BIO-DATA

OF

Dr. D. S. GURU

PROFESSOR, DEPT OF STUDIES IN COMPUTER SCIENCE,

CHAIRMAN, ADMISSION REFORMATION COMMITTEE

DIRECTOR, DIRECTORATE OF DISTANCE EDUCATION

DIRECTOR, INTERNAL QUALITY ASSURANCE CELL

CHAIRMAN, DEPT OF STUDIES IN COMPUTER SCIENCE (2016-2018)

CHAIRMAN, BOARD OF STUDIES IN COMPUTER SCIENCE (PG & UG) (2015-2017)

CHIEF COORDINATOR, PG ENTRANCE EXAMINATION-2016

AND

NODAL OFFICER, CBCS EDUCATION (2010-2016)

DEPARTMENT OF STUDIES IN COMPUTER SCIENCE,
UNIVERSITY OF MYSORE, MANASAGANGOTRI,
MYSORE - 570 006, INDIA.

01. Personal details.

Name : Dr. D. S. GURU

Father's Name : Late. D. M. Shanthabasavaiah

& Occupation Rtd. Head Master.

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Date of Birth : July 27, 1970.

Place of Birth : Devanur, Mysore District, INDIA.

Sex : Male.

Nationality : Indian.

Marital Status : Married, blessed with a son and a

daughter.

02. Educational Details.

2.1 Professional.

Ph.D. (1997 - 2000) Doctorate in Computer Science from the University of Mysore under the supervision of Prof. P. Nagabhushan

Title: Towards accurate recognition of objects employing a partial knowledge base: Some new approaches

(An extensive exploration of efficient TOPOLOGY and SHAPE based algorithms for 2D-object recognition by creating a partial knowledge base)

M.Sc. - (1991-1993) Master of Science in Computer Science from the University of Mysore.

SECURED FIRST RANK WITH 78.25% OF MARKS.

Project: "SYNTHESIZER+" A MINIMAL RDB DESIGNER.

(An automated software tool for the minimal Relational Data Base design with respect to a given set of integrity constraints in general, functional dependencies in particular. The designs produced are shown to be minimal. A novel idea was incorporated)

* Based on this project work, two technical papers were presented in student conferences and one of them was awarded a best prize.

B.Sc. - (1988-1991) Bachelor of Science in Physics, Mathematics and Computer Science from the University of Mysore.

SECURED EIGHTH RANK WITH 80.33% OF MARKS.

2.2 Additional.

- Awarded BOYSCAST fellowship by the Department of Science and Technology, Govt. of India to visit Michigan State University for advanced research for 6 months from April-2005 to Sept. 2005 as a post doctoral work.
- Awarded National Merit Scholarship during PG. Studies.
- Qualified in National Education Test (1995) accredited by UGC, which is mandatory for any faculty position in Universities.
- Awarded the best student paper presentation prize in CSI convention 1993.

03. Professional Experience.

Oct 2013 – Oct 2017 **Chairman**, Board of Studies in Computer Science (PG and UG), University of Mysore

Feb. 2012- **Professor**, Dept. of Studies in Computer Science, University of Mysore, Mysore.

Jul. 2009 – June 2016 **Nodal Officer,** CBCS Education, University of Mysore, Mysore.

Feb. 2009 – Feb. 2012 **Associate Professor**, Dept. of Studies in Computer Science, University of Mysore, Mysore.

Aug. 2007 – **Adjunct Professor,** International School of Information Management (ISiM), University of Mysore, Mysore.

Feb. 2006 - Feb. 2009 **Reader** Dept. of Studies in Computer Science, University of Mysore, Mysore.

Feb. 2001 to Jan. 2006 - **Senior scale Lecturer**, Dept. of Studies in Computer Science, University of Mysore, Mysore.

Oct. 1996 to Jan. 2001 - **Lecturer**, Dept. of Studies in Computer Science, University of Mysore, Mysore.

Nov. 1995 to Oct. 1996 - **Adjunct Assistant Professor**, Vidhyaranya Academy of Computing, Affiliated to University of Mysore, Mysore.

Oct. 1993 to Sept. 1996 - **Lecturer (Temporary)**, Dept. of Studies in Computer Science, University of Mysore, Mysore.

