# Dr. Nirmala C R

Professor and HOD CSE Department, BIET.

#### Address:

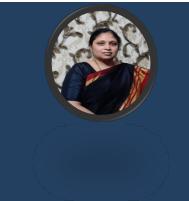
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# **Objective**

To be a Successful Professor in practicing advanced teaching and department leadership experience and to help in overall development of the department while improving the teaching and modernizing the courses and bring in research culture among the students and teaching fraternity

### **Research Interests**

- Artificial Intelligence
- Machine Learning
- Cloud and Soft Computing
- Semantic Web, Recommendation Systems
- Mobile Agents and Robotics Processes Automation

### **Academic Profile**

#### Visvesvaraya Technological University, Belagavi

2004-2013

Doctor of Philosophy (Ph.D), Computer Science & Engineering. Research in "Applications of Multi Mobile Agents in e-Commerce" Guided by Dr. Ramaswamy V, Principal, BIET. Research Centre @ Bapuji Institute of Engineering & Technology, Davangere.

### National Institute of Technology, Mangalore University, Mangalore

1999-2001

Master of Technology (M.Tech), Computer Science & Engineering

Mysore University, Mysore 1988-1992

Bachelor of Engineering (B.E), Electronics & Communication Engineering, Bapuji Institute of Engineering & Technology, Davangere.

## Teaching Experience

#### Professor and Head

Department of Computer Science, Bapuji Institute of Engineering & Technology, Davangere, from August 2013 to till date.

#### **Associate Professor**

Assoc. Professor from September 2012-2013 in the department of CS & E.

#### **Assistant Professor**

Assistant Professor from August 2007-2012 in the department of CS & E

#### Lecturer

- CS&E Department of Bapuji Institute of Engineering & Technology, from 2001 -2007 Davangere.
- E&C Department of Bapuji Institute of Engineering and Technology Davangere from 1995 to 1999.

# **Professional Memberships**

- Indian Society for Technical Education (ISTE) Lifetime Membership- LM23578.
- Life Member of International Association of Engineers (IAENG) Number: 134638
- Computer Science Teacher Association –198357999398
- Institute of Engineers M-1681634

# Corporate Experience

Worked as a Trainee Engineer in Hybrid Micro circuit division of Bharath Electronics limited, Bangalore.

# **Major Achievements**

- Awarded 6 Ph.D scholars under VTU since last 8 years.
- Applied and published 4 patents and waiting for grant.
- Received 4 grants worth Rs. 50 Lakhs
- Awarded by the institute as "Faculty Achiever" in the year 2007.
- Awarded with the title "Drona" from IBM India Ltd, 5 times for mentoring the award winning student project in
  the annual national level student project contest in the year 2010,2011,2012,2013,2014 and having outperformance
  the IBM academic initiative activities in the institute.
- Awarded as "Champion Trainer" By Mission 10X team by Wipro, Bangalore in the year 2010.
- Awarded as "Best Mentor" from Infosys for outstanding performance in the campus connect activities in the year 2011.
- Awarded as a best teacher for 10 times from the college for achieving 100% result in the subjects handled.

• "Academic Game Changer" Award by EMC Corporation Bangalore for the year 2014.

# Subjects Handled

ManagingBig Data, Business Intelligence, Cloud Computing, Data Mining and Warehousing, Advanced Computer Networks, Internet Programming, Web Programming, Web2.0 and Rich Internet Applications, Object Oriented Design and modeling, Ajax, Principles of Programming Languages, Decision Support Systems, Java and J2EE, Computer System Performance Analysis. E-Commerce, Web-Commerce, Internet and Intranets. Software Engineering, Machine Learning and Data Communications.

### Additional Roles @ BIET & Other Institutions

- Board Of Examiner-Member for VTU .
- LIC Committee Member for 4 times
- Dean, IT Cell from June 2019 to August 2021
- Guided 50+ Projects for UG Students and 20 + projects for PG students
- Single Point of Contact for Infosys campus connect program
- Single Point of Contact for IBM Academic Initiative
- Faculty Co-Ordinator for Wipro Mission 10X Program.
- Single Point of Contact for UiPath and Salesforce
- Single Point of Contact for EMC2 Academic Alliance and VMware IT Academy Program
- Single point of Contact for ICT Academy Activities.
- Session Chair for International Conferences.
- Workshop Co-Ordinator for many workshops

#### **Patents**

- Method of Cluster Head Node Selection by Normal Node during Formation of Clusters in WSN.
- Intelligent Mobility Robotic Device for Locomotion of Physically Challenged People.
- Artificial Intelligence Based Internet of Vehicles (IoV) System to Prevent Road Accidents.
- System and Method to Detect Fake Profiles in Social Media

