FACULTY PROFILE

Name : **Dr. Sarojini B. K.**

Designation	:	**Professor**
Department	:	**Electronics and Communication Engineering**
Employee ID	:	**1-462384601**
E mail ID	:	sbkec@becbgk.edu, srjnsarojini@gmail.com
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Orcid ID	:	**0000-0001-6575-7758**
Scopus ID	:	
Vidwan Id	:	**125015**
Researcher ID (Web of Science)	:	
Google Scholar ID	:	**e20tQusAAAAJ**
Qualification	:	**Ph.D**
Professional Experience		
Teaching experience	:	**32 Years**

Administrative Responsibilities :

1. LIC committee member of VTU Belagavi during the year 2020.
2. E&CE department, SEE Valuation Coordinator during the year 2021-22.
3. Final year project coordinator during the year 2019-2020 and 2020-21
4. Department NBA coordinator from 2007 to 2016.
5. Member of Panel of Judges during Srishti 2012, the state level Project Exhibition and Competition
6. Valuation center (BEC Autonomous) chief coordinator during June/July 2010 and June/July 2012.
7. B.O.E. chairman for E and CE department (Autonomous) during the year 2007-2009.
8. E and CE departmental coordinator for TEQIP phase I during the year 2004 - 2007.
9. Acted as Technical programme member for Electrical Science Stream for the 2nd National Level Paper presentation and Technical Contest held during 15-17 October, 2004.

10. Coordinated in preparing DCA proposal on Modernization of CAD & Automation Tools

11. Coordinated in conducting Departmental Association (ACME) activities, during the year 2002-2003.
12. Coordinated in conducting VIII Semester Seminar from 2001-2006.

Teaching	:	UG
No. of Projects Guided		
	:	40
UG	:	08
PG		
Research		
Interest Area	:	*1.* Biomedical Signal Processing
		2. Image Processing
		3. Machine Learning
		4. VLSI Design
Publications	:	Book chapter titled "Acquisition of EEG Seizure during ECT" in the Book "Highlights on Medicine and Medical Research" is under review.
Books/Chapters		

Journals (with citations) :

1. G. B. mukartihal, Sarojini B. K., "Design and Development of Heart Beat Monitor", Journal of Instrument Society of India, Vol.29, No.2, pp 81-84, 1999.
2. Sarojini B. K., "A 3-Level Mapped segmentation based Handwriting Recognition System", A special issue of International Journal of Computer Applications on Advanced computing and communication Technologies HPC Applications, A special issue, June 2012 (Citation 1).
3. Sarojini B. K., "Protected Color Image Transmission using Stegonography Based on Shamir's Threshold", International Journal of Advanced Research in Computer & Communication Engineering, (IJARCCE), Vol 2, Issue 7, July 2013.
4. Sarojini B. K. "A Novel Network approach for Digital Video Encryption &Decryption with Athentication", International Journal of Computing, Vol 3, Issue 3, July 2013.
5. Kotresh S., Sarojini B. K., "Acquisition of EEG seizure during ECT", Vol 2, Issue 5, May 2014.
6. Sarojini B. K. "A Novel Approach to Detect and localize the Text in Natural scene image", International Journal of Advance Engineering and Research Development, Vol 2, Issue 5, May 2015.
7. 7. Sarojini B. K., B. S. Anami, et al, "All Pole-Modeling of Visual Evoked Potentials in Diagnosing Severity of Optic –Neuropathy Disease", International Journal of Engineering Science and Computing (IJESC), Vol.06, Issue-06, pp- 6384-6388, June 2016.
8. Sarojini B. K., B. S. Anami, et al, "Autoregressive

Modeling of Visual Evoked Potentials and Its Applications to Optic Nerve Diseases-Ischemic Optic Neuropathy and Optic Neuritis", International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), Vol.4, Issue-2, ISSN-2321-8169, pp.110-114, February 2016.

9. Kotresh S., Sarojini B. K. et al, "EEG Seizure Analysis using Wavelets during ECT Stimulus" International Journal of Engineering Science and Computing (IJESC), Vol.06, Issue-06, pp-, June 2016.

10. Kotresh S., Sarojini B. K., et al, "Analysis of EEG Seizure using Fractal Dimensions by the Application of ECT Stimulus to Cerebral Cortex" International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), Vol. 04, Issue-02, , 13-17, February-2016.

11. 11. Sarojini B. K., B. S. Anami, et al, "A Novel Classification Technique for Visual Evoked Potentials Based on Spectral Features using Neural Network" International Journal of Innovative Research in Science, Engineering and Technology., Vol. 5, Issue 9, pp. 1111-1118, Sept. 2016.

