Dr. Nirmala S O

Professor
Department of E & C E   BIET, Davangere
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Work Experience: 25 Years

- Worked as a lecturer in E&CE Department of Bapuji Institute of engineering and Technology Davanagere from October 1999 to August 2008.

- Worked as Assistant Professor from September 2008 to October 2019 in the department of E & C E

- Worked as Associate Professor from November 2019 to December 2023.

- Working as Professor since January 2024 in the department of E&C E, BIET, Davanagere.

Educational Qualification:

- Ph.D. from Shivaji University, Kolhapur , 2019

- M.E [Digital Electronics] from BVB College of Engineering & Technology, Hubli, Karnataka University, 1998, first class with distinction.

- B.E [Electronics & Communication] from Bapuji Institute of Engineering and Technology, Mysore University, 1992 with first class.

Awards:

- Project entitled 'Embedded solution for Military Fraticide Crisis' received NIT Kozhikode National award at 21st ISTE Students National Annual Convention,2019.

- Received a Certificate of Appreciation from Impartus for adopting Impartus Lecture Capture and being part of the digital revolution in education, 2018.

- Awarded as a best teacher for 3 times from the college for achieving 100% result in the subjects handled.

Membership:
- Life Member of Indian Society for Technical Education : LM33662
- Life Member of Institute of Electronics & Telecommunication Engineers : M219023

Core Subjects Taught:

CMOS VLSI, Digital System Design using Verilog, Control Systems, Operating Systems, Image Processing, DSP algorithms & Architecture, CAD for VLSI, Microprocessors, Microcontrollers, RealTime Systems, Cryptography & Network Security, Fundamentals of HDL, Electronic Instrumentation, Circuits and Controls.

Expert Lectures Delivered:

- Delivered a session in "Hands on Workshop on Microcontroller 8051 and Embedded C" , organized by Department of Electronics & Communication Engineering for IV semester students from 5th to 8th July 2023.

- Delivered a session on "Introduction to Basic Programming using Arduino" under One week Workshop on "Arduino & LabView" from 25th to 29th July 2016 organized by E&C Department, BIET, Davangere.

- Delivered a lecture on "Introduction to Image Processing Tool Box" in the Faculty Development Program "Image Processing & its Applications" Organized on 29th and 30th Oct 2014 by Department of Electronics & Communication Engineering in association with IETE Sub Center, Shimoga, ISTE Karnataka Section, ISTE BIET, Davangere

- Delivered a lecture on "Mixed Style and Mixed Language " under Three day workshop on "Digital System Design using HDL-Synthesis & Simulation using Test Benches" during 16th to 18th April 2009, organized by E&C Department, BIET, Davangere.

- Delivered a lecture on "Digital Logic" under one week STTP on Mechatronics from 3rd to 7th July 2006, sponsored by ISTE and organized by Department of Mechanical Engineering, Bapuji Polytechnic.

- Delivered a lecture on "Introduction to Image Processing Tool Box" in the Faculty Development Program "Image Processing & its Applications" Organized by Department of Electronics & Communication Engineering in association with IETE Sub Center, Shimoga, ISTE Karnataka Section, ISTE BIET, Davangere

Seminars/Workshops/Events Organized:

- Conducted Siddhata-2K24 a test series for the students under IETE Forum on Digital Circuits, Electronic devices, Analog Circuits and Opamps & Applications from 31-05-2023 to 16-06-2023.

- Coordinated FDP on Embarking on Open software in an Engineering & Research Journey organized in association with VTU FOSS Group, Belagavi conducted

from 19th to 24th April 2022

- Conducted Siddhata-2021 and Siddatha-2022 a test series for the students under IETE Forum on Basic electronics, Aptitude & Engg Maths , Digital electronics, Network analysis & Analog Electronics**.**

- Worked as Coordinator for National Level One week Online Faculty Development Program on "Introduction to Microchip FPGA" organized by Department of ECE, BIET from 19th to 23rd July 2021.

- Conducted "Siddhata-2020" a test series for the students under IETE Forum between 17th Sept to 3rd Oct 2019 on Basic electronics, aptitude & Engg Maths and Digital electronics, Network analysis & Field theory**.**
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- Involved in Cognition-2019 a State Level MINI PROJECT Exhibition conducted in association with EC Forum and IETE Students' Chapter, BIET on 12th April 2019.

- Conducted "Siddhata-2019" a test series for the students under IETE Forum between 9th to 14th Nov 2018.

- Involved in organizing "Lecture series-2018" from 29th Sept to 5th Oct 2018 underEC forum.

- Conducted a quiz on "Basics of Electronics" under IETE Students' Forum on 28th Sept 2017.

