volume 9, Issue 19. pp. 6455-6469, 2014 (Scopus Indexed)

10. Buts K, Dewan L, **Prasad M**. "Design and control of a PV-FC-BESS-based hybrid renewable energy system working in LabVIEW environment for short/long-duration irrigation support in remote rural areas for paddy fields", Turkish Journal of Electric Power Energy Systems. 1(2), 75-83, 2021. doi: 10.5152/tepes.2021.21018 (Peer Reviewed Journal).

11. Buts K, Dewan L, **Prasad M**. "Real-time examination of performance enhancement and power regulation in hybrid renewable energy system: a case study" Electrical Engineering, March 2025.

12. Arvind Kumar Singh, Jyoti Ohri, **Prasad M P R**, "Analysis and Design of MCB compliant On-board charger based on Topologies, Efficiency, Losses, and Automation" Indian Journal of Pure and Applied Physics, vol.64, 2026. (SCI)

International/National Conferences:

1. Yaswanth Sai, **M P R Prasad**. "High Speed Sixty Four Bit Vedic Multiplier". 2021 5th Conference on Information and Communication Technology (CICT), IIITDM Kurnool (Fully Funded by Central Government). vol.5, no.2, PP.4,Dec 2021,, https://doi.org/10.1109/CICT53865.2020.9672441.

2. Nikhil Kumar & **M P R Prasad**. "A Comparative Analysis Of Different Topologies Of On-board Charger (OBC) With An Approach Of Interfacing It With MCB". 2021 6th International Conference for Convergence in Technology (I2CT), IEEE Bombay Section. vol.6, no.2, PP.6,Apr 2021,, https://doi.org/10.1109/I2CT51068.2021.9417956

3. Vindhyali Sood, **M P R Prasad**. "Simulation of Counter Based DPWM for implementation on FPGA". International Conference WOMEN RESEARCHERS IN ELECTRONICS AND COMPUTING, NIT Jalandhar. vol.5, no.1, PP.6,Apr 2021,, https://doi.org/10.21467/proceedings.114.60

4. Pentakota Sai Kiran, **M P R Prasad**. "Development of Deep Sea Unmanned Underwater Robots: A Survey". IEEE INDICON 2020, NSUT New Delhi, NSUT Delhi. vol.5, no.17, PP.6,Dec 2020,, https://doi.org/10.1109/INDICON49873.2020.9342069

3. Kumaril Buts, Lille Dewan, **M P R Prasad**. “Modeling and Implementation of Wind-Battery Storage Hybrid Power System in LabVIEW Environment”. 2020 First IEEE International Conference on Measurement, Instrumentation, Control and Automation (ICMICA), NIT Kurukshetra. vol.1, no.1, PP.6,June2020,, https://doi.org/10.1109/ICMICA48462.2020.9242826

4. Daleep Kumar, **M P R Prasad,** Prakash Chand. “Development of Controller for Twin Rotor Multiple Input and Multiple Output System”. 2020 First IEEE International Conference on Measurement, Instrumentation, Control and Automation (ICMICA), NIT Kurukshetra. vol.1, no.1, PP.6,Jun 2020,, 1109/ICMICA48462.2020.9242889

5. Pentakota Sai Kiran, **M P R Prasad**. “Depth Control of AUV Using State-Feedback and Full Order Observer”. IEEE Sympol 2019 CUSAT Kerala, CUSAT Kerala State Govt. University. vol.4, no.2, PP.6,Dec 2019,, https://doi.org/10.1109/SYMPOL48207.2019.9005296

6. Daisy Ranawat, **M P R Prasad,** Geeta Srinivasan. “An efficient approach for WCET measurement of Runnables and Tasks of the Application software”. IEEE 1st International Conference on Energy, Systems and Information Processing, IIITDM Kancheepuram, Tamil Nadu, July 2019., IIITDM Kancheepuram, Tamil Nadu. vol.1, no.1, PP.6,Jul 2019,, https://doi.org/10.1109/ICESIP46348.2019.8938278

7. Preeti Singh, **M P R Prasad**. “Stability Control of High Speed Train using Robust PID Controller”. ICECA 2019, IEEE, Coimbatore, Tamil Nadu, India, RVS Technical Campus, Coimbatore, India. vol.4, no.1, PP.6,June-2019,, https://doi.org/10.1109/ICECA.2019.8822105