04. Professional Recognition.

- 1. Director, Internal Quality Assurance Cell (IQAC), University of Mysore.
- 2. Director, Directorate of Distance Education, University of Mysore.
- 3. Chairman, Admission Reformation Committee-2017-19, University of Mysore
- 4. Member, Board of Management, Periyar Institute of Medical Sciences, Deemed University.
- 5. Chief Coordinator, PG Entrance Examination-2016, University of Mysore.
- 6. Chairman, Department of Studies in Computer Science, University of Mysore, Mysore for the period 2016-2018
- 7. Member, Academic Council, JSS College for Women, Saraswathipuram, Mysuru-9 for the period 2016-18.
- 8. Sectional Secretary, Information Communication Science and Technology Section, 103^{rd} Indian Science Congress 2016 held at University of Mysore from 3^{rd} to 7^{th} Jan 2016.
- 9. Chairman, Board of Studies in Computer Science (PG and UG), University of Mysore 2013-2016.
- 10. Member of Post-Graduate Sports Council, University of Mysore.
- 11. Identified as a Nodal Officer for successful implementation of Choice Based Credit System (CBCS) pattern in higher education in University of Mysore at PG level. Involved from the inception of idea of CBCS and drafting of regulations.
- 12. Visiting professor, Huanghuai University of China, Zhumadian, China, April 2008.
- 13. Delivered invited lecture at Marshal University, USA, West Virginia State University, USA.
- 14. Delivered key note lectures as ICCIMA'07 and ICCBIR'08
- 15. Have been assessed by students as the top rank 1 (best) faculty in the department for the last five years.
- 16. Worked as a Subject Expert, Karnataka Public Service Commission, Karnataka Govt.

- 17. Identified as a core committee member by University of Mysore in implementing the choice based credit based system for the entire university.
- 18. Involved in syllabus making for M.Tech (Computer Science and Technology) and M.S (Computer Cognition Technology), University of Mysore, Mysore.
- 19. Assisted the Chairman of the Department of Studies in Computer Science in designing and implementing M.Tech in Computer Science and Technology, M.Tech in Computer Cognition Technology and 3 years M.S (integrated) in Computer Science and Technology programs in University of Mysore and also to restructure the same programs towards credit based, choice based continuous assessment patterned programs.
- 20. The first permanent faculty member in the discipline of Computer Science and Technology, University of Mysore, Mysore.
- 21. Have been guiding several B.E, M.Tech, MCA, M.Sc and M.S thesis/project works.
- 22. Served as visiting faculty, Mangalore University, Mangalore and some other Engineering colleges.
- 23. Was offered a job by VxTel, a Multinational Company (Now taken by Intel) as a senior project leader.
- 24. Worked as the Treasurer, Vice President, student counselor and President Computer Society of India, Mysore Chapter.
- 25. Served as member of Board of Examiners and Board of Studies (PG) and Chairman, Board of Examiners (UG), University of Mysore, member, Board of Studies, University of Calicut.
- 26. Have been a member of the selection committee, admission to M.Sc, MCA, M.Tech and M.S, University of Mysore.
- 27. Have been actively involved in teaching PG programs such as M.Sc Computer Science, MCA Master of Computer Application, M.Tech in Computer Science and Technology, M.Tech in Computer Cognition and Technology and M.S (integrated).
- 28. Resource person for UGC/AICTE/ISTE orientation, refresher and short term teachers training course at Academic college and engineering colleges

05. Research Recognition

- 01. Have been identified as a reviewer for
 - (a) International Journal of Pattern Recognition Letters,
 - (b) Journal of Pattern Recognition,
 - (c) Journal of Document Analysis and Recognition,
 - (d) Journal of Image and Vision Computing,
 - (e) IEEE Transactions on Neural Networks.
 - (f) IEEE Transactions on Patter Analysis and Machine Intellegence
 - (g) IEEE Transactions on systems, Man, and cybernetics
 - (h) IEEE transactions on Image Processing