#### List of Publications

- Abdul Razak ., Nirmala C. R ., A computing model for trend analysis in stock data stream classification
- Indonesian Journal of Electrical Engineering and Computer Science, Volume 19, Year 2020, Pages 1602-1609,
   DOI:10.11591/ijeecs.v19.i3.pp1602-1609.
- Anupkumar M. Bongale ., C. R. Nirmala ., Arunkumar M. Bongale ., Energy efficient intra-cluster data aggregation technique for wireless sensor network ,International Journal of Information Technology (Singapore), Year 2020

#### DOI:10.1007/s41870-020-00419-7

- Dr. Roopa G M, Arun Kumar G Hiremath, Naveen Kumar K R, Dr.Nirmala C R, Optimized Data Mining Techniques for Outlier Detection, Removal, and Management Zone Delineation for Yield Prediction Modern Techniques for Agricultural Disease Management and Crop Yield Prediction, Year 2019, Pages 222-258 DOI:10.4018/978-1-5225-9632-5.ch010
- Sankhya N. Nayak ., C.R. Nirmala ., Text Localization in Scene Images with SURF and Support Vector Machine for Multilingual Text 2019 International Conference on Data Science and Communication, IconDSC 2019, Year 2019 DOI:10.1109/IconDSC.2019.8816936
- Anupkumar M. Bongale ., C.R. Nirmala ., Firefly algorithm inspired energy aware clustering protocol for wireless sensor network International Journal of Communication Networks and Distributed Systems, Volume 23, Year 2019, Pages 380-411 DOI:10.1504/IJCNDS.2019.101916
- Dr. Nirmala C R and Dr. V. Ramaswamy Presented a paper "Applications of Ontologies and Software Agents in E-Commerce" in the conference, "International Conference on Software Agents" and is published in the conference Proceedings.
- Dr. Nirmala C R and Dr.V Ramaswamy presented a paper "Mobile Agent Architecture for E- Commerce Applications
  Using Aglets", at International Conference on Electronic Transactions Gaukuen University, Japan from July 13, 2006
  to July 14, 2006. And published in the conference proceedings
- Dr. Nirmala C R, Dr. V. Ramaswamy and Prof. Jyothi N M have presented the paper "Performance Enhancement of E-commerce applications using Multiple Mobile Agents" in the "International Conference on Computer Science and Technology" held at Hong Kong from March 21st to 23rd 2009 and is published in the Journal "World Academy of Science, Engineering and Technology, March 2009, Volume 51 pp.114-118".
- Dr. Nirmala C R, Dr. V Ramaswamy and Prof. Jyothi N M presented a paper titled "Multi-Mobile Agent Architecture for On-Line Mutual Funds Trading in India- A Hybrid Approach" in "2010 Second International Conference on E-Learning, E-Business, Enterprise Information Systems, and E-Government (EEEE 2010) and published in the proceedings of the conference published by IEEE. Volume 1, IEEE Catalog Number :CFP1047I-CDR, ISBN: 978-1-4244-7690-9, PP 243-246.
- Dr. Nirmala C R and prof. Prathibha Goankar presented a Paper titled "Framework for Intelligent Crawler Engine on laaS Cloud Service Model" in the 4th international Conference on "Software Solutions, E-Learning, Computer Sciences, Information and Communication Technology" (SECICT-2014) on 14th and 15th June 2104, 2014 organized by "Krishi Sanskriti" at Jawaharlal Nehru University, New Delhi.
- Dr. Nirmala C R and Prof. Prathibha Goankar Presented a paper titled "Performance Enhancement of Crawler Engine using Mobile Agents on Cloud Computing Infrastructure" in the 2nd International Conference on "Emerging Trends in Engineering and Technology" (ICETET'2014) on May 30th and 31st, 2014 Organized by International

- Institute of Engineers at London.
- Dr. Nirmala C R, Prof. Hemant Palivela presented a paper titled "Spatio-Temporal Autocorrelation for Multi-Variate Analysis of Spatial and Non-Spatial Data in Precision Agriculture" in the IEEE conference "International Conference on Electronics, Communication and Computational Engineering" held at Adhiyamaan College Of Engineering(Autonomous), Hosur on 17th and 18th of November 2014.
- Dr. Nirmala C R and Prof. Anup Kumar Bongale presented a paper titled "LRXE: Lite-RSA for XML Encryption Suitable for Computational Constraint Devices' in the track Security at 1st IEEE Global Conference on Wireless Computing & Networking ('GCWCN2014') held at Singhad University, Lonavala, Pune from 22nd to 24th December 2014.
- Dr. Nirmala C R, Prof. Roopa G M and Prof. Naveen Kumar K R presented a paper titled "Twitter Data Analysis for Unemployment Crisis" in the 2015-IEEE (Technical Sponsored) International Conference on "Applied and Theoretical Computing and Communication Technology" Hosted by department of CS and E BIET, Davangere from 29th to 31st October 2015 and will be published in IEEE Journal.
- Dr. Nirmala C R, Mr. Hemant Palivela, Mr. Divesh Presented a paper titled "Application of various graph kernels for finding molecular similarity in ligand based drug discovery" 4th International Conference on "Advanced Computing and Communication Systems (ICACCS), 2017" held at Coimbatore
- Dr.Nirmala C R, Mr. H Palivela, Mr. Kubal presented a paper titled "Multiple kernel learning techniques for ligand based virtual screening" in International Conference on "Computer Communication and Informatics (ICCCI)", 5th to 7th Jan 2017, held at Coimbatore

