

Dr. PRADEEP. N

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Associate Professor

PG Coordinator

Dept. of CS and E, BIET,

DAVANGERE -577004

RESEARCH INTEREST

Image Processing, Machine Learning, Artificial Neural Networks, Data Mining, Pattern Recognition, Pattern Classification, Medical Image Analysis.

TEACHING EXPERIENCE Having **13 years** of teaching experience and **7 years** in research

- Presently working as M.Tech. Coordinator from January 2015 to till date.
- Presently working as Associate Professor from December 2014 in Computer Science and Engineering, BIET, Davangere to till date.
- Worked as Assistant Professor in Computer Science and Engineering, B.I.E.T., Davangere from September 2008 to November 2014.
- Worked as Lecturer in Computer Science and Engineering, B.I.E.T., Davangere from September 2003 to August 2008.
- Working as an IGNOU Councilor at B.I.E.T. - Study Center from 2004 to till date.

INDUSTRIAL EXPERIENCE

- Worked as a Project Trainee at **VISTARA INFORMATICS (P) Ltd.** from Oct-2001 to May-2002.

EDUCATION

Ph.D. in Computer Science and Engineering from Visvesvaraya Technological University, Belgaum during the year 2014-15.

M.Tech. in Computer Engineering from SJCE College, Mysore. Affiliated to Visvesvaraya Technological University, Belgaum., during the year 2002

Percentage (First Class):

69%

SKILLS PROFILE

- Operating System: Linux, Windows9x/2000.
- Languages: C, C++, Matlab
- Networking Knowledge: TCP/IP, MPLS, DiffServ, QoS.
- Data Mining Tools Knowledge: Weka

PUBLICATIONS

In International Journals:

1. Pradeep N, Girisha H, K. and K Karibasappa, "***Segmentation and Feature Extraction of Tumors from Digital Mammograms***", Computer Engineering and Intelligent Systems, IISTE, ISSN: 2222-1719(Paper) ISSN: 2222-2863(Online), Vol.3, No.4, pp.37-46, 2012.
2. Pradeep N, Girisha H, Sreepathi B and K. Karibasappa, "***Feature Extraction of Mammograms***", International Journal of Bioinformatics Research, ISSN: 0975-9115, EISSN: 0975-9115, Vol. 4, Issue 1, pp.241-244, 2012.

In International and National Conferences:

3. Pradeep N and Sandeep B, "Machine Learning Approach for the Identification of Diabetes Retinopathy and its Stages" , In the Proceedings of 2015 IEEE International Conference on Applied and Theoretical Computing and Communication Technology (ICATccT 2015), IEEE Part Number: CFP15D66-USB, ISBN: 978-1-4673-9222-8, pp.653 – 658, doi: 10.1109/ICATCCT.2015.7456906.
4. Pradeep N and Madhumathi V J, "Plant Identification System Using its Leaf Features", In the Proceedings of 2015 IEEE International Conference on Applied and Theoretical Computing and Communication Technology (ICATccT2015), IEEE Part Number: CFP15D66-USB, ISBN: 978-1-4673-9222-8, pp. 338–343, doi: 10.1109/ICATCCT. 2015.7456906.
5. Manjunath P Shirageri and Pradeep N "***Secure Message Communication for Battlefield Soldiers Using Android***", International Conference on Computer Science and Information Technology (ICCSIT), Tirupati, India, June 10 2012.
6. Manjunath P Shirageri and Pradeep N "***An Extensible framework for efficient secure SMS transfer over android platform***", National conference on Innovation in Computers Information & Communication , Sasurie college of Engineering, Vijayamangalam, Tirupur, India, March 17 2012.
7. Manjunath P Shirageri and Pradeep N "***Secure Message Communication for Battlefield Soldiers Using Android***" , National Conference on Current Trends in Computer Science and Engineering , Jain University, Bangalore, May 26 2012.
8. Manjunath P Shirageri and Pradeep N "***Current Attacks in Android: A Survey***", National Conference on Emerging and Innovative Trends in Computer Science

Vasavi College of Engineering, Ibrahimbagh, Hyderabad, May 1-2 2012.

