

**B. V. V. Sangha's**  
**Basaveshwar Engineering College (Autonomous), Bagalkot**  
**Department of Electronics & Communication Engineering**

**RESEARCH CENTRE DETAILS**

**I. About Research Centre:**

- Year of Establishment: **2005**
- Major Research Areas:
  - **1. Wireless Network**
  - **2. Speech Processing**
  - **3. MEMS**
  - **4. Image Processing**
  - **5. VLSI Signal Processing**
- No. of research guides enrolled at our research centre: 09
- No. of internal faculty guiding the candidates: 09
- Faculty with Ph. D. : 18
- Our Faculty pursuing Ph. D. : 03
- No. of candidates awarded Ph. D. till date: 23
- No. of candidates pursuing Ph. D. : 17
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## II. Research Guides at the Research Centre

Sl.No.	Name of the Guide	Area of Specialization
1.	Dr. Shridhar S. K	Speech Processing
2.	Dr. Jayashree D. Mallapur	Wireless Networks
3.	Dr. P. N. Kulkarni	Speech Processing
4.	Dr. B. G. Sheeparamatti	MEMS, Embedded Systems
5.	Dr.A.V.Sutagundar	Wireless Networks
6.	Dr. Mahabaleshwar S. K.	Wireless Networks
7.	Dr. S. G. Kambalimath	VLSI and Signal Processing
8	Dr. Kiran Y. Bendigeri	Wireless Sensor Networks
9	Dr. Nagratna Rajoor	Wireless Sensor Networks

## III. Research Scholars Pursuing Ph. D Program

Sl.No.	Name of the Student	Name of the Guide	Year of Registration	Research Topic
01.	Shivanand Hiremath	Dr.Jayashree.D.Mallapur	2015	QOS based dynamic resource provision and traffic scheduling in vehicular cloud computing networks
02.	Shreekant Salotagi	Dr.Jayashree.D.Mallapur	2018	Optimization of Resource Allocation in Internet of things Application

<b>03.</b>	Mr. Adappa Angadi	Dr.Shridhar.K	2014	Efficient structures for speech enhancement
<b>04.</b>	Mr.Sanjay Choudry	Dr.Shridhar.K	2016	VLSI structures for speech enhancement
<b>05.</b>	Mahaveer.J.Chougala	Dr.Shridhar.K	2018	Speech enhancement using Transform Domain Techniques
<b>06.</b>	Rashmi Yala	Dr.Shridhar.K	2017	Speech Enhancement using Improved Speech estimation Techniques
<b>07.</b>	Jyoti Kotagi	Dr.P.N.Kulkarni	2016	Effect of monaural and binaural hearing aids on source localization
<b>08.</b>	Aparna Chilakawad	Dr.P.N.Kulkarni	2017	Spectral Splitting of Speech signal to reduce effect of masking due to sensorinual using time varying filters for binaural dichotic presentation
<b>09.</b>	Ramesh Koti	Dr.Mahabaleshwar S.K	2016	Design and development of intelligent safety information dissemination schemes in VANET
<b>10.</b>	Gururaj.S.Kori	Dr.Mahabaleshwar S.K	2016	Design and development of intelligent resource management schemes for wireless sensor networks
<b>11.</b>	B.M.Angadi	Dr.Mahabaleshwar S.K	2017	Sensor nodes localization clustering and routing algorithms for wireless sensor networks

12.	Poornima Chanal	Dr.Mahabaleshwar S.K	2017	Intelligent security and privacy schemes for IoT for internet of Things (IoT)
13.	Ujwala.Nandini	Dr.B.G.Sheeparamatti	2018	Optimization of Micro pressure sensor for performance enhancement
14.	Mallikarjun.Aralimarad	Dr.Meena.M	2012	Vision based Human action recognition
15.	Prof. Sunilkumar Hattaraki 2BA 20PEC04	Dr. S. G. Kambalimath	2021	High Resolution Broadband Beamforming Based on the MVDR
16.	Prof. Vinodkumar Sonar 2BA 20PEC06	Dr. S. G. Kambalimath	2021	AI Based Programmable Digital Hearing AID
17.	Prof. Achyut Yaranal 2BA20PEC01	Dr. Kiran Y. Bendigeri	2021	IoT Data Aggregation for Vertical and Horizontal with edge Computing

