NEELIMA KOLHARE

Neelima R Kolhare

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PROFILE

A resourceful and dedicated Lecturer / Associate Professor / Hardware-Software development Specialist, with diverse experience and an exceptional record of sustained success; heading academic departments and driving forward best practice. A strategically focused leader and committed academic, passionate about ensuring the highest levels of teaching methodologies, who genuinely values opportunities to learn, improve and grow in pursuit of positive change. An accomplished manager, able to assess, define and execute the needs of teams; developing and training colleagues whilst heading academic projects and publishing research. Highly adept as a signal processing expert, with valuable pedagogical expertise, deep subject knowledge and comprehensive teaching and lecturing experience: Now looking for a challenging opportunity, where strengths and absolute commitment will bring immediate value.

A proficient alumnus of the COEP College of Engineering, Pune, and Govt COE Aurangabad she completed her M.Tech in Electronics and Telecommunication Engineering with a clear aim of working towards a change. She always had the fascination about teaching , an urge to do something different from a normal trend . Collecting news articles related to any space activities by ISRO or NASA was one of her hobbies , during her school days.The dream of working as trainee in the space agency came true in 2016 and 2017

KEY SKILLS AND EXPERTISE

Management and Leadership	● Networking – Conferences/Key Note Speaker
● Lecturing – Tutoring/Teaching	● Multi-disciplinary Work
● Integrated circuits and system design with	● Editor & Student Recruitment Lead

emerging devices● MEMS/NEMS and Technologies for Sensing ● Supervised academic courses ● Research, Analysis and Reporting ● Strategic Planning and Organisation ● Results Orientated – Driving Performance ● Team Work/Interpersonal – Communication ● Analog/Mixed-signal VLSI design (SoC, LV, LP, LE, Healthcare, Biosensors, Bio-inspired circuits and systems, I/O, highly-precise circuits & systems, instrumentation, energy harvesting and many more applications) ● Achieving/Winning Funds ● Subject Matter Expert – International Reputation	● RF integrated circuit design for various applications ● Strong Problem Solving Strengths ● Documentation Management - Administration ● Mentoring, Training and Supervision ● VLSI design and embedded systems

KEY QUALIFICATIONS

Feb 2012 - Feb 2207:Pursuing Doctor of Philosophy in Electronics and Telecommunication Engineering, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, India.
 ● Dissertation: "MEMS based antenna design".
● Supervisor: Professor Ulhas Shinde
Work completed at ISRO SAC, Ahmadabad and ISRO , LEOs Bangalore
 June 1997 – Feb 1999: Master of Electronics and Telecommunication Engineering , College of Engineering, Pune
Stood first rank in ME ECT

June 1991 - June1995: Bachelor of Electronics and Telecommunication Engineering (Distinction), Government College of Engineering, Dr.Babasaheb Ambedkar Marathwada University, Aurangabad, India.

SELECTED HIGHLIGHTS OF EXPERTISE

Working as a Lecturer / Associate Professor for a number of years whist concurrently undertaking original and highly academic research; managing projects and ensuring the highest standards of research methodologies before publishing work on a frequent basis* (see publications below*)
● Holding multiple additional / concurrent positions, including: Member of Academic Council; Member of the Board of Studies; Member of Grade Moderation Committee and Member of the Quality and Assurance Team.
● Achieving and receiving a range of Funds awarded for participation in training, delivering workshops and for continuing education programs (CEPs) at an institute of national importance.
● Consistently receiving an `A` grade in performance appraisals by administrative superiors for 5 consecutive yrs.

● Designing an accredited Curriculum & creating accompanying material/resources to ensure effective delivery. Driving forward teaching standards by training & mentoring colleagues within the Computer Science Department.

EXPERIENCE

Oct 2015 – Present Associate Professor Government College of Engineering

Key Achievements:
 ● Playing a leading role in delivering a strategic vision for driving forward student performance within the Electronics Engineering Department, involving: Ideas development; forward planning; research, analysis and evaluation; problem solving and resolution, and the focusing of our key objectives – establishing and managing a short, medium and long term development plan.
 ● Teaching/lecturing related seminars/modules; involving `traditional` lecturing as well as dynamic group teaching, academic writing sessions, feedback sessions, performance analysis and essay marking etc. This involves teaching 60-70 students in a class, with 3 hrs/week teaching, tutorials for 4 hr/week and laboratory sessions of 8/week.
● Ensuring the continual development of new schemes of work etc.; assessing new ideas/resources against established Curriculum/aims and ensuring adherence to the colleges standards/processes.
 ● Completing all related duties as a Tutor/Lecturer, including; planning and preparing appropriate sessions and materials; meeting/liaising with students, and participating in (and managing) meetings.
● Liaising effectively with the College`s senior management to pro-actively explore innovative ways to support student learning and bring both academic and creative success.
 ● Concurrently managing complex research projects and ensuring the timely delivery of research conclusions; publishing the work when appropriate.
● Ensuring all aspects of student safeguarding is adhered to at all times; ensuring an excellent personal understanding of all related governance and guidance.
● Instructing undergraduate and postgraduate coursework and seminars and supervising laboratory work.
● Actively guiding approx. 40 dissertation titles for postgraduate students.
● Managing a range of related tasks, including various administrations/processing roles - dealing with ad-hock issues that arise on a daily basis.
Courses taught/ supervised:
ET: DSPfor third year Undergraduate students for total of 4 Credits which encompassed 3 theory hours/Week,1Tutorial hour/week and 2 Practical Hours/Week.
ET: Advanced DSP PG First Year Undergraduate
ET: Signals and Systems, Digital Communication, Computer simulation, Embedded system, and Microcontroller System for Undergraduate students.
ET: Advanced Power EXT for First Year Postgraduate students ⌉
ET: Wireless and Mobile communication First Year Postgraduate students ⌉