9. Manjunath P Shirageri and Pradeep N "***Location Based Services for Battlefield Soldiers Using Android***", National Conference on Current Trends & Challenges in Information Technology , Sambhram Institute of Technology , Bangalore , May 11 2012.
10. Pradeep N and K Karibasappa "***Comparative Study of tumor classification in Mammography images using ANN and SVM***", International Symposium on Global Trends in Biomedical Informatics Research, Education, and commercialization, Chennai, January 11-12 2008.
11. Pradeep N , K Karibasappa, Shankaragouda B and V Ramaswamy "***An Artificial Neural Network Approach for Mammography images Feature Extraction***" In the Proceedings of International Conference on Cognition and Recognition, PES college of Engineering, Mandya, December 22 2005.
12. Pradeep N and K Karibasappa "***Computer Aided Diagnosis of Solid Breast Nodules using Artificial Neural Network Approach and Expert System***", 3rd National Conference on Mathematical and Computational Models (NCMCM 2005), Kaveraipettai, Tamilnadu. December 15-16 2005.
13. Pradeep N and K Karibasappa "***An ANN approach for the detection of Solid Breast Nodules***", 2nd National Conference on DBMS and Networking , Erode Sengunthar Engineering College, Thudupathi, TamilNadu , September 8-9 2005.
14. Pradeep N and K Karibasappa "***An ANN approach for the detection of Solid Breast Nodules***", National Level Conference on Recent Trends in Information Technology, Sir M.Visvesvaraya Institute of Technology. August 2-3 2005.
15. Pradeep N and K Karibasappa "***Computer-Aided Diagnosis of Solid Breast Nodules using an Artificial Neural Network Approach and Expert System***", National Conference High Performance Computing and Communications, R.M.K Engineering College, Kaveraipettai, TamilNadu , September 15-16 2005.

CITATIONS

Paper : Feature Extraction of Mammograms

1. Aderonke A. Kayode, Babajide S.Afolabi, Bolanle O. Ibitoye, "***Preparing Mammograms for Classification Task: Processing and Analysis of Mammograms***", International Journal of Information Engineering and Electronic Business, 2016, 3, 57-66 Published Online May 2016 in MECS

(<http://www.mecs-press.org/>) DOI: 10.5815/ijieeb.2016.03.07

2. Saurabh Verma, Kumar Manu, Mansi Vashisht and Monica Kathuria, **"A Technique to detect masses from Digital Mammograms Using Artificial Neural Network"**, International Journal of Electronics, Communication & Instrumentation Engineering Research and Development (IJEIERD) ISSN(P): 2249-684X; ISSN(E): 2249-7951, Vol. 3, Issue 5, Dec 2013, 39-52, © TJPRC Pvt. Ltd.
3. Neethu P. Abraham, Narain Ponraj and Dr. Poongodi, **"Segmentation Methods for Locating Masses and Locating Breast Boundaries: A Survey"**, International Journal of Advanced Research in IT and Engineering (IJARIE), ISSN: 2278-6244., Vol. 1, No. 5, November 2012.
4. Mohamed S. ElBially, Mohamed S. Ahmed, Mohamed H. AbdelGawwad, Fatma A. Ali, Fady S. Botros, Yasser M. Kadah, Biomedical Engineering Department, Cairo University, Giza, Egypt, **"K8. Hand-Held Computer Aided Diagnosis System with Application in Mammography"**, 30th IEEE NATIONAL RADIO SCIENCE CONFERENCE (NRSC 2013) April 16-18, 2013, National Telecommunication Institute, Egypt.
5. Arpana M.A, Prathiba Kiran, **"Feature Extraction Values for Digital Mammograms"**, International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-4, Issue-2, May 2014.
6. Kalaiselvi Chinnathambi, Asokan Ramasamy, Premkumar Rajendran, **"An Effective Clustering technique for WBC Image Segmentation and its Classification"**, International Journal of Digital Signal and Image Processing (IJD SIP) Vol. 2, No. 1, (March 2014)
7. Karmilasari, Suryarini Widodo, Matrisya Hermita, Nur Putri Agustiyani, Yuhilza Hanum, Dept. of Information System Faculty of Computer Science & Information Technology, Gunadarma University, Depok, Indonesia; Lussiana ETP, Dept. of Information Systems STMIK Jakarta STI&K Jakarta, Jakarta, Indonesia, **"Sample K-Means Clustering Method for Determining the Stage of Breast Cancer Malignancy Based on Cancer Size on Mammogram Image Basis"**, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 5, No. 3, 2014.
8. Yousuf, S.E.K.; Dept. of Eng., Univ. of Med. Sci. & Technol., Khartoum, Sudan; Mohammed, S.H.A.A., **"A Parallel Computer System for the Detection and**