8. Harsh Deep Ahlawat, **Modi Pandu Ranga Prasad**, Rishi Pal Chauhan. “Antenna Azimuthal Position Control Using Model Predictive Control”. 2019 IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT), Coimbatore, India. vol.4, no.1, PP.6,Feb 2019,, 1109/ICECCT.2019.8869043

9. A M AMINUR R B, B HEMAKUMAR, **M P R PRASAD**. “Robotic Fish Locomotion & propulsion in Marine Environment”. 2nd IEEE ICEPE-2018, 1-2 June 2018 NIT Meghalaya, NIT Meghalaya. vol.1, no.1, PP.6,Jun 2018,, https://doi.org/10.1109/EPETSG.2018.8658797

10. Daisy Ranawat, **M P R Prasad**. “A Review on Electric Vehicles with perspective of Battery Management System”. IEEE-ICEECCOT, 14-15 Dec 2018, Mysore, GSSS INSTITUTE OF ENGINEERING & TECHNOLOGY for WOMEN. vol.1, no.1, PP.6,Dec 2018,, https://doi.org/10.1109/ICEECCOT43722.2018.9001321

11. B H Kumar, A M Aminur R B, **M P R Prasad**. “Performance Improvement in Hot Strip Rolling Mills by Improving Looper System”. IEEE-ICOEI 2018, 11-12, May 2018 SCAD College, Tirunelveli, SCAD College, Tirunelveli Tamil Nadu. vol.1, no.1, PP.6,May 2018,, https://doi.org/10.1109/ICOEI.2018.8553709

12. ROBIN, **M P R PRASAD**. “Current and speed control of a permanent magnet synchronous motor using PID and LQR”. IEEE-ICCCNT 3-5 July 2017, IIT Delhi, IIT Delhi. vol.1, no.1, PP.6,Jul 2017,, https://doi.org/10.1109/ICCCNT.2017.8204151

13. Anshul Khinchi, **M P R Prasad**. “Control of Electric Power Assisted Steering System using Model Predictive Control”. International Conference on Advances in Dynamics, Vibration and Control (ICADVC-2016), Feb. 25-27, 2016 NIT Durgapur, NIT Durgapur. vol.1, no.1, PP.6,Feb 2016.

16. **M P R Prasad,** A Swarup. “Modeling and control of an underwater robot propulsion system using model predictive control”. IEEE USYS-16 13-14 Dec 2016 Malaysia, Penang Malaysia., School of Electrical and Electronic Engineering, Engineering Campus, Universiti Sains Malaysia, Pulau Pinang, MALAYSIA. vol.5, no.1, PP.6,Dec 2016,, https://doi.org/10.1109/USYS.2016.7893911

17. **M P R Prasad,** A Swarup. “Depth Control of a high speed underwater vehicle using model predictive control”. IEEE UPCON 2016 09-11 Dec 2016, IIT BHU Varanasi, IIT BHU Varanasi. vol.5, no.1, PP.6,Dec 2016,, https://doi.org/10.1109/UPCON.2016.7894655

18. **M P R Prasad,** A Swarup. “On control of jet angle and heading stabilization of a spheroidal underwater vehicle”. IEEE UT-2015 23-25 Feb 2015 NIOT Chennai, NIOT Chennai (Govt. Organization). vol.5, no.1, PP.6,Feb 2015,, https://doi.org/10.1109/UT.2015.7108214

19. **M P R Prasad**. “Autonomous Underwater Vehicle Control”. International Conference on Innovations in Power and Advanced Computing Technologies (i-PACT-2019). IEEE Conference Record Number- 4490, VIT University Vellore. vol.2, no.1, PP.6,Mar 2019

20. Ankit Srivastava, Awanish Kumar Tripathi, **M P R Prasad**. “Comparative Analysis on Depth Control of an Underwater Vehicle”. International Conference on Innovations in Power and Advanced Computing Technologies (i-PACT-2019). IEEE Conference Record Number- 4490, VIT University Vellore. vol.2, no.1, PP.6,Mar 2019.

