

## CURRICULUM VITAE

VINOD PURI  
ASSISTANT PROFESSOR  
ERE DEPT, BGSB UNIVERSITY, RAJOURI,  
JAMMU AND KASHMIR, INDIA  
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### Current Position

Working as Assistant Professor in BGSB University since September, 2016

### Education Qualification

Doctorate  
in  
Engineering



**GAUTAM BUDDHA UNIVERSITY, GREATER NOIDA, UTTAR PRADESH, INDIA**

**Status:** Completed Successfully on 28/01/2019.

**Dissertation:** Design and Parameter Estimation of Permanent Magnet Synchronous Machine.

Master  
of  
Engineering



**THAPAR UNIVERSITY, PATIALA, PUNJAB, INDIA**

**Status:** Completed Successfully in 2009 with 6.73 CGPA.

**Dissertation:** Unit commitment Using Particle Swarm Optimization

Bachelor  
Of  
Engineering



**UNIVERSITY OF JAMMU, JAMMU AND KASHMIR, INDIA**

**STATUS:** Completed Successfully in 2007 with 68.07%.

**Major Project:** Microcontroller Based Overweight Lift Protection and Fire Extinguishing system.

### Research Interest

Design of Electrical Machines, Wind energy Conversion System, Vertical Axis Wind Turbine, horizontal Axis Wind Turbine, Wind Energy Assessment, Optimization, Economics of Power System, Artificial Intelligence techniques

### Technical Skill

MATLAB, MS OFFICE, ANSYS SPACE CLAIM, ANSYS MAXWELL, ANSYS SIMPLORER, MOTOR ANALYSIS, MOTOR CAD, OPTIMIZATION TOOLS (GSA, PSO), ANN and SIMULATION in MATLAB etc.

### Teaching Experience

2016-till now  
Assistant professor



Working as Assistant professor, teaching undergraduate students of Electrical and Renewable Engineering

**Subject Taught:** Network Analysis, Electrical Machine, Basic Electrical Engineering, Design of Power Apparatus, Restructuring of Power System, Electromagnetic wave theory, Power system stability, signal and systems.

2013-2016  
Assistant professor



2009-2012  
Assistant Professor



Worked as Assistant Professor, teaching Under graduate, Post Graduate students of Electrical Engineering Department.

**Subject Taught:** Control System, Advance Power Electronics, Basic Electrical engineering, Design of Power Apparatus, Power Electronics, Electrical Machine, Power System I and Power System II.

Worked as Assistant Professor, teaching Under graduate, Post Graduate students of Electrical Engineering Department.

**Subject Taught:** Control System, Advance Power Electronics, Electromagnetic wave theory, Power system stability, signal and systems, Basic Electrical engineering, Design of Power Apparatus, Power Electronics, Electrical Machine, Power System I and Power System II.

#### **Member and Reviewer of Technical Society**

1. IEEE member
2. Reviewer of IET, Elsevier, Wiley journals etc.

#### **FDP/Workshops/STTP**

1. Attended certified course on Renewable Energy with Specialization in Solar and Wind Energy.
2. Attended Science and technology for sustainable Development through ICT.
3. One week AICTE recognized Short Term Course on “Silab Programming” through ICT
4. Attended NITTR STC “Life skill development through ICT”. BGSB University
5. One week AICTE recognized Short Term Course on “Silab Programming” through ICT
6. Attended NITTR STC “Power Quality Monitoring and Analysis through ICT”. BGSB University
7. Attended STC “Application of techniques/tools in Engineering”. Gautam buddha University.
8. Attended NITTR STC “GSA TO 3G”. DIT University, Deharadun
9. Attended NITTR STC “VLSI DESIGN through ICT”. DIT University, Deharadun
10. Attended work shop on "Computational techniques" Organised by DIT University
11. Attended NITTR STC “Mat lab and its Hardware Interface through ICT”. DIT University, Deharadun
12. Attended NITTR STC “Soft computing Techniques using Mat lab Through ICT”. DIT University, Deharadun
13. Attended NITTR STC “Energy Management Through ICT”. DIT University, Deharadun.
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#### **Organising FDP/Workshop/STTP**

1. Organizing NITTR STC “Life skill development through ICT”. BGSB University
2. Organizing NITTR STC “Power Quality Monitoring and Analysis through ICT”. BGSB University

#### **Project under taken**

1. Design implementation of Permanent Magnet Synchronous Machine for VAWT, costing rupees **3 lacks as Principle Investigator.**

#### **Patent Published:**

1. Puri, Vinod et. al. **A Novel Design For Multi-tapping AC Voltage Cross-Transformer:** The Patent office Journal numbe, 11/2021 Dated 12/03/2021: App No: 202111009035A.
2. Puri, Vinod et. al. **A Novel Design For Harnessing Wind Energy Using VAWT In Quad-Wind Tower:** The Patent office Journal number, 35/2021 Dated 27/08/2021: App No: 202111026540A.

