Dr. SANTOSH K C

Assistant Professor,
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Objective

To pursue an intellectual and challenging career in the field of teaching which encourages learning and creativity to the students and groom the students with my experience and knowledge.

Research Interest

- Image Processing
- Machine Learning
- Pattern Recognition
- Medical Image analysis

Academic Profile

Ph.D. in C S and E Research Centre, Bapuji Institute of Engineering andTechnology, Davanagere. Affiliated to Visvesvaraya Technological University, Belagavi, titled **"Machine Learning Approach for Estimation of Age and Identification of Sex based on Digital Images of Teeth, Wrist and Femur bone".** Completed on February 2023.

Visvesvaraya Technological University, Belagavi *2011-2014*
M.Tech. (**Computer Science & Engineering**) **[QIP]** from Bapuji Institute of Engineering and Technology, Davanagere. Affiliated to Visvesvaraya Technological University, Belagavi.

Visvesvaraya Technological University, Belagavi *2006-2009*
B.E. (Computer Science & Engineering) from Bapuji Institute of Engineering andTechnology, Davanagere. Affiliated to Visvesvaraya Technological University, Belagavi

Teaching Experience

13 years 04 months of teaching experience and **6 years** of research experience.

- Presently working as Associate Professor in the department of C S and E, BapujiInstitute of Engineering and technology, Davangere from 01-05-2023 to till date.

- Worked as Assistant Professor in the department of C S and E, Bapuji Institute of Engineeringand technology, Davangere from 01-12-2012 to 30-04-2023.
- Worked as Lecturer in the department of C S and E, Bapuji Institute of Engineering and technology, Davangere from 01 02-2010 to 30-11-2012.

Professional Membership

- Life Member of Indian Society for Technical Education **Number: LM 70932**
- Computer Science Teacher Association (CSTA) Member. **ID: 198357999465**
- Life member of International Association of Engineers. (IAENG) **ID: 282949**
- Indian Research Information Network System (IRINS). **Vidwan ID: 221983**

Technical Details

- **Programming Languages:** C, C++, TCL/NS2 and Matlab.
- **Tools and Libraries:** Image Processing Toolbox of MATLAB, Latex.

Major Achievements

- Awarded as the best mentor for mentoring the best project for Open house project exhibition **"PROGYAN-1.0"** held on 20th and 21st May 2019 in the Department of Computer Science and Engineering, Bapuji Institute of Engineering and Technology, Davanagere.
- Student's feedback: Obtained **98.89%** in the year 2018.
- Received KSCST Project grant worth 4500/- for UG project in the year 2019-2020
- Delivered talk on Digital dentistry in College of Dental Science, Davangere in association with Indian Dental Association.

Subjects Taught

Principles of Programming using C language, System Modeling and Simulation, C Programming for problem solving, Advanced Computer Architecture, Cloud Computing, Computer Networks-I, Computer Networks-II, Data Communications, Programming in C and Data structures.

Additional Roles and responsibilities

- CSE forum coordinator from 2020 to till date.
- Placement coordinator of CSE department from 2021 to March 2023.
- Alumni Coordinator of CSE department.
- Department level timetable coordinator in the year 2015 and 2019.
- Worked as department level coordinator for ISTE student chapter in the year 2018-19
- Inter department BPL cricket tournament Coordinator from 2011 to till date.
- Actively involved in organizing five day offline FDP on **"Microsoft Power BI Data Analyst Associate"** from 10-10-2022 to 14-10-2022 in association with ICT Academy.
- Actively participated in Industry Workshop on "Machine Learning to Deep Learning" organized by Computer Science & Engineering Department in association with BCIC, Bangalore, on 23rd February 2019.
- Actively involved in organizing 41st KSCST state level seminar and exhibition in Logistics department held at BIET on 10th and 11th Aug 2018.
- Actively involved in accompanying students for IBM "The Great Mind Challenge" National level project development contest face to face evaluation in the year 2011 at RVCE, Bengaluru.
- Actively participated in organizing one-day "social service: Visited government school" at Jarikatte village, Davanagere (tq) for awareness of students with computer skills and competitive exams.
- Actively involved in accompanying students for Infosys campus as a part of Spark program hosted at Infosys campus connect, Bengaluru
- Team member for facilitating ICT training program for BIET office staff and library staff to get more exposures on basic computer skills.
- Actively participated in three days International conference ICATCCT (Applied and Theoretical Computing and Communication Technology) from 29/10/2015 to 31/10/2015 organized by CSE dept. BIET, Davanagere
- Actively involved in organizing 24 hours coding for students from ICT academy "Learnathon- student championship 2018" on 2nd and 3rd Feb 2018 in association with

