

# SUMIT KUMAR GUPTA

*B.E, M. Tech., Ph. D (Pursuing)*

*Assistant Professor (Electrical Engineering), ECE Department*

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## SKILLS PROFILE

- Platforms: Windows, Linux
- Software: MATLAB simulink, Xilinx system generator tool, PSIM, Orcad Capture. PSCAD, CST
- Languages: C, MATLAB

## AREA OF INTEREST

Fpga implementation of control system using dsp or xilinx, power electronics, converters, smart grid.

Microwave Engineering

## THESIS TOPIC (M. TECH.)

**FPGA Implementation of Combined Vector Control and Direct Torque Control of an induction motor drive using Simulink. (Duration: 01/07/2009 to 30/06/2010)**

- Use of tool Xilinx system generator used in integration with MATLAB simulink
- System generator token can generate VHDL code for block made up with SG blocks
- The code generated by system generator blocks could be used for FPGA implementation.

**Unipolar control of single phase full bridge inverter (Duration: 8/1/2008 to 4/5/2008)**

- Software used: Orcad Capture
- Required back ground knowledge: Basics of full bridge inverter, switching schemes, familiar with Orcad Capture
- Verified simulation results with hardware results.

**Power line communication (Duration: 1/2/2007 --5/6/2007)**

- Study of various communication methods
- using power lines as way of communication
- 50 Hz sine wave is used as carrier

## BTECH PROJECT GUIDED

- Generation and implementation of sinusoidal pulse Width modulation using xilinx system generator
- IoT Based Home Automation
- Verilog Design of a 32-bit RISC Processor
- Comparative analysis of harmonic mitigation techniques using pulse converters
- Microcontroller based Automatic voice response system.
- Control of electronic appliance or device by using Logmein Software for Remote Desktop control and microcontroller.
- RFID based attendance system

## PROFESSIONAL EXPERIENCE

More than 8 Years of teaching.

S. No.	Institute/ University	Branch	Subject Taught	Date of Joining	Institute/ University
1	DIT Dehradun	Electronics & Comm. Engg	Electronics engineering, EMI	July 2010	6 Month
2	PSIT Kanpur	Electronics & Comm. Engg	Microwave Engg., EMI, Control Systems, Data Communication Networks, DSP, Mobile & Wireless Comm., Control System.	DEC 2010	1.5 Years
3	Rungta College Raipur	Electronics & Comm. Engg	BEE, EDC, DSP	JULY 2012	6 Month
4	Guru Ghasidas Vishwavidyalaya Bilaspur	Electrical Engineering, ECE	BEEE, BEE, Electrical Machines, Power Electronics, Advanced Instrumentation, Electronics Measurements and Instrumentation, Electronic Devices and Circuits.	14 Feb 2013	Till date

## RESEARCH AND PUBLICATION

No. of International journal Published=03 (UGC listed journal)

## RESPONSIBILITIES GIVEN DEPARTMENT LEVEL

- Section Incharge of B. tech. first Year, section D, session 2013-14
- Co-coordinator for B. tech. first Year, session 2013-14
- member of anti-ragging committee during session 2013-14
- Assistant Coordinator for mid semester exam of B. Tech. first year for session 13-14.
- Mentor for 7 mechanical Engg. Students, session 2013-14
- Co-coordinator for B. tech. first Year 2014-15
- Member of document verification committee for B.Tech. Admission 2014-15.
- member of anti-ragging committee during session 2014-15
- Assistant Coordinator, B.Tech. Admission by CSAB session 15-16.
- member of committee formed for evaluation of electricity tariff paid by residents of university quarters

- Co-coordinator for B. tech. first Year 2015-16.
- Section Incharge for B. tech. first Year ECE Students 2015-16
- Assistant Coordinator B.Tech. Admission by JoSAA session 2015-16.
- Coordinator B. tech. First year from 01-12-2015 to 07-01-2016.
- Assistant coordinator for B. tech admission through CSAB/ JoSSA for session 2016-17
- Mentor for B. tech. 3rd Year Students.
- Section Incharge for B. tech. first Year ECE Students 2016-17.
- member of Discipline Cum anti ragging committee during session 2016-17
- Member of Registration committee for B. tech admission through Local/ Spot Counseling for session 2017-18
- Member of document verification committee for walk-in interview 2017-18 of adhoc teachers.
- Member of Discipline Cum anti ragging committee during session 2017-18.
- Section Incharge for B. tech. first Year ECE Students 2017-18
- Incharge for Mobile distribution under Chhattisgarh Sanchar kranti Yojna.
- Incharge of NAAC Criteria II for ECE department.
- Incharge for Library related Works for department.
- Member of departmental NAAC/ NIRF Committee for session 2019-20

