



LOUISIANA STATE UNIVERSITY

Department of Computer Science

2008- 2009

FACULTY CURRENT FUNDING

Dr. BIJAYA B.KARKI
Associate Professor of Computer Science



Research Interests:

Scientific Computing and Visualization, Earth-Materials Applications

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Iyengar Karki B	PI Co-PI	Center for High Dimensional Biomedical Data with Large Bandwidth Networking, Data Fusion and Visualization to Facilitate Medical Diagnosis and Decision Making	Board of Regents	10/1/2007	9/30/2010	\$317,948
Iyengar S S Karki B	PI Co-PI	Recruitment of Superior Students in Distributed Sensor Networks at LSU	Board of Regents	8/1/2007	7/31/2012	\$368,000
Karki B	Co-PI	Career: Rheology of Materials of Earth's Mantle: High-End Computational/Visual	National Science Foundation	6/1/2004	5/31/2009	\$465,144
Karki B	PI	First-Principles Molecular Dynamics Simulations of Silicate Liquids: Structure	National Science Foundation	7/1/2008	6/30/2011	\$283,726

Dr. BRYGG ULLMER
Assistant Professor of Computer Science



Research Interests:

Tangible interfaces, visualization, computational biology, Rapid physical prototyping, and computationally-mediated arts and crafts

Faculty Name	Position	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Ullmer, B.	Designated subcontractor	NSF LIGO Science Education Center	National Science Foundation	2009	2014	\$125,000
Ullmer, B. Bagett, L.	Co-PI PI	Enhancement: Internal operations/external communications	Board of Regents	6/1/2009	7/1/2010	\$82,183
Ullmer B Batzer, M. A.	Co-PI PI	NSF MRI: Development of Integrated dequencing, computation, and user interaction system for second-generation DNA sequence analysis	National Science Foundation	9/1/2009	8/30/2013	\$1.5M
Ullmer, B. Parker, R.	PI Co-PI	NSF Creative IT Pilot: Tangible Interaction Kiosks: Integrating Physical/Digital Interaction and Visual Design to Support Creativity in Science Education	National Science Foundation	5/15/2009	5/14/2011	\$199,711
Ullmer B. Iyengar, S.S.; Beck, S.D.; Bengert, W.	PI Co-PIs	NSF MRI: Development of Viz Tangibles and VizNet: Instrumentation for Interactive Visualization, Simulation, and Collaboration	National Science Foundation	6/1/2005	8/31/2009	\$397,121
Ullmer, B.	PI	LIGO Outreach Tangibles: Physical Interaction kiosks for middle school education of space science and beyond	Board of Regents	2/15/2008	8/15/2009	\$149,830
Ullmer, B. Allen, G. Khonsari, M.	Co-PI (LSU) PI (LSU) PI	Louisiana Research Infrastructure Improvement: Cyber tools	National Science Foundation	10/1/2007	9/30/2010	\$2.279M

Dr. Doris Carver
Professor of Computer Science
Associate Vice Chancellor for Research and Graduate Studies



Research Interests:

Requirements Traceability, Model-Driven Software Development, Reverse Engineering, Software Reusability

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Carver	PI	Recruitment of Superior Graduate Students in Computer Science,	Board of Regents	2001	2006	\$136,000

Dr. EVAGANGELOS TRIANTAPHYLLOU
Professor of Computer Science



Research Interests:

Data Mining, Decision- Making, Breast Cancer design

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Triantaphyllou Iyengar .S.S, Kosar T	PI Co-PI Senior Investigator	Doctoral Research and Training in Information Networks for Monitoring, Assessment, and Relief Activities	Dept of Education (GAANN)	8/14/2006	8/13/2009	\$380,016

Dr. GABRIELLE ALLEN
Associate Professor of Computer Science and CCT



Research Interests:

Petroleum Engineering, Coastal Modeling, Computational Fluid Dynamics, Numerical Relativity, Computational Chemistry and Computational Biology.

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Allen G Seidel, Tevfik K	PI Co-PI's	SURA Coastal Ocean Observing and Prediction Program	NOAA/ SURA	7/1/2008	12/31/2008	\$130,000
Allen G Seidel Schnetler,	PI Co-PI's	Collaborative Research: XiRel, A Next Generation Infrastructure for Numerical Relativity	National Science Foundation	9/1/2007	8/31/2010	\$250,000
Iyengar S S Allen G	Co-PI PI	Center for Excellence in Integrated Smart Cyber-centric Sensor	Post Katrina Funds	6/1/2007	6/30/2012	\$1,236615
Allen G, Khonsari Ullmer B	PI's Co-PI	Louisiana Research Infrastructure Improvement: Cyber tools	National Science Foundation (EPSCOR Program)	10/1/2007	9/30/2010	\$2.279M
Allen G, Seidel, Twilley, Wischusen Tefvik K	Co-PI's PI	"MRI: Development of PetaShare: A Distributed Data Archival, Analysis and Visualization System for Data Intensive Collaborative Research"	National Science Foundation	8/15/2006	7/31/2010	\$957,678

