

Suresh Ramachandran Nair

Curriculum Vitae

Research Interests

Machine Learning, Statistical Learning

I am currently working on methods to enhance the recognition rate of biometric recognition systems using machine/statistical learning approaches without modifying the algorithm or the database. This is achieved by learning the behavior of the system during training and capturing them using probability distributions and using these distributions to improve the Rank-k recognition rate.

Currently in the process of submitting a journal paper on enhancing the recognition rate of multiview/multimodal biometric systems using machine learning approaches.

Education

2009–current **PhD**, *University of California, Riverside*, GPA: 3.729/4.
Working with Prof. Bir Bhanu in the above mentioned areas.

Important Courses Credited:

1. Machine Learning
2. State and Parameter Estimation
3. Pattern Recognition
4. Probabilistic Graphical Modeling
5. Probability and Stochastic Processes
6. C++ 11

1995–1997 **M.E. in System Science and Automation**, *Indian Institute of Science*, Bangalore, India, Marks 5.7/8.

Worked with Prof. K. R. Ramakrishnan. Thesis: *Recognition of hand written digits using Hidden Markov Models*.

1983–1988 **B Tech. in Electronics & Communication**, College of Engineering, Trivandrum, India, Marks 75.6%.

Publications

2011 *Prediction and Validation of Indexing Performance for Biometrics*, International Joint Conference on Biometrics

2005 Frequency Response, chapter 4 in Analog Electronics, Editor: Andre Pittet, pages 139–197, published by Prentice Hall India.

Industrial Experience

2000–2002 **Technical Consultant**, *Gemtech Systems*.

Work involved providing technical support in understanding the wideband adaptive multirate speech codec of the 3GPP standard (26 series).

Exchange Visit

2004 Worked in VISLAB on "Abnormal Event Detection" with Prof. Bir Bhanu as an exchange visitor from Amrita Vishwa Vidyapeetham .

Software Development Experience

2008–2009 **StudentEval**, *Amrita Vishwa Vidyapeetham* .

Independently developed a program to generate pdf reports of student evaluation of faculty, from a csv output provided by Moodle e-learning software for the Amritapuri campus of Amrita Vishwa Vidyapeetham, which had around 150 teachers and 300 courses. The first version of the software was written in C++ and the second version was written in Ruby.

2000 – 2001 **AmritaCircuits**, *Amrita Vishwa Vidyapeetham* .

Independently developed a software to draw electronic circuit diagrams using METAPOST.

Teaching Experience

1991–2009 **Lecturer/Assistant Professor/Associate Professor.**

Worked in Electronics & Communication Dept., College of Engineering, Trivandrum and Amrita Vishwa Vidyapeetham as a teaching faculty.

Technical Experience

1999–2000 Designed, setup, and managed the entire Internet infrastructure of Electronics & Communication Dept., College of Engineering, Trivandrum, India (mail/web/file/NIS/NFS servers and firewall using Linux).

Programming Languages

C++ 11	Advanced level	<i>Offered an advanced C++ course for my lab mates in summer 2011</i>
Python	Advanced level	<i>Used in my research as a wrapper for my C++ programs</i>
Matlab	Advanced level	
R	Introductory level	
Haskell	Introductory level	<i>Currently learning.</i>

References

Bir Bhanu Distinguished Professor, EE Dept., UC Riverside, bhanu@ee.ucr.edu
Subir Ghosh Professor, Statistics Dept., UC Riverside, subir.ghosh@ucr.edu