#### **Publications In journals**

1. Puri V, Chauhan YK. Offline parameter estimation of a modified permanent magnet generator using GSA and GSA-PSO. Soft Computing. 2022 Jan 7:1-3.
2. Puri, V., Kumar, N. Wind energy forecasting using artificial neural network in Himalayan region. Model. Earth Syst. Environ. (2021). <https://doi.org/10.1007/s40808-020-01070-8>
3. Neetan Sharma & Vinod Puri (2020) Solar Energy Fundamental Methodologies and its Economics: A Review, IETE Journal of Research, DOI: 10.1080/03772063.2020.1822762

4. Puri V, Chauhan YK, Singh N. A comparative design study and analysis of inner and outer rotor permanent magnet synchronous machine for power generation in vertical axis wind turbine using GSA and GSA-PSO. *Sustainable Energy Technologies and Assessments*. 2017 Oct 31; 23:136-48.
5. Puri V, Chauhan YK, Singh N. Optimization of design with estimation of performance parameters of inner rotor permanent magnet synchronous machine used in VAWT using GSA and GSA-PSO. *International Journal of Energy and Statistics*. 2017 Jun; 5(02):1750007
6. Vinod Puri, Y.K.Chauhan and Nidhi Singh, "Economic Load Dispatch Problem using Particle Swarm Optimization with Inertial Weight and Constriction Factor", *Thammasat International Journal of Science and Technology*. DOI 10.14456/tijsat.2016.14
7. Puri, Vinod, and Yogesh K. Chauhan. "A Solution to Economic Dispatch Problem Using Augmented lagrangian Particle Swarm Optimization." *International Journal of Emerging Technology and Advanced Engineering*. ISSN (2012): 2250-2459.
8. Vinod Puri, et al (2012) Unit Commitment Using Particle Swarm Optimization. *BIOINFO Computational Optimization*, ISSN: 2249-5533 & E-ISSN: 2249-5541, Volume 2, Issue 1, pp.-09-16.

#### **Publications in International Conferences**

9. Puri, Vinod, Yogesh K. Chauhan, and Nidhi Singh. "Design optimization of permanent magnet synchronous machine for vertical axis wind turbine using gravitational search algorithm." *2015 2nd International Conference on Recent Advances in Engineering & Computational Sciences (RAECS)*. IEEE, 2015.
10. Puri V, Chauhan YK, Singh N. Parameter estimation of permanent magnet synchronous machine using Gravitational search algorithm. In *Power Systems (ICPS), 2016 IEEE 6th International Conference on 2016 Mar 4* (pp. 1-6). IEEE.
11. N. Sharma, V. Puri and G. Kumar, "Efficiency Enhancement of a Solar Photovoltaic Panel by Maximum Power Point Tracking Using Artificial Neural Network Methodology," *2021 2nd International Conference for Emerging Technology (INCET)*, 2021, pp. 1-7, doi: 10.1109/INCET51464.2021.9456354.
12. N. Sharma, V. Puri and G. Kumar, "Relative Design and Investigation of Fixed/Single Axis and Dual Axis Tracking System for Diverse Weather Conditions," *2021 5th International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT)*, 2021, pp. 118-124, doi: 10.1109/ICEECCOT52851.2021.9708027.
13. Mehta S, Puri V. 7 Level New Modified Cascade H Bridge Multilevel inverter with Modified PWM controlled technique. In *2021 11th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS) 2021 Sep 22* (Vol. 1, pp. 560-565). IEEE.

#### **Publication under Review Process**

14. Neetan Sharma, Vinod Puri, "Solar Power Forecasting beneath Diverse Weather Conditions Using GD and LM-Artificial Neural Network" *Sustainable Energy Technologies and Assessments*, Elsevier under the assigned No. SETA-D-21-00756.
15. Neetan Sharma, Vinod Puri, Gaurav Kumar, "Efficiency Enhancement for Diverse Weather PV Panel with ANN based MPPT Hardware Microcontroller" *IETE Journal of Research*, Taylor and Francis, under the assigned No. TIJR-2021-0873.
16. Neetan Sharma, Vinod Puri, Gaurav Kumar, "A Hardware Implementation of PI Controlled DC Chopper using UNO-Arduino Programmed in MATLAB/SIMULINK" *International Journal of Sustainable Energy*, Taylor and Francis, under the assigned No. 215742209.
17. Neetan Sharma, Vinod Puri, Gaurav Kumar, "Relative Design and Investigation of Fixed/Single Axis and Dual Axis Tracking System for Diverse Weather Conditions" *IEEE*, under the assigned No. 63.

PLACE: JAMMU, INDIA

DATE: 12/04/2022.