Resume

Name

Dr. Shankarayya G. Kambalimath

I am experienced lecturer with a demonstrated history of teaching and conducting research in the field of VLSI. I possess skills in teaching, research, quantitative analysis, and interpretation techniques. Currently, I hold the position of Associate Professor in the Electronics & Communication Engineering department and serve as the **Dean of Career Guidance & Placement** at Basaveshwar Engineering College in Bagalkote, Karnataka. I have been associated with Basaveshwar Engineering College Bagalkote, Karnataka, India since 1993.

Date of Birth

01/07/1971

Qualification

Ph.D. from Visvesarayya Technological University, Balagavi in 2017

M.E. from BMS College of Engineering, Bangalore/Bangalore University, Bnagalore in 2000

B.E. in Electronics & Communication Engineering from PDA College of College of Engineering, Gulbaraga / Gulbarga University in 1993

Ph.D. Thesis

"User Programmable Hearing Aid Architecture for Reducing the Effects of Spectral Masking due to Sensorineural Hearing Loss using Binaural Dichotic Presentation". **Guides:** Dr. Shivaling S. Mahant Shetti KarMic Manipal and Dr. S. G. Hiremath

M.E Thesis

"Processor Card for Bus Management" work carried out Control Electronics Division, **ISRO Satellite Centre**, Bangalore

Research Scholars doing PhD under my Guidance

- 1) Sunilkumar Hattarki
- 2) Vinodkumar M. Sonar

Designation

Associate Professor, Dept. of E&CE and **Dean of Career Guidance and Placement** at Basaveshwar Engineering College, Bagalkote

Specialization

VLSI and Signal Processing

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Department of Electronics & Communication Engineering, Basaveshwar Engineering College, BAGALKOT–587102,

Karnataka, India

Publications:

- [1] S. M. Hattaraki, S. G. Kambalimath, L. Khedagi, K. Halemani, A. Bhairagond, and P. Hiremath, "Evaluation of Speech Enhancement Algorithms for Hearing Aids," in *Proc.* 2024 IEEE North Karnataka Subsection Flagship Int. Conf. (NKCon), Sep. 2024, pp. 1–5.
- [2] S. M. Hattaraki, S. G. Kambalimath, P. N. Karjol, P. H. Guggari, N. S. Patil, and B. Naludi, "Objective Assessment of Speech Signal Filtering Algorithms For Hearing Aids," in *Proc. 2024 Int. Conf. Innovation and Novelty in Eng. and Technol. (INNOVA)*, vol. 1, Dec. 2024, pp. 1–6.
- [3] S. M. Hattaraki and S. G. Kambalimath, "Detection and Classification of Diverse Listening Conditions for Hearing-Impaired Individuals Using RNN Model and FIR Filter," *J. Basic Sci. Eng.*, vol. 21, no. 1, pp. 592–612, 2024.
- [4] S. M. Hattaraki, S. G. Kambalimath, B. P. Savukar, S. Bagali, U. D. Dixit, and A. S. Jadhav, "Detection and Classification of Various Listening Environments for Hearing-Impaired Individuals Using CRNN," in *Proc. 2024 Int. Conf. Innovation and Novelty in Eng. and Technol. (INNOVA)*, vol. 1, Dec. 2024, pp. 1–4.
- [5] S. M. Hattaraki, S. G. Kambalimath, S. Hanamareddy, S. Bhusanur, V. Bilur, and S. Maranur, "Automatic Detection and Filtering of Listening Conditions in Hearing Aids Using Convolutional Neural Networks," in *Proc. 2024 Int. Conf. Innovation and Novelty in Eng. and Technol. (INNOVA)*, vol. 1, Dec. 2024, pp. 1–6.
- [6] S. M. Hattaraki and S. G. Kambalimath, "Enhancing Speech Intelligibility in Hearing Aids Using Spectral Subtraction," *Int. J. Gongcheng Kexue Yu Jishu/Adv. Eng. Sci.*, vol. 56, no. 7, pp. 4793–4801, 2024.
- [7] **S. G. Kambalimath**, P. C. Pandey, P. N. Kulkarni, S. S. Mahant-Shetti, and S. G. Hiremath, "FPGA-Based Design of a Hearing Aid with Frequency Response Selection through Audio Input" in Proc. IEEE VLSID 2016, Kolkata, India13–15 Jan. 2016
- [8] **S. G. Kambalimath**, P. C. Pandey, P. N. Kulkarni, S. S. Mahant-Shetti, and S. G. Hiremath, "FPGA based implementation of comb filters using sequential multiply-accumulate operations for use in binaural hearing aids," in Proc. IEEE INDICON 2014, Pune, India, 11–13 Dec.2014.

