

## **CV of SHWETA GUPTA**

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### **OBJECTIVE**

To contribute towards the growth of my organization by attaining academic excellence and serve the students community by imbining them the skills required for their holistic development.

### **ACADEMIC QUALIFICATION**

- Pursuing Ph.D. from the Department of Electronic Science, University of Delhi
- Completed M.Sc. in Electronics from Department of Electronic Science, University of Delhi (2008)
- Completed B.Sc. in Electronics from Keshav Mahavidyalaya, University of Delhi (2006)
- Completed Senior Secondary from Lilawati Vidya Mandir School (2003)
- Completed Secondary from Lilawati Vidya Mandir School (2001)

### **WORK EXPERIENCE**

- Working as Assistant Professor at Bhaskaracharya College of Applied Sciences, University of Delhi (July 27, 2009-Present)
- Worked as Assistant Professor on Adhoc basis at Rajguru College, University of Delhi (January 09, 2009-March 31,2009)
- Worked as Guest Lecturer in Keshav Mahavidyalaya College, University of Delhi (November 2010-March 2011)

### **ACADEMIC DISTINCTIONS**

- Received the Best Paper Award for presenting the paper titled 'Reliability Assessment of JLFInFET based Biosensor for Neutral Biomolecule Detection under Temperature Variation from 250K to 350K' in an IEEE International Conference on Circuit, Power and Intelligent Systems organized by the Silicon Institute of Technology, Bhubaneshwar during 01-03 September'23.
- Secured First Position in the Coursework Exam of Ph.D.
- Secured First Position in the II and III year of B.Sc. (H) Electronics
- Empanelled as the Academic Counselor for the IGNOU- Learners' Support Centre-38042 in Bhaskaracharya College of Applied Sciences, University of Delhi (2019-present)

## FIELD OF RESEARCH

Semiconductor Devices, Sensors

## RESEARCH WORK DETAILS

### Full Paper in Journals

- S. Gupta, Y. Pratap, and M. Gupta, “Breast Cancer Detection Using Dual Nanocavities GaN Junctionless FinFET Biosensor,” *Sens. Imaging*, 26(1), 2025, doi: 10.1007/s11220-025-00544-2
- S. Gupta, Y. Pratap, and M. Gupta, “Investigation of GaN Junctionless FinFET for Radiation,” *Sens. Imaging*, 26(1), pp. 1–16, 2025. doi: 10.1007/s11220-025-00634-1
- S. Gupta, Y. Pratap, and M. Gupta, “Investigation of Sensitivity and Steric Hindrance Issue in High-k Junctionless Undergated FinFET Biosensor for Neutral and Charged Biomolecules Detection,” *Sens. Imaging*, 26(158), pp. 1–21, 2025. doi: 10.1007/s11220-025-00683-6

### Paper Presenter in International Conferences

- Presented a paper titled ‘Steric Hindrance Issue in Junctionless FinFET based Biosensor under Diversified Temperature Variation’ in an IEEE International Conference on Electronics, Materials Engineering & Nano-Technology, Kolkata during 18-20 December’23
- Presented a paper titled ‘Reliability Assessment of JLFInFET based Biosensor for Neutral Biomolecule Detection under Temperature Variation from 250K to 350K’ in an IEEE International Conference on Circuit, Power and Intelligent Systems organized by the Silicon Institute of Technology, Bhubaneshwar during 01-03 September’23 (**Best Paper Award**)

### Full Paper in Conference Proceedings

- S. Gupta, Y. Pratap, and M. Gupta, “Reliability Assessment of JLFInFET based Biosensor for Neutral Biomolecule Detection under Temperature Variation from 250K to 350K,” in IEEE International Conference on Circuit, Power and Intelligent Systems (CCPIS-23), 2023, © IEEE, doi:[10.1109/CCPIS59145.2023.10291848](https://doi.org/10.1109/CCPIS59145.2023.10291848)
- S. Gupta, Y. Pratap, and M. Gupta, “Steric Hindrance Issue in Junctionless FinFET based Biosensor under Diversified Temperature Variation,” 2023 7th Int. Conf. Electron. Mater. Eng. Nano-Technology, IEMENTech 2023, pp. 1–5, 2023, doi: 10.1109/IEMENTech60402.2023.10423543.