- Worked as a Co-ordinator for Faculty Development Program "Image Processing & its Applications" Organized by Department of Electronics & Communication Engineering, BIET , in association with IETE Sub Center, Shimoga, ISTE Karnataka Section, ISTE BIET, Davangere on 29th & 30th Oct 2014.

- Organized a Seminar on "Career Awareness Program" in the field of VLSI & Embedded System in association with Sandeepani - Training division of CoreEL Technologies, Bangalore on 28th Feb 2013.

- Arranged a Technical talk on "Space Technology and its Excellence" by Dr.T G K Murthy, an eminent scientist from ISRO, Bangalore on 13th Sept 2012.

- Organized a Seminar on "Career Awareness Program" in the field of VLSI & Embedded System in association with Sandeepani - Training division of CoreEL Technologies, Bangalore on 28th Feb 2013.

Seminar/Workshops Attended:

- Attended Faculty Development Program on Microsoft Azure AI Engineer Associate conducted by ICT Academy in association with BIET, Davangere from 28-08-2023 to 01-09- 2023.

- Participated in the workshop "VLSI to System Design: Silicon to End Application Approach" organized by AICTE , Arm Education and ST Microelectronics from 31st July to 4th Aug 2023.

- Participated in FDP Data Analytics/ Data Management , organized by Department of Training and Placement, BIET in association with TCS , held on 7th July 2023.

- Participated & successfully completed AICTE Training And Learning (ATAL) Academy Blended/Hybrid FDP on "Analog and Digital Design Flow for VLSI Chip Application" from 20-02-2023 to 25-02-2023(Online) and 27-02-2023 to 03-03-2023 (Offline) at GM Institute of Technology, Davangere.

- Attended Seminar on " Best Practices for National Education Policy (NEP)-2020 in Higher Education Institutions " organized by IQAC, BIET, Davangere on 21-02-2023

- Completed NPTEL-AICTE Faculty Development Program on "Teaching and Learning in Engineering (TALE)", Jan-Feb 2023 (4 Weeks) funded by Ministry of HRD, Govt of India.

- Attended FDP on "Analog and Digital IC Design : Semiconductor Industry Approach" jointly organized by Atria Institute of Technology and Entuple Technologies from 26th to 30th Sept 2022.

- Completed NPTEL-AICTE Faculty Development Program on "Teaching Learning in General Program: TALG" from Jul-Aug 2022 (4 Weeks) funded by Ministry of HRD, Govt of India.

- Attended FDP on Embarking on Open Source Software in an Engineering and Research Journey jointly organized by Department of ECE, BIET in association with VTU – FOSS group, Belgavi from 19th to 24th April 2022.

- Participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on 28th Jan 2022 organized by Intellectual Property Office, India.

- Completed NPTEL Online Certification on "Effective Teaching in Engineering Practice" from Jan to Feb 2022 (4 Weeks).

- Completed NPTEL-AICTE Faculty Development Program on "Effective Teaching in Engineering Practice" from Jan to Feb 2022 (4 Weeks) funded by Ministry of HRD, Govt of India.

- Attended One Week Online Training Program for Teachers On "An Overview of Teaching Techniques in Basics of Electronics and Communication Engineering" from 13th – 17th December 2021 Organized by VTU Human Resource Development Centre (VTU - HRDC),Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur.

- Attended two days workshop on Implementation of National Education Policy -2020 organized by BIET, Davangere in association with VTU , Belgavi on 10th and 11th December 2021.

- Attended online training program on VLSI ANALOG LABORATORY PRIMER conducted from October 28, 2021 to November 17, 2021 and VLSI DIGITAL LABORATORY PRIMER conducted from November 08, 2021 to December 03, 2021 conducted by Entuple Technologies, Bangalore.

- Attended AICTE Training and Learning (ATAL) Academy Online Elementary FDP on VLSI –IP DESIGN Approach to SRAM compiler design from 16th to 20th Aug 2021 organized by GM Institute of Technology, Davangere.

- Attended AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Formal Verification of Digital Designs" from 7-11th June 2021 organized by PES University.

- Completed AICTE-ISTE approved Orientation/Refresher Program on "Accreditation : An Accelerator for Quality Improvement in Engineering Education" held from 22nd to 28th April 2021 organized by SDM College of Engineering and Technology , Dharwad.

- Attended Three Days Online FDP on "Artificial Intelligence using MATLAB" from 23rd to 25th February 2021 organized by CoreEL Technologies, Bangalore.

- Attended AICTE Sponsored One Week Online Faculty Development Program on "Research Areas in Biomedical Signal Processing" organized by Department of ECE, Sri Vasavi Engineering College(Autonomous) from 14th to 19th Dec 2020.