- [9] **S. G. Kambalimath**, P. C. Pandey, P. N. Kulkarni, S. S. Mahant-Shetti, and S. G. Hiremath, "FPGA based implementation of comb filters for use in binaural hearing aids for reducing intraspeech spectral masking," in Proc. IEEE INDICON 2013, Mumbai, India,13–15 Dec. 2013.
- [10] M. S. Tambakad, and S. G. Kambalimath, "VLSI implementation of Veterbi Decoder," National conference on emerging trends in Electronics and communication, VERN GOA, India, 14-15 Sept. 2006.
- [11] **S. G. Kambalimath**, and B. K. Sarojini "Design of charge pump phase locked loop based clock generation circuits" proceeding of Bio Medical Electronics and telecommunication (BET), international conference, Visakhapatanam, India, Sep. 2004.
- [12] **S. G. Kambalimath**, R. B. Shpeermatti, and B. G. Sheeparmatti, "Modeling and Simulation of Walsh Hadmard Transform using VLSI", Proceedings of the International Conference on Digital Aided Modeling and Simulation, Coimbatore, India, 6-8 Jan. 2003.
- [13] **S. G. Kambalimath**, and 21 others: "Image Compression Through Integrated Effort: Design of an IDCT Chip using OCEAN and MAGIC" 6th VLSI Design and Test Workshops, VDAT 2002, Bangalore, India, 29-31 Aug. 2002
- [14] **S. G. Kambalimath**, Uma Mudengudi, and Rajlaxmi Samga: "DumPoyee an Industry and Institute Interaction", VLSI Design & Test Workshops, VDAT, Bangalore, India, 16-18 Aug. 2001.

Workshop/STTP/Seminars organized:

- [1] AICTE–ISTE Sponsored Short Term Training Programmeon "Semiconductor Physics and VLSI Design", 7th– 19th February, 2005. Coordinators Prof. S. G. Kambalimath and Dr. K. Chandrasekhar.
- [2] TEQIP–I Sponsored Faculty Development Programme on "Embedded Systems", 5th– 10th February, 2007. Coordinators Prof. S. G. Kambalimath and Dr. B. G. Sheeparmatti.
- [3] TEQIP–II Sponsored Faculty Development Programme on "Implementation of Signal Processing Algorithms using FPGAs", 23rd–25th May, 2013. Coordinators Prof. S. G. Kambalimath and Dr. P. N. Kulkarni.
- [4] TEQIP-II Sponsored National Level Workshop on "Intel AtomTM Processor based Embedded System Design and Development" 28th–30th May, 2014. Coordinators Prof. S. G. Kambalimath and Prof S. M. Iddalagi.

Courses Attended:

[1] Course on "System Thinking and Applications" conducted by Prof. L. S. Ganesh, IIT Madaras, Cehnnai from 12th Oct. 2018 to 30th Nov., 2018 at Basaveshwar Engineering

- College, Bagalkote
- [2] Workshop on "Equity Action Plan (EAP)" organized by SPIU, Karnataka & BMS College of Engineering Banagalore on 14th Nov., 2018 at BMS College of Engineering
- [3] Workshop on "TEQIP-III: Financial Management and PFMS" organized by Dr. Ambedkar Institute of Technology, Bangalore, on 30th and 31stJuly, 2018.
- [4] Workshop on "TEQIP-IIIMIS" Organized by National Project Implementation Unit (NPIU) held on 27th June 2018, at VJTI, Mumbai.
- [5] Shiv Khera's Management Capacity Enhancement Program on "HI- Impact Leadership, Blue Print for Success"during 7th-9th March, 2018 at Mumbai
- [6] Two days International Symposium on "Green Technologies for Sustainable Development" organized by Basaveshwar Engineering College, Bagalkot on 24th & 25th Feb., 2017. under TEQIP-II
- [7] Workshop on "Research Methodology" organized by Basaveshwar Engineering College, Bagalkot on 19th Dec., 2015. under TEQIP-II
- [8] Workshop on "Outcome Based Education" organized by Basaveshwar Engineering College, Bagalkot on 18 th Dec., 2015. Under TEQIP-II
- [9] Workshop on "Management Capacity Enhancement Programme (MCEP)" organized by Indian Institute of Management (IIM), Indore during November16 to 22, 2015.
- [10] Workshop on "Curriculum Development and Reforming" organized by Dept. of Electronics and Communication Engineering, Basaveshwar Engineering College, Bagalkote on 25th July, 2015.
- [11] "2nd World Summit on Accreditation (WOSA 2014)" organized by National Board of Accreditation, during March 08th-10th March, 2014 at New Delhi.
- [12] Faculty Development Programme on "Research Methodologies" organized by Dept. of Electronics and Communication Engineering, BVB College of Engineering and Technology, Hubli during 13th 15th February, 2014.
- [13] Workshop on "Effective Leadership for Excellence" organized by International Academy for Competency Enhancement, Bangalore during 06th –07th February, 2014.
- [14] Winter School on "Speech and Audio Processing (WiSSAP 2014)" organized by Centre of Excellence in Signal Processing and International Institute of Information Technology, Hyderabad during 17th 20th January, 2014.
- [15] Faculty Development Programme on "Recent Advances in Wireless Networks" organized by Dept. of Electronics and Communication Engineering, Basaveshwar Engineering College, Bagalkot during 16th 18th May 2013.
- [16] "Industry-Academia Workshop" organized by organized by BVB College of