Dr. GERALD BAUMGARTNER
Assistant Professor of Computer Science



Research Interests:

Software Engineering practices by producing better programming languages and better Software Engineering Tools

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Baumgartner, Gerald	PI	Search-Based Model-Driven Framework for Complier Organization	National Science Foundation	5/15/2006	4/30/2009	\$300,000
Ramanujam, J	Co-PI					
Ramanujam, J	PI	CSR-AES: An Integrated Framework for Compile-Time / Run-Time Support for Multi-Scale Applications on High-End Systems	National Science Foundation	9/2005	8/2009	\$708,000 LSU share: \$147,500
Baumgartner, Gerald	Co-PI					

Dr. JIANHUA CHEN
Assistant Professor of Computer Science



Research Interests:

Machine Learning and Data Mining, Data Clustering, Applications of Machine Learning for Security, Web Mining and Ontology Construction, Fuzzy Logic and Fuzzy Systems , Intelligent Information Retrieval and Interactive Systems, Knowledge Representation, Logics in AI, Non-monotonic reasoning

Faculty Name	Position	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Jianhua Chen	Co-PI	Research on Profiling Problems of Cyber Security and Anti-Terrorism	National Science Foundation	8/15/2003	8/14/09	\$180,000
Peter Chen	PI					

Dr. JIAN ZHANG
Assistant Professor of Computer Science



Research Interests:

Adaptive and proactive network security through machine learning, Statistical machine learning, Graphical models, hierarchical Bayesian models, model learning and inference, Kernel Methods, Scalable learning algorithms and systems for massive data sets

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Zhang J	PI	HostRx: An Expert System for Automated Malware Diagnosis	Army Research Office(subcontracting from SRI International)	11/5/2008	7/14/2009	\$39,958
Zhang J	PI	Holistic Machine Learning for Malicious Software Analysis and Identification	Board of Regents	2009	2011	\$88,936

Dr. KONSTANTIN BUSCH
Assistant Professor of Computer Science



Research Interests:

Theory of distributed computing. Distributed algorithms and Data Structures. Communication algorithms for Wireless, Sensor, and Optical Networks. Data streaming algorithms. Algorithmic game theory.

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Busch K Xiuzhen Cheng	PI Co-PI	NeTS -NOSS: Distributed Algorithms for Sensor-Aided Directories to Mobile Objects	National Science Foundation	-	-	\$87,689.00*

* - Grant is currently under transfer from RPI- New York

Dr. PETER CHEN
**LSU Foundation Murphy J. Foster Distinguished Chair Professor of
Computer Science**



Research Interests:

Database Management systems, Cyber Security

Faculty Name	Position	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Peter Chen Iyengar S S,	Co-PI PI	Center for Excellence in Integrated Smart Sensor Surveillance System	Board of Regents (PKSFI funds)	7/1/2007	6/30/2012	\$1,236,615
Peter Chen Jianhua Chen	PI Co-PI	Research on Profiling Problems of Cyber Security and Anti-Terrorism	National Science foundation	8/15/2003	8/14/2009	\$1,800,000
Peter Chen Kannan R, Vir Phoha,S S Pang, Iyengar.S.S	Co-PI PI	FD-Multi University Research and Training in Information Assurance and Computer Security "	National Science foundation	1/1/2007	12/31/2009	\$443,210

Dr. RAJAGOPAL KANNAN
Associate Professor of Computer Science



Research Interests:

Wireless Sensor Networks, Network Security, Wireless and Ad-Hoc Networking, Multistage, Interconnection Networks, ATM and Broadband ISDN, Game Theory for Network Control.

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Kannan R	PI	DCP: A Framework for Constrained Optimization of Spectrum Allocation for Cognitive Radios	AFOSR (via) AFRL	9/1/2008	8/31/09	\$ 20,000.00

Kannan R, Iyengar S , Sterling T, McMahon C, Katz D. Jay park	Co-PI's PI	MRI: CRON: Development of a Cyber infrastructure Reconfigurable Optical Network for Large-Scale Scientific Discovery	National Science Foundation	8/15/2008	7/31/2011	\$ 495,181.00
.Iyengar Kannan R, Jay park, Sterling	PI Co-PI's	DUE: Multi University Research and Training in Information Assurance and Computer Security	National Science Foundation	1/1/2007	12/31/09	\$ 407,533.00
R.Kannan Wei	PI Co-PI	Cognitive Radio and MAC Layer Enhancements for Wireless Communication Networks	Board of Regents	2009	2011	\$169,000