- Faculty Development Programme on "OBE & its Impact on Accreditation Process" organized under AICTE Sponsored Share & Mentor Institutions (Margdarshan) Scheme by RV College of Engineering, Bengaluru from 6th to 10th July 2020

- Completed two week online FDP on Python from 22nd June to 04th July 2020, jointly organized by department of Electronics & Communication Engineering, JSS Academy of Technical Education, Noida and Spoken Tutorial Project, IIT Bombay , funded by National mission on Education through ICT, MHRD, GOI.

- Faculty Development Program on Recent trends in Computer Architecture, VLSI and Embedded Systems RCAVES-2020 organized by Department of Electronics and Communication Engineering , GRIET, Hyderabad from 08th to 13th June 2020.

- Completed NPTEL-AICTE Faculty Development Program on "Hardware Modeling using Verilog" in Oct 2019 funded by Ministry of HRD, Govt of India.

- Completed NPTEL Online Certification on "Digital Circuits" from July to October 2019.

- Completed NPTEL Online Certification on "Hardware Modeling using Verilog" from August to October 2019

- Attended a workshop on "eSim, a First Course in the IoT Series for Teachers" on 21st Sept 2019 at IS&E department,BIET, Davangere, Organised by the Teaching Learning Centre ICT at IIT Bombay,funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. of India.

- Attended one week FDP on "Application of LabVIEW in Engineering & Research" from 28th Jan to 02nd Feb 2019 at BIET, Davangere, organized in association with ISTE, BIET Chapter and IEI.

- Attended one week STP on "Funadamentals of Physical Design & Verification using Cadence Tool Flow" from 21st to 25th Jan 2019 at Entuple Technologies Private Limited, Bangalore.

- Attended Two Day Workshop on "ARM Cortex M3 Microcontroller" on 23rd & 24th Jan 2018 at BIET, Davangere, organized in association with ISTE, BIET Chapter and Advanced Electronics Systems, Bangalore.

- Attended Two Day Workshop on "System Design Using Vivado Design Suite and Zynq-7000 SoC" organized by Department of Electronics & Communication Engineering, ISTE-BIET Faculty Chapter, Davangere and CoreEL Technologies, Bengaluru on 15th and 16th June 2017.

- Participated in Workshop on "Intellectual Property Rights" Organized by Research & Development Cell of BIET, Davangere held on 6th April 2017.

- Participated in Two Days Workshop on "Women Empowerment" held on 18th & 19th Dec 2014, organized by IS&E department, BIET in association with WPLP program of ISTE, New Delhi.

- Attended a workshop on "Research ADD-ONS" conducted by Department of Computer Science and Engineering in association with ISTE Students Chapter BIET on 19th March 2014.

- Attended a workshop on "VLSI Design Lab using Open Source" conducted by Department of Electronics & Communication and R&D center, M S Engineering

College, Bangalore on 24th & 25th July 2013.

- Attended "ISTE Sponsored Ramanujan Mathematics Awareness Programme (RMAP 2013)" organized by Department of Mathematics in association with ISTE Chapter, BIET at BIET Davangere on 1st Mar 2013.

- Participated in Two Day Workshop on "XILINX DSP Design Flow Using System Generator" jointly organized by Department of Electronics & Communication Engineering , R.V. College of Engineering , Bangalore and CoreEL Technologies , Bangalore on 24th & 25th August 2012.

- Attended Two-day Faculty Development Program on "Labview and its Applications" organized by E&CE department, BIET Davangere in association with ISTE BIET Chapter & Trident Techlabs Pvt. Ltd, Bangalore at BIET Davangere , on Aug 2nd and 3rd 2012.

- Attended Two-day Faculty Development Workshop on "Low Power Embedded Systems using MSP430 Microcontroller" organized by BIET Davangere in association with Texas Instruments India University Program and Cranes Software International Ltd, held at BIET , Davangere on 9th & 10th Feb 2012.

- Participated in "Mission10X" workshop conducted at University BDT College of Engineering, Davangere in association with Wipro Technologies, Bangalore from 5th to 9th Jan 2009 and participated in Advanced Workshop on 12th & 13th March 2009.

- Attended one day workshop on "Tanner Tools Pro (A Complete VLSI Design System)" organized by E&C Department in association with ISTE Chapter BIET and Sovereign Technologies, Bangalore on 16th Nov 2006.

- Participated in one day workshop on "Embedded System Design", organized by E&C Department, BIET in association Industry Institute Partnership Cell, BIET and Advanced Electronic Systems, Bangalore on 27th April 2007.

- Attended a two days seminar on "Microwind Tool", organized by SIMS, Bangalore, from 28th to 29th Aug 2006.