12. Ravi Shankar, Sarojini B. K., et al, " Impact of the Learning Rate and Batch Size on NOMA System Using LSTM Based Deep Neural Network" Journal of Defense Modeling and Simulation, 2598 Fortune way, site 1, Vista CA 92081, USA, pp 1-23, Oct. 2021.

Conferences :

1. G. B. Mukartihal, Sarojini B. K. "Sensor Based Semi Automatic Blood Pressure Measuring Instrument", National Conference SIE-1993, pp 143-149, organized by Roorki University,1993.

2. G. B. Mukartihal, Sarojini B. K. "Design and Development of Digital Watt-hour Instrument", International Conference on Instrumentation (ICI 1996), IISc., Bangalore, pp 270-275, 1996.

3. G. B. Mukartihal, Sarojini B. K., "Design and Development of Respiration Monitor", National Symposium on Instrumentation (NSI -5), IISc. Bangalore, Proceedings pp. 73-75, 2000.

4. Sarojini B. K., "Design of Charge Pump Phase Locked Loop Based Clock Generation Circuits", International Conference on Bio-medical Electronics & Telecommunications (BET 2004), Andhra University, Vizakhapattanam pp 307-310, 2004.

5. Sarojini B. K., "A Review on Handoff in Cellular Systems", International conference on Computer Applications, Pondicherry, India, 24-27 Dec. 2010.

6. Kotresh S, Sarojini B. K., "Estimation of Fractal Dimensions for EEG Seizure During Electro convulsive

Therapy" International conference on Emerging Trends in Electrical, Communication and Information Technologies (ICECIT-2012), Srinivas Ramanujan institute of technology, Andra Pradesh, pp. 130-138, published by Elsevier, 2012.

Invited Talks : Resource person for AICTE-ISTE sponsored STTP on "Embedded systems and Applications held at BEC, Bagalkot, from 22-03-2004 to 27-03-2004.

Conferences/ Symposiums/ Workshops/ Training Programs Attended :

1. 1.STTP on "Common Laboratory equipment (Use and Fault diagnoses)" at IIT Kharagpur during 10.12.1990 to 22.12.1990.
2. STTP on "Microprocessor Based Fault Diagnoses" at IIT Kharagpur during 03.07.1992 to 17.07.1992.
3. STTP on "Computer Assisted Modular Instrumentation" at IIT Kanpur during 23.07.1993 to 31.07.1993.
4. STTP on Bio-medical Instrumentation Present Scenario at T.S.K.I.E.T. Warananagar during 20.06.1994 to 02.07.1994.
5. STTP on Electric Design & Automation Tools at BEC Bagalkot, during 19.10.1995 to 21.10.1995.
6. STTP on "Robotics & Flexible Manufacturing Systems" at Cummins College of Engineering for Women, Pune during 22.06.1998 to 04.07.1998.
7. STTP on Advanced Computer Networking at BEC Bagalkot during 14.09.1998 to 27.09.1998.
8. STTP on "Hands on Course on VLSI Design" at SJCE Mysore during 16.08.1999 to 28.08.1999.
9. STTP on "Embedded Systems & Applications" at BEC Bagalkot during 22.03.2004 to 27.03.2004.
10. Attended International Conference on Bio-medical Electronics & Telecommunications (BET 2004), Andhra University, Vizakhapattanam.
11. STTP on "Mathematical Modeling for Digital Image Processing" at BEC, Bagalkot during 09.01.2006 to 14.01.2006.
12. STTP on "Digital Signal Processor and its Applications" at BEC, Bagalkot during 25.09.2006 to 30.09.2006.
13. STTP on "Signal Processing and its Applications" at BEC, Bagalkot during 09.10.2006 to 11.10.2006.
14. Workshop on "Soft Computing approaches in Engineering Applications" at IIT Madras, Chennai, During 19.01.2007 to 23.01.2007.
15. STTP on "Embedded Systems" at BEC, Bagalkot, during 05.02.2007 to 10.02.2007.
16. FDP on "Advanced Micro Controllers" at BEC, Bagalkot, during 15.02.2007 to 17.02.2007.