21. **Prasad M P R**, and Swarup A, “Model Predictive Control of an underwater vehicle for Ocean engineering applications”, National Symposium on Recent Advances in Remote Sensing and GIS with special Emphasis on Mountain Eco systems, ISRS 2016, at IIRS, an ISRO Unit, Dehradun during 7-9 Dec 2016.

22. K. Buts, L. Dewan and **M. P. R. Prasad**, "PI-Based Feedback Control Technique for Current Control of the Battery Energy Storage System," 2022 IEEE 10th Power India International Conference (PIICON), New Delhi, India, 2022, pp. 1-4, doi: 10.1109/PIICON56320.2022.10045157.

23. Simon, S.P., Dewan, L., **Prasad, M.P.R.** “Design and Analysis of ITAE Tuned Robust PID Controller for Brushed DC Motor, Proceedings - 2022 IEEE Silchar Subsection Conference, SILCON 2022 at NIT Silchar

24. K. Buts, L. Dewan and **M. P. R. Prasad**, "Voltage and Current Regulation of a Fuel Cell-Supercapacitor Based Hybrid Renewable Energy System," 2023 Second International Conference on Electronics and Renewable Systems (ICEARS), Tuticorin, India, 2023, pp. 411-415, doi: 10.1109/ICEARS56392.2023.10085480.

24. **M.P.R.Prasad** & Arvind Kumar Singh,”Application of Model Predictive Control to Underwater Vehicle Surge Motion Control”. IEEE Sympol 2023, CUSAT, Kochi, 13-15, Dec. 2023.

25. **M.P.R.Prasad** & Arvind Kumar Singh,” “Pitch Control of Marine Propulsion System”, International Conference on Measurement, Instrumentation, Control, and Automation, (ICMICA-2023)”, in the Department of Electrical Engineering of National Institute of Technology, Kurukshetra during May 3 - 5, 2024.

25.Sushma, S., **Prasad, M.P.R. “**Fuzzy Logic Control Strategy to Operate EDS”, 2023 2nd IEEE International Conference on Measurement, Instrumentation, Control and Automation, ICMICA 2023, during May 3 - 5, 2024.

26. Prakash, O., **Prasad, M.P.R** “Design and Verification of Advanced Peripheral Bus(APB) RAM using System Verilog” 2023 2nd IEEE International Conference on Measurement, Instrumentation, Control and Automation, ICMICA 2023, during May 3 - 5, 2024.

27. Aman Kumar, **M.P.R. Prasad**, “Analysis of Master Slave Interfacing of I2C Using Verilog HDL” IEEE 2024 International Conference on Emerging Technologies and Innovation for Sustainability (EmergIN), 20-21 Dec, 2024.

28. Chigiri Sheetal, **M P R Prasad**, Ram Krishan,”Sizing and siting of Energy System in Military based Vehicle-to Grid Microgrid”, 2nd International Conference on Power Energy and Secure Smart Technologies (ICPEST 2025), 12-13, Dec -2025 at CBIT Hyderabad, India.

29. **M P R Prasad**, Daisy Ranawat, “Power Efficient Bi-directional shift register usingBi-directional pulsed latches” 2025 Second International Conference on Systems, Control and Automation (ICSCA-2025), Dec 26-27, 2025 at NIT Kurukshetra.

M.Tech Dissertations Guided:

Sr.No	Title of Dissertation	Name of the Student/Regd. No	Year of Award
1	Control of water level in Nuclear U-tube steam reactor using Model Predictive Control	Ajendra Singh/3131522	June 2015
2	Development of Fuzzy Logic Controller for Scienific and Engineering Applications	Kumari Sulekh/3141508	June 2016
3	Control of Electric Power Assisted Steering System using Model Predictive Control	Anshul Khinchi/3149505	June 2018
4	Development of Controller for current and speed control of interior permanent magnet synchronous motor	Robin/31504127	June 2017
5	Development of Controller for Fish Robot	A M Aminur Rahman Barbhuiya/31604119	June 2018
6	Performance Improvement of Rolling Mill system using Control Techniques	B Hemakumar/31604101	June 2018
7	Control Applications to High Speed Train	Preeti Singh/31704113	June 2019
8	Modelling and Control of a Coral Reef Monitoring Robot (C-Bot)	Pentakota Sai Kiran/31804107	Sept 2020
9	Design and Analysis of MCB Compliant Onboard Charger on the basis of Topologies, efficiency, losses, and automation	Nikhil Kumar/31804111	June 2020
10	Multi-directional vectored thrusting of Quadrotor in Aerial and Aquatic modes	Suram Rahul/31904318	June 2021
11	Implementation of Intelligent Control for pH Neutralization Process	Amit Kumar Patel/31904118	June 2021
12	Control Applications of Autonomous Underwater Vehicles	Hridyesh Nigam/32014109	July 2022
13	Autosar Compliant Multi-core Partitioning for Power train Applications	Daisy Ranawat/31711101	June 2019
14	FPGA based object Parameter Detection for Embedded Vision Application	Aman Saxena/31811110	June 2020
15	Design of a start-up and analysis of Ring Oscillator VCO's	Bhavanigari Venkata Harish Babu/31911209	June 2021
16	Time Division Multiplexing for Multi Core Scan test	Thanneru Chandrasekhar/31911109	June 2021
17	Verification IP for AMBA AXI 4 Protocol using UVM	Gudavalli Rajesh Gowd/31911122	June 2021
18	Latency and Power improvement of hardware sequences using collapse and evolve approach: Nature Inspired methodology	Ratnala Vinay/31911118	June 2021
19	Enhancement of STA constraints for complete application in DFT pattern generation tools	T S V S Vijayakumar /31911104	June 2021
20	Analyze and Enhance power states IP validation of next generation Intel SoC	Yaswanth Sai Daida,/ 32018123	June 2022
21	System-on-Chip (SoC) Verification and Silicon Bring up Infrastructure	Vindhyali Sood/ 32018122	June 2022
22	DFT Circuitry's Performance Analysis With and Without EDT(Embedded Deterministic Test) Architecture	Ritesh Kumar Yadav/ 32018113	June 2022
23	Implementation of Physical Design and Analysis of Clock Tree Structures for an ASIC Block	Vijay Vardhan Reddy Kakunuti, Roll No. 32118204	June 2023

24	PWM Generation and Part Retrofitment for Class 2&3 Medical Devices	Ashutosh Srivastava, Roll No. 32114109	June 2023
25	Control Strategies of Single Switched Semi Quadratic Buck Converter	Debadeep Sen, Roll No. 32114106	June 2023
26	Control Applications in Marine Robot Vehicles	Arun, Roll No. 32114121	June 2023
27	System on Chip Parameter Study and Its Application on Power and performance of an Integrated Circuit	Adrija Chatterjee, Roll No. 32118104	June 2023
28	Improvement of Utilization Factor and Meeting Signoff Checks	Bhupathi Pranay Goud, Roll No. 32118225	June 2023
29	1.8V Rail-Rail CMOS IO Design in 22nm	Abhishek Tiwari, Roll No. 32118202	June 2023
30	Physical Design Implementation with Signoff closure of ASIC block by using FINFET Technology	Tinku Tiwari, Roll No. 32118105	June 2023
31	Design and Verification of Advanced peripheral BUS RAM	Om Prakash , Roll No. 32219121	June 2024
32	Design & Verification of Serial Peripheral Interface (SPI) Using System Verilog	Vikas Kumar Thakur, Roll No. 32219215	June 2024
33	Design of Control Strategies to Strategies to Operate EDS System in Electric Vehicles	Sushma, Roll No. 32214112	June 2024
34	Comparative Study of Proportional Integral Proportional Integral Derivative Controller and Hybrid Fuzzy Controller on Buck-Boost Converter	Devender Kumar, Roll No. 32114110	June 2024
35	Implementation of Standardized Verification Components in Lower Level Testbenches: A framework for Modular and Scalable Low Power Design Verification	Nikhil Singh, Roll No. 32219216	June 2024
36	Energy Management framework for Military Microgrid	Chigiri Sheetal Roll No. 24PPOWE001	May 2026

