

## Faculty Profile

<b>Name of Faculty</b>	Dr. Rekha P	
<b>Department</b>	Electronics & Communication Engineering	
<b>Qualification</b>	B.E., M. E., Ph.D.	
<b>Designation</b>	Associate Professor	
<b>Areas of specialization</b>	Sensors, Advanced materials, Nanotechnology	
<b>Date of Joining BNMIT</b>	10.08.2005	
<b>Nature of Association (Regular/Contractual/Adjunct)</b>	Regular	
<b>e-mail</b>	rekhap@bnmit.in rekhaprasad96@gmail.com	
<b>No. of years of Experience</b>	Teaching:17.5 years	

### Academic Qualifications

- **Ph.D.** (2018), Electrical & Electronics Engineering Sciences, VTU, Belgaum, India.
- **M.E.** (2004), Department of Electronics & Communication, Bangalore University, India (First class with distinction).
- **B.E.** (1998), Department of Electronics & Communication, Bangalore University, India (I class)

### Work Experience Details

- Associate Professor, Dept. of Electronics & Communication Engineering, BNMIT, Bangalore, India, (August 2015 – Till date).
- Associate Professor, Dept. of Telecommunication Engineering, BNMIT, Bangalore, India, (2012- July 2015).
- Assistant Professor, Dept. of Telecommunication Engineering, BNMIT, Bangalore, India, (2009-2012).
- Lecturer, Dept. of Telecommunication Engineering, BNMIT, Bangalore, India, (2005-2009).
- Lecturer, Dept. of Electronics & Communication Engineering, PESIT, Bangalore, India, (1999-2002).
- Lecturer, Dept. of Electronics & Communication Engineering, The Oxford Polytechnic, Bangalore, India, (July 1999 to November 1999).

### Subjects taught

- Digital System Design, MSP 430, ARM & Embedded Microcontroller, Network Analysis, Digital Electronics, Logic Design, VHDL & Verilog, Computer Communication Networks, Transmission Lines & Waveguides, Microwaves & Radar, Control Systems, Antennas and Wave Propagation, Basic Electronics.

## **Research Experience Details:**

### **Ph.D:**

Jasmine is a very popular flower around the world for its unique fragrance. Sensing the aroma of Jasmine and evaluating its quality is an important commercial activity. Since, standard chemical methods are difficult to deploy in field, a simple field deployable aroma sensor is necessary. In an effort to develop single sensor capable of evaluating Jasmine aroma, PEDOT: PSS, a commercially available conducting polymer, which is stated to be the most stable and sensitive to aroma is used as sensing material. Fabrication of sensor, experimental procedure for measuring aroma of Jasmine flower, UV analysis of jasmine aroma, development of an active device, a junction field effect transistor (JFET) for aroma sensing and transfer of sensor data to mobile are studied. The sensor developed is useful for fixing fair price for jasmine flowers.

### **Academic Positions and other Responsibilities (Institute Level):**

1. ISTE co-ordinator
2. Coordinator for Tutorials during International Conference on Power and Advanced Control Engineering – ICPACE 2015 at BNMIT, Bangalore, from 12<sup>th</sup> to 14<sup>th</sup> August 2015.
3. Coordinator for hospitality during International Conference on Signal and Image Processing – ICSIP 2014 at BNMIT, Bangalore, from 8<sup>th</sup> to 10<sup>th</sup> January 2014.
4. Co-Editor for Lecture notes in Electrical Engineering, Proceedings of International Conference on VCASAN-2013, ISBN: 978-81-322-1523-3 (Print) 978-81-322-1524-0.
5. Core member of the International Conference VCASAN – 2013 held at BNMIT from 17<sup>th</sup> to 19<sup>th</sup> July 2013.

### **Academic Positions and other Responsibilities (Department Level):**

1. Newsletter Co-ordinator, PTM co-ordinator, PAAC member, July 2019 to June 2020
2. Member, organizing committee, FDP – July 2019
3. Main Coordinator, IEDC Workshop – July 2018
4. NBA Criterion 1 Main Coordinator (2016 to 2018)
5. Member, Organizing Committee for Faculty Development Programme on MSP430 microcontroller and its applications, at BNMIT, Bangalore, from 31<sup>st</sup> July to 5<sup>th</sup> August 2017
6. NAAC – Coordinator for making Poster of Vision, Mission and PEOs (2016-17)
7. Program Coordinator for Faculty Development Programme on Physical Design Challenges in DSM Node VLSI Systems, at BNMIT, Bangalore, from 16<sup>th</sup> to 21<sup>st</sup> January 2017
8. Member, Organizing Committee for Faculty Development Programme on Computer and Wireless Networks held in Dept. of ECE from 11<sup>th</sup> to 16<sup>th</sup> July, 2016
9. Editor, Department Newsletter from June 2015 to July 2016
10. Placement Coordinator from August 2015 to July 2016

### **Software's handled:**

- **ISE** simulator –**Xilinx** for implementing digital logic using hardware description languages
- **TINA** for design and testing of digital logic circuits
- **HFSS** for designing and testing micro-strip structures with respect to gas sensing applications
- **MATLAB, Simulink, PSPICE**