Classification of Breast Masses", In the Proceedings of IEEE 2013 International Conference On Computer, Electrical And Electronics Engineering (ICCEEE) , IEEE Catalog Number: CFP13III-CDR, ISBN:978-1-4673-6231-3, DOI:10.1109/ICCEEE.2013.6633933, INSPEC Accession Number: 13850690

9. A.S.N. Huda, S. Taib, **"Suitable features selection for monitoring thermal condition of electrical equipment using infrared thermography"**, Infrared Physics and Technology, Volume 61, November 2013, Pages 184-191.
10. Ashita Paliwal, Shivika Bisen , Muhammad Rukunuddin Ghalib, Sharmila N, **"An Improved Segmentation Technique Based on Delaunay Triangulations for Breast Infiltration/Tumor Detection from Mammograms"**, International Journal of Engineering and Technology (IJET) ISSN : 0975-4024 Vol. 5 No. 3 Jun-Jul 2013

Paper: "Segmentation and Feature Extraction of Tumors from Digital Mammograms"

11. K.Vaidehi, T.S.Subashini, **"A global approach for detecting mass in Digital Mammograms"**, International Journal of Advancements in Research & Technology, Volume 1, Issue6, November-2012, ISSN 2278-7763.
12. Shahid M. A. K., Sabir R. and Awan M. S., **"A novel approach for mammogram image analysis using the idea of shape features and texture analysis"**, Peak Journal of Medicine and Medical Science, ISSN 2329-292X, Vol.1(2), pp.4-13, May 2013, <http://www.peakjournals.org/sub-journals-PJMMS.html> ©2013 Peak Journals.

ACHIEVEMENTS

1. **Mission10X Certification** Course have been successfully completed and approved by Mission10X group from Wipro Technologies Pvt. Ltd., Bangalore.
2. Project entitled **"Implementing Secured Systems using Cued Click Points"** and **"Absolute Live Support"** has been awarded as **"Best Project"** in the CS & E Dept. in the **In-House Project Exhibition** in year **2010** and **2011** respectively. The project was carried out under my guidance.
3. Two Times awarded as a top teacher during 2003-04 and 2007-08.
4. Students' project was selected for **KSCST- project exhibition** held at Basweshwar Engineering College, Bagalkot on 2nd and 3rd Sept 2005 under my guidance.

5. Won **2nd place** in shuttle-cock match conducted by Bio-Medical forum during 2006.
6. Four B.E. final year projects have been sponsored by KSCST under my guidance.

SHORT TERM COURSES/WORKSHOPS

Attended

1. Attended 5 days Faculty Development Programme on “Soft Computing Approaches to Image Processing and Pattern Recognition” conducted by CS & E dept. Basaveshwar Engineering College(Autonomous), Bagalkot from March 20th to 24th March 2010.
2. Attended 5 Days workshop on “High Impact Teaching Skills” conducted by Wipro Technologies Pvt. Ltd. conducted in BIET, Davangere from Feb 2nd to Feb 8th 2010.
3. Attended a Two day workshop on “Research Methodologies” conducted by VTU at MSRIT, Bangalore during May 2009.
4. Attended a QIP –Short Term Faculty Development program on “Ubiquitous Computing” conducted by IISC in Bangalore during 2005.
5. Attended a short term course on “Constitution of India and Philosophical Ethics “conducted by BIET in Davangere during 2005.
6. Attended a short term course on “Quality of Service on Internet “conducted by BIET in Davangere during 2005.
7. Attended a short term course on “Unleash the Full Potential of Power Linux” conducted by BIET in Davangere during 2004.
8. Attended one day workshop to finalize the VTU syllabus for B.E. (CSE/ISE) branches during 2004, held at KLE’s Gogte Institute of Technology.

RESPONSIBILITIES

- Time Table Co-Ordinator during 2003-2004, 2006-2007 and 2014
- Training and Placement Co-Ordinator
- Team member for preparing AICTE compliance report, Mandiatory disclosure

and National Board of Accreditation (NBA) document.

- Member for preparing and submitting the proposals for AICTE under MODROBS scheme.
- Student advisor for first year students as well as higher semester students.
- Involved in CS & E forum activities.
- Academic Counselor Co-Ordinator.
- Member of anti-ragging squad.
- Member of Infosys initiated Campus Connect Programme for both Hard Skills and Soft Skills.

