

CURRICULUM VITA
OF
SITHARAMA S. IYENGAR

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PERSONAL:

Married, three children

Citizen of USA

Research Interest:

- Computational Sensor Networks (Theory and Application),
- Parallel and Distributed Algorithms and Data Structures,
- Software for Detections of Critical Events,
- Autonomous Systems,
- Distributed Systems.

Education:

- 2010, D.SC (Honorary), Techno Global University, India
- 1974, Ph. D., Engineering, Mississippi State University, Mississippi
- 1970, M.S., Mechanical Engineering, Indian Institute of Science, Bangalore, India
- 1968, B.S., Mechanical Engineering, Bangalore University, Bangalore, India

Professional Accolades:

- Dr. Iyengar received Distinguished Alumnus Award from University Vishveshwarya College of Engineering, Bangalore, India, January 2-3, 2011.
- Dr. Iyengar received Distinguished Research Award from Xaimen University, China for his research in Sensor Networks, Computer Vision and Image Processing.
- ATLAS-2010, The Academy of Transdisciplinary Learning and Advanced Studies, GeorgeTown Texas, has elected Dr. Iyengar to the Grade of its Village Fellow.
- Distinguished Service Award Roy Paul Daniel's Professor Award (2008-2010)
- Recognized by the Societe Mathematique de Tunisie (SMT) for "Notable Services and Outstanding Contributions in the Area of Mathematical Theories in Sensor Networks and Computational Algorithms in Robotics for 2010".
- Dr. Iyengar received an Honorary Doctorate in D.Sc (Eng). from Techno Global University, India, 2010
- Best Paper Award at the 10th International Conference on Information Technology (IEEE - ICIT 2007) Rourkee, India, Co-authored with Ranjit Abraham and Jay B. Simha, "Medical Data-mining with a New Algorithm for Feature Selection and Naive Bayesian Classifier".
- World's Best Technology Showcase 2007 – A project titled "Fast Web Page Allocation on a Server Using Self-Organizing Properties of Neural Networks LA Tech - LSU" authored by Dr. Phoha (LA Tech), Dr. S.S. Iyengar (LSU) and Dr. Kannan (LSU) has been selected in this highly competitive summit – May 15-18, Arlington, Texas.
- Best Paper Award at the International Conference on Information Systems, ISNG, November 19-21 2004, Las Vegas Co-authored with Lydia Ray, Rajgopal Kannan, Arjan Durrresi, and Ramaraju Kalindi, "Secure Weighted Data Aggregation in Wireless Sensor Networks".
- Best Paper Award at the 18th International Conference on Advanced Information Networking and Application (AINA 2004) March 2004 at Tokyo. Co-authored with Parachuri, Durrresi, and Kannan "Authenticated Autonomous System Trace back".
- Distinguished Alumnus Award of the Indian Institute of Science, Bangalore, India, 2003. Presentation of a Medal and a lecture on March 3, 2003 at the Senate Hall, IISc, Bangalore, India.
- Satish Dhawan Chaired Professorship Award, Indian Institute of Science, Bangalore, 2002 - present.
- Elected Member of the European Academy of Sciences (EAS) in the category of Computer Science, 2002.
- Visiting Chaired Professorship, Dept of Computer and Communication Engineering, Asia University, Taichung, Taiwan. (Aug 2006 – July 31st, 2007).
- Appointed Member of the Advisory Board of the Springer Verlag Dictionary of Internet Dictionary, 2002.
- Elected Fellow, Association of Computing Machinery (ACM), 2002.
- Elected Fellow, American Association of Advancement of Science (AAAS), 2000.
- IEEE Computer Society Technical Achievement (Research) National Award, 1998.
- Elected Fellow, Institute of Electrical and Electronics Engineering (IEEE), 1995.
- Jawaharlal Nehru Chaired Professorship Award, 1995.
- Appointed member of the advisory panel NIH (National Institute of Health)-NLM (National Library of Medicine), 1993-97.
- Awarded Williams Evans Fellowship, University of Otago, New Zealand, 1991.
- Member of the New York Academy of Sciences.