B Tech Projects Guided

Sr.No	Title of Dissertation	Name of the Students/Regd. No	Year of Award
1	RFID Based Memory less Prepaid Energy Meter with tariff indicator	Ms.Aarzoo Adlakha (110664), Mr Mukul Bansal (110046), Mr. Arpit (110652)	May 2014
2	Control Techniques on Buck DC-DC Converter	Gaurav Gupta (111566), Nayan Simer(111569), Kunal Sahi(111817), Chinoy Bajaj(111818)	May 2015
3	Speed and Position Control of Interior Permanent Magnet Synchronous Motor	Saurabh(1120651) Sunil Kumar (1120658) Kartik Sharma(1120762) Sunny(1120823)	May 2016
4	Design and Control of Two Wheel Self Balancing Robot	Kanan Gupta (1130218) Suchita Mishra(1130542) Pratibha(1130665) Sukhvir Singh(1130875)	April 2017
5	Development of Controller for 3-DOF Helicopter	Neeraj Kumar Meena	May 2018

		(1140607) Arvind Singh Rathore(1140608) Manish Dahiya(1140616) Ashok Dvivedi(1140656)	
6	Energy Audit for NIT Kurukshetra	Mimansha(11510235) E.Hema Madhavi(11510321) M.Yaswanth Ram(11510322) K.Nithish Reddy(11510327)	May 2019
7	Implementation and Analysis of Three Pulse Width Modulation (PWM) techniques using MATLAB and Simulink	Rachakonda Sriharsha(11710349) Mohammad Omid(11730006) Mateullah Ahmadzai(11730008) Rahul Meena(11710362)	May 2021
8	@plsfactcheck: An Automated Tool to Fight Against the Misinformation Pandemic on Twitter	Sameer Gupta(11710336) Adarsh Chaube(11710334) Ishara Mahapatra(11710284) Kaushlendra Kumar Giri(11710238)	May 2021
9	Electric Vehicle Infrastructure and the study of different Energy Storage Devices	Jitender (11814088) Sashyat Singh (11814089) Chandan Satapathy (11814090) Faizan-E-Roza (11814125) Jagriti Kumari (11814141)	April 2022

STC/FDP/Workshops Organized:

Title of the Program From To Duration Sponsoring Agency /Self-financed
1. Coordinator in Advanced Embedded Control Systems & Applications (AECSA-2020)| 21-Sep-2020 26-Sep-2020 6 days TEQIP-III NIT KURUKSHETRA
2. Coordinator in Advanced Control Paradigms and Evolving Trends (ACPET-2020) 26-Oct-2020 31-Oct-2020 6 days TEQIP-III NIT KURUKSHETRA
3. Coordinator in Advances in Modelling and Control of Robotics (AMCR-2021) 18-Oct-2021 23-Oct-

2021 6 days Institute Sponsored fund, NIT Kurukshetra
4. Coordinator in Advanced Control Systems & Experiments (ACSE-2022) 18-Jul-2022 23-Jul-2022 6 days Institute Sponsored fund, NIT Kurukshetra under Institute Diamond Jubilee Celebrations
5. Coordinator in Advances in Process Control & Instrumentation (APCI-2019) 15-Jul-2019 19-Jul-2019 5 days Self-financed

6. Local Coordinator in System Designing with Controllers from 14/11/2022 to 18/11/2022 5 days NITTTR Chandigarh

7. Local Coordinator in Tools for Engineering Research from 19/09/2022 to 22/09/2022 5 days NITTTR Chandigarh

8. Local Coordinator in Big Data Applications in Electrical Engineering from 20/02/2023 to 24/02/2023, 5 days NITTTR Chandigarh

9. Session Chair in National Conference on Internet of Things & Embedded Systems organized by ECE Department, NIT Kurukshetra during Feb 24-25, 2023.

10. Coordinator in STC on "Effective Communication Skills and Leadership Qualities" organized by Training and Placement Cell, NIT Kurukshetra during June 26-30, 2023 under Institute Diamond Jubilee Celebrations.

11. Coordinator in STC on "Cyber Physical Systems and Industrial Automation" organized by the Department of Electrical Engineering NIT Kurukshetra during 17-22 July 2023.

12. Coordinator in one day webinar on "Unlocking the Future: Mechatronics Technological Innovation" on 07/11/2023 organized by NITTTR Chandigarh

13. Coordinator in STC on "Nurturing and Testing of Employability and Entrepreneurship Skills", organized by Training and Placement Cell, NIT Kurukshetra during Oct 03-07- 2023.

