


## Faculty Profile

<b>Name of Faculty</b>	<b>Dr. Reshma J</b>	
<b>Department</b>	Computer Science and Engg	
<b>Qualification</b>	M.Tech, Ph.D	
<b>Designation</b>	Assistant Professor	
<b>Area of specialization</b>	Wireless Sensor Networks	
<b>Date of Joining BNMIT</b>	04.08.2008	
<b>Nature of Association</b>	Regular	
<b>e-mail</b>	reshmaj@bnmit.in	
<b>No. of years of Experience</b>	Teaching: 14 years Research: 7 years Industry: 0.6 year	

### Academic Qualifications

Degree	Institution	Year of Passing	% of marks obtained
<b>Ph.D</b>	<b>Visvesvaraya Technological University</b>	<b>2019</b>	
M Tech	R V College of Engineering, Bangalore	2006	70.4
B E	S J C I T, Chickballapur	2001	64

### Working Experience Details

Sl. No.	Designation	Institution	Duration
1	Assistant Professor	B N M I T	January 2011 to till date
2	Sr. Lecturer	B N M I T	August 2008 to December 2010
3	Lecturer	Dayanand Sagar College of Engineering, Bangalore	August 2007 to July 2008
4	Lecturer	S J C I T, Chickballapur	September 2002 to September 2004

## **Research Details:**

**Thesis Title:** Analysis and Design of Data Centric Algorithms for Wireless Sensor Networks

Sensor nodes generate data which needs to be routed to the Base Station. Since the sensor nodes have limited energy, energy optimization is of primary concern. Constant use of least cost route may result in network disconnection.

A set of energy conservative feasible paths are chosen randomly for data transmission. This achieves the dual advantage of energy conservation and load distribution. The Energy Aware Routing Protocol is extensively readapted to cater to Big Data as well as Quality of Service. The applications are prioritized so that the critical applications get better opportunity to utilize the network resources. Experimental results exhibit orders of magnitude energy conservation advantage compared to least cost route.

## **Subjects taught**

### **Under Graduate**

Software Engineering, Management and Entrepreneurship for IT Industry, Computer Networks-II, Finite Automata and Formal Languages, Discrete Mathematical Structures, Object Oriented Programming with C++, Computer Concepts and C Programming, Data Mining, Database Management System, Unix Shell Programming, Java and CGI programming, Software Testing, Software Architecture.

### **Post Graduate**

Agile Technologies, Wireless Adhoc Networks

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

1. **Student Counsellor** from August 2008 to June 2017 and August 2018 to June 2019.
2. **Newsletter Co-ordinator** from August 2018 to June 2019.
3. **Placement Co-ordinator** from January 2018 to January 2019.
4. **ISO Co-ordinator** from August 2014 to December 2015.
5. **Timetable Co-ordinator** from January 2012 to May 2012.
6. **Test Co-ordinator** from August 2008 to December 2008, August 2009 to December 2009 and August 2010 to December 2010.

## **Professional Memberships:**

- Associate Member, Institution of Engineers (AMIE), Membership Number: AM097855-0.

## **Research Publications:**

### **International Journals:**

1. Reshma J, Ashwini R, A Survey on Air Quality Forecasting Techniques using Machine Learning, International Journal of Innovative Research in Science, Engineering and Technology, May 2019, Vol 8, Issue 5, pp.4965-4970.
2. J Reshma, T Satish Kumar, B A Vani, S Sakthivel, Big Data Oriented Energy Aware Routing for Wireless Sensor Networks, Mobile Networks and Applications, April 2019, Vol. 24, Issue 2, pp.298-306, **Science Citation Indexed Journal, Publisher: Springer.**
3. Dr. Reshma J, Remote Health Monitoring using Embedded Systems, International Journal of Scientific Research and Engineering Development, March – April 2019, Vol 2, Issue 2, pp.374-380.
4. Reshma J, Chandan G R, Divyashree B S, Anushka Srinivasa, Arjun K H, Online Signature Verification using Convolutional Neural Network, International Journal for Research & Development in Technology, May 2018, Vol.9, Issue 5, pp.31-35.
5. Satish Kumar T, Reshma J, Krishna Prasad R, QOS Integrated Energy Aware Routing for Wireless Sensor Networks, International Journal of Networking and Virtual Organizations, **Scopus Indexed Journal, Inderscience Publishers** – Accepted in January 2018.
6. Roopa K, Reshma J, A Comparative Study of Sorting and Searching Algorithms, International Research Journal of Engineering and Technology, January 2018, Vol.5, Issue 1, pp.1412-1416.
7. Shravya A R, Reshma J, Security Embedded CoAP using DTLS for IoT, International Journal of Recent Trends in Engineering and Research, April 2016, Vol.2, Issue 4, pp.1-6.
8. Reshma J, Kavitha C and Malashri S, Energy Efficient Grid and Tree Based Routing Protocol, International Journal of Wireless & Mobile Networks, June 2015, Vol.7, No.3, pp.17-26.