- Engineering and Technology, Hubli and Sankalp Semiconductor Private Ltd. Hubli during $11^{th}-12^{th}$ January, 2013.
- [17] Faculty Development Programme on "Wireless Sensor Networks" organized by Dept. of Electronics and Communication Engineering of Basaveshwar Engineering College, Bagalkot during 24th 28th February, 2009.
- [18] Faculty Development Programme on "SCADA and PLCs for Industrial Automation" organized by Dept. of Instrumentation Technology, Basaveshwar Engineering College, Bagalkot during 21th– 23rd December, 2006.
- [19] Short Term Course on "Tracer Studies of the Graduates of Engineering Colleges under TEQIP" organized by National Institute of Technical Teachers Training and Research, Chennai during 06th— 10th November, 2006.
- [20] Faculty Development Programme on "Signal Processing and its Applications" organized by Dept. of Instrumentation Technology, Basaveshwar Engineering College, Bagalkot during 09th—11th October, 2006.
- [21] "VTU-VSI-ISA Confluence 2006" Organized Dept. of Electronics and Communication Engineering, BVB College of Engineering and Technology Hubli on 13th October 2006.
- [22] Conference on "IT Workforce Development a Roadmap for India Academia on Multi Core Technologies" organized by B.M.S. College of Engineering in association with Intel Higher Education Programme Bangalore during 19th 20th September, 2006.
- [23] Faculty Development Programme on "Digital Signal Processor and its Applications" organized by Dept. of Instrumentation Technology, Basaveshwar Engineering College, Bagalkot during 25th—30th September, 2006.
- [24] Workshop on "Student Guidance and Counseling Role of Faculty" organized by Entrepreneurship Development Cell, Visvesvaraya Technological University, Belgaum during $02^{nd} 04^{th}$ August, 2004.
- [25] Short Term Training Programme on "Learning Organization and Management in Technical Education" Organized by Department of Mechanical and Electrical & Electronics Engineering, Basaveshwar Engineering College, Bagalkot during 16th 21st February, 2004.
- [26] Workshop on "E Learning" organized by State Project Facilitation Unit, Hyderabad during 24th– 25th October, 2005.
- [27] Short Term Training Programme on "Processing of Composite Materials" organized by the Department of Mechanical Engineering, Basaveshwar Engineering College, Bagalkot during 26th August–07th September, 2002.
- [28] National Seminar on "Technical Education and Challenges in the New Millennium" organized by Basaveshwar Engineering College, Bagalkot during 03rd –04th November, 2001.

- [29] "Induction Programme for Engineering College Teachers" organized by Academic Staff College, Karnataka University, Dharwad during 06th-26th June, 1995.
- [30] Workshop on "Electronic Design Automation Tools" organized by Dept. of Electronics and Communication Engineering, Basaveshwar Engineering College, Bagalkote during 19th–21st October, 1995

Administrative Posts Held / Other Activities:

- [1] Dean of Career Guidance and Placement since 2021 to till date
- [2] BEC-KarMic industry institute coordinator since 2000–20014.
- [3] Assistant Placement Officer, Basavehswar Engineering College Bagalkot from 2004 to 2013.
- [4] Dept. National Board of Accreditation (NBA) Coordinator in the year 2004-05.
- [5] Visiting faculty to PG Centre, VTU Belagavi during 2004 to 2006.
- [6] VTU BEC valuation center, finance officer for two years.
- [7] Coordinator of AICTE MODROBS Project on "ECAD Lab"
- [8] BEC, Bagalkot campus network coordinator from 2011 to 2014
- [9] BEC TEQIP-III Nodal Officer (Finance) 2017 to 2020
- [10] BEC TEQIP-III Co-ordinator 2020 to 2021

Courses offered to UG & PG students

- Digital System Design using Verilog
- CMOS Digital VLSI Design
- Circuit Design using Verilog
- Circuit Design with VHDL
- Digital Electronics
- Network Analysis
- > Pulse and Digital Circuits
- ➤ Advances in CMOS VLSI Design
- ➤ Computer Organisation
- Digital Signal Processing
- Control Engineering