Krishnamachar Sreenivasan
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Career in a Nutshell:

Thanks to my parents and teachers I have cultivated a lifelong passion for teaching and research. My parents set a high bar of excellence which quivered when I barely jumped over them after repeated tries. I have worked in Computer Industry since 1969 starting as a member of a large team and retired as a Technical Leader of a large team. I worked in a Silicon Valley start-up but did not strike oil. My employers include Indian Institute of Science, Univ. of Pennsylvania, MITRE (a MIT Lab), Stanford Research Institute, General Electric, Ford Aerospace Corporation (I worked on modeling INSAT satellite 1C), Hewlett Packard Inc, Agilent, IIT Guwahati, IIT Mandi, IIT Ropar. I was a Peace Corps Instructor, St. Paul, Minnesota, teaching Kannada to US volunteers, a Red Cross disaster recovery volunteer in the Bay Area, hosted a weekly Public Service Radio Show in the Bay Area to aid Senior Citizens of mostly but not exclusively of Indian origin, Taught Bridge to Senior Citizens in Palo Alto. Member of Visweswariah College Water Polo Team, Table Tennis Champion at IISc, Penn Faculty Squash Team, Corporal, National Cadet Corps, Won Tennis tournaments in Palo Alto (mixed doubles with my daughter, men's doubles with my son, and Senior Singles). I captained the IITG faculty cricket team and was the 'man of the match' when we defeated the graduate students. (It helps if the umpire is in your class!) I was a judge at a GLOBAL INTEL Science Competition for High School Students. I attend Emerson Tennis camps in the hope of improving my back hand. I am an avid writer hoping to improve my writing skill. My letters to Editor appear regularly in the London Financial Times, San Jose Mercury News, The Hindu. I lost my amateur status when my article on 'Aging in the Silicon Valley' appeared in INDIA CURRENTS published in the Bay Area. I started radio clubs in IIT Guwhati and Ropar. I started the IIT Ropar Alumni cell in the Silicon Valley. I am working on an IIT Ropar interdisciplinary effort to develop Bio-Digestors to remove human waste in Indian bathrooms. I am leading a student project to apply distributed computing principles to solve the sugar cane juicing challenges faced by the Punjab Sugar Cane growers. I facebook and skype enthusiastically but do not text nor twitter. I manage family and Alumni Google groups.

Current Research Interests:

Measurements of traffic in Cloud Configurations, Remote Measurements of Wireless Communication Networks, Experimental study of verification of Narasimha's equation for the case where the cable towers are not rigid and are anchored in sand with undercurrents, Stochastic Differential Equations, Analogy between Fluid Turbulence and Transaction flow in many core multiprocessor caches, applying Boltzmann distinguishable particle distribution to cloud networks, Virtualization systems to train Ambulance Drivers in the Tri-City Area lead by PGIMER, Chandigarh.

Journal Articles include:

1)Effect of Vibrations on Heat Transfer from a Horizontal Cylinder to a Normal Air Stream, Krishnamachar Sreenivasan and Arcot Ramachandran, International Journal of Heat and Mass Transfer, V3, 60-67, **1961**
*2) Effect of Vapour Agitation on Heat Transfe*r, Krishnamachar Sreenivasan and Arcot Ramachandran, Chemical and Process Engineering, London, 290-309, **1962**
2) *Transient Temperature Response of Cylindrical, Composite Energy Storage Devices*, Krishnamachar Sreenivasan and M. Altman, International Journal of Energy Conversion, v9, 99-105, ***1969.***
4) Determination of Thermal Diffusivity of Thermal Energy Storage Materials, Part II - Molten Salts Beyond their Melting point, Krishnamachar Sreenivasan and M. Altman Journal of Power, Trans. ASME, 189-197, **1969**.
5)On a Method of Constructing a Representative Synthetic Test Workload, Krishnamachar Sreenivasan and Alan J. Kleinman, Comm. ACM, v17, 127-133, 1974 (reviewed by a Stanford Professor as a **"... a major contribution to the field of performance evaluation."** in Com. Reviews**, June 1974.)**
6) *Simulation - Tool or Technique*? - CPEUG - Krishnamachar Sreenivasan and J. Malendez, Proceedings of the XI Conference,1975
7) *On a Comparison between Dynaprobe output and Logger Data*, K. Sreenivasan, CPEUG - Proceedings of the XI Conference, 1975.
8) *Application of Accounting Data in evaluating Computer System Performance*, Krishnamachar Sreenivasan, SOFTWARE - Practice and
Experience, v6, 239-244, 1976.
9) *Experimental Study of Relative Throughput in Multiprocessor Syste*ms, Krishnamachar Sreenivasan, George A. Nelson, and Joseph. A. Maksin, SOFTWARE - Practice and Experience, 973-986, Dec. 1980
10) *Performance Studies of Multiple Hop Packet Networks*, Proceedings of MIDCOM (IEEE) Conference, Chicago, 1983. (Richard. Harris, Krishnamachar Sreenivasan, Jose Fernadez)