### Books

- Swati Gupta and Shweta Gupta, Electronics Practical; Narosa Publishing House Pvt. Ltd., ISBN No.:978-81-8487-518-8

### Projects Supervised

- Supervised a Research Project titled ‘Investigation of Junctionless FinFET (JLFInFET) for the Sensing Applications’ (2025-2026)
- Supervised a Research Project titled ‘Investigation of Tunnel Field Effect Transistor FET (TFET) for the Sensing Applications’ (2025-2026)

- Supervised a Research project entitled as ‘Designing a prototype for Automation and Alert System for Railway Level Crossings to minimize human error’ under DBT Star College Scheme (2019-2021)

### **Projects Undertaken**

- Project entitled as **Fabrication of Dye Sensitized Solar Cell** for the period of six months at Postgraduate level.
- Done two-month project Entitled as **Emerging Broadband Technology in India-WIMAX** at **Alcatel-lucent South Asia limited, Gurgaon** at Postgraduate Level.
- Project entitled as Traffic Controller System and implementing Seven Segment Display using 8085 Microprocessor at Undergraduate level.

### **IT SKILLS**

**SOFTWARES:** C, C++, FORTRAN, SCILAB, MULTISIM, PSPICE, QUCS, MATHCAD, TCAD ATLAS, PYTHON

### **ADMINISTRATIVE RESPONSIBILITIES**

#### **At College level**

#### **2025-2026**

- Appointed as the Teacher-in-Charge, Department of Electronic Science
- Convener of Vivekanand Vichar Manch
- Member of Student Advisory Committee
- Member of the Best Student Award Committee
- Member of the Academic Committee
- Member of the Admission Committee
- Member of the Time Table Committee
- Convener of the Departmental IA Moderation Committee
- Research Project Supervisor for IV year undergraduate students
- Convener of Subject Research Committee for IV year Undergraduate Electronic Science Students
- Convener of Subject Entrepreneurship Committee for IV year Undergraduate Electronic Science students who opted for Entrepreneurship Track

#### **2024-2025**

- Appointed as the Teacher-in-Charge, Department of Electronic Science
- Member of Student Advisory Committee
- Member of the Best Student Award Committee
- Member of the Academic Committee
- Member of the Admission Committee
- Member of the Time Table Committee
- Convener of the Departmental IA Moderation Committee

#### **2021-22**

- Convener of Vivekanand Vichar Manch
- Member of Gandhian Study Center
- Member of Canteen Committee

#### **2020-21**

- Appointed as the Deputy Superintendent of Examinations
- Convener of Career Counselling Cell
- Member of Gandhian Study Center
- Member of Library Committee
- Member of Proctorial & Anti-Ragging Committee
- Member of Students Counselling System and Mentoring

#### **2019-20**

- Appointed as the Deputy Superintendent of Examinations
- Convener of Career Counselling Cell
- Member of Gandhian Study Center
- Member of Library Committee
- Member of Proctorial & Anti-Ragging Committee
- Member of Students Counselling System and Mentoring

#### **2018-19**

- Convener of NSS from the period April 21,2018 to August 20,2018
- Member of Prospectus and Annual Report Committee
- Member of Annual maintenance committee of computers and its peripherals
- Member of North East Cell
- Member of Student Advisory & PR Committee
- Member of Training & Placement Cell
- Member of Career Counselling Cell

#### **2017-18**

- Convener of Prospectus and Annual Report Committee
- Member of Annual maintenance committee of computers and its peripherals
- Member of library committee
- Member of North East Cell
- Member of Student Advisory & PR Committee
- Member of Training & Placement Cell

#### **2016-17**

- Convener of Prospectus Committee
- Convener of Gandhian Study Center
- Convener of NAAC subcommittee for repair of equipments of Physical Sciences Departments
- Convener of Annual Day Prize distribution committee
- Member of Departmental Moderation Committee for Internal Assessment
- Member of Library Committee
- Member of Student Advisory and PR Committee

#### **2015-16**

- Convener of Gandhian Study Center
- Member of Departmental Moderation Committee for Internal Assessment
- Member of Library Committee
- Member of Alumni Association
- Member of Annual Report Committee

- Member of Decoration Committee for Annual Day

#### **2014-15**

- Appointed as the Deputy Superintendent of Examinations
- Appointed as the Teacher-in-charge of Department of Electronics
- Convener of Decoration Committee of Annual Day Function
- Convener of Yoga Club
- Member of Extracurricular activities committee
- Member of Gandhian Study Center
- Member of Academic Committee
- Member of time table committee
- Member of Admission Committee
- Member of distinguished alumni/Best student award
- Member of annual report committee
- Member of Departmental moderation committee for internal assessment
- Member of Central purchase committee
- Member of sub-committee for purchase of Physical Sciences Department
- Member of Committee to formulate guidelines for allocation and usage of ICT resources

#### **2013-14**

- Appointed as the Teacher-in-charge of Department of Electronics
- Convener of Decoration Committee of Annual Day Function
- Convener of Yoga Club
- Convener of sub-committee for purchase of Physical Sciences Department
- Member of Extracurricular activities committee
- Member of academic committee
- Member of admission committee
- Member of distinguished alumni/Best student award
- Member of annual report committee
- Member of Departmental moderation committee for internal assessment
- Member of Central purchase committee
- Member of time table committee