Work Experience

2010 -2020: Associate Professor, Government College of Engineering, Aurangabad,(MPSC)

2003 -2010: **Assistant Professor,** Government College of Engineering, Aurangabad,(MPSC)
2001 -2003:Lecturer**,** Government Polytechnic, Aurangabad, Lature(MPSC)
1999-2001: Assistant Professor MIT Engg College Aurangabad(UGC)
1999-1999: Assistant Professor,Government College of Engineering, Pune
1998-1999: BEPL-DRDO Trainee Engineer

ACHEIVEMENTS
 • Completed Texas Design Contest for 360 students in MSP 430 and Its application and analog design contest.
• Was ranked first Rank in ME ECT from Poona University
• Chairman, Department of Electronics Engineering, GECA (January' 16 – Nov 16date)
• Member of the committee for the Continuing Education Programme, Industry Institute Interaction and DRC during 2000-02.
• Dean, Netwroking , IIT Bombay • "Using Python for Research", a four week course offered by Harvardx, at www.edx.com, Nov 29,2017

EXAMPLES OF RESEARCH EXPERIENCE/PUBLICATIONS

1. Neelima Kolhare etl ," MEMS switches for 0.1–40 GHz for pico-satellite application", Springer Journal ,Microsystem technologies April 2015, volume 21, issue 4
2. Neelima Kolhare," Modelling and developement of contactless MEMS switch", International conference ISSS organised by drdo and cusat kochi
 3. Neelima Kolhare," Design of RF MEMS", International conference isss iisc bangalore, , seventh isss national conference on MEMS, smart materials, structures , July 2014
4. Neelima Kolhare" Design and development of k-band RF MEMS devices for satellite communication", International conference on small science (icss 2014in hong kong.
5. Neelima Kolhare,etl, "Design and development of 2 bit phase shifter for satellite communication,International conference isss iisc bangalore,
6. Neelima Kolhare,etl "Design of an op-amp as a comparator of 10 bit split sar adc using cadence tool2015 international conference on smart sensors and systems (ic-sss),IEEE "
7. Neelima Kolhare,etl ,"Design and development of u slot antenna sensor for satellite application, Symposium physics of sensors for nspts-19"
8. Neelima Kolhare,etl" RF MEMS in satellite application, Bit's 5th annual world congress of nano science & technology-2015 (nano s&t-2015)."
9. Neelima Kolhare,etl ,"16x16 array of microstrip patch antenna for satellite communication"

10. Neelima Kolhare,etl ,"Design & development of 2×2 microstrip patch Antenna array in sar for satellite application"
11. Neelima Kolhare,etl ,"Design and Simulation of FPGA Based DPLL for Carrier Recovery Loop: PSK Receiver for Digital Satellite Communication, Transactions on Education. 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018)"
12. Neelima Kolhare,etl ,"The advent software defined radio: FM receiver with RTL SDR and GNU, IEEE explore" International Conference on Smart Systems and Inventive Technology (ICSSIT 2019]." which is going to be held at Francis Xavier Engineering College, Tirunelveli, India during 27-29 November, 2019

13. Neelima Kolhare,etl ,"BCI based Epilepsy Alert System using Neural Network, 3 rd International Conference On Computational Vision and Bio Inspired Computing (ICCVBIC 2019)."
14. Neelima Kolhare,etl ,"Design and simulation of graphene-based Archimedean spiral antenna coupled microbolometer as terahertz detector, Conference is part of SPIE Photonics Europe International Symposium Terahertz Photonics" EPE20-PE105-1. Photonics Europe 2020, Strasbourg, France, 29 March-2 April"
15. Neelima Kolhare,etl ,"Graphene Based Archimedean Spiral Antenna For Terahertz Frequency", IOP Physics Journal

50+ more papers published in various international conferences and peer reviewed journals. Approx 65+ citations and an h-index of 4. Additionally, - Details of others are available on request.