Professional Experiences:

- August 26, 2011 – Present – Ryder Professor, Director, School of Computing and Information Sciences, Florida International University, Miami, Florida
- July 1, 1992 - 2011- Roy Paul Daniels Professor & Chairman, Department of Computer Science, Louisiana State University, Louisiana, USA
- Visiting Homi Bhabha Distinguished Professor at Indira Gandhi Center of Atomic Research, Kalpakkam, India (Dec 2007 and July 2008).
- Visiting Chaired Professorship, Dept of Computer and Communication Engineering, Asia University, Taichung, Taiwan. (Aug 2006 – July 31st, 2007).
- 2004 – Present, Co-Director, Louisiana Biomedical Research Network (LBRN) Bioinformatics Core, Department of Computer Science, Louisiana State University.
- Visiting Satish Dhawan Chaired Professor, Indian Institute of Science, Bangalore, India (2003 – 2006).
- May 2 - May 12, Visiting Professor, University of Kuwait, 2002.
- Feb. 19 - March 7, 1993, Visiting Professor, Department of Computer Science, Universite Paris VII, France, Host: Professor A. Saoudi.
- July 1, 1991 - 1992, Professor and Interim Chairman, Department of Computer Science, Louisiana State University, Baton Rouge, Louisiana.
- June 15 - August 23, 1990, NASA Summer Faculty Fellow, Division of Automated Systems at Jet Propulsion Laboratory, California Institute of Technology.
- August 1987 - Present, Professor of Computer Science, Director - Robotics Research Lab, Louisiana State University, Baton Rouge.
- July 15 - July 25, 1988, Visiting Faculty, Robotics and Artificial Intelligence Group, CESAR Division, Oak Ridge National Laboratory, Oak Ridge, TN.
- June - July 1987, Visiting Faculty, Robotics and Artificial Intelligence Group, CESAR Division, Oak Ridge National Laboratory, Oak Ridge, TN.
- June - July 1986, Visiting Faculty, Robotics and Artificial Intelligence Group, CESAR Division, Oak Ridge National Laboratory, Oak Ridge, TN.
- June - August 1985, Oak Ridge Associated Universities program visiting faculty, Robotics and Artificial Intelligence Group, CESAR Division, Oak Ridge National Laboratory.
- May - August 1984, Visiting Professor, School of Computer Science and Automation, Indian Institute of Science, Bangalore, India.
- August 1983 - July 1987, Associate Professor, Dept. of Computer Science, Louisiana State University.
- January 1980 - August 1983, Assistant Professor, Dept. of Computer Science, Louisiana State University.
- August 1977 - December 1980, Associate Professor, Dept. of Computer Science, Jackson State University.
- May 18 - May 28, 1977, Department of Informatics, University of Bonn, Germany.
- Jun. 1974 - August 1977, Assistant Professor of Computer Science, Jackson State University.
- Technical Consultant: Jet Propulsion Laboratory-Caltech (1991), Naval Research Lab (1996), Duke University (2002-2003), South Carolina Commission on Higher Education (2003), Ministry of Education – UAE (2002-2004).

Professional Service:

- Conference Chair for the IASTED International Symposium on Distributed Sensor Networks (DSN 2008), November 16-18, 2008, Orlando, Florida.
- Advisory and Program Committee of the Second IEEE International Workshop on Heterogeneous Wireless Sensor Networks (HWISE2006) , 2006
- Program Co-Chair at IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC2006), June 5-7, 2006 Taichung, Taiwan
- Program Chair at International Conference on “Agility, Design & Manufacturing Summit, December 11-13, 2005, Bangalore, India.
- Program Co-Chair at Third International Conference on Innovative Applications of Information Technology for the Developing World (AACC-2005), Kathmandu, December 10-12, 2005, Nepal
- Advisory Board Member and Conference Co-Chair in the upcoming symposium on Innovations and Commercial Applications of Distributed Sensor Networks, October 18 - 19, 2005, Bethesda, MD, USA
- Advisory and Technical Committee member in the workshop, First International Workshop on Heterogeneous Wireless Sensor and Actor Networks (HWISE 2005) July, 2005, Japan.
- Program Committee Member of the Second Workshop on High Performance Grid Computing (HGPC '05), April, 2005, Denver, Colorado.
- Co Program Chairman of the Advanced Computational and Communications, December, 2004, Ahmadabad, India.
- Member of the Technical Program Committee for the 2nd International Workshop on Information Processing in Sensor Networks (IPSN03), Palo Alto, California, April, 2003.
- Member of the National Research Council (NRC) Review Panel in Basic Sciences and Engineering, August 2001-2003.
- Technical Program Co. Chairs, 6th International Conference on High Performance Computing in Asia Pacific Region - 2002, December, Bangalore India.
- Member of the Program Committee of the Sixth International Symposium on Parallel Architectures, Algorithms and Networks, May, 2002, Manila, Philippines.
- Member of the IEEE Fellows Reviews Committee for reviewing IEEE Fellow nominations, 1998-2001.
- Special Session Chairman on Distributed Sensor Networks at the International Conference on FUSION, August 2001, Montreal, Canada.
- Program Chairman of Advanced Computing and Communication (ADCOM) Conference, Bhuvaneshwar, December 2001, India
- ACM-IEEE Computer Science Accreditation Board for program review in Computer Science in US and all over the world, July 2001-present.
- Technical Advisor of Manipal International Institute of Information Technology, Bangalore, India, Fall 2000.
- Member of the 8th International Conference on Advanced Computing and Communications, December 2000, Cochin, India.
- External Review Board Member for Canadian National Medal for Science and Technology, 2000.
- Founding member of the Karnataka Information Technology Task Force on higher education, 1999-2000, India.
- Technical Advisor to InfoPike Corporation, a software consulting co. in Raleigh, NC, 1999-Present.
- Technical Advisor to Metalogic Inc. Hyderabad, India, 1999-Present.
- Member of the IEEE National Computer Society Awards Committee, 1998-2003.
- Member of the Advisory board for the Department of Computer Science of the University of Arkansas, Fayetteville (June, 1996-1998).

- Public Higher Education member of the Navy Higher Education Consortium Council, 2000.
- Member of the International Conference on Information System Analysis and Synthesis (ISAS 98) Orlando, Florida July -August 1999.
- Distinguished Experts on a two-day National Workshop on "Distributed Problem Solving using Multi Robot Cooperation in Agile Manufacturing," July 1997 sponsored by the Institution of Engineers, Bangalore, India.
- Member of the Program Committee: 4th International Conference on High Performance Computing, December, 1997 Bangalore, India.
- Member of the Program Committee: 10th International Conference on Parallel and Distributed Computing Systems, New Orleans, Louisiana, September, 1997.
- Member of the Program Committee and Keynote speaker at SPIE – International Society for Optical Engineering's Conference on Sensor Fusion, Orlando, Florida, April, 1997.
- Member of the Third International Conference on High Performance Computing, Trivandrum, India, December, 1996.
- Member of the Program Committee: SPIE's Proceedings on Multimedia Storage and Archiving Systems, November, 1996.
- Member of the Program Committee: SPIE's 11th Annual International Symposium on Aerospace, Marriott's Orlando World Center Resort and Convention Center, Orlando, Florida, April, 1996.
- Member of the Second International Conference on High Performance Computing, Delhi, India, December, 1995.
- Vice-Chairman of the 1995 International Conference on Tools with Artificial Intelligence, Washington D.C., November 1995.
- Program Committee Member for SPIE's 1995 Symposium on Information, Communication and Computer Technology, Application and Systems, Philadelphia, October 1995.
- Program Committee member at the First International Workshop on Parallel Processing, Bangalore, India, during December, 1994.
- Program Committee member at the Seventh International Conference on Parallel and Distributed Computing Systems, October, 1994.
- Program Chairman on Indo-US Workshop on Parallel and Distributed Signal and Image Integration Problems, December, 1993.
- Member of the Advisory Committee at the 2nd Gauss Symposium, International Conference on Medical, Mathematics and Physics, Munich, Germany, August, 1993.
- The Chairman for technical Papers in Parallel Algorithms and Distributed Computing in International Conference, (France and Germany), 1993 – 1994, Frankfurt and Paris.
- Prestigious NIH-Library of Medicine Review Panel Member on Image Databases, at Yale University Medical School, December, 1992.
- Program Committee Member for the Fifth International Parallel Processing Symposium, April 30-May 2, 1991.
- Program Committee Member for an International Conference on Artificial Neural Networks in Engineering, November, 1991, St. Louis, Missouri.
- Program Committee Member of the Workshop on Strategic Directions in Computational Robotics: Symbolic, Algorithmic and Neuromorphic, May 1990. (Sponsored by IEEE Robotics and Automation Society).
- Program Committee Member of the Second International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, 1989, St. Louis, Missouri.
- Program Committee Member of Second International Conference on Artificial Intelligence and Applications, December 1985, Miami, Florida (Sponsored by IEEE).
- Session Chair for ORSA/TIMS conference, New York City, October, 1989. Theme of the Session: *Optimization Problems in Autonomous Intelligent Machines.*