#### **2012-13**

- Convener of Decoration Committee of Annual Day Function
- Convener of Yoga Club
- Convener of Prospectus Committee
- Member of Extracurricular activities committee

#### **2011-12**

- Convener of Decoration Committee of Annual Day Function
- Convener of Yoga Club
- Convener of Prospectus Committee
- Member of Extracurricular activities committee
- Member of library committee
- Member of website and internet committee

### **2010-11**

- Convener of Yoga Club
- Member of Extracurricular activities committee
- Member of Decoration committee of Annual Day Function

### **At University Level**

- Member of drafting the syllabus of Stream ‘Circuits and VLSI’ of B.Sc. (H) Electronics under NEP during 2022-23
- Convener of drafting the syllabus of paper ‘Algorithm Design and Analysis’ of B.Sc. (H) Electronics (III) Sem under NEP during 2021-22
- Member of drafting the syllabus of paper ‘Internet and Java Programming’ of B.Sc. (H) Electronics under NEP during 2021-22
- Working Group Member for the revision of the Course titled Mathematics Foundation for Electronics Course Code 32511104 in Programme (CBCS) B.Sc.(H) Electronic Science during 2018-19
- Member of Curriculum development committee of B.Tech (Electronics) during 2013-14
- Convener of learning PSpice committee (Department of Electronic Science, University of Delhi) during 2010-11.
- Participated in Exam Question Paper Setting and Evaluation of both the Practical and Theory Exams (2011-Present)

### **ACTIVITIES ORGANIZED**

#### **2025-26**

- Organized an Extempore Essay Writing Competition on February 20, 2026
- Organized a visit to DUCAT on March 24, 2026

#### **2022-23**

- Organized a Training Program on ‘New Measurement Technologies & Simulation Techniques in Electronics’ organized by IEEE EDS Delhi Chapter, Department of Electronic Science (DU), Deen Dayal Upadhyaya College and NASI Delhi Chapter during October 17-18, 2022.
- Organized Independence Day Function at the Department of Electronic Science, University of Delhi on August 08, 2022.

#### **2021-22**

- Coordinator of the online National Poster Making Competition organized by Vivekanand Vichar Manch in collaboration with the Department of Mathematics, Bhaskaracharya College of Applied Sciences on October 30, 2021
- Convener of the National Webinar on ‘Empowered Women=Stronger Nation’ organized by Vivekanand Vichar Manch in collaboration with the Women Development Cell, Bhaskaracharya College of Applied Sciences on October 28, 2021
- Coordinator of the National Slogan Writing Competition organized by Vivekanand Vichar Manch, Bhaskaracharya College of Applied Sciences on October 27, 2021.
- Coordinator of the National Portrait Making Competition organized by Vivekanand Vichar Manch, Bhaskaracharya College of Applied Sciences on October 25, 2021

- Convener of the online National debate Competition organized by Vivekanand Vihar Manch in collaboration with the Department of Microbiology, Bhaskaracharya College of Applied Sciences on October 19, 2021.

#### **2020-21**

- Coordinator of a Workshop on Curriculum Vitae (CV) Writing' organized by Bhaskaracharya College of Applied Sciences on April 17, 2021.
- Coordinator of an Online Career Assessment Test organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences during April 14-16, 2021.
- Coordinator of an Online Career Assessment Test organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences during February 26-28, 2021.
- Coordinator of the National Webinar on 'Entrepreneurship' organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences on September 20, 20.
- Coordinator of the National Webinar on 'Career opportunities in Indian Air Force' organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences on August 27, 20.
- Coordinator of the National Webinar on 'Digital Marketing' organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences on July 30, 20.
- Coordinator of the National Webinar on 'Career Options for Undergraduates' organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences on July 24, 20.

#### **2019-20**

- Coordinator of the National Webinar on 'Career Opportunities in Civil Services' organized by the Career Counselling Cell, Bhaskaracharya College of Applied Sciences on June 27, 20.

#### **2018-19**

- Convener of Swachhata Pakhwara during August 01-15, 2018.

#### **2017-18**

- Organized the 'International Day of Yoga' on June 21, 2018.
- Contributed as Member in organizing a placement drive in college on October 10, 2017.

#### **2016-17**

- Organized a Poster Making Competition on 'Philosophy of Gandhiji' on September 29, 2016.
- Organized a Documentary Screening on 'Glimpses of Gandhiji's life' on September 29, 2016.
- Organized an Extempore Speech Competition on 'Gandhiji's life' on September 29, 2016.
- Organized a Quiz Competition on 'Gandhiji's life' on March 24, 2017.
- Organized an Essay writing Competition on the theme Gandhiji on March 24, 2017.

