

## **FACULTY INFORMATION FORMAT**

1. **Name:** Dr. Sumeet Gupta
2. **Email:** sumeet.gupta@smvdu.ac.in **Phone:** 9419201936
3. **School:** Electronics & Communication Engineering
4. **Designation:** Associate Professor & presently Dean (Academic Affairs)
5. **Area of Research:** Wireless Networks, Embedded Systems
6. **Educational Qualifications** – B.Tech.(Electronics), M.Tech.(IT), Ph.D.  
Ph.D. from School of Electronics & Communication Engineering, Shri Mata Vaishno Devi University, July 2015

### 7. Work Experience

Trainee Engineer, ELPRO International Ltd., Pune  
 Trainee Engineer/Product Designer/Coordinator Portable Products, Forbes Marshall Ltd., Pune  
 Faculty, Centre for Electronic Design & Technology of India (CEDTI), Jammu  
 System Administrator, J&K State Vigilance Organization  
 I/C HoD, Department of E&CE, MBS College of Engineering & Technology, Jammu  
 Assistant Professor, School of E&CE, SMVD University  
 Associate Professor, School of E&CE, SMVD University

### 8. Academic Research Projects:

Sr.	Title	Funding Agency	Grant	Duration	PI/Co-PI	Status
1	Design & Development of Set of Algorithms....	ISRO	13.27 Lakh	2 Years	PI	Complete
2	Educational Resource Planning EdRP	MHRD	24.00 Lakh	2 Years	Co-PI	Complete
3	Empirical Study of Psychology & Mindset of Electricity....	JKSERC	4.40 Lakh	6 Months	PI	Complete
4	Self Localization in WSN..	UGC	1.52 Lakh	1 Year	Co-PI	Complete
5	Design of an ADC with Sampling Frequency.... For 5G Technology	NPIU	5.52 Lakh	1 Year	Co-PI	On going
6	Establishment of SMVDU Freescale Lab	Freescale Ltd.	8.00 Lakh	1 Year	Coordinator	Complete
7	Establishment of Centre for Embedded Instrumentation & Networked Controls	UGC-11 <sup>th</sup> Plan	29.00 Lakh	1 Year	Coordinator	Complete

### 9. Industrial Research & Development (R&D)

Sr.	Title	Industry	Remarks
1	Design & Development of 3 Axis Digital Read Out Device	ELPRO International, Pune	Research based Design & Development of these products in Central R&D Department completely in-house with all the products being sold in the process industries across the country and some in International markets.
2	Design & Development of Rotrak Circular Chart Recorder	Forbes Marshall Pvt. Ltd., Pune	
3	Design & Development of Athena Water Quality Analyser	Forbes Marshall Pvt. Ltd., Pune	
4	Design & Development of Banzai Flue Gas Analyser	Forbes Marshall Pvt. Ltd., Pune	
5	Design & Development of SteamLink - Multi Channel Steam Data Logger	Forbes Marshall Pvt. Ltd., Pune	
6	Design & Development of FlowLink Data - Multi Channel Flow Meter Data Logger	Forbes Marshall Pvt. Ltd., Pune	
7	Design & Development of AquaPro Water Quality Analyser	Forbes Marshall Pvt. Ltd., Pune	
8	Design & Development of Effimax 1000 – Steam to Fuel Ratio Meter	Forbes Marshall Pvt. Ltd., Pune	
9	CFMLink 1000 – Condensate Recovery Factor Meter	Forbes Marshall Pvt. Ltd., Pune	

## 10. Software Package Design & Development

Sr.	Title	Industry/Client	Remarks
1	Design & Development of Billing System for Jammu Club through CEDTI	Jammu Club	Design and Implementation of these packages was done while working as Faculty for Centre for Electronic Design 7 Technology of India, CEDTI, Jammu (Now NIELIT)
2	Design & Development of Package for J&K State Vigilance Organization through CEDTI	J&K State Vigilance Organization	
3	Design & Development of Package for Admission Process for GGM Science College through CEDTI	GGM Science College	
4	Design & Development of Package for Jammu Urban Development Agency through CEDTI	Jammu Urban Development Agency	
5	Design & Development of Package for Directorate of Local Bodies through CEDTI	Directorate of Local Bodies	
6	Design & Development of GradeGen package for Result Compilation at SMVDU	For SMVDU, in-house	Design & Implementation of Packages for smooth function of academic processes
7	Design & Development of Semester Registration Package for SMVDU		

## 11. Consultancy:

Sr.	Title	Funding Agency	Grant	Duration	CI/Co-CI	Status
1.	Product Development using WSN...	Spirax Marshall	2.25 Lakh	1 Year	Nil	Complete
2.	Green building..MRA Analysis...	Godrej & Boyce	0.50 Lakh	3 months	Nil	Complete

## 12. Research Guidance:

Sr.	Title	Ph.D. / M. Tech.	Role	Status
1	Modeling and Simulation of Carbon Nano Tube FET for Low Power Digital Design	Ph.D	Supervisor	Submitted
2	Towards Optimized Self Configurable Network Based Disaster Detection & Mitigation	Ph.D.	Supervisor	On going
3	Attribute-Based Authentication Scheme In HETNETs For Medical Applications	M.Tech.	Supervisor	Completed
4	IoT based Innovative Dual Level Control System with Fault Tolerance & Fail Safe Capability	M.Tech.	Supervisor	Completed
5	Enhancement In Reliability And Availability Of WSN Using Compression Based Routing	M.Tech.	Supervisor	Completed
6	Event Driven Switching Clustering for Efficient Data Gathering in Hazardous Applications	M.Tech.	Supervisor	Completed
7	Novel Methodology for Actor-Actor Communication & Coordination for Overlapped Action Areas in Wireless Sensor & Actuator Networks	M.Tech.	Supervisor	Completed
8	Efficient Revenue Collection System By Using Intelligent Networked Prepaid Energy Meter	M.Tech.	Supervisor	Completed