Salesforce hosted by CS and E department, BIET, Davangere.
- Regularly involved in organizing certification course on IBM tools like: Tivoli Directory Server, RAD and DB2.
- Actively involved in organizing Mission 10X in association with Wipro, Bengaluru in the year 2010 and 2012.
- Department Coordinator for COVID-19 cell.

Publications

- Santosh K C and Pradeep N., **"Performance Evaluation of LIBSVM and MSVM in Human Age Estimation and Gender Identification from Digital Images of Femur bone"** Signal, Image, and Video Processing Journal, Springer. *DOI: 10.21203/rs.3.rs-2073028/v1*

- Santosh K C and Pradeep N. **"Machine Learning Techniques for Human Age and Gender Identification Based on Teeth X-Ray Images",** Hindawi, Q2-Journal of Healthcare Engineering. Volume 2022, Article ID 8302674, 14 pages. *https://doi.org/10.1155/2022/8302674*

- Santosh K C and Pradeep N, **"Novel approach to determine age and gender from wrist x-ray images"** in Turkish Journal of Computer and Mathematics Education (TURCOMAT). E-ISSN: 1309-4653. Vol.12 No.3 (2021), pp. 5215-5229. *https://doi.org/10.17762/turcomat.v12i3.2151*

- Santosh K C and Pradeep N, **"Knowledge Discovery (Feature Identification) from Teeth, Wrist and Femur Images to Determine Human Age and Gender"** chapter published to a Book titled "Machine Learning with Health Care Perspective" published by Springer Nature Switzerland. Vol. 13, 2020, pp. 133-158. *https://doi.org/10.1007/978-3-030-40850-3*

- Santosh K C and Pradeep N, "**Development of Human Age and Gender Identification System from Teeth, Wrist and Femur Images"** in the proceedings of Sustainable Computing in Science, Technology and Management (SUSCOM-2019) Amity University, Jaipur, pp. 640-644, 2019 *https://ssrn.com/abstract=3354441.*

- Santosh K C and Bharathi N, **"Implementation of K-Means Clustering Approach for the Edge Detection and Disease Identification of Cotton Leaves".** International Journal of Engineering and Manufacturing Science. ISSN 2249-3115 Volume 8, Number 1 (2018) pp. 135-144

- Santosh K C, **"Dynamic load balanced multicast for data-intensive application on Clouds"** Sahyadri College, Shivammoga, 2014.

Workshops/Short term courses attended

- Resource Person for Mobile Application Development workshop conducted for 6th Sem CSE students on 15th May 2023.
- Two days FDP on **"Interface of IPR in Academics and Entrepreneurship"** organized by KSCST in association with Bapuji Institute of Engineering and Technology, Davangere on 2nd and 3rd March 2023.
- 5 days offline FDP on **"Microsoft Power BI Data Analyst Associate"** organized by department of CSE, BIET, in association with ICT Academy from 10th Oct 2022 to 14th October 2022.
- 5 Day FDP on **"Inculcating Universal Human Values in Technical Education"**

organized by **AICTE** from 9th May to 13th May 2022, received certificate on 8th June 2022.