### **National Conferences**

Dr. Nirmala C R and Prathibha presented a paper titled "Intelligent Crawler Engine on Cloud Computing Infrastructure" has been presented and published in proceedings of National Conference on "Real Time Systems (NCRTS-2014) on 9th and 10th of May 2014 at City Engineering College Bangalore.

### **Journals**

- Dr. Nirmala C R, Dr. V. Ramaswmay and prof. Jyothi N M published the paper "Mobile Agents for Audio Search and Retrieval " is published in the "International Journal of Computer Applications" –ISSN 0975-8887, Volume 1, No.23 March 2010.
- Dr. Nirmala C R, Dr. V. Ramaswmay and Prof. Jyothi N M published the paper titled "Multi Mobile Agents for Multimedia File Download in E-commerce Environment is published in "International Journal of Computer Applications"-ISSN 0975-8887, Volume 4, No.10, and August 2010.
- Dr. Nirmala C R, Dr. V Ramaswmay and Prof. Jyothi N M, published the paper titled "Multi- Mobile Agent Mediated
   Concurrent File Uploading in E-commerce Data Grid Environment" in the Journal Engineering Letter of IAENG.

- Dr. Nirmala C R, Dr. V Ramaswamy and Prof. Jyothi N M, published the paper titled "Security Architecture for On-Line Mutual funds Trading with Multi Mobile Agents" in the CSC Journals and in Specific "International Journal of Computer Science and Security".
- Dr. Nirmala C R. Roopa G M published a paper titled "Security for e-Advertisements using Digital Watermarking and Mobile Agents" in International Journal of Computing, Communications & Instrumentation Engg...2016
- Dr. Nirmala CR, Roopa GM published a paper titled "Performance Evaluation of e-Advertising Framework using
   Intelligent Mobile Agents" in International Journal of Applied Engineering Research 12 (17), 6870-6880
- Dr. Nirmala CR. Roopa GM communicated a paper titled "Intelligent Mobile Agent Framework for Searching Popular e-Advertisements" Progress in Advanced Computing and Intelligent Engineering, 177-189 and may be published in the year 2019.

# **Expert Lectures Delivered**

- Two days training Program for BCA Final year Students on "Internet Programming"
- Four Days Training for Doctors at College of Dental Sciences "Awareness to Internet"
- 15 days training program for degree college faculty members on "Computer Skills and Concepts"
- Regularly deliver the classes for IBM academic Initiative registered students on the topics RAD, RFT, DB2, LOTUS and RTC.
- Regularly involved in delivering campus connect foundation program and soft skills. Invited as a resource person for one week short term course on "Own your Website" at Bapuji Polytechnic, Shamanur in the month of January 2015.
- Invited as a Resource person for ISTE Sponsored one week short term course on "Recent Research Trends in Information Technology" at Sri Mukesh Patel School Technology, Management and Engineering, NMIMS Mumbai from 13th to 17th July 2015.

# Seminars/Workshops/Events Organized

- Regularly organized the Infosys Campus Connect Foundation Program and Soft Skills for the students of the Institute during every semester vacations
- Regularly organized Certification course on IBM tools like, DB2, TIVOLI, RAD, RFT, RTC, LOTUS.
- Actively involved in conducting the "International Conference on Software Agents" by the college during September 2002.
- Actively involved in conducting the short term course "Unleash the full potentials of Linux" by the college in the year
   2003.
- Organized three day workshop on "Web Programming" for CS/IS faculty members of VTU colleges.
- Organized five days' workshop on "Foundation Program 3.1" from 27-01-2013 to 01-02-2013
- Convener for one day workshop on "Research Add-Ons" on 19-03-2014 in the institute.