#### **RESPONSIBILITIES GIVEN UNIVERSITY LEVEL**

- member of committee formed for repair and maintenance of AC water cooler and water purifier under GFR -155
- Member of the committee formed to make plan proposal and recommendation for running electrical equipment's of different buildings by solar energy .
- member of technical committee for evaluation of open Tender under store for purchase of electrical and sanitary items
- member of committee formed for purchase of electrical items for maintenance of distribution box of VC Residence under GFR 146
- Member of the committee formed to make plan proposal and recommendation for establishment of smart classroom at certain places inside the university campus.
- Hostel warden responsibilities given on 7 March 2018 for Swami Vivekanand Boys Hostel.
- Worked as polling officer for Student council election 2017.

- Member of technical committee formed for repair and maintenance and purchase of AC water cooler and water purifier.
- Committee member for projects under HEFA Boys Hostel (G+4) (100 Rooms with 200 Capacity)
- Committee member for projects under HEFA, Installation of Solar Power Plant 2MW
- Worked as Election Officer for GGV Students Council Election 2019.

#### **WORKSHOPS/ SEMINAR/ FDP ATTENDED**

- Actively participated in IEEE Sponsored seminar on “Electric Power Conversion (SEPC 08)” at MNNIT, Allahabad
- Member of organizing Committee in TEQIP sponsored seminar on Virtual Instrumentation at MNNIT Allahabad
- Attended TEQIP Sponsored short term Training Programme (STTP) on “Advance Optimization and Applications” from 03 August 2015 to 07 August 2015 at NIT Raipur.
- Attended QIP short term course on “Application of AI Techniques on Power system Operation and Control” from 2nd May 2016 to 7th May 2016 at VSSUT Burla.
- Attended AICTE Sponsored Two-week Faculty Development program on “Select Topic in Signal Processing and Machine Intelligence with Hands-on” at COEP Pune from 23.05.2016 to 03.06.2016.
- Attended Orientation Course from at UGC HRDC GGV BILASPUR (C.G.) 01-05-2017 to 29-05-2017
- Attended Refresher Course on “Recent Advances in Emerging Areas of Engineering, Technical Education and Research (ID)” at UGC HRDC GGV BILASPUR (C.G.) from 05-06-2017 to 24-06-2017.
- Attended the “Special Summer School (Refresher Course on Research Methodology)” at UGC HRDC GGV BILASPUR (C.G.) from 16.06.2018 to 06.07.2018
- Attended Refresher Course from 24-06-2019 to 06-07-2019 at UGC HRDC GGV BILASPUR (C.G.).

#### **PUBLICATION DETAIL**

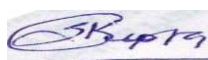
[1] **Sumit Kumar Gupta**, Modelling and Simulation of Multi Pulse AC to DC Converter Feeding To Different Reactive Power Loads and their THD Analysis”, Volume 5, Issue 1 (February, 2018) | E-ISSN : 2348-2273 | P-ISSN : 2454-1222

[2] **Sumit Kumar Gupta**, M. Sunitha, K Sri Lakshmi, Power Quality enhancement using Multi Pulse AC to”DC Converter in Direct Torque Controlled Induction Motor Drive”, IJSART - Volume 4 Issue 1 – JANUARY 2018 ISSN [ONLINE]: 2395-1052

[3] **Sumit Kumar Gupta**, “Modeling And Simulation Of Hill Climb Search Method For Maximum Power Point Tracking As Applied To Wind Energy Conversion System”, IJTIMES, e-ISSN: 2455-2585 Volume 4, Issue 02, February-2018

I hereby declared that all the above information provided by me is true up to my knowledge and belief.

Date:

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Sumit Kumar Gupta