- Participated in 35th ISTE Annual Convention & National Seminar on the theme "Disaster Prediction, Prevention & Management" Organized by BIET, Davangere during 15-17 December 2005.

- Attended ISTE Sponsored STTP on "Trends in Broad Band Communication" organized by Department of Telecommunication Engineering, R.V College of Engineering , Bangalore conducted between 30th Aug and 4th Sept 2004.

- Attended "TI Developer's Conference" Organized by Texas Instruments, Bangalore on 3rd and 4th December 2003.

- Attended AICTE-ISTE sponsored STTP on "Embedded Systems & Applications" organized by Kongu Engineering College, Perundurai, Erode, TamilNadu, from 3rd to 14th Nov 2003.

- Attended "Certification course on Embedded Systems & Design" conducted by E&C Department, BIET Davangere in association with CITL Bangalore during 3rd May to 8th June 2003.

- Attended AICTE-ISTE sponsored STTP on "Recent Advances in Biomedical Engineering" organized by BIET, Davangere during 29th July to 9th Aug 2002.

- Participated in the Orientation Workshop on " VLSI Design" organized by VTU Belguam and BVB College of Engineering & Technology, Hubli from 15th to 22nd Sept 2001.

- Attended a National Seminar on "Fuzzy Techniques and their Applications" sponsored by AICTE, NewDelhi & CEP, BIET Davangere, organized at BIET Davangere, on 14th & 15th Dec 1996.

Publications:

- Published a paper "Design of SRAM Memories with Different Topologies", International Journal of Scientific Development and Research (IJSDR), Volume 8 Issue 10, October 2023.
- Published a paper "Design of Decimation Filters for Wireless Local Area Network Applications", International Journal of Electronics and Communications System, Volume 2, Issue 1, 9-13,2022.
- Published a paper "Design and Implementation of BiCMOS based band gap reference Circuit" at 2nd International Virtual Conference on Emerging Trends in Science, Engineering and Management-2021 on 16th and 17th July 2021.
- Published a paper "Low Power VLSI Architecture for Image Compression Using Hyper analytic Wavelet Transform and Variable Length Encoding" in International Journal of Control Theory and Applications, 2017.
- Presented a paper on "Low Power VLSI Architecture for Image Compression" in ETECS-2015 National Conference on Emerging Trends in Electronics and Computer Science, sponsored by UGC-SAP, DST-Purse, IEEE India, SSCS & CASS Chapter, jointly organized by Department of Electronics & Department of Computer Science, Shivaji University, Kolhapur.
- Presented a paper on "FPGA Implementation for SPAM Filtering" in ETECS-2015 National Conference on Emerging Trends in Electronics and Computer Science, sponsored by UGC-SAP, DST-Purse, IEEE India, SSCS & CASS Chapter, jointly organized by Department of Electronics & Department of Computer Science, Shivaji University, Kolhapur.
- Presented a paper on "Reconfigurable Image Processor" in LATEST 2014 National Conference on Latest Advances, Trends in Electronic Science & Technology, UGCSAP Sponsored & Technically Sponsored by IEEE Bombay Section, at Shivaji

University, Kolhapur, Feb 14th & 15th 2014.

- Presented a paper on "FPGA based Cryptoprocessor using Hardware-Software Co design" in LATEST 2014-National Conference on Latest Advances, Trends in Electronic Science & Technology, UGC-SAP Sponsored & Technically Sponsored by IEEE Bombay Section, at Shivaji University, Kolhapur, Feb 14th & 15th 2014.
- Presented a paper "Nurturing the Cyber-Physical Pedagogical Approach for Outcome-based Learning in Embedded Systems" in IETEC'13- International Engineering and Technology Education Conference", 2013.
- Published a paper "Review on Image Enhancement Techniques: FPGA Implementation perspective", in International Journal of Electronics Communication and Computer Technology (IJECCT), 2012.

- Published a paper "Developers Nurturing FPGA based Soft IP Cores for Catering the Needs of Advanced Image Processing Applications – A Review" in International Journal of Emerging Technology and Advanced Engineering, 2012.

Other Responsibilities
- Member of Local Inquiry Committee.

- Department coordinator for NBA.

- Coordinator for IETE Students' Forum.

- Chaired a session on "Theoretical Computer Science" in International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT2015) held at BIET, Davangere, Karnataka during 29th to 31st Oct 2015.

- Worked as Deputy warden of Dr. Shamnur Shivashankarappa Diamond Jubilee Ladies hostel from 2013 to 2015.

- Worked as member for Technowave magazine during the academic years 2013-14, 2007-08 and 2006-07.

- Worked as BOE for Kuvempu University for the academic year 2010-2011.

- Worked as Deputy Chief Superintendent (Internal) during Dec 2009/Jan 2010 and June/July 2010 examination.