## 13. Publications:

### List of Research Papers:

- Gupta S.; Verma S.; Abrol R.K., "Layer Based Query Dissemination & Reliable Data Acquisition Mechanism for Wireless Sensor & Actuator Networks", International Journal of Grid and Distributed Computing 8 (4), 327-348
- Gupta S.; Verma S.; Abrol R.K.; Tomar G.S. "Intelligent Industrial Data Acquisition and Energy Monitoring using Wireless Sensor Networks", International Journal of Grid And High Performance Computing 2 (3), 44-59
- Gupta S.; Verma S.; Abrol R.K., "Towards Achieving Reliability in Wireless Sensor Networks - A Survey", International Journal of Control And Automation 8 (5), 417-440

4. Bhardwaj, A., Gupta, S., Raj, B., Singh, A., "Impact of Double Gate Geometry on the Performance of Carbon Nanotube Field Effect Transistor Structures for Low Power Digital Design", *Journal of Computational and Theoretical Nanoscience* (16), 1813–1820, 2019
5. Masoodi, I.S., Gupta, S., Kotwal, S.B., "Energy Efficient Routing and Coverage Using Modified Fire-Fly Algorithm in Wireless Sensor Networks", *International Journal of Communication System and Networks*, (IJCSN) Vol.6, No.1, Mar (2016), 36-44
6. Gupta S.; Verma S.; Abrol R.K., "Layer Based Time Constrained Reliable Data Acquisition Mechanism for Wireless Sensor & Actuator Networks", *International Journal of Communication System & Networks* 3(1), 9-20
7. Khan, A., Gupta, S., Gupta, S., Gupta, S.K., "Bluetooth and ZigBee: A Network Layer Architecture Gateway," *International Journal of Simulation: Systems, Science and Technology*, Nottingham Trent University, United Kingdom, ISSN 1473-804x Online, ISSN 1473-8031 Print, Vol. 20, No. S1, PP: 9.1-9.10, 2019. DOI 10.5013/IJSSST.a.20.S1.09.
8. Sharma, D., Rashid, A., Gupta, S., Gupta, S.K., "Functional Encryption Technique in UAV Integrated HetNet: A Proposed Model," *International Journal of Simulation: Systems, Science and Technology*, Nottingham Trent University, United Kingdom, ISSN 1473-804x Online, ISSN 1473-8031 Print, Vol. 20, No. S1, PP: 7.1-7.7, 2019. DOI 10.5013/IJSSST.a.20.S1.07.
9. Sharma, G., Reddy, S., Bhardwaj, A.K., Rehali, A., Gupta, S., Pandit, A.K., "Design of Low Power, High Gain Fully Differential Folded Cascode Operational Amplifier for Front end Read out Circuits", *International Journal of Recent Technology and Engineering* (Accepted)
10. Sharma, D., Rashid, A., Alsamhi, S.H., Gupta, S., Gupta, S.K., "An Efficient technique for securing the integration of smart UAV and HetNet technologies", *Journal of Information Security and Applications*, Elsevier (Under Review).
11. Khan, A., Gupta, S., Gupta, S.K., "Multi-hazards Disaster Studies: Detection, Recovery and Mitigation based on Next Generation Emerging Techniques and Technologies", *Risk Analysis an International Journal*, Wiley (Under Review).

#### **List of Conference Proceedings:**

1. Gupta, S., Verma, S., Abrol, R.K., Tomar, G.S., "Wireless sensor network based industrial monitoring & diagnostic system", 2009 First International Conference on Computational Intelligence
2. Khajuria, R., Gupta, S., "Energy optimization and lifetime enhancement techniques in wireless sensor networks: A survey", *International Conference on Computing, Communication & Automation*, 396-402
3. Rashid, A., Sharma, D., Lone, T.A., Gupta, S., Gupta, S.K., "Secure Communication in UAV Assisted HetNets: A Proposed Model", *International Conference on Security, Privacy and Anonymity in Computation ...*
4. Sharma, S., Gupta, S., Gupta, S., Kotwal, S.B., "IoT Based Innovative Dual Level Control System with Fault Tolerance & Fail Safe Capability", 2018 Second International Conference on Intelligent Computing and Control ...
5. Bucha, M.; Gupta, S., "Analysis of MAC Protocols for Adhoc & WSN", *Proceedings of UGC Sponsored National Seminar on Wireless communication & Networks*, 99-105
6. Bucha, M.; Gupta, S., "Efficient Energy Analysis & Optimization Technique using WSN", *Proceedings of UGC Sponsored National Seminar on Wireless communication & Networks*, 105-113
7. Gupta, S., Abrol, R.K. "WSN in Industrial Instrumentation & Controls", *Proceedings of NCETIET 2006*

#### **Book Chapters**

1. Aabid Rashid, Diwankshi Sharma, Tufail A. Lone, Sumeet Gupta, Sachin Kr. Gupta, "Secure Communication in UAV Assisted HetNets: A Proposed Model," *Lecture Notes in Computer Science (LNCS)* 11611, Springer Nature Switzerland, pp: 427-440, 14-17 July 2019
2. Gupta, S., Verma, S., Abrol, R.K. & Tomar G.S. (2010). Chapter 19. In Udoh, E., *Evolving Developments in Grid and Cloud Computing: Advancing Research* (1st Edition, pp 267-282, USA, IGI Global

#### **Professional Memberships**

1. Life Member of IETE
2. Member of IEEE