PROFILE

Dr. B. Mangu

Professor

Department of Electrical Engineering

University College of Engineering(A)

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EDUCATIONAL QUALIFICATIONS

Examination	University	Institute	Year
Ph.D. *	IIT Bombay	IIT Bombay	2016
Post Graduation M.E *Specialization:*.(Industrial Drives And Control)	Osmania University	University College of Engineering	2002
Graduation- B.E (EEE)	Osmania University	University College of Engineering	2000

***Doctor of Philosophy** (Ph.D) in Electrical Engineering from Indian Institute of Technology Bombay (IITB-Mumbai), with the thesis title: "**Multi-Input Converters for Effective Utilization Integrated PV-Wind-Battery Based Systems**"

WORK EXPERIENCE

Organization	Designation	Period
University College of Engineering, Osmania University, Hyderabad	Assistant Professor	2001-2007
University College of Engineering, Osmania University, Hyderabad	Associate Professor	2007-2016
University College of Engineering, Osmania University, Hyderabad	Professor	July 2016 onwards

RESEARCH AREAS OF INTEREST

- Non-conventional energy (solar PV, wind) : Power conditioning, maximum power point tracking, stand-alone and grid connected systems.
- Design of converters for renewable sources integrations
- Intelligent control of power electronic systems : DSP based control

RESEARCH PUBLICATIONS

Journal publications

J1. B. Mangu, S. Akshatha, D. Suryanarayana and B. G. Fernandes, "Grid-Connected PV-Wind-Battery based Multi-Input Transformer Coupled Bidirectional DC-DC Converter for household Applications**," IEEE Trans. Emerg. Sel. Topics Power Electron**., vol. 4, no.3, Sept. 2016.

Paper submitted (under review)

J2. B. Mangu, S. Akshatha and B. G. Fernandes," Hybrid PV-Wind-Battery based Multi-Input Transformer Coupled DC-DC Converter for Stand-Alone Single-Phase Power Generating System" **IEEE Trans.Emerg. Sel. Topics Power Electron**.,

J3. B. Mangu and B. G. Fernandes," An Efficient Dual-Input Converter for Grid-Connected Hybrid PV-Wind-Battery based Telecom Power Supply System," **IET Power Electron.**

Conference proceedings

C1. Mr. Palarapu Sravan Kumar and **Prof, B. Mangu** "Power Quality Improvement of Single Stage Solar Inverter with Hybrid Active Filter," in the Second International Conference on Recent Innovations in Engineering Technology (ICRIET-2017) .

C2. B. Mangu and B. G. Fernandes, "Multi-Input Transformer Coupled DC-DC converter for PV-Wind based Stand-Alone Single Phase Power Generating System," IEEE Energy Conversion Congress and Exposition, ECCE'2014, Pittsburgh, Pennsylvania, USA, Sept. 2014.

C3. B. Mangu, K. Kiran Kumar and B. G. Fernandes, "E□ciency Improvement of Solar Wind based Dual-Input Converter for Telecom Power Supply," 10th International Conference on Environment and Electrical Engineering, EEEIC'2012, Italy, May 2012.

C4. B. Mangu and B. G. Fernandes, "E□ciency Improvement of Solar-Wind based DualInput Cuk-SEPIC Converter for Telecom Power Supply," 38th Annual Conference of the IEEE Industrial Electronics Society, IECON'2012, Montreal, Canada, Oct. 2012.

C5. S. Anand, R. S. Farswan**, B. Mangu** and B. G. Fernandes, "Optimal Charging of Battery using Solar PV in Standalone DC System," 6th IET Power Electronics, Drives and Machines Conference, PEMD-2012, Bristol, UK, March 2012.

C6. B. Mangu, K. Kiran Kumar and B. G. Fernandes, "A Novel Grid Interactive Hybrid Power Supply System for Telecom Application," 2011 Annual IEEE India Conference, INDICON'2011, Hyderabad, India, Nov. 2010.

C7. G. Mallesham, B. Mangu, A. Suresh and Dinesh Reddy, '*Non Linear Dynamic Systems and Chaos- A Case Study in Electrical Engineering*', 2nd National Conference on Advances in Energy Conversation Technologies, AECT-2008, MIT Manipal, Manipal, 18th – 19th April 2008.