11) *A Monte-Carlo Model for Network Congestion*, Proceedings of International Conference on Mathematical Modeling and Simulation Models,.Krishnamachar Sreenivasan, Nov. 2002, Bangalore, India
12)*A framework for performance of Cloud Configuration*, Krishnamachar Sreenivasan and Sukumar Nandi, Proceedings of 3rd Annual Cloud Workshop, Penang, Malaysia, April 2011
13)*On Stability of Clop Flow in A Cloud Computing Configuration*; Krishnamachar Sreenivasan and Roddam Narasimha, FRS (under preparation)
14) *Cooling of Many-Core Multiprocessors: Experimental Results for OLTP Workloads*, Krishnamachar Sreenivasan, ASME2013 conference, Burlingame, Ca, July 2012.
15) *'Cooling of Computers By An Absorbing Gas Stream'*, Krishnamachar Sreenivasan and Aru Beri, IEEE TRANSACTIONS ON COMPUTER PACKAGING , (Under review)
16)'On a Framework for Analyzing Cloud System Performance' **ITherm 2014** -- IEEE's **Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems** -- Orlando, Florida, USA
17)'

Invited Talks Include:

1) Cloud Computing at Assam college of Engineering,
2) Cloud Computing at Don Basco University, Guwahati,
3) Cloud Computing at Girijanandan University at Guwahati,
4) Cloud Computing at Entrepreneurial Council at IITG,
5) Seminars at EEE and CSE departments at IITG.
6) Workload Characteristics at Cloud Workshop at IIT, Bombay, Jan. 2011.
7)Expert Speaker on Cloud Systems, Hosted by Assam Governor (Aug 2011)
8)Expert Speaker, 'High Speed Computing', Assam College of Engineering (May 2012)
9)'Indic Mathematics', Seminar, Dept of EEE and CSE, IIT Guwahati, (April 2013)
10)Power consumption by a Cloud Network, INDO-US Research Forum, Coimbatore, Aug. 2012
11)*'Cloud Computing'* College of Engineering, Panipat, April 2013
12)*'Digital Methods in Secondary School Education in Punjab',* Chandigarh, Feb. 2012
13)'*Hot CHIP Conference',* Stanford University, 1993.
14) A panel session - Charge-out system for management acceptance and control of the computer resource Richard L. Nolan, Charles Carey, Michael J. Samek, K. Sreenivasan, John V. Soden, Myron Uretsky:. AFIPS National Computer Conference 1974: 1013-1016
15*) 'Cloud Computing',* Professional Seminar, Northwestern Polytechnic University, Fremont, Ca. Nov. 2010
16)*'Cloud Computing'*, Aston University, Birmingham, England, Nov. 2013.
17)*'Stability of Computer flows', CS Dept,* University of Hawaii, Honalulu , USA, 2014
18)*'Stability of Computer flows', CS Dept.* IITG, Guwahati, Assam, India, 2015

19)'A Note On Application Of Neural Networks to Analyze OLTP Performance', *Krishnamachar Sreenivasan*
Submitted to Proceedings of IEEE

Workshop Leader:

1)"What is common among Cloud Computing, Nanotechnology, and Green Computing?", IIT Guwahati, Jan 19, 20, 21, 2012
2)'Research Methodology', IIT Guwahati, March 2011
3) 'Workshop on Cloud Computing at NIT, Silchar', Feb. 5, 2012
4)'Cloud Workshop', IIT Ropar, Sept. 2012
5)'Research Methodology', IIT Guwahati, Sept. 2013

Courses Taught:

Indian Institute of Science – Lab courses in Heat Transfer and Fluid Mechanics
Univ of Pennsylvania – as a Post Doctoral Fellow taught graduate courses in Statistical Mechanics and Energy Conversion
Boston University – Graduate Course on Simulation as an Adjunct Faculty
San Jose University – A graduate course on Computer Structures as an Adjunct Faculty
Santa Clara University – A graduate course on Computer Performance Evaluation and a course on Computer Simulation as an Adjunct Faculty.
Indian Institute of Science – a graduate course on Computer Performance as a Visiting Professor
Northwestern Polytechnic University, Fremont, Ca. Professor of General Education, Taught Calculus & Probability to Freshmen and Sophomores.
Indian Institute of Technology, Guwahati. A Senior core course on 'Discrete Mathematics for Computer Science Majors', an Elective course on 'Performance of Computer and Communication Networks'. Lab on 'Operating Systems'
Indian Institute of Technology, Mandi, A Senior core course on 'Architecture for High Speed Computers'.
Indian Institute of Technology, Ropar, A freshman class on 'Social Re-engineering', Sophomore core Class on, 'Programming Paradigms', A Senior core course on 'Computer Architecture', an elective course on 'Special Topics in Computer Science', a Sophomore core class on 'Computer Architecture.', Lab course and Tutorial on 'Measurements and Simulation', an elective class on 'Architecture for High Speed Computing '

Students Supervised:

M. Tech. IIT, Guwahati, (Four thesis)
B. Tech IIT, Guwahati (6 B.Tech Projects, two of whom presented a paper in a cloud workshop at IIT, Bombay)
M. Tech, IIT, Ropar (Two Interns from NIT, Surat)

Professional Awards:

All Star Performance Awards for nine consecutive years at HP. Was given two HP Recognition Plaques for the 'Industry best TPCC performance, cost per dollar ` and 'Contributions to Directory Based Token Ring on Hewlett Packard Massively Parallel Concurrent Systems'
Research Fellowship, Institute for Direct Energy Conversion, University of Pennsylvania, 1964-67
Weelander Scholarship for Outstanding Graduate Assistant, Univ. of Minnesota, 1962
Merit Scholarship, Visweswariah College, 1954-55
The HINDU Merit Scholarship, Visweswariah College, 1955-56.
Tuition Fellowship, The National College, 1951-53

EDUCATION:

Ph.D. degree, University of Pennsylvania, Philadelphia, Pa**.** 1966
M.Sc. degree, Indian Institute of Science, Bangalore**.** 1959
B.E. degree, (**First Class, Top Five in all the Four Final Exams**) University College of Engineering [renamed as Visweswariah College of Engineering], University of Mysore, Bangalore, India, 1957
I.Sc., (**First Class, 12th out of 25500 students**), National College, University of Mysore, Bangalore, 1953
SSLC (**First Class**, **23rd among 48500 students in Mysore State**), Govt High School, Mandya, Karnataka, 1951

Conference Session Chairperson, Panelist and Referee:

1) *Lecturer, Peace Corps,* University of Minnesota, 1960-63
2) Panelist, Hot Interconnect Conference, 1993
3) Referee, Communications of ACM*;1974-80*
4) Reviewer, ACM Computer Reviews*;1980-83*
5)Referee, National Research Council and Army Basic Research Institute, 1975
6)Two JE and Two GATE duties (2010-2012),2010-12
7) Session Chairperson, ASME2013 conference, Burlingame, Ca, July 2012.

8)Editorial Board, Advanced Computing, Since 2011
9)Member, Technical Program Committee, 2011, IEEE Conference on Cloud Computing
10) Delegate, Workshop on Indian Classical mathematics, Indian Institute of Technology, Gandhinagar, April 2013
11)Session Chair, 2012 ASME conference, Burlingame, Ca. July 19-23, 2013
12)*Invited Guest*, University of Melbourne Workshop on Virtualization co-hosted by CISCO, April 2013.
13)Session Chair, 2014, Seminar on Building Excellence in Process in Manufacturing, lead by IIT Kharagpur, Appropriate Automation Gives the Edge, Salt Fields, Kolkota, 18, January 2014.

Industry Experience:

2001-2003 *Agilent Technologies - RedSwitch Inc.*: Staff Architect: Technical Lead responsible for predicting performance of Infiniband and RapidIO switches. Calibrating simulation models by comparing the results obtained from running Verilog models. Build simulation models to help designers with algorithms for controlling congestion in large networks.