Project Guided/Guiding:

For B.E.: 50 batches

For M.Tech. : 20 students

SUBJECTS TAUGHT

For B.E.

Object Oriented Programming with C++., Unix and Shell Programming, Storage Area Networks, Operating Systems, System Simulation and Modelling, Computer Networks, Computer Professional and Philosophical Ethics, Software Engineering, Object Oriented Analysis and Design, Multimedia Communications, Database Management Systems, JAVA

For M.Tech.

OOAD and Design Patterns, Topics in Multimedia Communications , Protocol Engineering, Advances in Storage Area Networks, Information and Network Security, Pattern Recognition

Ph.D Thesis: "Analysis and Classification of Breast Tumors using Support Vector Machines"

Cancer is uncontrolled growth of cells. Early detection of the cancer can reduce mortality rate. Breast Cancer is the uncontrolled growth of cells in the breast region. It is the second leading cause of cancer deaths in women today. It is one of the most common kinds of cancer, as well as the leading cause of mortality among women. It is a complex disease that affects women and men of all ages and ethnic groups. Despite decades of productive research on breast cancer diagnosis and treatment, preventing this cancer is the only way to reduce the human toll of this

disease that affects 1 in 8 women in their lifetime. This prevention can be made if breast cancer is detected at the earlier stage itself. Early detection of Breast Cancer can be achieved using Digital Mammography, typically through detection of characteristic masses or tumors and/or microcalcifications. Retrospective studies revealed that, in current breast cancer screenings approximately 15 to 30 percent of breast cancer cases are missed by radiologists. With the advances in digital image processing techniques, it is envisaged that radiologists will have opportunities to decrease this margin of error and hence, improve their diagnosis.

The goal of this research is to increase the diagnostic accuracy of image processing and machine learning techniques for optimum classification between malignant and benign abnormalities in digital mammograms by reducing the number of misclassified cancers. Various features like texture, shape and statistical features are extracted from the tumor segmented from the ROI of the input image. Different kernels of SVM are experimented using LIBSVM and an evaluation is made to judge which kernel will produce a promising results. The experimentation is carried out on two datasets: One is publicly available dataset and other from collecting digital mammograms from a local hospital. A Graphical User Interface is developed as a part of Computer Aided Diagnosis system which helps the radiologists for the diagnosis of tumor present in the digital mammogram. The resulting computerized classifier system will subsequently act as a second reader after the manual detection by the radiologists.

Project at Vistara Informatics (P) Ltd. :

1.

Project : QoS with DiffServ

Duration : 8 Months (Oct -2001 to May-2002)

Roles : As an active team member in developing the code and testing.

Domain : Linux.

Traffic Generator Tools Used: MGEN, DREC

Description: Recent years have seen an increase in the Internet usage, resulting in a scarcity of network resources. Internet Service Providers traditionally provided the same level of service to all customers, namely best effort service. But the increased Internet usage resulted in a performance hit of highly mission critical applications. At the same time, newer applications that needed better service quality emerged. As a

result, the service providers felt the need to provide differential levels of service to the customers. DiffServ provides a wide range of services through a combination of the following functions.

- Setting bits in the TOS octet at network edges and administrative boundaries
- Using those bits to determine how packets are treated by the routers inside the network
- Conditioning the marked packets at network boundaries in accordance with the requirements of each service.

2. Project during Graduation:

Title: "PC Based Automatic Monitoring and Controlling of Power System".

Operating System: Windows 98.

Team Members: 4.

Description: In this project, the line voltage is continuously monitored, converted to its equivalent digital value and fed to a PC. Certain initial values are stored in PC, which are the limiting values of voltage. Whenever, the line voltage exceeds the specified value of voltage (i.e., stored in the PC) the PC controls a relay which will isolated the power line from the domestic transformer. Here in this project only switching action of relay is shown. The code is written in 'C' language.

PERSONAL PROFILE:

Name	PRADEEP.N
Father's Name	NIJALINGAPPA. M
Date of Birth	25 th MAY 1977
Sex	MALE
Languages	ENGLISH, HINDI and KANNADA
Address	Pradeep.N #2035/51,8 th Cross, Anjaneya Layout, Davangere-577 004

Date:

Place: Davangere