- Program Chairman for a Conference on Empirical Studies of Programs, June, 1986; Co-program Chairman, Ben Shneiderman, University of Maryland; Conference Chairman, Elliot Soloway, Yale University.
- Member of the Panel of Judges for the best paper award in the Annual Computer Simulation Symposium, Tampa, Florida 1976.
- Member of the panel of judges for the best paper award in the Annual Computer Simulation Symposium, Tampa, Florida, 1976.

Dr. Iyengar has published over 400 scholarly articles in leading technical journals (162), conference proceedings (137) and book chapters (9). He has also authored/coauthored 8 textbooks and edited 10 books.

Selected Recent Publications:

- P.T. Krishna Kumar, P.T. Vinodh, Vir V. Phoha, S.S. Iyengar, Puneeth Iyengar "Design of a smart biomarker for bioremediation: A machine learning approach", Volume 41, Issue 6, Computers in Biology in Medicine, Elsevier, June 2011
- S.S. Iyengar; Xin Li; Amit Sawant; Huanhuan Xu; Puneeth Iyengar "Computational Analysis of Tumor Motion - Can the CAT Catch the Mouse", Submitted to IEEE Computers, May 2011.
- Nouredine Boudriga, Mohamed Hamdi, S.S. Iyengar "Coverage Assesment and Target Tracking in 3D Domains", Sensors, April 2011
- Srivatsan Srinivasagopalan, Konstantin Busch, S.S. Iyengar "An Oblivious Spanning Tree for Single-Sink Buy-at-Bulk in Low Doubling-Dimension Graphs", IEEE Transactions on Computers, to appear, 2011.
- Seungwoo Kang, S.S. Iyengar, Youngki Lee, Jinwon Lee, Chulhong Min, Younghyun Ju, Taiwoo Park, Yunseok Rhee, Junehwa Song "MobiCon: Mobile Context Monitoring Platform for Sensor-Rich Dynamic Environments", Communication of ACM, February 2011
- Lu Lu, Hsiao- Chun Wu, S.S.Iyengar "A Novel Robust Detection Algorithm for Spectrum Sensing" IEEE Journal on Selected Areas in Communication, VOL. 29, NO. 2, Febuary 2011.
- Srivatsan Srinivasagopalan, Konstantin Busch, S.S. Iyengar "Oblivious Buy-at- Bulk in Planar Graphs", Lecture Notes in Computer Science,WALCOM: Algorithms and Computation, Volume 6552, Pages 33-44, Springer Berlin / Heidelberg, India, February 18-20, 2011
- W. Yu, M. Li, S. S. Iyengar, Xin Li "3D Guarding for Multimedial Data Processing ", 2011 IEEE International Conference on Multimedia and Expo (ICME 2011), Barcelona, July 11-15, 2011.
- Jren-Chit Chin, Nageshwara S. V. Rao, David K. Y. Yau, Mallikarjun Shankar, Yong Yang, Jennifer C. Hou, Srinivasagopalan Srivatsan and S.S.Iyengar "Identification of Low-Level Point Radioactive Sources Using a Sensor Network" ACM Transactions on Sensor Networks, Vol. 7, No. 3, Article 21, September 2010
- Scott C.H. Huang, Hsiao-Chun Wu, S.S.Iyengar "Low-Latence Multi-Source Broadcast in Radio Networks" Journal of the ACM, September 2010.

