

Curriculum Vitae

Dr. S. NANDAGOPALAN

Professor & Head
Department of Computer Science and Engineering
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Education

- 2005–2012 **Ph. D., Computer Science & Engineering**, Amrita Vishwa Vidyapeetham University, Coimbatore, India.
“Efficient and Automated Echocardiographic Image Analysis through Data Mining Techniques”
[Medical Image Analysis, Data Mining, Bioinformatics, Machine Learning, CBIR]
- 1995–1997 **M. S., Software Systems**, BITS, Pilani, India.
CGPA: 8.89/10.0 [First Class with Distinction]
- 1980–1982 **M. Tech., Industrial Electronics**, N I T, Surathkal, Mysore University, India.
Average Marks: 76.3% [First Class with Distinction]
- 1978–1980 **M. Sc., Physics/Electronics**, PSG College, Madras University, India.
GPA: 5.79/6.0 [First Class with Distinction]
- 1975-1978 B. Sc. (Physics), PSG College, Madras University, India. First Class

Ph. D Work

- title **“Efficient and Automated Echocardiographic Image Analysis through Data Mining Techniques”**
- advisor/co-advisor Dr. T S B Sudharsan / Dr. B. S. Adiga
- keywords Echocardiography, Color Doppler image, CBIR, color histogram, texture analysis, active contour, left ventricle, SQL, Fast K-Means clustering, segmentation, Classification.

Research Interests

- image analysis Histogram, Texture, Shape, Edge density, Edge direction based techniques, efficient image segmentation.
- data mining K-Means, Fast K-Means, Quick K-Means, Bayesian Classification algorithms, Weka 3.6.4 Machine Learning tool, Database Normalization tools.

medical images Echocardiographic images, 2D and Color Doppler Flow images of various modalities.

Teaching Experience

1983–present *Professor and Head*, Dept. of Computer Science & Engineering, **Bangalore Institute of Technology**, Bangalore, India. Affiliated to Visvesvaraya Technological University (VTU), Belgaum, India.

total **33 years**

1997–2008 *Program In-Charge*, IGNOU Program Study Centre, Bangalore Institute of Technology, Bangalore, India.

Administrative Experience

1998–present Head, Dept. of Computer Science & Engineering, **Bangalore Institute of Technology**, K. R. Road, Bangalore-4.
Total # of teaching faculty: 40, Total # of technical staff: 12.

achievements Accredited twice by NBA (2004 and 2008). Responsible for campus wide computer network project and modernization of computing facilities. Designed several in-house automation projects.

Professional Experience

2000–2016 WASE M.S. program of **WIPRO** (University: BITS, Pilani, India)
Subjects: Data Structures, Database Management Systems, Advanced Programming Techniques, and Advanced Algorithms.

2008–2014 M.S in Computer Science - **Manipal University**.
Subjects: Data Structures and Algorithms, Data Mining and Warehousing.

Professional Membership

1985-present Indian Society for Technical in Education (ISTE), Life Member (LM 22026)

2009 International Association of Computer Science and Information Technology (IACSIT), Member (80336643)

Scientific Publications

■ **International Journal Articles** (Peer Reviewed)

- [1] **S. Nandagopalan**, N. Pradeep, “A General Framework for Knowledge Discovery Using High Performance Machine Learning Algorithms”, International Journal of Computer, Electrical, Automation, Control and Information Engineering Vol: 10, No: 1, pp. 1-7, 2016.
- [2] **S. Nandagopalan**, TSB Sudarshan, N. Deepak N. Pradeep, “Intelligent Echocardiographic Video Analyzer Using Parallel Algorithms”, Recent Advances in

Information and Communication Technology, Advances in Intelligent Systems and Computing Volume 265, 2014, pp 157-166, Springer International Publishing, 2014.

- [3] **S. Nandagopalan**, Dr. B. S. Adiga, Dr. TSB Sudarshan, C. Dhanalakshmi, Dr. C. N. Manjuanth, "A Novel Approach to Medical Image Segmentation", Journal of Computer Science 7 (5): 657-663, 2011, Vol. 7, Issue 5, pp. 657-663, Science Publications, Apr 2011.
- [4] **S. Nandagopalan**, Dr. B. S. Adiga, Dr. TSB Sudarshan, C. Dhanalakshmi, Dr. C. N. Manjunath, "A Naïve-Bayesian Methodology to Classify Echocardiographic Images through SQL", Springer-Verlag, LNCS/LNAI, Berlin Heidelberg, Vol. 6746, pp. 155-165, 2011.
- [5] **S. Nandagopalan**, B. S. Adiga, TSB Sudarshan, C. Dhanalakshmi, C. N. Manjuanth, "SQL Based Cardiovascular Ultrasound Image Classification", International Journal of Data Mining and Bioinformatics, Inderscience Enterprises Ltd., 2011/2013.
- [6] **S. Nandagopalan**, Dr. B. S. Adiga, Dr. TSB Sudarshan, C. Dhanalakshmi, Dr. C. N. Manjunath, "A content-based image retrieval system for echo images using SQL-based clustering approach", Journal of Imaging Science, Maney Publications, Vol. 60, No. 5, October 2012, pp. 256-271(16).
- [7] **S. Nandagopalan**, Dr. B. S. Adiga, N. Deepak, "A Universal Model for Content-Based Image Retrieval", International Journal of Computer Science, Vol. 4, No. 4, pp. 242–245, Dec 2009.