#### **2015-16**

- Organized a Quiz competition on February 03, 2016.
- Organized a Debate competition on March 02, 2016.

#### **2014-15**

- Convener of Annual Intercollegiate Departmental Technical Fest on March 26, 2015
- Coordinator of a National Workshop on 'Printed Circuit Board designing' organized at Bhaskaracharya College of Applied Sciences during March 24-26, 2015.

- Contributed as a member in organizing Annual Inter-College Cultural Fest SRIJAN during February 27-28, 2015
- Organized an Inter-college Yoga competition on February 27, 2015
- Organized a Yoga Quiz Competition on February 25, 2015
- Organized a lecture on 'Yoga for Stress Management' on February 18, 2015
- Contributed as a member in organizing Inter-college choir competition 'Songs of India' on January 30, 2015
- Convener of a lecture on 'PCB Design and future' on November 05, 2014
- Convener of a workshop on Robotics on November 05, 2014
- Contributed as a member in organizing Independence Day function on August 14, 2014
- Contributed as Treasurer in the College Staff Association during April 08-30, 2014

#### **2013-14**

- Organized an Inter-college Yoga competition 'Yog Shailey' on March 14, 2014
- Contributed as a member in organizing Annual Inter-College Cultural Fest SRIJAN during March 13-14, 2014
- Convener of Annual Departmental Technical Fest organized during February 18-19, 2014
- Organized a lecture on 'Semiconductor lasers' on February 19, 2014
- Organized a lecture on 'Eyes and Hands of Nanotechnology' on February 18, 2014
- Organized a workshop on 'Embedded Systems and Robotics' on September 03, 2013
- Member of Organizing Committee of National Workshop on 'VLSI designing using VERILOG coding' held during July 16-18, 2013

#### **2012-13**

- Member of Organizing Committee of National Workshop on 'E-Waste Sustainability: Needs and solutions for its management' held during March 7-8, 2013
- Contributed as a member in organizing Annual Inter-College Cultural Fest SRIJAN during February 28-March 01, 2013
- Organized an Inter-college Yoga competition 'Yog Shailey' on 28 February, 2013
- Organized a Yoga Quiz competition on February 13, 2013
- Organized a lecture on 'Yoga for Youth' during Inspire Science Camp on February 8, 2013
- Organized a demonstration on 'Sukshmkriya and Laughter Yoga' on January 30, 2013
- Organized a demonstration on 'Pranayam, SuryaNamaskar, Gomukhasan, Dhanurasan' on September 19, 2012
- Contributed as a member in organizing Inter-College Singing Competition 'Songs of India'
- Member of Organizing Committee of Inspire Science Camps

#### **2011-12**

- Organized an Inter-College Yoga Competition on February 8, 2012
- Contributed as a member in organizing Annual Inter-College Cultural Fest SRIJAN on February 7, 2012
- Member of Organizing Committee of workshop on 'Experiments and Research Applications with National Instruments LABVIEW' held during February 2-3, 2012
- Coordinator of workshop on 'Training on ExpEYES Design kit' held on January 28, 2012
- Organized a Yoga Camp on January 18, 2012

- Organized a demonstration on ‘Pranayam’ on November 02, 2011
- Contributed as a member in organizing Inter-College Singing Competition ‘Songs of India’ on September 24, 2011
- Organized a demonstration on ‘Yoga Asanas requisite for tension relief’ on September 21, 2011

#### **2010-11**

- Organized a lecture-cum- demonstration on ‘Yoga Asanas requisite for Cervical Pain’ on February 23, 2011
- Contributed as a member in organizing Annual Inter-College Cultural Fest SRIJAN on February 11, 2011
- Member of Organizing Committee of National Conference on ‘Sustainable Management of E-waste’ held during December 14-15, 2010
- Organized a Demonstration on ‘Bhastrika Pranayama’ on December 1, 2010
- Organized a demonstration on ‘SuryaNamaskar’ on November 24, 2010
- Organized a lecture on ‘Yoga for Stress Management’ on October 27, 2010
- Organized a Poster Competition on ‘Yoga for healthy lifestyle’ on October 27, 2010
- Member of Organizing Committee of Independence Day Celebrations held on August 13, 2010
- Contributed as a member in organizing Spic Macay in 2010
- Contributed as a member in organizing an event ‘Bingo Campus Chaos’ in 2010
- Member of Organizing Committee of Inspire Science Camps

#### **2009-10**

- Member of Organizing Committee of National Seminar on ‘Management of Waste from Electronics and Renewable energies’ held during January 29-30, 2010

#### **LECTURES DELIVERED**

- Contributed as Resource Person for Skill Development workshop organized by Bhaskaracharya College of Applied Sciences in the College on March 27, 2017.

SHWETA GUPTA