Hewlett Packard Co: Feb 1987 to March 2001:

*2000-**2001**,* ***Technical Contributor****: Network Server Division*. Modeling and Measurement of TPCC workload behavior on NT and Windows multiprocessor configurations. **Technical lead** for the team that produced the best TPCC number for the NSD servers and reduced dollar/tpcm under $15.00 for the first time in the industry. Awarded a HP recognition award.

1998-2000*, Senior Consultant Advanced Technology Center, Cupertino,* **Lead Architect** for building an AI-based tool for configuring hardware for SAP-BW, BAAN, PeopleSoft and Retek on HP platforms. Collected data from other labs to provide input to the AI tool.

1987-98*, Engineer Scientist, System Performance Lab, Cupertino, Ca.:***Technical Lead** responsible for modeling system performance of current and future systems. Projects included Performance of TPCC, LINPACK and NASTRAN workloads on Superdome platform. System performance of super scalar, multiprocessor systems using directory based coherence on slotted rings.

Leader of Echo performance team helping designers to perform design trade-off. Kittyhawk Memory controller behavior with ordered and reordered data returns. Developed trace driven SES Models to study system performance. Performance of RAID level 0 through 5 and recommended configurations to match our user needs. Designed and implemented a C based simulation model to study the problem of simultaneous possession in the context of bus, device adapter and device in the IO subsystem. Measured P-Bus traffic using logic analyzer probes. This measurement pointed out a bug in MPE-XL driver for Alink cards. Used a megalyzer to collect bus

traffic to measure hardware speeds of several components. Analyzed bus traffic using specially designed reduction packages.
Technical Lead: Worked on several of HP RISC processors to estimate the processor degradation due to DMA on the system bus. Modeled multi-processor speed-up using queuing theory models.
Mentored engineers working on Summit bus models and Fibre Channel cards**.**
GE CALMA, Milpitas, CA: ***(1984-87)Project Manager*** in charge of CAD-CAM performance: ***Lead*** a team to improve the performance of a DDM (design, drafting and manufacture) package. Improved the performance of hidden-line removal and interference-checking packages. Modeled Graphic processors and accelerators in a CAD/CAM environment at GE-Calma with emphasis on placement of display lists. ***Lead*** a team of software engineers in porting a 4.5 Million line Fortran based application package from VAX-VMS to APOLLO platforms.
Ford Aerospace and Communication Corporation, Palo Alto, Ca. ***(1981-84)Technical Lead*** *for* ***Performance Modeling:*** Configuration sizing of embedded system, Satellite Communication and Image Processing systems. Bid and won Defense Dept. contracts for developing ADA packages to analyze performance. Beta tested a first port of GPSS to VAX-VMS. Used SAS to analyze system performance.
Stanford Research Institute, Menlo Park, Ca. ***Senior Computer Scientist*****: (1979-1981)**Responsible for Performance modeling of Security Trading systems and Insurance Industry application. Developed simulation packages to study memory reference behavior of application packages –the results were useful in designing memory allocation policies. Worked on software reuse as a software development methodology.
AMDAHL CORPORATION, Sunnyvale, Ca. ***Senior Computer Architect*****, (1977-1979)**Modeled pipeline processors using representative workloads. Responsible for performance analysis of competitive IBM systems. Used hardware monitors to study cache behavior. Used accounting data to characterize workload.
The MITRE Corporation (Spin-off of MIT Lincoln Labs)**, Bedford, MA. (1972-1977)*Member of Technical Staff*.** Developed a methodology to construct representative workloads. A paper describing this work was reviewed by *a Stanford Professor, as a major contribution to performance evaluation (Computing Reviews, June 1975*). Built Simscript models for central server systems. Built queuing theory models for IBM, Burroughs, and Honeywell systems. Conducted controlled experiments to study Multiprocessor throughput of Honeywell systems deployed in WWMCCS (World Wide Military Command and Communication System) community. Developed methods for table-top sizing for US Defense Community. and helped Military Air Lift Command Information System(MACIMS)
RCA Computer Systems, Cinnamonson, NJ. ***Senior Analyst*****, (1969-72)**Responsible for design, development and testing of ISAM file system, in a Virtual

memory, time sharing system. Added a feature to allow multiple users to update the same ISAM file. Implementation was in IBM 360 assembly language. Designed and built software monitors to measure performance change due to feature enhancements in successive software releases.

