Dr. Varsha M
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Teaching Experience: 10 Years 3 Months

- Working as Associate Professor in Bapuji Institute of Engineering and Technology, Davangere from 1st February 2023 to till date.

- Working as Assistant Professor in Bapuji Institute of Engineering and Technology, Davangere from 10th January 2013 to 31st January 2023.

Academic Qualifications

- Ph.D. (Computer Science and Engineering) from Visvesvaraya Technological University, July 30th 2022.
    - Research Title: Predictive Model for Paddy Crop Disease and Deficiency Detection using Machine Learning Techniques.
    - Research Supervisor: Dr. Poornima B. Prof & Head Dept. of ISE, BIET.
    - Research Centre: BIET, Davangere
- M.Tech (Computer Network Engineering) from V.T.U. Belagavi in 2013.
- B.E. (Computer Science and Engineering) from G.M.I.T Davangere in 2011.

Professional Memberships

- Institute of Engineers-AM187487-2
- Indian Society for Technical Education-LM89362

Certification

- Certification of completion "Machine Learning for Soil and Crop Management" with a score of '76% - (Elite + Silver)', organized by NPTEL, AICTE held on Jan - April, 2022.

Roles and Responsibilities

- Institute Internet and Networking Coordinator
- Appointed to assist Dr. Poornima B. in Incubation Centre.
- NBA criteria 4 coordinator.
- NAAC Criterion 2 team member.
- Faculty coordinator for Bit's N Bytes coding competition.
- Faculty coordinator for Coding Club
- Faculty mentor for CSR initiative of Honeywell Implemented by ICT Academy.
- Department Result Analysis Coordinator.
- Department DQAC Coordinator.
- Parent Teacher Meeting coordinator
- Actively involved in all the activities conducted in the department.

Subjects Taught

- Data structures and its Applications
- Design and Analysis of Algorithms
- Microprocessor-8086
- Computer Networks
- Unix Programming
- Application Development using Python
- Big Data Analytics
- Cryptography

Expert Lecturers Delivered

- Delivered talk on "Importance of Information Technology in Education" for high school students of Sri Venkateshwara High School Gundagatti, Harapanahalli taluk Vijayanagar district.
- Delivered talk on "Emerging Technologies in Industry 4.0" for final year students of Government polytechnic Harihara on 5-11-2022.
- Resource Person for three days hands on faculty development program on Python Programming from 12th to 14th December 2022.

Awards and Achievements

- 1st rank in M.Tech with percentage of 82.26 from V.T.U. Belagavi.
- Participated in FEP on "Python Programming through INFYTQ Platform" conducted in virtual mode through webinar from 6th to 13th July 2020 by Infosys Limited and has been awarded with "A+" Grade.
- Successfully completed 12 weeks of NPTEL certification course on Machine Learning for Soil and Crop Management and secured silver Elite with 76% during the academic year 2021-2022.

Publication Details

Sl.No.	Title of the Research Paper	Journal Name	Year of Publishing
1	Extreme Learning Machine for Solving Paddy Nutrient Deficiencies in Davangere Region	Int. J. of Agriculture Innovation, Technology and Globalisation (Inderscience Publisher)	April 2023 (Accepted for Publication)
2	A Machine Learning Technique for Rice Blast Disease Severity Prediction Using K-Means SMOTE Class Balancing	International Journal of Risk and Contingency Management (IJRCM) IGI Global Publishers	December 2022
3	Novel Hybrid ARIMA-BiLSTM Model for Forecasting of Rice Blast Disease Outbreaks for Sustainable Rice Production	Iran Journal of Computer Science	December 2022
4	A Novel ST-DBSCAN Based Outlier Detection Approach on Multivariate Weather Data	International Journal of Education and Management Engineering (IJEME)	December 2022
5	Image abstraction framework as a pre-processing technique for accurate classification of archaeological monuments using machine learning approaches	S N Computer Science	January 2022

6	Predictive Model for Rice Blast Disease on Climate Data Using Long Short- Term Memory and Multi-Layer Perceptron: An Empirical Study on Davangere District	Annals of the Romanian Society for Cell Biology	May-2021
7	Evaluation of Activation Functions Based on their Performances	Journal of Huazhong University of Science and Technology	April-2021
8	A Comparative Study of Ensemble Classifiers for Paddy Blast Disease Prediction Model	International Journal on Recent and Innovation Trends in Computing and Communication	September 2020
9	2D Image Compression Using Wavelet Compression Technique by Analysis	Proceedings of International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), Elsevier Publications	2013

Patents

- Artificial Intelligence based Autonomous Waste Management for E-Environment.

Reviewer

- Reviewer for CCIP 2022 IEEE International conference to be held on 23rd and 24th December 2022 at JSSATEB.

Seminars/Workshops Attended

- Underwent "FEEL TEACHER" Learning and Development Intervention Conducted from 19 through 21 April 2013 at B.I.E.T. Davangere.
- Attended "Ramanujan Mathematics Awareness Program" held on 1st March 2013 at B.I.E.T. Davangere.
- Participated in one week Short Term Training Program on " Host Your own World Wide Web" organized by Bapuji Polytechnic Davangere and ISTE New Delhi and SRM university during 07-07-2014 to 11-07-2014.