(i) Journal of Information systems Etc.,

- 02. Served as an **Organizing Chair**, International Conference on Data Analytics and Learning 2018 (DAL'18), Mysore. **DAL'2018**
- 03. Served as a member of **Program Committee**, International Conference on Document Analysis and Recognition (DAL'18), Kyoto, Japan. **ICADAR2017**
- 04. Served as a **General Chair**, International Conference on Cognition and Recognition, 2016, MIT Mysore. **ICCR2016**
- 05. Served as a member of **Program Committee**, International Conference Series Mining Intelligence and Knowledge Exploration (MIKE), **MIKE2013 MIKE2018**.
- 06. Served as a **Program Chair**, International Conference on Multimedia data Communication and Computer Applications 2012. **ICMCCA2012**.
- 07. Served as an **Organizing Secretary**, International Conference on Cognition and Recognition, 2011, Mysore. **ICCR2011**
- 08. Served as a **program chair**, International Conference on Signal and Image Processing, 2009, Mysore. **ICSIP2009**
- 09. Delivered an invited talk at Marshal University, West Verginia state university, USA and also International Conference on Machine Intelligence and Multimedia Applications (ICCIMA 07) an International conference.
- 10. Have been working as a referee / reviewer for National and International Conferences including ACM and IEEE sponsored conferences.
- 11. Have been chairing sessions in National and International Conferences, ICDAR, NCDAR, ICCIMA, ICVGIP etc.
- 12. Recognized as a research guide to supervise candidates working towards M.Sc (Tech) by Research and Ph.D in Computer Science and Technology, University of Mysore.
- 13. Delivered sequence of lecturers on Research and its importance and Documentation at National workshop conducted by National Engineering College, Kovilpatti, November 17-18, 2006.
- 14. Served as a member of the organizing committees, National Conference on Document Image Analysis and Recognition, 2001 and 2003 and International Conference on Cognition & Recognition, 2005 and 2008.
- 15. Worked as resource person in several Symposiums, Workshops and Short-term courses.
- 16. Established and have been the person in charge, Research Lab, Department of Studies in Computer Science, University of Mysore, Mysore.
- 17. Served as the team leader in conducting a three days workshop on image processing at Lady Doak College, Madurai, Tamil Nadu, Feb 18th 20th, 2002.
- 18. Pixel Show-2004, State-level Technical Seminar on "Document Image Processing, Mainframe, Net and Embedded system", Academy of Muthayammal College of Arts and Science, Rasipuram, Tamil Nadu, 7th Feb. 2004. (Resource person).

- 19. Pixel Show 2002, State-level Technical seminar on "Pattern Recognition", Academy of Muthayammal College of Arts and Science, Rasipuram, Tamilnadu, 16th Feb. 2002 (Resource Person).
- 20. Organized and conducted a week workshop on 'Hands on experience on Image Processing' for the benefit of researchers and faculty members in and around Mysore at the Department of Studies in Computer Science, Manasagangothri, Mysore, 25th of Feb 2nd of Mar 2002.
- 21. Published papers in National and International Conference Proceedings and Journals.
- 22. Presented papers in National and International Conferences, Symposiums and Workshops.
- 23. Guided a number of projects at M.Sc/ M.C.A/ M.Tech level and based on these some papers have been published.

06. Abroad Visit

- (a) Michigan State University, East Lansing, MI, USA, April 2005-Sept. 2005: Visiting researcher, Biometric group, PRIP lab
- (b) West Verginia University, USA, Aug. 2005 (One week): Delivered an invited talk on Eigen values for feature extraction
- (c) Marshal University, West Verginia, USA, Sept. 2005 (One week): Delivered an invited talk on advanced issues in Pattern Recognition and Image Processing
- (d) Visiting professor, **Huanghuai University of China, Zhumadian, China**, April 2008.
- (e) Workshop on EMERGING APPLICATIONS OF COMPUTER VISION (EACV-2011), **Russia. Moscow**, Russia, 1st–5th November 2011.

07. Awards Received

- 1. Awardee of ARP(Award for Research Publication) by Vision Group of Science and Technology, Karnataka State Government under Engineering Sciences for the year 2009 2010 based on research publication.
- 2. Recognized as "Best ethical teacher" from Rotary north. Mysore.
- 3. Fellow of BOYSCAST (2004 2005), Dept. of Science and Technology, Ministry of Science and Technology, Govt. of India.
- 4. Awarded the best student paper presentation prize in CSI convention 1993

08. Member of Professional / Academic bodies.

- Member of Board of Management, Periyar Institute of Medical Sciences, Deemed University.
- Served as a Chief Co-ordinator, PG Entrance Examination 2016, University of Mysore, Mysore
- Member of the Sectional Committee of the Section of Information and Communication Science & Technology (including Computer Science) for 2016-2017 of 104th Indian Science Congress.
- Life member of Computer Society of India (CSI). (Membership No: 8675)
 (Served as student counselor, Vice Chairman, Teacher and Chairman of CSI Mysore Chapter)
- Life member of Indian Society for Technical Education (ISTE). (Membership No: 928)
- Life member of the Society of Statistics, Computer and Applications, New Delhi. (Membership No: LM0202, served as advisory board member)
- Life member of Indian Unit of Pattern Recognition and Artificial Intelligence (IUPRAI) (Membership No: L 007).
- Life member of Indian Science Congress Association (ISCA). (Membership No: L26774)
- Was a member of Faculty of Science & Technology, University of Mysore.
- Served as a Chairman and Member, Board of Examiners (PG) and Board of Examiners (UG) in Computer Science, Information Technology in University of Mysore and also other universities in India.
- Member of Executive Council of Society of Statistics, Computer and Applications, New Delhi.