14. Coordinator in STC on "Attitude, Behaviour and Career Skills for Entrepreneurship and Professional Development(ABCS-2024)" organized by Training and Placement Cell, NIT Kurukshetra during March 04-08, 2024.

15. Coordinator in online faculty development program on "Cyber Physical Systems and its Applications in Electrical Engineering" from 21st September - 30th September 2026" jointly organized by Central University of Karnataka, and NIT Warangal.

Institute Responsibilities:

Central University of Karnataka

Additional Director, R & D Cell w e f Jan 2025

NIT Kurukshetra

Faculty In-Charge: Training and Placement Cell w. e. f July 2022

Hostel Warden: H-8 from July 2021 to June 2024.

Worked as a Liaison Officer, OBC Cell during July 2019 to June 2022.

Facilitator, Heartfulness Meditation under Thought Lab from July 2022 to July 2025

Departmental Responsibilities:

CUK:

Coordinator, NBA for the Department of Electrical Engineering w e f Jan 2025.

Addl. Director, Research and Development Cell, Central University of Karnataka

NITKKR:
Member in DRC from 2022 to 2024
Member in BOS from 2021 to 2024
Member in DAC during Feb 2019 to Feb 2021
Prof I/c: MPMC Lab 2019-2023.
Prof I/c CAD Lab during 2018-2019
Prof I/c Control Systems Lab during 2017-2019
Department Time Table Coordinator during 2018-19

Subjects Taught for M.Tech students
1. Guidance and Control
2. Computer Based Control Systems
3. Robust Control and Applications
4. Optimal and Robust Control
5. Mechatronics
6. Instrumentation and Control for Energy System
7. Optimal Control and Applications
8. Multivariable Control Systems
9. Power Quality
10. Advanced Control Engineering
11. Battery Management Systems

Subjects taught for B.Tech students

1. Circuit Theory
2. Network Analysis and Synthesis
3. Measurements & Instrumentation-I
4. Measurements & Instrumentation-II
5. Digital Electronics
6. Signals and Systems
7. Control Systems
8. Power Plant Instrumentation
9. Mechatronics
10. Network Synthesis and Filters
11. Industrial Control
12. Electrical Measurements and Instrumentation
13. MATLAB and its Applications in Engineering
14. Indian Knowledge Systems
15. Analog and Digital Electrinics

Book Chapters:

11. Latency and Power Improvement of Hardware Sequences using Collapse and Evolve approach: Nature-Inspired Methodology
    Authors: Ratnala Vinay & **M.P. R. Prasad** 2022 Springer
    2. Multiwave Effect Estimate of Pandemic on Population: A Prediction model and IoT based Altering
    Authors: Ratanla Vinay **M P R Prasad** T S V S Vijaya Kumar 2022 Springer
    3. Design of Naval Hamming Encoding and Decoding Circuits with Double Error Detection

Authors: Thanneru Chandrasekhar, **M P R Prasad**, Venkata Harish Babu Bhavanigari 2022 Springer
4. Single-Object Detection Hardware Acceleration using XfOpenCV library
Authors: Aman Saxena, **M.P. R. Prasad**,Prashant SivajiSutar 2021 Springer
5. Development of Controller for Robotic Fish

Authors: **M P R PRASAD** and A M AMINURR B 2018 Springer Nature

6. ZigBee-Based Health Monitoring System
Authors: Rajesh Gowd, G., **Prasad, M.P.R.** Lecture Notes in Electrical Engineering, 822, pp. 243-254.2022.

7. Amit Kumar Patel, **M P R Prasad**, " Implementation of Intelligent Controller for pH Nuetrilization Process", Lecture Notes in Mechanical Engineering, 2023.

8.Arun and **M. P. R. Prasad** "Control Applications in Marine RobotVehicles" Lecture Notes in Mechanical Engineering, 2023. ISBN 978-981-97-1306-6 (Book Chapter) https://doi.org/10.1007/978-981-97-1306-6.

9. Sen, D., **Prasad, M.P.R,"** Tuning of PI Controller Using Genetic Algorithm and Differential Algorithm for Closed-Loop Single-Switch Semi-Quadratic Buck Converter", *Lecture Notes in Electrical Engineering*, 1302, pp. 127-138, 2025.