Dr. RAHUL SHAH
Assistant Professor of Computer Science



Research Interests:
Areas of Algorithms and databases

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Rahul Shah Thottethodi, V. Pai, Vijaykumar, J.Vitter	PI Co-PI's	Performance Models and systems Optimization for Disk- Bound Applications	National Science Foundation	11/1/200 7	9/30/2009	\$275,635

Dr. SEUNG-JONG PARK
Assistant Professor of Computer Science



Research Interests:

Wireless Sensor Networks, Wireless Ad-hoc Networks, High Speed Networks for Grid Computing, Networks Convergence

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Seung-Jong Iyengar S S, Wu.H	Co-PI PI PI	Secure and Survivable Cyber-Centric Sensor Networks: Algorithms and Architecture Research	Dept of Navy, Office of Naval Research	4/8/200 8	12/30/2011	\$761,368
Seung-Jong Iyengar, Kannan, Sterling, McMahon, Katz	PI Co-PI's	MRI: CRON: Development of a Cyber infrastructure Reconfigurable Optical Network for Large-Scale Scientific Discovery	National Science Foundation	8/15/08	7/31/2011	\$495,181
Seung- Jong Iyengar S S , Seidel,	PI Co-PI's	Developing a Fluid Based Simulator and Transport Protocols for Large-Scale Wireless Sensor and Actor Networks	Board of Regents	6/1/200 6	6/30/2009	\$81,380
Seung-Jong Yongwhan Lee	Co-PI PI	PFKFB3-based development of a new cancer drug targeting the Warburg effect.	NIH	2008	2012	\$1,099,350

Dr. SITHARAMA IYENGAR
Chairman / Roy Paul Daniels Professor of Computer Science



Research Interests:

Algorithms and Data Structures, Sensor Networks, Distributed Systems

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Iyengar Wu, Hsiao, Seung-Jong Park.	PI Co-PI's	Secure and Survivable Cyber-Centric Sensor Networks: Algorithms and Architecture Research	Dept of Navy, Office of Naval Research (DEPSCOR program)	4/8/2008	12/30/11	\$761,368
Iyengar S.S Allen G, P Chen , Kosar	PI Co-PI's	Center for Excellence in Integrated Smart Cyber- centric Sensor	(Post Katrina Funds) PKSFI- Board of Regents	6/1/2007	6/30/2012	\$1,236,615 (LSU share out of total funding \$3.3M)
Iyengar S.S Brener N, Karki, B	PI Co-PI's	Center for High Dimensional Biomedical Data with Large Bandwidth Networking, Data Fusion and Visualization to Facilitate Medical Diagnosis and Decision Making	Board of Regents	10/1/07	9/30/2010	\$317,948
Iyengar S S, Kannan R, Wei, Shuangqing	PI Co-PI's	Sensor Fusion Methods for Detection and Identification for Dispersions	UT-Battelle LLC	2/21/07	9/30/2009	\$200,000
Iyengar S S, Karki B, Kannan	PI Co-PI's	Recruitment of Superior Students in Distributed Sensor Networks at LSU	Board of Regents	8/1/2007	7/31/2012	\$368,000

Iyengar S S, Kannan R, Sterling T, McMahon C, Katz D	Co-PI's	MRI: CRON: Development of a Cyber infrastructure Reconfigurable Optical Network for Large-Scale SD	National Science Foundation	8/15/08	7/31/2011	\$495,181
Seung-Jong P	PI					
Iyengar S S, Seidel	Co-PI's	Developing a Fluid Based Simulator and Transport Protocols for Large-Scale Wireless Sensor and Actor Networks	Board of Regents	6/1/2006	6/30/2009	\$81,380
Seung-Jong	PI					
Iyengar.S.S	PI	FD-Multi University Research and Training in Information Assurance and Computer Security "	National Science foundation	1/1/2007	12/31/09	\$443,210
Peter Chen Kannan R, Vir Phoha,S S Pang,	CO-PI's					
Iyengar. S.S	PI	Recruitment of Superior Graduate Fellows in Computer Science	Board of Regents (Graduate Fellows)	2009	2013	\$100.000
Kosar T	Co-PI					



Dr. TEFVIK KOSAR
Assistant Professor of Computer Science

Research Interests:

Distributed systems, grid and collaborative computing with emphasis on data intensive distributed computing, resource allocation and management, fault tolerance, coordination of computation and I/O, distributed data scheduling and management, use of distributed systems to solve problems in biology, astronomy, high energy physics, and coastal and environmental sciences.