■ **Refereed International Conference Proceedings**

- [1] **S. Nandagopalan**, N. Pradeep, "A General Framework for Knowledge Discovery Using High Performance Machine Learning Algorithms", ICDMKE 2016: 18th International Conference on Data Mining and Knowledge Engineering, Paris, France, January 21-22, 2016.
- [2] **S. Nandagopalan**, N. Pradeep, "Intelligent Echocardiographic Video Analyzer Using Parallel Algorithms", Proceedings of the 9th International Conference on Computing and Information Technology (IC2IT2013), Bangkok, pp 157-166, May 9-10, 2013.
- [3] **S. Nandagopalan**, B. S. Adiga, TSB Sudarshan, C. Dhanalakshmi, "Multifeature Based Retrieval of 2D and Color Doppler Echocardiographic Images for Clinical Decision Support", MySec2011, Proc. of The Fifth Malaysian Software Engineering Conference – indexed by IEEE and SCOPUS, December 12-14, 2011 Johor Bahru, Malaysia, pp. 319-324, 2011.
IEEXplore, Page(s): 319-324, DOI: 10.1109/MySEC.2011.6140691
- [4] **S. Nandagopalan**, B. S. Adiga, C. Dhanalakshmi, "A Naïve-Bayesian Methodology to Classify Echocardiographic Images through SQL", KICSS 2010, Proc. of Fifth International Conference on Knowledge, Information and Creativity Support Systems, pp. 24-30, November 25-27, Chiang Mai, Thailand, 2010.
- [5] **S. Nandagopalan**, B. S. Adiga, C. Dhanalakshmi, N. Deepak, "Automatic Segmentation and Ventricular Border Detection of 2D Echocardiographic Images Combining K-Means Clustering and Active Contour Model", Proc. International

Conf. IEEE Computer Society and ACM Digital Library, ICSEM-2010, pp. 447 - 451, Bangkok, Thailand, April 23-25, 2010.

- [6] **S. Nandagopalan**, B. S. Adiga, C. Dhanalakshmi, N. Deepak, "Color Doppler Echocardiographic Image Analysis via Shape and Texture Features", Proc. International Conf. IEEE, ICBBT-2010, pp. 139-143, Chengdu, China, April 16-18, 2010.
- [7] **S. Nandagopalan**, B. S. Adiga, C. Dhanalakshmi, N. Deepak, "A Fast K-Means Algorithm for the Segmentation of Echocardiographic Images Using DBMS-SQL", In: Proc. International conf. IEEE, ICCAE 2010, pp. 162-166, Singapore, February 26-28, 2010.
- [8] **S. Nandagopalan**, B. S. Adiga, N. Deepak, "A Universal Model for Content-Based Image Retrieval", International Conference on Machine Vision, Image Processing, and Pattern Analysis, MVIPPA 2008, WASET, vol. 4, No. 4, pp. 242–245, Bangkok, Thailand, December 17-19, 2008.
- [9] **S. Nandagopalan** and B. S. Adiga, "Medical Image Database System using Java and Oracle 10g", International Workshop on Advanced Image Technology, TESA, pp. 97, Bangkok, Thailand, January 8-9, 2007.
- [10] **S. Nandagopalan**, B. S. Adiga, "A Web-based tool to normalize the relational database schema", ACTA Press, Proc. International Conf. *IASTED*, Software Engineering and Applications (SEA 2006), Dallas, USA, pp. 2030–2036, November 13-15, 2006.
- [11] **S. Nandagopalan**, B. S. Adiga, "Normalization of Database Schema Using an Automated Tool", Proc. International Conf. *ISTE*, Frontier Technologies-need for the industry, business, and education, Hosur, September 2006.

■ **Text Books Authored**

- [1] **S. Nandagopalan**, "Data structures with C", Sapna Book House, Bangalore, India.
- [2] **S. Nandagopalan**, "Analysis and Design of Algorithms with C/C++", 4/e, Sapna Book House, Bangalore, India.
- [3] **S. Nandagopalan**, "Database Management Systems", 6/e, Sapna Book House, Bangalore, India.

Ph. D Guidance

Guiding Ph. D candidates: 2 students

Curriculum Subjects Taught

core
Data Structures with C/C++
Analysis and Design of Algorithms
Object Oriented Programming
Database Management Systems
Data Mining and Data Warehousing
Programming Languages

Computer Networks
Systems Programming
electives C# and .NET Framework (Microsoft VS2010)
Java and J2EE
Data Mining and Data Warehousing
Oracle and OLAP-SQL



Personal Details

Date of Birth Jan 9th, 1958
Marital Status Married
Passport Available