University of Pennsylvania, *Post-Doctoral Fellow*; (1966-69)I was a senior member of the team that worked on the development of Hybrid cars. Cars based on this concept (a constant speed internal combustion engine along with an electric motor/generator) are currently (30 years later!) being offered by the hybrid car manufacturers***. Taught graduate courses*** on Statistical Mechanics and Direct Energy Conversion. ***Supervised*** Masters degree candidates on their thesis projects. Worked on Boiling Fuel Cells to improve limiting currents. Developed theoretical methods to estimate thermal diffusivity of composites using variational methods.

Research Reports:

1)'Effect of Vibrations on Free Convection Heat transfer from a horizontal cylinder', Dept. Of Mechanical Engineering, IISc, 1958
2)'Two phase flow – measurement of volume fraction', Dept of Mechanical Engineering, IISc, 1958
3) 'Boiling Fuel Cells- A method to improve Limiting Currents ', Institute of Direct Energy Conversion, Univ. of Pennsylvania, 1966
4)'Improving the bounds on Thermal conductivity of composite materials – a variational approach', Institute of Direct Energy Conversion, Univ. of Pennsylvania, 1966
5)'Heat loss from a Sphere in vacuum – A transient method', Institute of Direct Energy Conversion, Univ. of Pennsylvania, 1967
6)'Economics of a Hybrid Electric Car', Institute of Direct Energy Conversion, Univ. of Pennsylvania, 1968
7)'Interactive Debugging Tool in a Time Sharing Environment', RCA Report, RCA Corporation, 1970
8)'Design Document for implementation of Simultaneous update of a ISAM file, RCA Report, RCA Corporation, 1971
9)'Call Sequences for recursive modules in ISAM – primary, secondary and tertiary recursion", RCA Report, RCA Corporation, 1971
10)'Measurement of overhead caused by ISAM enhancements', RCA Report, RCA Corporation, 1971
11)'Table Top Sizing of WWMCS Machines', The Mitre Corporation, Bedford, MA, 1972
12)'Workload Characterization of IBM Systems', The Mitre Corporation, Bedford, MA, 1973

13)'Workload Characterization of Burroughs Systems', The Mitre Corporation, Bedford, MA, 1973
14)'Workload Characterization of Honeywell Systems', The Mitre Corporation, Bedford, MA, 1974
15)'A Queuing Model of IBM 370/155, with validation using SMF data', The Mitre Corporation, Bedford, MA, 1975
16)'Workload for CCC Systems', The Mitre Corporation, Bedford, MA, 1975
17)'Estimate of overhead in a trace driven simulation of CCC system', The Mitre Corporation, Bedford, MA, 1975
18)'Frag Order Processing in a CCC system', The Mitre Corporation, Bedford, MA, 1976
19)'A synthetic Workload generator to represent three resource demands, Memory, Cpu, and IO', The Mitre Corporation, Bedford, MA, 1977
20)'A Handbook of Sizing for WWMCCS Systems', The Mitre Corporation, Bedford, MA, 1977
21)`A model for estimating Pipeline processor performance', The Amdahl Corporation, Sunnyvale, Ca. 1978
22)'A clustering method of analyzing Workload', The Amdahl Corporation, Sunnyvale, Ca. 1978
23)`Prediction of Workload Growth – do the clusters increase in size or the number of clusters grow? The Amdahl Corporation, Sunnyvale, Ca. 1978
24)'Note on Workloads – a layered approach', The Amdahl Corporation, Sunnyvale, Ca. 1978
25)'Software Reuse' Stanford Research International, Menlo Park, Ca. 1979
26)'Memory Allocation algorithms for large simulation programs', Stanford Research International, Menlo Park, Ca. 1979
27)'Speed up by software unrolling of loops in Fortran Programs', Stanford Research International, Menlo Park, Ca. 1979
28)'Sizing of an Air Line Reservation System', Stanford Research International, Menlo Park, Ca. 1979
29) 'Workload estimates for the Chicago Board of Trade', Stanford Research International, Menlo Park, Ca. 1979
30)'Sizing of New York Stock Exchange Computer systems', Stanford Research International, Menlo Park, Ca. 1979
31)`Cincinnati Experiment – automating trading in Stock Exchanges, Stanford Research International, Menlo Park, Ca. 1979
32) 'Performance of Computer Systems in Insurance Industries', Stanford Research International, Menlo Park, Ca. 1979
33)`Viability of Tandem Non-Stop Machines for Stock Exchanges- Host, Ghost systems', Stanford Research International, Menlo Park, Ca. 1980