10. Arun, **Prasad, M.P.R**, "Optimal Control Applications in Marine Robot Vehicles". *Lecture Notes in Electrical Engineering*, 1260 LNEE, pp. 75-84, 2025.

11. Sen, D., **Prasad, M.P.R,** "Performance Analysis of DNN and Adaptive Neuro Fuzzy Controller in Comparison to Conventional Controller for Closed Loop Single Switch Semi Quadratic Buck Converter", Lecture Notes in Electrical Engineering, 1260 LNEE, pp. 115-124, 2025.

Expert Lectures:

1	Delivered Expert Lecture on Embedded Control Applications in Automotive Systems in STC System Designing with Controllers at NITTTR Chandigarh during 14/11/2022 to 18/11/2022	Nov, 2022
2	Delivered Expert Lecture on Digital Controllers: PID and MPC in STC: "System Designing with Controllers" at NITTTR Chandigarh during 14/11/2022 to 18/11/2022	Dec,2022
3	Delivered Expert Lecture on Hands-on session on Control applications, Marine Robotics Vehicles in National Level online Hands on Faculty Development Program on " Emerging Technologies in Electrical Engineering 28th November – 2nd December, 2022 at PACE INSTITUTE OF TECHNOLOGY & SCIENCES Ongole AP during 28/11/2022 to 02/12/2022	Dec,2022
4	Delivered expert lecture on Embedded System Applications to Automotive Industry in AICTE Sponsored Online FDP on 'Recent Trends in IoT Using Embedded Systems' conducting from 07 – 19 December 2020 at MGIT Hyderabad	Dec 2020
5	Delivered expert lecture on "Control of Marine Renewable Energy Systems" in Advances in Modeling and Control of Renewable Energy Systems at NIT Kurukshetra	Dec 2017
6	Delivered expert lecture on "Marine Robotics" in "Advances in Process Control & Instrumentation (APCI-2019)" during July 15-19, 2019 at NIT Kurukshetra	July 2019
7	Delivered expert lecture on "Power Plant Instrumentation" in "Advances in Process Control & Instrumentation (APCI-2019)" during July 15-19, 2019 at NIT Kurukshetra	July 2019
8	Delivered expert lecture on "Marine Robotics and its Applications" in AICTE Sponsored One Week Online Short Term Training Programme (STTP) On "Recent Advances in Industrial Robotics and Applications" on 7 December to 12 December 2020 at SHREE RAMCHANDRA COLLEGE OFENGINEERING Lonikand, Pune – 412216	Dec 2020
9	Delivered expert lecture on "Guidance and Control of Aero Robots" in Advances in Modeling and Control of Robotics (AMCR-2021) during October 18-23, 2021, National Institute of Technology Kurukshetra	Oct 2021
10	Delivered expert lecture on "Control Applications to Marine Robotic Vehicles" in Advanced Control Paradigms and Evolving Trends during 26/10/2020 to 31/10/2020 at National Institute of Technology Kurukshetra	Oct 2020
11	Delivered expert lecture on "Impact of AioT in Industrial Automation" in online Ten day Faculty Development Programme on "AI based Technologies for Electrical Engineering Applications" during 10-20, February 2025 jointly organized by the Department of EEE, JNTUA College of Engineering, Anantapur; E&ICT Academy (Hub), NIT Warangal and	17, Feb 2025