09. Areas of interest.

09.1 Academic interest

Discrete mathematics and Graph theory, Automata theory and Compiler design, Analysis and Design of Algorithms, Data structures, Data Base Systems, Software Engineering, Pattern Recognition, Image Processing.

09.2 Research Interest

Object recognition, Feature extraction, Cluster analysis, Spatial knowledge representation, Image retrieval, Advanced data structures, Symbolic data analysis, Image segmentation, Character recognition, Document image analysis, Sign language recognition, Shape analysis, Text classification,

Image/Video processing, Biometrics, Automation of Relational database design, Data Mining, Fuzzy Symbolic Databases, Precision Algorithm.

10. Post Doctoral Research Activities

- 1. Fuzzy-Symbolic Data Analysis for Object Recognition.
- 2. Design of Intelligent Fuzzy-Symbolic databases for data/image mining.
- 3. Classification of Symbolic Data through Symbolic Similarity and Dissimilarity Measures.
- 4. Design of intelligent models for Image archival and retrieval based on spatial relationship.
- 5. Automation of Sign language recognition and interpretation.
- 6. Document image analysis and recognition
- 7. Indexing of Biometrics.
- 8. Signature recognition/verification
- 10. Face recognition and indexing
- 11. Video Archival and Retrieval.

11. Research Supervision

11.1 Ph. D

Awarded

- 1. **Mahamad Suhil.** Representation and Classification of Text Data (Samsung Electro-Mechanics, Bangalore)
- 2. **Manjunatha K S.** User dependent Online signature verification system (Maharani's Science College, Mysore).
- 3. **Ravikumar M.** Estimation of Multiple skews in Trilingual Handwritten Document Images (Kuvempu University, Shivamogga).
- 4. **Sharath Kumar Y. H.** Classification and Retrieval of Flowers (MIT, Mysore)
- 5. **Mallikarjuna P. B.** Computer vision based solution for agricultural related problems (JSSATE College, Bengaluru).
- 6. **Elham D.** CARTV: Classification, Archival and Retrieval of Traffic Videos. (Iran)
- 7. Nagasundara K B. Biometric Indexing. (JSSATE College, Bengaluru).
- 8. **Manjunath S.** VARS: Video Archival and Retrieval System. (Samsung Electro-Mechanics, Bangalore)

- 9. **Harish B. S.** Classification of large textual data. (JSS S&T University, Mysore)
- 10. **Prakash H. N.** Analysis and understanding of handwritten signatures (RIT, Hassan).
- 11. **Suraj M.G.** Image processing based approaches for sign language interpretation (AIT, Chikkamagalore).
- 12. **H.S. Nagendraswamy.** Fuzzy symbolic approaches for representation and classification of 2D shapes. (University of Mysore)
- 13. **B. H. Shekar.** Intelligent algorithmic models for 3D object recognition. (Mangalore University)
- 14. **Bapu B. Kiranagi.** Classification of Symbolic data through symbolic similarity and dissimilarity measures (HCL Technologies, USA)
- 15. **Dinesh R.** POOR: Partially Occluded Object Recognition Some new techniques. (Samsung Electro-Mechanics, Bangalore)
- 16. **Punitha P.** IARS: Image Archival and Retrieval systems. (IBM, Bangalore)

Ongoing

- 17. **Vinay Kumar N.** Dimensionality Reduction of Interval Valued Data
- 18. **Sumithra R.** Study of Longitudinal Face Data of Children for Stable Face Recognition Accuracy
- 19. **Jyothi V K.** Archival and Retrieval of Flower Videos
- 20. **Mostafa Ali.** Agriculture Information System: Association Rules mining to Analyze Farmers' Complaints
- 21. Annapurna H.
- 22. Prajna S.