Faculty Name	PI/Co-PI/SI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Kosar T G. Allen, Seidel, Twilley, Wischusen	PI Co-PI's	"MRI: Development of PetaShare: A Distributed Data Archival, Analysis and Visualization System for Data Intensive Collaborative Research"	National Science Foundation	08/15/06	07/31/10	\$957,678
Kosar T	PI	"Enabling End-to-end Processing and Analysis of Large Scale Coastal Data"	Research Competitiveness Subprogram (RCS)	06/01/06	06/30/09	\$133,888
Kosar T M. Khonsari, E. Seidel	Co-PI PI PI	"RII: Louisiana's Research Infrastructure Improvement Strategy (Cyber Science)"	National Science Foundation	10/2007	09/2010	\$12,000,000
Kosar T G. Allen	Co-PI PI	"SURA Coastal Ocean Observing and Prediction Program (SCOOP)"	NOAA / SURA	12/31/07	12/31/08	\$130,000
Kosar T M. Khonsari C.White	Co-PI PI's	Ubiquitous Computing and Monitoring System (UCoMS) for Discovery	EPSCoR	07/01/07	06/30/10	\$2,100,000 (Total); \$630,000 (LSUshare)
Kosar T E. Seidel	Co-PI PI	"The LONI Institute: Advancing Biology, Materials, and Computational Sciences for Research, Education, and Economic Development"	Louisiana Board of Regents (PKSFI)	06/01/07	06/30/12	\$7,000,000
Kosar T E. Seidel	Senior Personnel PI	"The LONI Grid - Leveraging HPC Resources of the Louisiana Optical	National Science Foundation	2007	2009	\$2,200,000

		Network Initiative for Science and Engineering Research and Education"				
Iyengar S S, V.Phoha Kosar T	PI PI Senior Personnel	"Center for Excellence in Integrated Smart Cyber-centric Sensor Surveillance Systems"	Louisiana Board of Regents	06/01/07	06/30/12	\$3,638,104 (Total); \$1,555,521 (LSU share)
Kosar, Tefvik Triantaphyllou Iyengar S.S	Senior Investigator PI Co-PI	"Doctoral Research and Training in Information Networks for Monitoring, Assessment and Relief Activities for Natural and Man-Made Disasters"	US Department of Education (GAANN)	08/16/06	08/15/09	\$126,675
Kosar, Tefvik	PI	"CAREER: Data-aware Distributed Computing for Enabling Large-scale Collaborative Science"	National Science Foundation (NSF)	01/10/09	01/10/14	\$400,001
Kosar T Iyengar. S.S	Co-PI PI	Recruitment of Superior Graduate Fellows in Computer Science	Board of Regents (Graduate Fellows)	2009	2013	\$100.000

Dr. THOMAS STERLING
Professor of Computer Science



Research Interests:

ParalleX execution model and its practical implementation in Computer Architecture and programming methods.

Faculty Name	PI/Co-PI	Grant Title	Granting Agency	Start Date	End Date	Total Funding
Sterling T	PI	Collaborative Research: A Study and Implementation of Semantic Constructs for Highly Scalable Leading-edge Scientific Computing	National Science Foundation	8/1/2008	8/31/2009	\$70,000
Sterling T	PI	Towards a Solution to the Multi-core Challenge	Microsoft Corp.	4/30/2008	4/30/2011	\$449,998
Sterling T	PI	A System Architecture Point Design Study for Exascale Computing	National Science Foundation	9/1/2008	8/31/2010	\$198,677
Sterling T	PI	Participation in DARPA/AFRL Exascale Study	Georgia Tech Univ.	5/18/2007	1/31/2009	\$156,000
Sterling T	PI	Dynamic Adaptive Execution Model for High Productivity Computing	Dept of Defense	4/25/2008	4/24/2009	\$842,692
Sterling T	PI	National Dissemination of HPC Introductory Education Through Multimedia	National Science Foundation	7/1/2007	6/30/2009	\$274,873
Sterling T	PI	Dynamic Adaptive Multithreading: Continuous Compilation and Runtime Scheduling for High End Computing	Univ. of Delaware	7/15/2005	6/30/2009	\$200,000
Sterling T	PI	A Framework for Adaptable Operating and Runtime Systems	US Dept of Energy	8/15/2006	8/14/2009	\$517,345
Sterling T	Co-PI	Collaborative Research: Simulating Neutron Star-Black Hole In spirals: From Binaries to Accretion and Jets	National Science Foundation	9/1/2008	8/31/2009	\$300,000
Sterling T	Co-PI	MRI: CRON: Development of a Cyber infrastructure Reconfigurable Optical Network for Large-Scale Scientific Discovery	National Science Foundation	8/15/2008	7/31/2011	\$495,181