(Many other senior management related roles undertaken − further details are available on request)

ADDITIONAL INFORMATION

Selected Funds Awarded: (More achieved − details available on request)

Conducted in Faculty Development Programme "Recent advances in Electromagnetics, RF and Radar signal Processing",Date: June 4-8, 2018, Funds under TEQIP(Technical Education Quality Improvement Programme)-Phase II of amount Rs.1,80,000/- under the head Enhancing Knowledge and Research Competence

● Conducted in STTP and Faculty Development Programme "Two Days STTP Workshop cum Certificate Course on MEMS (Design and Fabrication ", Funds under III Rs.85,000/- under the head Enhancing Knowledge and Research Competence

● Participation in MEMS workshop at IITB,IISC,IIT Khargpur amd IIT Hyderabad
LaTeX workshop , Pedagogy in DSP at the Indian Institute of Technology, Bombay, held in August 2015
(Participation in around more than 50 + workshops for faculty development programmes.Details available on request)

Workshops Organized:

1. Organized a 2 day workshop STTP on "MEMS",8-11 sept 2018 for 135+ Participants.
2. Organized a five day Weekend Workshop on "RADARfor 60+ Participants from institute as well as local Engineering colleges.
3. Member of Organizing Committee for faculty development programme on "Signals and Image Application ",
4. Member of Organizing Committee for STTP under TEQIP on "LabVIEW" , Coordinated Two week

Professional Associations:
- ● ISSS
- ● IEI
- ● Institution of Electronics and Telecommunications Engineers (IETE)

Research Interests:
- ● MEMS/NEMS and Technologies
- ● RF and Terahertz Technology
- ● Digital Signal Processing
- ● Embedded and VLSI

Sensor, Circuit and System Design, Fabrication and Integration
VLSI design and embedded systems

Technical Skills:

Technical architect and design development Tools/languages: Python, , ka Skills: MATLAB, Simulink, LabVIEW, VHDL,Vivado, Embedded C, MEMS , Coventoreware, Intellisuit COMSOL, ADS software, HFSS, CST, Cypress semiconductor, Intel, Texas , CCS, VC++, design & development of VLSI/FPGA and embedded Hardware deliver products from, design, verification, physical implementation to lab bring-up. Interfaced with Software and Sales group for successful qualification and delivery of products to the customer. Developed various

Xilinx/Altera FPGA and micro-controllers based system.
Specialties:

FPGA Design and verification, THz,RF, DSP, Embedded
 Product development
Strong technical skills
Project planning and execution
Coordinating multi site teams, vendors and projects.
Disciplined development process

LINKS:- https://scholar.google.co.in/citations?user=vYDGZnMAAAAJ&hl=en
RESUME

1.Courses/Workshop/Training attended
PC hardwre, C++, Induction Training Phase-1, Two Day Symposium on Embedded System Design Automation Tools EEDA, Two day course on -FPGA Design, SMDP Special Manpower Development in VLSI Design and related workshop, Workshop on Embedded System and DSP,

STTP on Advance Digital Signal Processing, Workshop on Implementing outcomes based engineering curricula through Participatory Action Research, Unitary Approach to Image Transforms, Wavelet Transform, 11th INUP Hands-on Training Workshop on Nanofabrication Technologies, RFIC design, INUP kharagpur, IISC Banaglore and IIT Hyderabad

- DTE Sponsored, "Industrial Training Program For Teachers",DSP Wavelet Group Pune, 17/06/2008 to 13/08/2008(8 Week)

Courses/Workshop/Training conducted

Workshop on-MATLAB and its Application, TsyGECA National Level Paper Presentation Workshop on EECDV-2005, STTP on Microcontroller System, Programming and Application(MSPA), LabVIEW Software, Hardware and test, Measuring Instrument, INSEARCH WING 2008 ROBO COMPETITION,Digital Media Developer Kit for
Audio Visual systems using TMSC32064xx series , Two day workshop on: GSM
Fundamental, TMSC320c5515 for Medical Application :ECG Measurement, Hearth rate Measurement and Digital Stethoscope

Consultancy activities:

Name of the Organization	Name of Item
MHRTDC Aurangabad	Wireless sensor monitoring for healthcare of bridge
Zilla Parishad Corporation, Aurangabad	EPABX systems
Land record Division, Aurangabad	EPABX System
Wireless industrial compressor monitoring system using microcontroller".	MOSCO Industry, Waluj Aurangabad
EPABX TESTING	ZILHA PARISHAD, AURANGABAD
EPABX TESTING	LAND SURVEY, AURANGABAD
CCTV surveillance system	Dean,Govt Dental Hospital, Aurangabad
1) Sound System 2) Vending Machine 3) CCTV AMC 4) Child Growth Monitoring System 5) LED Video Wall Tile Specification	ZILHA PARISHAD, AURANGABAD ZILHA PARISHAD, AURANGABAD Aurangabad Municipal Corporation ZILHA PARISHAD, AURANGABAD Samajik Vanikarn Department
CCTV surveillance system	AMC
CCTV surveillance system	Maharashtra Gramin Bank
CCTV surveillance system	Khultabad ZP Aurangabad