11.2 M.Sc (Technology) by Research

Awarded

- 1. **Girish R**. Pattern Recognition methodologies for recognition and interpretation of a sign language.
- 2. **Naveen**. Representation of document images: Spatial Relationship based approaches.
- 3. **Siddesha S.** Image Processing and Pattern Recognition approaches for classification of pollen grains

12. Workshops/ Symposiums / Conferences attended.

- 1. One day seminar on Information Science and Technology, Karnataka State Higher Education Council, Bangalore on 6th Sept 2011.
- 2. Invited as a resource person to School on Graph algorithms and delivered a talk on "Minimum Spanning Tree" held at Karnataka University, Dharwad, March 26-31,2011.
- 3. Delivered an invited talk in an international conference on "International Conference on Content Based Image Retrieval", held at PES Institute of Technology, Bangalore, during July 17th-19th 2008.
- 4. Delivered an invited talk in a national seminar on "Recent Trends in Video Processing" held at National Engineering College, Kovilpatti, 10th June 2007
- 5. Delivered an invited talk in a international conference on "International Conference on Computational Intelligence and Multimedia Applications (ICCIMA-07)" held at Mepco Shlenk Engineering College, Sivakasi, Tamilnadu, December 13-15, 2007.
- 6. Delivered an invited talk in a national symposium on "Intelligent Data Analytics and Pattern discovery" held at the Department of Information Technology, Bannariamman Institute of technology, Sathayamangalam, Erode DT. Tamilnadu 15-16 March 2007.
- 7. Third National Conference on Advanced Image Processing and Networking. National Engineering College, Kovilpatti, March 2-3, 2007. (Chaired a session).
- 8. National conference on Knowledge based Computing Systems and Frontier technologies. Manipal Institute of Technology, Manipal, Feb 19 20, 2007. (Chaired a person).
- 9. International Conference on Signal & Image Processing. Hubli, India, Dec 8 9, 2006 (Chaired a session, also a panalist).
- 10. Two days workshop on research motivation. National Engineering College, Kovilpatti, Oct 30 31, 2006. (Only resource person)
- 11. Chaired a session in a national event PG Sangama 2006, JNNC, Shimoga, March 17 18,2006.
- 12. Chaired a session in a national event in innovative talent search, GSSS, Institute of Engineers and Technology for women. April 21 22, 2006.
- 13. Delivered a lecture at the Institution of Engineers (India, Mysore Centre in collaboration with Mysore Chapter).
- 14. International Conference on Cognition and Recognition, Dec 22-23, 2005, Mysore. (Chaired a session).
- 15. Visiting Researcher, Michigan State University, East Lansing, USA, April 2005 Sept. 2005.
- 16. Cognition 2K5 A National Technical Symposium, March 12-13, 2005 at Mysore, India.

- 17. Annual conference of Society of Statistics, Computer and Applications, Dec. 22-24, 2004 at Delhi (Chaired a session).
- 18. Fourth Indian Conference on Computer Vision, Graphics and Image Processing ICVGIP-2004, Dec 16-18 2004 at Kolkata (Chaired a session)
- 19. National Conference on Document Analysis and Recognition, Mandya, Karnataka, July 11-12, 2003. (Chaired a session)
- 20. National Conference on Computers and Information Technology, Kilakarai, Tamil Nadu, Sep. 24 25, 2001. (Delivered a Talk)
- 21. National Conference on Document Analysis and Recognition, July 13-14, 2001, PES college of Engg, Mandya, Karnataka. (Chaired a session)
- 22. National workshop on Document Analysis and Recognition. July 12th 2001, PES college of Engg, Mandya, Karnataka. (Delivered a Talk)
- 23. Workshop on parameterized complexity. Conducted by the Institute of Mathematical Sciences, Chennai, 7-9 Dec. 2000.
- 24. School on algorithmic techniques for hard problems. Conducted by the Institute of Mathematical Sciences, Chennai, 4-6 Dec. 2000.
- 25. The University Grants Commission (UGC) sponsored orientation program conducted by the Academic Staff College, University of Mysore, Mysore. 30th Oct. 2000 to 25th Nov. 2000.
- 26. The short term training program on advances in neural computing sponsored by AICTE and ISTE, organized by the Dept. of Computer Science, S J College of Engg, Mysore, July 2000.
- 27. The National Conference on Recent Trends in Advanced Computing NCRTAC-2000, Thirunelveli, India, Feb. 11-12, 2000 (presented a research paper).
- 28. The University Grants Commission (UGC) sponsored Refresher Course in Computer Science organised by the Department of Computer Science, Sardar Patel University, Gujarat, India, 22nd Feb 1999 to 13th Mar. 1999.
- 29. The International Conference on Combinatorics, Statistics, Pattern Recognition and Related areas, Mysore, India, Dec-1998 (presented a research paper).
- 30. The 18th International Conference on Foundations of Software Technology and Theoretical Computer Science at the Institute of Mathematical Sciences, Chennai. 17th 19th Dec. 1998.
- 31. The School on Finite Model Theory at the Institute of Mathematical Sciences, Chennai, 15th-16th Dec. 1998.
- 32. The workshop on Molecular Computing at the Institute of Mathematical Sciences, Chennai, 14th Dec. 1998.
- 33. Two days workshop on Software Engineering at Regional Engineering College, Surathkal, 13th 14th March 1998.
- 34. International Conference on Cognitive Systems (ICCS) at New Delhi, 12th 15th Dec. 1997. (presented a research paper).
- 35. One week workshop on Symbolic and Fuzzy approaches for Data Analysis at SJCE, Mysore, 21st 26th April 1997.