- Presented a paper online entitled **"Detection of cracks and spalls of building using CNN"** on 22nd Feb 2022 sponsored by Haryana state council for Science, Innovation & Technology, Haryana.
- Webinar on **"Open source tools for research & development"** organized by Dept. of CSE, SJCIT Chickballapur on 5th Feb 2022.
- IP Awareness program "National Intellectual Property Awareness Mission" on 28th January 2022 organized by Intellectual Property Office, India.
- Two days Webinar on "An Insight in NACC revised guidelines" 4-5 Aug 2021
- International Webinar on "Applications of Cryptography in Cyber Security" 21st July, 2021
- Webinar on "Python for Data Pre-processing" 25th July, 2021
- One week FDP "Research Areas in Biomedical Signal Processing" 12-17 Oct 2021.
- 3–Day FDP from 22nd to 24th July 2021 on "Zero Coding: Data Analytics and Machine Learning for IoT Automation" organized by CSE Dept., VVCE, Mysuru.
- Engineering Faculty Empowerment Programme on "Formulation of Research proposal under DST/DRDO/ISRO/DIETY schemes" conducted by R&D denter MSE college, Bengaluru on 30th Jun 2015
- ISTE-SRM one week short term programme on "Host Your Own World Wide Web" conducted by Bapuji polytechnic, Davangere from 07/07/2014 to 11/07/2014
- Two days' workshop on "NS2 Programming" conducted by Dept. of ISE, CMRIT, Bengaluru on 20th Jul and 21st Jul 2014
- Three days' workshop on "Feel teacher" Learning and Development Intervention conducted by CSE dept. BIET, Davanagere in association with CLHRD Mangalore from 19th April to 21st April 2013
- Two-days boot camp and 24 hrs. Hackathon on "Building Chatbots using IBM Watson" held in BIET, from 11th to 13th Oct 2018.
- AICTE Sponsored one week Faculty Development Programme. Modern Trends in AI and ML
- 9-Day National Level Online Faculty Development Program on "Foregrounding the Spectrum of Character Building in Modern Human Life" 25June - 03 July 2021
- Two day FDP on "Advanced Materials & Manufacturing for Industry 4.0 (AMMI-2021)" 26-27 June 2021
- International webinar on "Machine Learning With Impact" on 19th Mar 2021

Memorandum of Understanding (MoU)

- MoU has been established between research scholar and Bapuji Dental College, Davangere on 18-08-2017 to collect OrthoPantomoGram of teeth.
- MoU has been established on 29-09-2018 with Jagadguru Jayadeva Murugarajendra Medical College, Davangere to collect digital images.

Copyright details

- Research methodology entitled **"Human Age and Gender Identification System using MSVM and LIBSVM based on Wrist, Teeth and Femur X-Ray Images"** was applied for copyright on 19/08/2021 with dairy no. 19945/2021-CO/L. Copyright was registered from **Copyright Office, Government of India on 29/09/2021** with registration no L-

108005/2021 along with Copyright registration certificate.

Academic Projects

M.Tech Final Year Project

Project Title: "Dynamic load balanced multicast for data-intensive application on Clouds"
Platform: Windows XP
Language: Java

Cloud Computing is fast emerging as the preferred technology by many organizations to save cost and optimize business operations. Any user can able to store his huge amount of data in cloud and he can the retrieve it as and when required based on two algorithms. So there is a need to propose an effective scheme which supports to access cloud information most efficiently and reliable. In this project flow of data between the cloud server and client is carried in a most effective way.

B.E Final Year Project

Project Title: A Fully Distributed Proactively Secure threshold-Multisignature Scheme

Language: Java

Threshold-Multisignature schemes combine the properties of threshold group-orientedsignature schemes and Multisignature schemes to yield a signature scheme that allows a threshold (t) or more group members to collaboratively sign an arbitrary message.

Personal Details

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		S/o Chandrappa K
		D.No. 1869/48, 7th main 2nd cross
		Swami Vivekananda Badavane
		Davangere-577004.
Date of Birth	:	21st January, 1982 .
Gender	:	Male
Languages Known	:	English, Kannada, Hindi and Telugu
Father's Name	:	K. Chandrappa

Declaration

   I hereby declare that information furnished above is true to the best of my knowledge and belief.

Date:
Place: Davangere   Santosh K C