### **Awards/ Achievements/Memberships:**

- Received Elite-Gold certificate from NPTEL online course exam.
- Best paper award in International conference ICSPACE-2017
- Received Merit Prize for scoring Highest Marks in Mathematics II PUC (BMSCW)

### **Professional Memberships:**

- Life Member, Indian Society for Technical Education (ISTE)

### **Research Publications:**

### **Journals/Conference publications**

1. Rekha P, Bindu S, Subodh Kumar Panda, “An active device-JFET for sensing Jasmine aroma”, IJCSE, Volume-7, Issue-4, Apr 2019.
2. Rekha P, M S Suresh, Vrunda Kusanur, “SENSOR FOR MEASURING AROMA OF JASMINE”, Proceedings of IEEE sensors -2018, October 28<sup>th</sup> 31<sup>st</sup> 2018, ISBN: 978-1-5386-4707-3
3. Harshitha K, Jainita R S, Apoorva M Gowda, Rekha P, “Plant health monitoring and controlling of environment in a Conservatorium”, IRJET, Volume: 05 Issue: 07 | July 2018, e-ISSN: 2395-0056, p-ISSN: 2395-0072
4. Rekha P, Prabhavathi P, Veena S Murthy, Padmaja Jain, “A Survey of Floral Aroma Sensors”, International Research Journal of Engineering and Technology, Volume: 05 Issue: 07 | July 2018, e-ISSN: 2395-0056, p-ISSN: 2395-0072
5. Rekha P, Subodh Kumar Panda, M. S. Suresh, “Pencil drawn films as Ammonia gas sensors “,International Conference IEEE-ICSPACE 2017, at Global Academy of Technology, Bangalore during August 17 – 19, 2017
6. Rekha P, M S Suresh, “Quality Control of Graphite Pencils Based on Electrical Resistivity”, International Journal of Applied Science & Technology Research Excellence Vol. 5 Issue 4, Jul.-Aug. 2015, ISSN NO. 2250-2718(Print), 2250-2726(Online), (Doubled Blind Peer Reviewed & Refereed Journal with Impact Factor 2.47)
7. Rekha P, M S Suresh , “A comparative study of performance of ring resonator and disk resonator in gas sensing applications”, Lecture Notes in Electrical Engineering, Volume 258 2013, Proceedings of International Conference on VLSI, Communication, Advanced Devices, Signals & Systems and Networking (VCASAN-2013), ISBN:978-81-322-1523-3 (Print) 978-81-322-1524-0

### **Participation in Workshops/ FDPs/ Conferences/ Training courses/ Seminars**

1. FDP on “Working model on Industry 4.0” from 08<sup>th</sup> July to 12<sup>th</sup> July 2109, at NTTF, Bangalore
2. FDP on “IoT based Project Design and Development”, from 24<sup>th</sup> to 29<sup>th</sup> June, 2019 at BNMIT, Bangalore
3. FDP on “Embedded System Design with ARM”, January to March 2019, NPTEL online Certification
4. Five days workshop on “IoT in Real Life Applications from Product Development Perspective”, 9<sup>th</sup> July to 13<sup>th</sup> July 2018, at BNMIT, Bangalore
5. FDP on “Modern materials and their Applications”, 16<sup>th</sup> January to 20<sup>th</sup> January 2018, at BNMIT, Bangalore

6. FDP on “ARM CortexM3 & Embedded Controller” Department of ECE.BIT held between 1st – 5th Jan 2018

7. International Conference IEEE-ICSPACE 2017, at Global Academy of Technology, Bangalore during August 17 – 19, 2017
8. FDP on “MSP430 microcontroller and its applications”, at BNMIT, Bangalore, from 31<sup>st</sup> July to 5<sup>th</sup> August 2017
9. FDP on “Advances in VLSI Design”, at BIT, Bangalore, from 3<sup>rd</sup> to 5<sup>th</sup> April 2017
10. FDP on “Physical design challenges in DSM node VLSI systems”, at BNMIT, Bangalore, from 16<sup>th</sup> to 21<sup>st</sup> January 2017
11. Symposium on “Tech Treat on Emerging Technologies”, jointly organized by IEEE-Nano-technology council, at BNMIT, Bangalore, on 4<sup>th</sup> & 5<sup>th</sup> August 2016
12. Quality Improvement Programme, a Short Course on “Innovative Teaching Methods” at BNMIT from 18th to 23rd July 2016
13. FDP on “Computer and Wireless networks”, at BNMIT, Bangalore, from 11<sup>th</sup> to 16<sup>th</sup> July 2016
14. FDP on “ARM cortex M3”, at BNMIT, Bangalore, from 8<sup>th</sup> and 14<sup>th</sup> January 2016
15. FDP on “Electronic Communication and Trends” at BNMIT, Bangalore, from 19th and 23rd January 2015.
16. National Conference on “Wireless communications” at BMSIT, Bangalore on 30th October 2013
17. International Conference VCASAN-2013, at BNMIT, Bangalore, from 17th to 19th July 2013
18. COMSOL Conference India 2012, November 2-3, The Lalit Ashok, Bangalore
19. Two days work shop on Research Methodologies at SJBIT, Bangalore

#### **Personal Details:**

- **Date of Birth:** 20 - 06 –1976; **Gender:** Female
- **Family Details:** Married, Children- Two

**01<sup>st</sup> August 2019**

**Dr. REKHA P**