C8. B. Mangu and M. V. Ramana Rao, '*DC Slip Power Recovery Drive of a Wound Rotor Induction Motor*', IEEE International Conference on Recent Advancement and Application of Computer in Electrical Engineering, RACE, Bikaner, Rajasthan, February 2007.

C9. B. Srinivas and **B. Mangu**, '*Modeling and Analysis of a Flywheel Energy System for Voltage Sag Correction*', IEEE International Conference on Recent Advancement and Application of Computer in Electrical Engineering, RACE, Bikaner, Rajasthan, February 2007.

C10. B.Srinivas, **B. Mangu** and B. Balu**,** '*Optimal Supplementary Controller Design for Static VAR System*", IEEE International Conference on Recent Advancement and Application of Computer in Electrical Engineering, RACE, Bikaner, Rajasthan, February 2007.

C11. B. Mangu, M. V. Ramana Rao and R. S. K. Suryaprakash Rao, '*Fuzzy Logic Controlled Wound Rotor Induction Motor With Slip Recovery*', International Conference on Modeling and Simulation (Emerging Methods towards Frontier Technologies), Coimbatore, August 2007.

C12. B. Mangu and M. V. Ramana Rao, '*Closed Loop Control Of DC Motor Drive Using Feed-Forward Control Strategy*', International Conference on Modeling and Simulation (Emerging Methods towards Frontier Technologies), Coimbatore, August 2007.

C13. M. V. Ramana Rao, B. Mangu and K. Sashikanth, '*Space Vector Pulse Width Modulation Of An Induction Motor'*, International Conference on Information and Communication Technology in Electrical Sciences, Dr.M.G.R University, Chennai, ICTES, Dec. 2007.

AWARDS AND ACHIEVEMENTS

- Joint student travel grant of IEEE Industry Applications Society (IAS) and IEEE Power Electronics Society (PELS) for attending the 2014 IEEE Energy Conversion Congress and Exposition (ECCE), Pittsburgh, Pennsylvania, USA.

ADMINISTRATIVE EXPERIENCE IN UNIVERSITIES/ COLLEGES

- **HEAD,** Department of Electrical Engineering, University College of Engineering, Osmania University, Hyderabad. **(25-02-2015 to till date)**
- **Chairperson, Board of Studies (Global)** in University College of Engineering, Osmania University **(26-03-2013 to 2014)**
- **Chairman, Board of Studies (Global)** in University College of Engineering, Osmania University **(26-03-2013 to 2014)**
- **Member, Board of Studies** in Department of Electrical & Electronics Engineering, Jawaharlal Nehru Technological University Hyderabad. **(June 2017 - till date)**

- **Member, Board of Studies (University),** Department of Electrical Engineering, University College of Engineering, Osmania University **(March 2012 - till date)**

- **Hostel warden (General) for Kinnera Hostel,** University college of Engineering, Osmania University (2002-2009).

- Member, Departmental Committee, Department of Electrical Engineering, University College of Engineering, Osmania University (Sept. 2012).

- Departmental Convener, M.E./M.Tech (PTPG) Admissions, 2007, Department of Electrical Engineering, University College of Engineering, Osmania University.

- Incharge, Seminar Library, Department of Electrical Engineering, University College of Engineering, Osmania University (Feb 2005- 2009).

- Incharge, BE/ME Time Tables, Department of Electrical Engineering, University College of Engineering, Osmania University (Dec. 2001- 2005).

- Incharges, for Control Systems Lab., Power Electronics Lab. IC Applications Lab., Machines Lab-II, Drives Lab (2002 to 2009), Department of Electrical Engineering, University College of Engineering, Osmania University.

- Departmental Member, Quality Monitoring Cell, University College of Engineering, Osmania University,(Oct 2005-2007).

MEMBERSHIPS IN THE PROFESSIONAL BODIES

- Member of IEEE Power Electronics Society, IEEE Power & Energy Society, IEEE Industrial Electronics Society and IEEE Industry Applications Society.

- Member of Engineering and Scientific Research(ESR) Groups.

WORKSHOPS/TRAINING PROGRAMS/ LECTURES ORGANIZED/COORDINATED

- Third Diamond Jubilee Endowment Lecture on Smart Grid Security on 28th March 2016.

- Three day workshop on Solar Photovoltaic Training Program from 2nd-4th March 2015.