### **International Conferences**

1. Survey on Data Centric Routing Techniques in Wireless Sensor Networks, International Conference on Intelligent Computing Systems at Sona College of Technology, Salem, Tamilnadu, India on 16<sup>th</sup> December 2017, pp.178-186 (Publisher: Elsevier, ISSN: 1556-5068).
2. A Survey of Data-Centric Routing in Wireless Sensor Network, International Conference on Emerging Computation and Information Technologies at SIT, Tumkur, Karnataka, India on November 22nd 2013. (Publisher: Elsevier ISBN: 978-93-5107-176-1).

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

1. Six Days Faculty Development Programme on “Biomedical Signal Processing” organized by BNMIT, Bangalore from 11<sup>th</sup> to 15<sup>th</sup> June 2018.
2. Six Days Faculty Development Programme on “Research Frontiers in Networking – A Tool Driven Approach” organized by B N M Institute of Technology, Bangalore from 16<sup>th</sup> to 21<sup>st</sup> January 2017.
3. Workshop on “Recent Trends in 4G/5G Wireless Mobile Communication” organized by M S Ramaiah Institute of Technology, Bangalore from 11<sup>th</sup> July to 16<sup>th</sup> July 2016.
4. Six Days Faculty Development Programme on “Machine Learning” organized by B N M Institute of Technology, Bangalore from 18<sup>th</sup> to 23<sup>rd</sup> January 2016.
5. Five Days Workshop on “Network Simulation using NS-3” organized by Nitte Meenakshi Institute of Technology, Bangalore from 1<sup>st</sup> to 5<sup>th</sup> June 2015.
6. Five days Faculty Development Programme on “Storage Area Network: Configuration and Management Simplified” at BNM Institute of Technology, Bangalore from January 19th-23rd 2015.
7. Three days Workshop on “Collaborative Wireless Sensor Networks and IoT Technologies” at R V College of Engineering, Bangalore from December 12-14<sup>th</sup>, 2013.
8. Three Days Workshop on “Research Methodologies and Latex” organized by VTU E-learning Centre at Ghousia College of Engineering, Ramanagar from July 27 – 29, 2013.
9. Three Days Faculty Development Programme on “Innovative Teaching and Effective Communication” organized by BNM Institute of Technology, Bangalore from July 18 – 20, 2012.
10. Faculty Development Programme on “Intellectual Property and Strategic Management of Intellectual Property Rights” organized by Entrepreneurship Development Cell VTU, Belgaum at BNM Institute of Technology on 2<sup>nd</sup> March 2012.
11. Three Days Mission 10x Advance Workshop conducted by M/s Wipro Technologies at BNM Institute of Technology, Bangalore on September 27<sup>th</sup> and 28<sup>th</sup> 2010.
12. Five Days Mission 10x Workshop conducted by M/s Wipro Technologies at BNM Institute of Technology, Bangalore from 19<sup>th</sup> to 23<sup>rd</sup> July 2010.
13. Workshop on “Emerging Trends in Soft Computing” held at BNM Institute of Technology, Bangalore on 31<sup>st</sup> October 2008.
14. Four Days Microsoft .NET Training programme conducted by M/s Kshema Technologies, Bangalore from September 17 – 20, 2003.

**30<sup>th</sup> June 2019**

**Dr. RESHMA J**