- Lu Lu, Hsiao-Chun Wu, Kun Yan, S.S.Iyengar "Robust Expectation- Maximization Algorithm for Multiple Wide-Band Acoustic Source Localization in the Presence of Non-Uniform Noise Variances" IEEE Sensors Journal, Issue:99, pp 332-337, July 2010.
- S.S.Iyengar, Supratik Mukhopadhyay, Christopher Steinmuller, and Xin Li "Preventing Future Oil Spills with Software-Based Event Detection" IEEE Computers, pp: 76-78, August 2010.
- Suman Kumar, Seung-Jong Park, S. Sitharama Iyengar, "A loss-event driven scalable fluid simulation method for high-speed networks", Journal Computer Networks: International Journal of Computer Telecommunication and Networking, Volume 54, Issue 1, January 2010
- Gregory Vert, S. Sitharama Iyengar " Integration of Fuzzy ERD Modeling to the Management of Global Contextual Data. " ,Uncertainty Approaches for Spatial Data Modelling and Process., SCI 271, pp. 155-173, Springer-Verlag Berlin Heidelberg 2010
- Kun Yan, Hsiao-Chun Wu, and S. Sitharama Iyengar "Robustness Analysis and New Hybrid Algorithm of Wideband Source Localization for Acoustic Sensor Networks", IEEE Transactions on Wireless Communications ,Volume: 9 , Issue: 6, Page(s): 2033 - 2043, June 2010.
- Hua Cao, Nathan Brenner, S.S.Iyengar "High Performance Adaptive Fidelity Algorithms for Multi-Modality Optic Nerve Head Image Fusion" Journal of Signal Process Systems, DOI 10.1007/s11265-010-0496-3, June 2010.
- Mengxia Zhu, Song Ding, Richard R. Brooks, Qishi Wu, Nageswara S.V. Rao, and S. Sitharama Iyengar "Fusion of Threshold Rules for Target Detection in Sensor Networks" , ACM Transactions on Sensor Networks, Vol 6 and Issue 2, May 2010.
- Kiran Balgani, V. Phoha, S. S. Iyengar and N. Balakrishnan" On Guo and Nixon's Criterion for Feature Subset Selection: Assumptions, Implications, and Alternative Options", IEEE Transactions on Systems Man and Cybernetics, Part A: Systems and Humans, Vol 40, No 3, May 2010
- Lu Lu, Hsiao-Chun Wu and S.S.Iyengar "A Novel Robust Detection Algorithm Using Jarqure-Bera Statistic for Spectrum Sensing" IEEE GLOBECOM 2010 Proceedings, Miami, FL, 6-10 December, 2010.
- Kun Yan, Hsiao-Chun Wu, Dongxin Xu and S.S.Iyengar "Novel Robust Blind Equalizer for QAM Signals Using Iterative Weighted-Least-Mean-Square Algorithm" IEEE GLOBECOM 2010 Proceedings, Miami, FL, 6-10 December, 2010.
- Vert, Gour, S.S.Iyengar "Application of Context to Fast Contextually Based Spatial Authentication Utilizing the Spicule and Spatial Auto-correlation" Air Force Global Strike Symposium Cyber Research Workshop, Shreveport, LA November 2010.
- Vert, Chennamaneni, S.S.Iyengar "Potential Application of Contextual Information Processing to Data Mining" Information Knowledge Engineering 10, Las Vegas Nevada, July 2010
- Srivatsan Srinivasagopalan, Konstantin Busch, S.S. Iyengar "An Oblivious Spanning Tree for Buy-at-Bulk Network Design Problems", Submitted to 36th International Workshop on Graph Theoretic Concepts in Computer Science, WG- 2010, Zaros, Crete, Greece, June 28-30, 2010.