#### IV. Ph. D's Awarded from Research Centre

Sl.No.	Name of the Student	Name of the Guide	Title of Thesis	Year of Degree Awarded
1.	R.C.Biradar	Dr.S.S.Manvi	Reliable and QoS based multicast routing in mobile ad-Hoc network for group communication	2011
2.	Nandini Sidnal	Dr.S.S.Manvi	Agent based auction services discovery in relevant auction identification and bidding in mobile e-commerce	2012
3.	M.N.Birje	Dr.S.S.Manvi	Multi agent System based solutions to resolve sum of the issues in wireless mobile semantic grid	2012
4.	Mahabaleshwar S.K	Dr.S.S.Manvi	Multiagent System based Safety Information Gathering Aggregation and Dissemination in Vehicular ad-Hoc Networks	2012
5.	A.V.Sutagundar	Dr.S.S.Manvi	Multiagent System based Information Gathering , Fusion and Aggregation in Wireless Sensor networks	2013
6.	Nagaratna.R	Dr.Jayashree.D.Mallapur	An energy efficient time synchronization in wireless sensor networks	2018
7.	S.K.Padaganur	Dr.Jayashree.D.Mallapur	Topology scaling and resource allocation in heterogeneous wireless multimedia networks	2019
8.	Rajani.S.Pujar	Dr.P.N.Kulkarni	Effect of Noise Reaction Algorithms in improving speech perception for monaural and binaural hearing aids	2020
9.	Manjula Sutagundar	Dr.B.G.Sheeparamatti	Modeling , simulation and optimization micro resonator	2020
10.	Ajayakumar.C.Katageri	Dr.B.G.Sheeparamatti	Design and Fabrication of Novel MEMS Piezoresistive Pressure Sensor for Application in Health Care	2020
11.	Kirankumar.B.Balavalad	Dr.B.G.Sheeparamatti	Design, Modeling and simulation of highly sensitive piezoresistive pressure sensor the high temperature applications	2020
12.	Basavaprabhu H.	Dr. A.V.Sutagundar	Sensor node Deployment, Localization, Topology Control, and Routing Techniques for Underwater Acoustic Sensor Networks.	2020

<b>13.</b>	Prashant Sangoli	Dr.A.V.Sutagundar	Multi-agent based fault tolerance, routing, information classification and resource management in sensor cloud	2020
<b>14.</b>	Maheshwari Biradar	Dr.B.G.Sheeparamatti	Computer vision based fabric defect detection	2021
<b>15.</b>	Vidya Bennur	Dr.A.V.Sutagundar	Agent Based Localization, Fault tolerance and routing in wireless sensor network	2021
<b>16.</b>	Daneshwari Hatti	Dr.A.V.Sutagundar	Agent based Middleware for Resource Management in IoT	2021
<b>20.</b>	Mamata J. Sataraddi	Dr. Mahabalesh S. K.	Intelligent Routing Algorithms for Vehicle-to-Vehicle, Vehicle-to-Infrastructure and Hybrid Communications in VANETs	2021
<b>21.</b>	Mahantesh G. Kambalimath	Dr. Mahabalesh S. K	Intelligent resource management schemes in vehicular cloud networks	2021
<b>22.</b>	Sharanappa P. H.	Dr. Mahabalesh S. K.	Intelligent Solution for Information Gathering, Validation and Aggregation in Internet of Things (IoT).	2022
<b>23.</b>	Somu Parande	Dr.Jayashree. D.Mallapur	Flexible and Adaptable secured Routing for Real-Time Application in Wireless Sensor Networks	2022

## V. Research Projects Carried Out in the Department

Sl.No.	Title	Faculty Name	Funding Agency	Amount In Lakhs	Year
1.	Microwave Communication Laboratory (Modrob)	Dr.S.G.Hiremath	AICTE	10.00	1992
2.	Infrastructural facilities in Electronics (Area of Weakness)	Dr.S.G.Hiremath	AICTE	07.00	1992
3.	Electronics and Communication Laboratory (Modrob)	Dr.S.G.Hiremath	AICTE	12.00	1993
4.	Semiconductor Electronics and Digital Electronics (Thrust Area)	Dr.S.G.Hiremath	AICTE	08.00	1994
5.	Centre for Electronic system Design Automation (Integrated scheme)	Dr.S.G.Hiremath	AICTE	15.00	1995
6.	Modernization of Communication Laboratory	Prof.S.M.Iddalagi	AICTE	06.00	1998
7.	Modernization of Electronic Design Automation Laboratory	Dr.S.G.Hiremath	AICTE	15.00	1998
8.	QoS Support in mobile Communication Networks	Dr.S.S.Manvi	AICTE	7.57	2006
9.	Design and Development of Fuzzy based Algorithms for Resource Allocation and Routing in Wireless Network	Dr.Jayashree D.Mallapur	AICTE	09.00	2008
10.	Speech Processing for Improving Speech Perception and Production	Dr.P.N.Kulkarni	AICTE	5.50	2011

<b>11.</b>	Design and Fabrication of Low Cost Polymer Micro cantilevers.	Dr.B.G.Sheeparmatti	AICTE	7.00	2012
<b>12.</b>	Design and Development of Intelligent routing Algorithms for Vehicular Ad hoc Networks	Dr,M.S.Kakkasageri	VGST	4.00	2015
<b>13.</b>	Sustainable Agriculture	Dr.K.Y.Bendigeri	DST	5.50	2016
<b>14.</b>	Resource Management in Internet of Things	Dr.A.V.Sutagundar	AICTE	5.765	2017
<b>15.</b>	Intelligent Authentication Scheme for Internet of Things	Prof.Poornima.Chanal	VGST	03.00	2020
<b>16.</b>	Development and characterization of microcantilever for chemical sensing.	Dr. A. C. Katageri Dr. K. B. Balavalad.	VTU research grant	12.00	2021