- Two-day Workshop on Artificial Intelligence Techniques in Electrical Engineering under TEQIP during 20th & 21st February, 2009.

- Basic Training on Electrical wiring for unemployed youth from 24th - 26th March 2006 under TEQIP.

RESEARCH GUIDANCE

- Presently 05 Ph.D. students are pursuing research. (Admitted in the year 2017)

- Awarded about 25 M.E. Projects.

- Awarded more than 35 B.E projects

COUNTRIES VISITED (for presenting papers in IEEE International Conferences)

- Pittsburgh, Pennsylvania, USA.
- Montreal, Canada.

REFRESHER / SHORT TERM COURSES ATTENDED : 03

WORKSHOPS / TRAINING PROGRAMMES ATTENDED : 18

GUEST LECTURES DELIVERED

- Delivered a guest Lecture on *" Power Electronics Applications in Power Systems" at* faculty development program on "Modern Power Transmission Systems and Protection" at NITTTR Extension Centre, Masab Tank, Hyderabad during 09/07/2018 To 20/07/2018
- Delivered a guest Lecture on *"Emerging Trends in in Renewable energy Systems and Microgrids"* at BVRIT Narsapur Medak, on 21st April 2018
- Delivered a guest Lecture on *" Emerging trends in renewable energy generation through power Electronics"* at Geetanjali College of Engineering and Technology cheeryal, Keesara, Medchal on 21st Jan. 2018
- Delivered a guest Lecture on "*Introduction to Power Evacuation strategies from Solar Photo Voltaic Energy Systems*" at Stanley College of Engineering and Technology for Women, Chapel road, Abids, 19th February-2016.
- Delivered a lecture on "*Introduction to Power Evacuation strategies from Solar Photo Voltaic Energy Systems"* in one week FDP on "Global Trends in Renewable Energy Systems and Smart Grids" during 21st to 26th November, 2016 organized by Department of Electrical Engineering, CVR College of Engineering, Vastunagar, Ibrahimpatam, Hyderabad.
- Delivered a lecture on "*Converter topologies for standalone and Grid Connected Solar Photovoltaic"* in three day training on Advances in Power Electronics and drives" during 12th to 17th may, 2014 organized by Department of Electrical Engineering, university College of Engineering, Osmania University, Hyderabad.
- Delivered a lecture on "*Converter topologies for standalone and Grid Connected Solar Photovoltaic"* in one week FDP on Advances in Power Electronics and drives" during 12th to 17th may, 2014 organized by Department of Electrical Engineering, university College of Engineering, Osmania University, Hyderabad.
- Delivered lectures on simulation tools (SABER, PVSyst); organized by National Centre for Photovoltaic Research and Education (NCPRE), Ministry of New and Renewable Energy, Government of India.
- Delivered lectures on various power electronics related topics to the participants from academia and industry; organized by NCPRE and SEMI India.

- ❖ Conducted drives and power electronics lab sessions for officials from Indian Railways under Continuing Education Program; organized by IIT Bombay.

SESSION CHAIR

- ❖ Acted as session chair for "International Conference on Paradigms in Engineering and Technology" at Methodists College of Engineering and Technology, Hyderabad on 2nd and 3rd March 2016.
- ❖ Acted as session chair for "International Conference on Emerging Trends in Engineering, Science and Management (ICETESM-2017)" at Sphoorthy College of Engineering, Hyderabad on 17th and 18th March 2016.

SPONSORED PROJECTS

Rs. 1,00,000 of seed money for R&D project under TEQIP-II

CONSULTANCY PROJECTS

- ❖ Consultancy & Testing With GHMC, during last 3 academic years

Year	Amount Generation (Rs.)
2015-2016	6,11,200.00
2014-2015	11,39,629.00
2013-2014	9,55,292.00

TEACHING EXPERIENCE

For nearly 15 years, I have taught a variety of courses at graduate and undergraduate levels. These courses are listed below :

SUBJECTS TAUGHT:

At U.G. Level

- Power Electronics
- Electrical Circuits
- Electrical Machines
- Basic Electrical Engineering
- Electrical Technology

At P.G. Level

- Power Electronic Converters
- Power Electronics Converters for Renewable Energy
- Power Electronics Application to Power Systems
- Renewable Energy Sources
- Microcontroller Applications to Power Electronics

Date:

Place : **Dr. B. MANGU**