# Seminars/Workshops Attended

- Workshop on Industry Oriented Software Engineering conducted by Infosys Technologies Ltd., Bangalore held at Jawaharlal Nehru Centre for Advanced Scientific Research, IISc, Bangalore from 21st to 23rd January 2002.
- IBM-VTU Train the Trainer Program on "Web sphere Application Server 4.0 Up gradation" conducted at M.S Ramaiah Institute of Technology, Bangalore from 21-02-2002 to 27-02- 2002.
- Fifth state level ISTE Convention and National Seminar on "Role of Technical Education in meeting the challenges of Globalization on 12th and 13th November, 2002 at University B.D.T College of Engineering, Davangere.
- Curriculum Development workshop on "E-Business and Internet Technologies" conducted from 03-03-2003 to 07-03-2003 at Indian Institute of Information Technology, Bangalore.
- VTU-Microsoft Faculty Development program, A technical training program on ".NET", conducted at the Indian Institute of Information Technology, Bangalore on 28-03-2003.
- Attended and presented a paper on "Application of Ontology and Software Agents in E- Commerce" at "International Conference on Software Agents" held at Bapuji Institute of Engineering and Technology, Davangere from 05-09-2003 to 06-09-2003.
- Short Term Course on "Power Linux Unleash the full Potentials of Linux" held at Bapuji Institute of Engineering and Technology, Davangere from 16-02-2004 to 28-04-2004.
- BITES-Microsoft Academic Alliance Program on ".NET" a train the trainer program from 07-06-2004 to 11-06-2004 held at Bapuji Institute of Engineering and Technology, Davangere.
- Workshop on "Quality of Service on Internet" Held at Bapuji Institute of Engineering and Technology, Davangere from 04-07-2005 to 09-07-2005.
- Short Term Course on "Electronic Commerce" under Quality Improvement Program of All India Council for Technical Education, New Delhi conducted during 13-02-2006 to 17-02-2006 at Indian Institute of Science, Bangalore.
- Workshop on "Open Source Technologies" conducted by IBM-BITES and Department IT and BT, Govt. of Karnataka during 17-03-2006 to 19-03-2006.
- SHRISHTI -2006, a state level Project Exhibition and Competition held from 18-05-2006 to 21-05-2006 held at GMIT, Davangere as Judge.
- International Conference on "Advance Technologies and Electronic Transactions" [ICATET] held from 13-07-2006 to 14-07-2006 at Kathmandu, Nepal.
- Workshop on Soft Skills held at Infosys Technologies Ltd, Bangalore from 24-09-2007 to 28- 09-2007.
- Workshop on Soft Skills from 24-03-2010 to 26-03-2010 held at Infosys Technologies Ltd, Bangalore
- Participated in a Mission10X workshop conducted at Bapuji Institute of Engineering and Technology, Davangere from 02-02-2010 to06-02-2010.

- Mission 10X advanced workshop held on 19-04-2010 to 20-04-2010 at Bapuji Institute of Engineering and Technology, Davangere.
- "Cloud Meets Big Data" EMC academic Summit 2012 held at M S Ramaiah Institute of Technology, Bangalore on 10-02-2012.
- Attended one day Workshop on "Machine Learning Crash Course" at Google Campus, Bangalore on 7th July 2018.

### Extra/Co-curricular Activities

- Organised and hosted 2015-IEEE technical sponsored International Conference on "Applied and Theoretical Computing and Communication Technology" from 29th October 2015 to 31st October 2015 at Bapuji Institute of Engineering and Technology, Davangere
- Designed, developed and successfully maintaining the college website http://www.bietdvg.edu.,
- Actively take part in the annual cultural festival "Davana" as judge for selecting the college team, managing the
  registration committee and also acts as a judge during the conduction of festival.
- Co-ordinator for Registration Committee on VTU Youth Festival-6
- Chairman for Registration Committee VTU-Youth Festival-14.
- Member of Local Inspection Committee for Visvesvaraya Technological University Belgaum for the year 2014 and 2015.
- Reviewer for the reputed Journals Elsevier E-Commerce Research Applications and URENG journals and many Conferences at National and International Level.

#### Grants

- Received grants of Rs .40 lacs from Vision Group of Science and Technology, Government of Karnataka for the proposal "Novel approach to formulate Zone parameters to improve the crop yield using remote sensing the data for precision agricultural" GRD:338
- Received grants of Rs.3.0 lakhs for the student project proposal titled "Traffic Light Pre-emption for emergency Vehicles" under NAIN [New Age Incubation Network], Govt. Of Karnataka Initiative
- Received grants of Rs.3.0 lakhs for the student project proposal titled "Smart No Parking Detection System" under NAIN [New Age Incubation Network], Govt. of Karnataka Initiative
- Received grants of Rs.3.0 lakhs for the student project proposal titled "Depression Detection System using Machine Learning Techniques" under NAIN [ New Age Incubation Network], Govt. of Karnataka Initiative

# Research Plan

Following are the research goals for the next five years

- To work on the optimizing the Click and query stream Recommendation Systems with supervised learning algorithms
- Applications of Machine Learning, Deep learning, variants of Neural networks for precision Forming
- Research Collaboration with foreign Universities

Dr. Nirmala C R
Professor and Head
CS and E, BIET