- 36. One week National Seminar on Complexity and Information, Frontier areas in Theoretical Computer Science at Dwanyaloka, Mysore, 1st –7th Feb. 1997.
- 37. Two days National Symposium on Information Technology: Impact on Education conducted by National Institute of Engineering, Mysore, 12th & 13th Dec. 1996.
- 38. VII Karnataka Student Convention conducted by CSI (Bangalore Chapter) in the year 1993.
- 39. VI Karnataka Student Convention conducted by CSI (Bangalore Chapter) in the year 1992.

13. Research Publications

In International Journals

- 1. P. Shivakumara, V. Basavaraja, **D. S. Guru**, U. Pal, T. Lu, and M. Blumenstein. Discrete-Fourier Phase Statistics for Forged IMEI Number and Air Ticket Detection, IEEE Transactions on Image Processing (Communicated).
- 2. H.T. Basavaraju, V.N. Manjunath Aradhya, **D.S. Guru**, and B.S. Harish. LoG and Structured based Arbitrary Oriented Multilingual Text Detection, International Journal of Natural Computing Research (IJNCR), **2018**. (Communicated).
- 3. **Guru D S,** Mahamad Suhil, Lavanya Naryana Raju, and N Vinay Kumar. An alternative framework for univariate filter based feature selection for text categorization, Pattern Recognition Letters, Vol. 103, **2018**, pp. 23-31.
- 4. **Guru D S,** N Vinay Kumar and Mahamad Suhil. Feature Selection of Interval Valued Data through Interval K-Means Clustering, International Journal of Computer Vision and Image Processing (IJCVIP), Vol. 7(2), **2017**, pp. 64-80.
- 5. **D.S. Guru,** K.S. Manjunatha, S. Manjunath, and M.T. Somashekara, Interval valued symbolic representation of writer dependent features for online signature verification, Expert Systems with Applications, Vol. 80, **2017**, pp. 232-243.
- 6. K.S. Manjunatha, S. Manjunath, **D.S. Guru**, and M.T. Somashekara, Online signature verification based on writer dependent features and classifiers, Pattern Recognition Letters, Vol. 80, **2016**, pp. 129-136.
- 7. N Vinay Kumar, Pratheek, V Vijaya Kantha, K N Govindaraju, and **Guru D S**. Features Fusion for Classification of Logos, Elsevier Procedia Computer Science, Vol. 85C, **2016**, pp.370-379.
- 8. Harish B S, Aruna Kumar S V, **Guru D S** and Minh Ngoc Ngo: A novel iris segmentation algorithm based on small eigenvalue analysis. SPIE 9817, pp. 1-5.
- 9. Nagendraswamy H S, Chethana Kumara B M, **Guru D S**, Naresh Y G: Symbolic Representation of Sign Language at Sentence Level. I.J. Image, Graphics and Signal Processing. Vol. 9, **2015**, pp. 49-60.

