

FACULTY PROFILE

Personal Details

- **DESIGNATION:** ASSISTANT PROFESSOR.
- **QUALIFICATION:** M.TECH. PEPS (IIT BOMBAY)
- **EXPERIENCE:** 9 YEARS.
- **AREA OF INTEREST:** POWER ELECTRONICS, DC-DC CONVERTERS, SIC BASED CONVERTERS



Contact details

Prof. H. S. Wani
Assistant Professor (Power Electronics)
Electrical Department
Government Engineering College, Valsad
Email: hswani@gecv.ac.in.

Educational Qualification

- B.E. Power Electronics, L. E. College Morbi 2009 (University Second)
- Cleared GATE 2010.
- M.TECH. ELECTRICAL (POWER ELECTRONICS AND POWER SYSTEMS) 2018 (IIT BOMBAY)

Work Experience

- 8 months as Teaching Assistant at Institute of Technology, Nirma University.
- 8 Years 6 Months as Assistant Professor in Power Electronics Department at VGEC Chandkheda.
- 9 months as Assistant Professor Power Electronics at GEC Valsad.

Trainings and workshops

- "One week training on 'Advanced Control of Modern Power Electronics Converters and Drives' during 27/06/2011 to 02/07/2011 organized by Institute of Technology, Nirma University (ISTE)"
- "One week training on 'Real Time Implementation of Power Electronics Technologies' during 24/06/2013 to 28/06/2013 organized by Malaviya National Institute of Technology, Jaipur (TEQIP, DST & IE)"
- "Three days training on 'Karmyogi Residential Training' during 21/11/2013 to 23/11/2013 organized by CTE, Gujarat (CTE)"
- "Two week training on 'Advanced Power Electronics and Drives' during 09/12/2013 to 20/12/2013 organized by Walchand College of Engineering, Sangli (AICTE)"
- "Two week training on 'Induction Training Phase-I (IP-2)' during 26/05/2014 to 06/06/2014 organized by NITTTR Bhopal Extension Centre, RCTI Campus, Ahmedabad (AICTE, NITTTR)"
- "One week training on 'Application of Power Electronics in Power Systems' during 15/12/2014 to 19/12/2014 organized by Chhotubhai Gopalbhai Patel Institute of Technology, Uka Tarsadia University, Bardoli (ISTE)"
- One week training on 'Basic Electrical Technology' during 08/06/2015 to 12/06/2015 organized by Gujarat Technological University (GTU)
- Two week training on 'Optimization: Theory and Engineering Practice' during 07/12/2015 to 19/12/2015 organized by Vishwakarma Government Engineering College, Chandkheda (ISTE and DTE)
- One week training on 'Multi-Objective Optimization: Theory and Applications ' during 11/02/2019 to 16/02/2019 organized by Vishwakarma Government Engineering College, Chandkheda (ISTE, DTE and GTU)

- One week training on 'Beyond the Classroom Towards Excellence' during 03/09/2019 to 09/09/2019 organized by DTE Gandhinagar and IITE Gandhinagar (DTE)
- One week training on 'Redefining the Role of Educator in Covid-19 Outbreak Era' during 11/05/2020 to 16/05/2020 organized by Gujarat Technological University and Anand Pharmacy College (Online) (GTU)
- "One week training on 'MATLAB based Teaching-Learning in Mathematics, Science & Engineering' during 18/05/2020 to 22/5/2020 organized by Ramrao Adik Institute of Technology, Nerul, Navi Mumbai and DesignTech Systems Pvt. Ltd., Mumbai (Online)"

Skills and Knowledge

- Powers Electronics Circuit Design.
- Power supply design and converter design.
- HF power transformer and inductor design.
- PCB design using various software.
- Micro Processor and Controller programming.
- DSP programming for Power Electronics applications.
- MATLAB programing and Simulink.
- OrCAD, PSIM and other circuit simulation software.
- Soldering (SMD and Through Hole components).
- Computer hardware and system software knowledge.

Courses Taught

- Microcontroller for Power Electronics
- Digital Signal Processing
- Signals and systems.
- Principles of Power Electronics
- Power Processing Circuits I and II
- Power Electronics Circuits I and II
- Control System
- Applications of Power Electronics

Research and Project

Major research includes

- Designed and developed SiC based 1 KW DC-DC Boost converter operating at 200 KHz at an efficiency of 96%
- Designed driver card for SiC MOSFET for 200 KHz applications.

Academic projects guided by me

Guided many UG Projects for final year students like

- IOT based smart home system.
- Maglev Train based on HF Inverter
- Pure Sine Wave Inverter
- HF Inverter based Wireless Power Transfer
- DC-DC converter design and development

Expert Lectures and Seminars

- Delivered an expert lecture on Microprocessors and Microcontrollers at GP Himmatnagar
- Conducted One day Workshop on Electrical Shop Floor Practices and Soldering Techniques at VGEC Chandkheda.
- Conducted workshop on PCB Design at VGEC Chandkheda

Membership

- Life Member IIT Bombay Alumni Association
- Life member I.S.T.E.

Portfolios at the Institute GEC Valsad

- Public Information Officer, GEC Valsad.
- Institute ICT committee Convener.
- Institute AICTE Coordinator.
- Institute AISHE Coordinator.
- Institute GTU Affiliation coordinator.
- Institute Newsletter committee member.