	E&ICT Academy (Spoke), IIITDM Kurnool.	
12	Delivered expert lecture on " AI Control Techniques and Applications to Marine Robotics" in Ten day online Faculty Development Programme on "AI based Technologies for Electrical Engineering Applications" during 10-20, February 2025 jointly organized by the Department of EEE, JNTUA College of Engineering, Anantapur; E&ICT Academy (Hub), NIT Warangal and E&ICT Academy (Spoke), IIITDM Kurnool.	20, Feb 2025
13	Delivered expert lecture on "AI application in Industrial Automation" in Artificial Intelligence (AI) and Machine Learning (ML) in online FDP on Advanced Power Systems" from 21st April – 1st May 2025 organized by Department of Electrical Engineering (EED) in association with E & ICT National Institute of Technology Warangal, Warangal – 506004, Telangana, India, National Institute of Technology Durgapur, Durgapur – 713209, West Bengal, India	25, April 2025
14	Delivered special lecture on " Current Trends in Digital Electronics and Communication Systems", in the Department of PG Studies & Research in Applied Electronics, Gulbarga University, Kalaburagi, Karnataka State	21, March 2025
15	Delivered special lecture on "Industrial Automation and Control" in the Department of Electrical Engineering, Sharnbasva University, Kalaburagi, Karnataka State	01, Feb., 2025
16	Delivered the session on "Academic Leadership, Governance, Autonomy and Management" in connection with the NEP Orientation & Sensitization Programme-16 being conducted by UGC-MMTTC, JNTUH, Hyderabad	09/09/2024
17	Delivered the session on "Academic Leadership, Governance, Autonomy and Management" in connection with the NEP Orientation & Sensitization Programme-17 being conducted by UGC-MMTTC, JNTUH, Hyderabad.	25/10/2024
18	Delivered the session on "Academic Leadership, Governance, Autonomy and Management" in connection with the NEP Orientation & Sensitization Programme-17 being conducted by UGC-MMTTC, JNTUH, Hyderabad.	05/11/2024
19	Delivered the session on "Academic Leadership, Governance, Autonomy and Management" in connection with the NEP Orientation & Sensitization Programme-18 being conducted by UGC-MMTTC, JNTUH, Hyderabad	04/12/2024
20	Delivered the session on "Academic Leadership, Governance, Autonomy and Management" in connection with the NEP Orientation & Sensitization Programme-22, being conducted by UGC-MMTTC, JNTUH, Hyderabad.	12/02/2025
21	Delivered an Invited talk on "Introduction to Robot Control Systems" on 19/11/2025 in AICTE–ATAL Online Faculty Development Program titled "Robotics for Industry 4.0: Enabling Smart Manufacturing at SV College of Engineering (A), Tirupati, Andhra Pradesh.	19/11/2025
22	Delivered a technical talk on **"**Control Systems for Missiles**"** at DOS, **DRDO-DRDL**, Hyderabad on 9th, Dec 2025.	09/11/2025
23	Served as a session chair in **"**International Conference on Advances in Materials, Manufacturing & Industrial Management (AM3-2025)" at NIT Kurukshetra on 09 th, November 2025 (online mode).	09/11/2025
24	Delivered an Invited talk on "Role of Digital Controllers in Automotive Industry" at VIT University Vellore on 02/04/2026	02/04/2026
25	Delivered an Invited talks on **"**Modeling and Control of Marine Robotic Vehicles" in One Week Hybrid Workshop on "Introduction to Robotics: Concepts, Applications, and Hands-On Activities" Sponsored by E& ICT Academy NIT Warangal organized by IIITDM Kurnool (online)	16/07/2025
26	Delivered an Invited talk on "Hands on Session on Modeling and Control of Marine Robotic Vehicles (working model)" at Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kurnool, AP on 20/07/2025 (offline)	20/07/2025
27	Delivered an Invited talks on **"**Advance Instrumentation techniques in Power Plants**"** at G.Pulla Reddy Engineering College (Autonomous): Kurnool, AP on 27/04/2026	27/04/2026

28	Delivered an Invited talks on **"**Control Applications to Electric Vehicles**"** at G.Pulla Reddy Engineering College (Autonomous): Kurnool, AP on 27/04/2026	27/04/2026
29	Delivered an Invited talks on **"**Role of Intelligent Control in Power Plants" in faculty development program on " Intelligent Control and Machine Learning for Modern Electrical Systems" jointly organized by the Directorate of IQAC & Capacity Building, JNTUK, Kakinada and Department of EEE, SRGEC, Gudlavalleru from 29th June to 3rd July, 2026	01/07/2026
30	Delivered an Invited talks on Machine learning applications in Automotive Industries in faculty development program on " Intelligent Control and Machine Learning for Modern Electrical Systems" jointly organized by the Directorate of IQAC & Capacity Building, JNTUK, Kakinada and Department of EEE, SRGEC, Gudlavalleru from 29th June to 3rd July, 2026	01/07/2026
31	Delivered an Invited talk on Cyber Physical Systems in IIoT in online FDP on " Cyber Physical Systems and its Applications in Electrical Engineering" during 21/09/2026 to 30/09/2026	22/09/2026

Dr. Modi Pandu Ranga Prasad