17. 17. Workshop on "Theory and Practical on Microcontrollers" at NMAMIT, during 21-01- 2008 to 23-01-2008.
18. 18. FDP on Computer Network Simulation at BEC, Bagalkot during 21-02-2008 to 23-02-2008.
19. 19. Workshop on "Research Issues in Information Technology" at BEC, Bagalkot during 26-02-2009 to 28-02-2009.
20. Attended IEEE sponsored International conference on Intelligent Network and Computing (ICINC 2010) in Kuala Lumpur, Malaysia, during 26-28 November 2010.
21. Attended International conference on Computer Applications, Pondicherry, India, 24-27 Dec. 2010.
22. Attended IEEE sponsored International conference on "Advanced Computing and Communication Technologies for High Performance Applications (ICACCTHPA)2012, organized by Federal Institute of Science and Technology, Angamaly, Kerala during 21-23 June 2012.
23. 23. . FDP on "Soft computing approaches to Image Processing &Pattern Recognition" at BEC, Bagalkot during 20-03-2010 to 24-03-2010.
24. 24. Workshop on Senior faculty development program at BEC, Bagalkot during 11-11-2013 to 13-11-2013.
25. 25. Workshop on Data Analysis and Statistical Software at BEC, Bagalkot during 22-11-2013 to 23-11-2013.
26. 26. Workshop on Artificial Neural Networks through MATLAB at ADCET, Ashta, Maharashtra during 07-02-2014 to 08-02-2014.
27. FDP on teaching learning at IIT, Madras Chennai during 12-09-2016 to 14-09-2016.
28. 28. FDP on Technology – Driven Innovation & entrepreneurship organized by IIT Bombay during 15-02-2017 to 19-02-2017.
29. 29. International Symposium on "Green Technologies for sustainable Development" at BEC, Bagalkot during 24-02-2017 to 25-02-2017.
30. 30 .FDP on "Systems Thinking and Applications" at BEC, Bagalkot during 12-10-2018 to 30-11-2018.
31. 31. FDP on Research Avenues in Information Technology at BEC, Bagalkot during 03-06-2019 to 07-06-2019.
32. 32. QIP STTP on Laboratory and Ergonomic Safety for Engineers at IIT Bombay during 10-06-2019 to 14-06-2019.
33. Artificial Intelligence and Machine Learning Applications in the Emerging Areas of Computer Science and Information Technology. at NITK Surathkal during 09-12-2019 to 13-12-2019.
34. Virtual FDP on Next generation Electronics and Computer Networks during organized by 02-06-2020 to 06-06-2020.

35. Virtual FDP 0n Neural Networks and Deep Learning using Python, organized by Reva University during 01-06-2020 to 05-06-2020.
36. 36.Webinar series on Recent Trends in Electronics and Communication Engineering organized by BEC during 11-06-2020 to 12-06-2020.
37. AICTE sponsored Online STTP on "Mathematical Foundations of Machine Learning (Statistics and Neural Basis) organized by NMAM Institute of Technology, NITTE during 14-08-2020 to 21-08-2020.
38. One week online International FDP on "Machine Learning and Computer Vision: Applications, Research Challenges (MLCV 2020)" organized by NIT Silchar, Assam during 24-08-2020 to 28-08-2020.
39. AICTE sponsored Online STTP on "Advanced Topics and Applications of Machine Learning" organized by NMAM Institute of Technology, NITTE, during 31-08-2020 to 05-09-2020.
40. AICTE sponsored 6 days Online STTP on "Internet of Things & its Applications" organized by Department of ISE, NEW HORIZON College of Engineering during 28-09-2020 to 03-10-20.
41. AICTE sponsored One week Online FDP on "Research Areas in Biomedical Signal Processing" organized by Dept. of E&CE, Sri Vasavi College of Engineering, Tadepalligudem during 12-10-2020 to 17-10-2020.
42. AICTE sponsored Six days Online STTP on "Machine Learning and Deep Learning Models for Medical Domain Applications" organised by Manipal Institute of Technology during 19-10-2020 to 24-10-2020.
43. A five day National Level FDP on "Applications of Machine Learning" organized by Dept. of CSE, Shri Vishnu Engineering College for women (A), during 15-19 June 2021.
44. AICTE sponsored one week National Level FDP on "Research Areas in Biomedical Signal Processing" organized by Dept. of ECE, Sri Vasavi Engineering College (A), Tadepalligudem, Andhra Pradesh, during 21-26 June 2021.
45. One day National Level Hands on Workshop on "Clinical Data Analysis with Microsoft Excel" Narayana Medical College, Chinthareddypalem, Nellore, A.P.

Awards and Honors :
1. Received KSCST Project Grants for UG project titled "Frequency Modulation Based Security System" during

1997-98.

2. Received KSCST Project Grants for UG project titled "Karnaugh's Map-An Artificial Intelligence Approach" during 1998-99.

3. Received KSCST Project Grants for UG project titled "PC Based Automated measurement of Microwave Parameters" during 1999-2000.

4. KSCST Project Grant sanctioned for UG project titled "LoRaWAN-Based Smart Farming." During 2021-22.