- 10. Y H Sharath Kumar, **Guru D S**. Retrieval of Flower Based on Sketches. Procedia Computer Science, Vol. 46, **2015**, pp. 1577–1584
- 11. Y. H. Sharath Kumar, N. Vinay Kumar, and **Guru D S**: Delaunay Triangulation on Skeleton of Flowers for Classification. Procedia Computer Science, Vol. 45, **2015**, pp. 226-235.
- 12. R. Sumithra, Mahamad Suhil, and **Guru D S.** Segmentation and Classification of Skin Lesions for Disease Diagnosis. Procedia Computer Science, Vol. 45, **2015**, pp. 76-85.
- 13. **Guru D S,** Mahamad Suhil. A Novel Term_Class Relevance Measure for Text Categorization. Procedia Computer Science, Vol. 45, **2015**, pp. 13-22.
- 14. **Guru D S,** M. Ravikumar and S. Manjunath. Multiple skew estimation in multilingual handwritten documents. International Journal of Computer Science Issues, Vol. 10, Issue 5, No 2, **2013**, pp. 1694-0784.
- 15. S. Manjunath, **Guru D S,** K. B. Nagasundara and M. G. Suraj. 2D2 LPI: Two directional two dimensional locality preserving indexing. International Journal of Computer Vision and Image Processing, Vol.3, No.2, **2013**, pp. 17 31.
- 16. Elham Dallalzadeh and **Guru D S.** Shape features of overlapping boundary for classification of moving vehicles. International Journal of Computer Vision and Image Processing, Vol. 3, No 1, **2013**, pp. 42-54.
- 17. **Guru D S**, P B Mallikarjuna, S Manjunath and M M Shenoi. Machine Vision Based Classification of Tobacco Leaves for Automatic Harvesting. *Journal of Intelligent Automation and Soft Computing*, AutoSoft Publisher, **2012**, pp 577-586.
- 18. B S Harish, S Manjunath and **Guru D S.** Text Document Classification: An Approach based on Indexing, International Journal of Data Mining & Knowledge Management Process (IJDKP), vol. 2, No. 1, **2012**, pp. 43 62.
- 19. K B Nagasundara, **Guru D S.** "Multi-algorithm based Palmprint Indexing", International Journal on Computer Applications, **2012**, pp. 52 57. (Also appeared in the proceedings of the International Conference and Workshop on Emerging Trends in Technology, Mumbai, Maharashtra, India, 2012)
- 20. Manjunath S and **Guru D S.** Eign conjugation for shot boundary detection. International Journal of Machine Intelligence, Bioinfo Publications, Vol. 3, No. 4, **2011**, pp. 241-244.
- 21. **Guru D S**, Bharath Bhushan, Manjunath S and Harish B S. A novel approach for text classification based on LZW compression technique. International Journal of Machine Intelligence, Bioinfo Publications, Vol. 3, No. 4, **2011**, pp. 364-370.
- 22. Nagasundra K B, Manjunath S and **Guru D S.** Indexing of online signatures. International Journal of Machine Intelligence, Bioinfo Publications, Vol. 3, No. 4, **2011**, pp. 289-294.

- 23. Elham Dallalzadeh and **Guru D S.** Moving vehicles extraction in traffic videos. International Journal of Machine Intelligence, Bioinfo Publications, Vol. 3, No. 4, **2011**, pp. 236-240.
- 24. Mallikarjuna P B and **Guru D S.** Performance evaluation of segmentation and classification of tobacco seedling diseases. International Journal of Machine Intelligence, Bioinfo Publications, Vol. 3, No. 4, **2011**, pp. 204-211.
- 25. **Guru D S.** and Sharath Kumar Y H. Skeleton based flower classification. International Journal of Machine Intelligence, Bioinfo Publications, Vol. 3, No. 4, **2011**, pp. 191-198.
- 26. **Guru D S**, Suraj M G and Manjunath S. Fusion of covariance matrices of PCA and FLD. *Journal of Pattern Recognition Letters*, Elsevier Publishers, Vol. 32, **2011**, pp 432-440.
- 27. Harish B S, **Guru D S** and Manjunath S. Cluster based Text Classification: A Symbolic Approach", *International Journal of Computer Applications*, vol. 9, no. 1, **2011**, pp. 38 44.
- 28. **Guru D S**, Nagasundara K B, Manjunath S and Dinesh R. An Approach for Hand Vein Representation and Indexing. *International Journal of Digital Crime and Forensics*, IGI Global Publishers, Vol.3, No. 2, **2011**, pp 1-15,
- 29. **Guru D S**, Sharath Y H and Manjunath S. Textural Features in Flower Classification. Journal of Mathematical and Computer Modeling, Vol, 34, No3-4, **2011**, pp 1030-1036.
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