34)'Mean Value Modeling – Sizing of Real Time systems', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1981
35)'Bandwidth requirements for Imaging Systems', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1981
36)'Image data bases for Asymmetric Aperture Radar Systems', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1981
37)'Hard ware monitoring to tune performance', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1981
38) 'Porting of GPSS to a Unix environment', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1981
39) 'Simulation Model for Real Time Systems', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1982
40) `ADA packages for Sizing and Capacity Planning,' Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1982
41)`Response time for Satellite Imaging Systems', Ford Aerospace and Communications Corporation, Palo Alto, Ca. 1982
42)'Collection of Session Files for driving Simulation Models', GE Calma, Milpitas, Ca. 1983
43)'Performance of Design, Drafting, and Manufacture (DDM) CAD system', GE Calma, Milpitas, Ca, 1984
44)'A queuing Model for DDM to predict Response Time', GE Calma, Milpitas, Ca , 1984
45) 'A Simulation Model for DDM', GE Calma, Milpitas, Ca, 1985
46) 'Porting DDM from VMS to Sun UNIX – Procedure to be adopted', GE Calma, Milpitas, Ca, 1985
47)'Performance of Hidden Line Removal Package – Use of new algorithms and tightening of loops', Calma, Milpitas, Ca, 1986
48)'A simulation model for HPFL IO Card', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1987
49)'Measurement of HPFL performance', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1987
50) 'Measurement of bus traffic to estimate IO bandwidth', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1987
51) 'Simulation Model implemented in C to study IO cards', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1988
51) 'Speed up of HP processors using MVA model', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1988
50) 'Trace Driven Simulation model to study IO Subsystem', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1989

51) 'SES Models for Multi-processor Speed up', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1989
51) 'SES Model to study Cache behavior', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1990
50) 'Experiments to measure Remote Procedure Call Overhead', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1990
51) 'Configuration Analysis of RAID arrays using trace driven simulation models', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1991
51) 'SES model for ECHO/MERCED systems', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1992
50) 'SES model for McKinley Systems', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1993
51) 'MVA model to study degradation of multiprocessor speed up due to IO interference on the system Bus', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1994
52) 'SES Model to study Directory Based Multiprocessors using a slotted ring'. Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1995
53) 'SES Model to study Ordered and Re-ordered Data Returns on an INTEL P7 bus', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1995
54) 'Collection and Analysis of Bus traces to drive Simulation Models', Systems Performance Laboratory, Hewlett Packard, Cupertino, Ca. 1996
55) 'AI based tools for HP systems configuration', HP sales support group, Hewlett Packard, Cupertino, Ca. 1997
56) 'Benchmarking of HP/Window systems', Network System Development Group, Hewlett Packard, Cupertino, Ca,1999
57) 'Congestion Algorithms of INFINIBAND switches', Redswitch/AGILENT Corporation, Milpitas, Ca. 2000
58)'BECN and FECN implementation of congestion algorithms in large networks', Redswitch-AGILENT Corporation, Milpitas, Ca. 2001.

Books:

I have finished 40% of a book "Performance of Cloud Systems – A practical Approach" and am contractually obligated to finish it soon. I have written teaching notes for University of Sikkim, Distance Learning. I write general books and working on "Mrs. Chattergoone visits the Land of her forbears."
My article on 'Are computers our master or our slave?' appeared in the Indian Institution of Engineers, NE Chapter, Silver Jubilee Souvenir, Guwahati, Assam, Jan. 2012

Personal:

A Bangalorean who left for US in 1960, now a US citizen, (I held US Secret Clearance while at MITRE, SRI and FACC), I have lived mostly in the Silicon Valley with my wife, children and grand children. I lived in the US Atlantic Coast for 17 years but moved West after admitting defeat in coping with cold, snow and dreary winters.
Elected Area Expert of Global Deecemland a Global (153 Countries) NGO to eradicate Global poverty(2012)
I am preparing articles (co-authored with retired IAS officers) on 'How to solve Poverty induced Indian crisis', 'How to improve Rs. 65 == $1?", "Why is distance learning not for everybody? After all, Chalk is mightier than a Slide"

I am fluent in Kannada, Tamil, Pig Spanglish and English.