- Participated in National Level Workshop on " Big Data Analytics" held on 22nd and 23rd August 2014 by B.I.E.T. Davangere.

- Participated in 2 days workshop on "Women Empowerment" held on 18th and 19th December 2014 organized by B.I.E.T. Davangere.

- Participated "Workshop on Research Methodology" organized by Research and Development cell of B.I.E.T. Davangere held on 28th October 2015.

- Participated in TEQIP Sponsered Faculty Development Programme on " Development of Applications using Raspberry Pi and Simulink for IoT" from 20th to 24th June 2016 Organized by B.V.B. Hubballi.

- Attended two days workshop on "Android Application Development and R Programming" Organized by B.I.E.T. Davangere. on 7th and 8th November 2016.

- Attended two days workshop on "Hands on with Cloud Computing" organized on 2 nd and 3rd September 2017.

- Participated in Faculty Development Programme on "Smart Living Opportunities and Challenges" held on 10th February 2017 at T.C.S. Bangalore. • Participated in the workshop on " Intellectual Property Rights" organized by Research and Development Cell B.I.E.T. Davangere.

- Attended on day Seminar on " Role of Women in Societal Reforms" Organized by B.I.E.T. Davangere in association with ISTE Faculty Chapter, ISTE Student Chapter,NSS, YRCW on 10th march 2017.

- Participated in Faculty Development Programme on " IoT, Data Analytics, Software Defined Networks" held on 16th march 2018 at B.I.E.T. Davangere.

- Participated state level Three days Faculty Development Programme on " IoT and its Applications" organized in collaboration with Advanced Electronics Systems Bengaluru and IQAC –GMIT Davangere conducted from 25th to 27th of july 2019. Completed the One Week Short Term Training Programme through ICT Mode on "Effective Teaching" held on 15th to 19th July 2019 organized by National Institute of Technical Teachers Training and Research, Kolkata.

- "Digital Technologies" held on 15th and 16th May 2020 using Digital Platform by Dept of IS &E BIET, Davangere in association with TCS Bangaluru.

- One Week FDP on "Python 3.4.3" Spoken Tutorial Project, held on 25th to 30th May 2020 organized by IIT Bombay, funded by NMEICT, Ministry of Human Resources and Development (MHRD), Govt of India (GOI).

- Participated and completed online Faculty Development on "Networks and Security" from 26th to 29th may 2020 at NMAM Institute of Technology, Nitte.

- Participated in the four-day online FDP on " Applied Machine Learning using Python" from 9th to 12th June organized by NMAM Institute of Technology, Nitte.

- Participated in one week online FDP on "NBA and NAAC Accreditation Process" organized by IQAC MSRIT under AICTE Margdarshan Scheme from 4th to 8th June 2020.

- Completed five days FDP on "AI and IoT Based Technology for Precision Farming and Smart Agriculture" at AICTE Training And Learning (ATAL) Academy at KGiSL Institute of Technology from 7th June to 11th June 2020.

- Completed five days FDP on " Principles of Artificial Intelligence, Machine Learning and Deep Learning", AICTE Training And Learning (ATAL) Academy at Department of Studies in Computer Science , University of Mysore from 21st June to 25th June 2021.

- Completed five days FDP on " Introductory Data Science and Deep Learning" , International Institute of Information Technology - Naya Raipur in association with AICTE Training And Learning (ATAL) Academy from 16th to 21st September 2021.

- Completed five days FDP on "Recent trends in machine learning and pattern recognition" GMIT in association with AICTE-IST from 6th to 12th December 2021.

- Participated in six days FDP on " Big Data Analytics in the Upliftment of Rural India", JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU from 7th Feb to 12th Feb 2022.

- One and half week NPTEL certification course on "Machine Learning for Soil and Crop Management" from feb to April 2022.

- Completed 15 hybrid FDP on " Cybersecurity and its Principles" from 4th to 16th September 2022.

- Successfully completed One Week AICTE–VTU Joint Teachers Training Programme on "Introduction to Python Programming & its Applications" from 13th to 17th March 2023 Organized by Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.)

Proposals Submitted/ Sanctioned

- Submitted proposal on project titled "Analysis and Early Detection of paddy diseases and Development of Online Fertilizer Recommendation System of Davangere District" under scheme of Technology Development Programme Ministry of Science and Technology, Department Science and Technology New Delhi during the academic year 2019-2020 (Submitted).

- Project entitled "Under Water Robot Observatory of Real Time Water Quality and Shrimp Growth Monitoring" funded Rs: 5000/- in Institution level during the academic year 2020-2021.

- Submitted proposal on project titled HOROVIEW- "Intelligent Hexacopter System and Cloud Based Application for the Detection and Assessment of Pathogen based on Tomato Plant Phenotyping in Villages of Davangere District using Artificial Intelligence". Under Science, Technology and Innovation (STI) Interventions in the State, Karnataka State Council for Science and Technology during the academic year 2021-2022 (Submitted/Results are not announced).

- Project entitled "Prediction of Land Degradation in Davangere District using Sentinel-2 and Environment Variables" funded Rs: 4000/- by Karnataka State Council for Science and Technology during the academic year 2021-2022.

- Project entitled "Non-destructive methods for pupa gender classification using Transfer Learning Techniques" is submitted to Karnataka State Council for Science and Technology during the academic year 2022-2023.