- P.T.Krishna Kumar, Suhas Madhusudhana, P.T.Vinod, S. Sitharama Iyengar "Mitigation of Toxicity in Marine Mussels by Autonomous Mobile Agents"(Sensor Fusion), 978-1-4244-5137-1/10, IEEE 2010, International Conference on Wireless Communication and Sensor Computing, January 2010.

Text Books/ Research Monograph

- Gregory Vert, S.S.Iyengar , Vir Phoha , "Introduction to Contextual Processing – Theory and Application", *CRC Press*, November 2010, pp. 320.
- S.S.Iyengar. N. Parameshwaran etal., "Fundamentals of Sensor Network Programming – Application and Technology ", *John Wiley and sons and IEEE Press*, November 2010, pp. 352
- Chakrabarty and S.S. Iyengar, "Scalable Infrastructure for Information Processing in Distributed Sensor Networks", *Springer-Verlag London Ltd*, June 2005, pp. 252.
- C. Xavier and S.S. Iyengar, "Introduction to Parallel Algorithms", *John Wiley and Sons*, July 1998, pp. 365 Translated into Chinese language (January 2005).
- S.S. Iyengar, E.C. Cho and V. Phoha, "Foundations of Wavelet Networks and Applications", *Chapman and Hall/CRC Press*, June 2002, pp. 258.
- R.R. Brooks and S.S. Iyengar "Multi Sensor Fusion: Fundamentals and Applications with Software", *Prentice Hall Publication Co.*, New Jersey 07458 (October 1997), pp. 488.
- L. Prasad and S.S. Iyengar, "Wavelet Analysis with an Application to Image Processing", *Chapman and Hall/CRC Press*, June 1997, pp. 279.
- S.S. Iyengar, L. Prasad and Hla Min, "Advances in Distributed Sensor Integration: Applications and Theory" *Prentice-Hall, New Jersey*, (1995), pp. 273.

Edited Books

- V.K. Prasanna, S. S. Iyengar, Paul Spirakis, Matt Welsh (Eds), "Distributed Computing in Sensor Systems", Proceedings of IEEE International Conference on DCOSS.
- S.S. Iyengar and R.R. Brooks (Eds), "Distributed Sensor Networks", *Taylor and Francis / CRC Press, Inc.* December 2004, pp. 1120.
- A.R. Das Gupta, S.S.Iyengar and H.S. Bhatt (Eds) Recent advances in Computing and Communication, Tata McGraw-Hill, *Proceedings of the 9th International Conference on Advanced Computing and Communications (ADCOM 2004)*, pp. 486.
- S.S.Iyengar and B.Sinha (Eds), "Recent Advances in Computing and Communication", Tata McGraw- Hill, *Proceedings of the 9th International Conference on Advanced Computing and Communications (ADCOM 2001)*, pp. 286.
- S.S. Iyengar (Ed), "Structuring Biological Systems a Computer Modeling Approach", *Chapman and Hall/CRC Press*, December 1997, pp. 267.
- S. S. Iyengar and A. Elfes, (Eds), "Autonomous Mobile Robots: Perception, Mapping, and Navigation - Volume 1" *IEEE Computer Society Press*, October 1991, pp. 260.
- S. S. Iyengar and A. Elfes, (Eds), "Autonomous Mobile Robots: Planning, Control, and Architecture - Volume 2" *IEEE Computer Society Press*, October 1991. pp. 527

- S. S. Iyengar, (Eds), "Structuring of Complex Bio-Systems" Volume II, *Chapman and Hall/CRC Press*, June 1991, pp. 267.
- Elliot Soloway and S. S. Iyengar, (Eds), "Empirical Studies of Programmers" *Ablex Pub. Co.*, Norwood, New Jersey, June 1986, pp. 268.
- S. S. Iyengar, (Ed), "Computer Modeling of Complex Bio-Systems" *Chapman and Hall/CRC Press*, November 1983, pp.142 (Best Seller-list, 1984).