

PREETAM PATIL

Department of Computer Science and Engineering
Indian Institute of Technology (IIT)–Bombay
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Interest Areas

- Performance analysis of computers networks and systems
- Application of control theory in computing systems
- Virtualization and cloud applications
- Embedded systems
- Green computing and sustainable energy

Education

- Jan 2003 – Dec 2009: PhD Student
 Department of Computer Science and Engineering
 Indian Institute of Technology (IIT)– Bombay, India
 Thesis title: Load control strategies for IEEE 802.11 DCF Wireless LANs
- July 2000 – May 2002: M. Tech. in Information Technology
 Kanwal Rekhi School of Information Technology
 Indian Institute of Technology (IIT)– Bombay, India
 Dissertation title: Design and Implementation of RSVP-TE over MPLS Emulator
- June 1997 – May 1998: Post-Graduate Diploma in Software Technology (PGDST)
 National Centre for Software Technology (NCST), Mumbai, India
- Nov 1991 – Jan 1996: Bachelor of Engineering (B.E.) in Electrical Engineering
 Malaviya National Institute of Technology (NIT), Jaipur, India
 B. E. Project: Simulation of Fuzzy-logic controlled Induction Motors

Publications

- “Feedback based Distributed Admission Control in 802.11 WLANs”, Preetam Patil, Vipul Mathur, Varsha Apte and Kannan Moudgalya, in *Proceedings of the 34th IEEE Conference on Local Computer Networks (LCN '09)*, Zurich, Switzerland, October 2009.
- “Adaptive Admission Control for Web Applications with Variable Capacity”, Vipul Mathur, Preetam Patil, Varsha Apte and Kannan Moudgalya, in *Proceedings of the 17th IEEE International Workshop on Quality of Service (IWQoS '09)*, Charleston, SC, USA, July 2009.
- “An Autonomous Distributed Admission Control Scheme for IEEE 802.11 DCF”, Preetam Patil and Varsha Apte, in *Proceedings of Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine '07)*, Vancouver, Canada, August 2007.
- “Sizing of IEEE 802.11 wireless LANs”, Preetam Patil and Varsha Apte, in *Proceedings of the 3rd ACM International Workshop on Wireless Mobile Applications and Services on WLAN Hotspots (WMASH '05)*, Cologne, Germany, September 2005.
- “Design and Implementation of RSVP-TE over MPLS Emulator”, *M. Tech Dissertation*, IIT-Bombay, 2002.

Professional Experience

October 2008 – present:

TCS-IIT Bombay Laboratory for Intelligent Systems
Department of CSE, IIT–Bombay, India.
Designation: System Administrator

May 2007 – September 2008:

Sponsored project—Analysis and Design of Wireless, Mobile and Multiservice Communication Networks—at the Department of CSE, IIT–Bombay, India.
Designation: AICTE Emeritus Fellow

January 2003 – April 2007:

Department of CSE, IIT–Bombay, India.
Designation: Teaching Assistant

June 2005 – December 2005:

Network Architectures and Services (NAS) Group,
Faculty of EEMCS, Delft University of Technology, The Netherlands.
Designation: Visiting Scholar

August 2002 – December 2002:

Institute of Software Engineering, Navi Mumbai, India.
Designation: Adjunct Faculty
Instructor for post-graduate diploma courses on “Embedded Systems” and “Data Structures and Algorithms”

October 1999 – July 2000 :

School of Technology and Computer Science
Tata Institute of Fundamental Research (TIFR), Mumbai, India.
Designation: Scientific Officer
Responsibilities: Upgradation of 1000-node campus LAN and network infrastructure; overhaul of computing/network services at the centralized computing center.

June 1997 – September 1999:

National Centre for Software Technology (NCST), Mumbai, India.
Designation: Visiting Scientist (full-time position)
Responsibilities:

- Managing network operations of the Education and Research Network (ERNET)
- Conducting professional courses on networking technologies
- Developing network management applications

May 1996 – May 1997

Anurup Design Consultants, Mumbai, India.
Designation: Engineer (Electrical)
Responsibilities: Tasks related to basic engineering of electrical systems in industrial plants

Computing Skills

- Programming/scripting languages: C, C++, Java, Python, and Perl
- Simulation environments: *ns-2* and OPNET modeler
- Mathematical packages: Octave, Scilab, MATLAB, and NumPy/SciPy

Teaching Assistantship Work

- Spring 2003: Under-graduate course “Computer Networks”
Autumn 2003: Post-graduate course “Performance Evaluation of Computer Systems and Networks”
Spring 2004: Under-graduate course “Computer Networks”
Autumn 2004: Under-graduate course Data structures and Algorithms
Spring 2002: Post-graduate course “Embedded Systems”
Autumn 2001: Post-graduate course “Advanced Internet Technologies”
Spring 2001: Under-graduate course “Modern Information Systems”

Software Projects

- Development of measurement-based admission control framework in OPNET (as a part of PhD work)
- Implementation of RSVP-TE in GNU/Linux systems (as a part of M.Tech project)
- SNMP based network manager (course project—Object Oriented Programming)
- Implementation of NFS client/server using Sun RPC (course project—Operating Systems)
- Development of a simulator for induction motor control (as a part of the B.E. project)

Course-work during Graduate Studies

- Self Tuning Systems, Prof. Varsha Apte & Prof. Kannan Moudgalya
- Communication Networks, Prof. D. Manjunath
- Applied Algorithms, Prof. A A Diwan
- Seminar on “Quality of Service in Wireless LANs”
- Algorithms and Complexity, Prof. Abhiram Ranade
- Human Computer Interaction Design, Prof. Anirudh Joshi
- Mobile Computing, Prof. Sridhar Iyer
- Embedded Systems, Prof. Kavi Arya & Prof. Krithi Ramamritham
- Object Oriented Techniques, Prof. Barnard Menezes
- Software Engineering, Prof. Shashikant Kelkar
- Advanced Internet Technologies, Prof. Abhay Karandikar and Prof. Dhiraj Sanghi
- Seminar on “Pricing Models for Internet Services”

Language Proficiency

Marathi, Hindi, and English (a score of 290/300 in TOEFL Computer-based Test).

References

Prof. Varsha Apte (PhD advisor)

Visiting Faculty, Computer Science and Automation Dept., IISc Bangalore
Associate Professor, Dept. of Computer Science & Engineering, IIT Bombay
E-Mail: varsha@cse.iitb.ac.in

Other references available on request.