IIT Department of Computer Science Legacy

Jack J. Dongarra (M.S. in Computer Science, 1973) A specialist in numerical algorithms, Jack Dongarra is University Distinguished Professor of Computer Science at the University of Tennessee. He directs their Innovative Computing Laboratory and their Center for Information Technology Research.

Victor Tsao (M.S. in Computer Science, 1980) Eight years after earning his master's degree, Victor Tsao and his wife started Linksys in their home garage. He served as its president and CEO for 15 years before selling Linksys to Cisco Systems.

Andrea Berry (B.S. in Computer Science, 1984) Andrea Berry is Senior Vice President, Broadcast Operations, for Fox Networks Group. She has won multiple Emmy awards for leading live broadcasts of events such as the Super Bowl, World Series, and Olympics.

Loretta Moore (M.S. and Ph.D. in Computer Science, 1986, 1991) Chair of the Department of Computer Science at Jackson State University, Loretta Moore is both a researcher and a leader in efforts to increase the number of African Americans with Ph.D.s in computer science.

Rajeev Chandrasekhar (M.S. in Computer Science, 1988) At Intel, Rajeev Chandrasekhar was part of the team that designed the trailblazing Pentium chip. He also was a senior design engineer for the 32-bit 80486 microprocessor. He is now a member of India's Parliament.

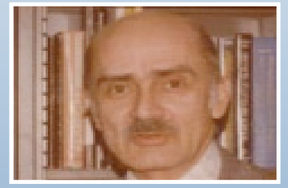
Cheryl Hyman (M.S. in Computer Science, 1996) As chancellor of the City Colleges of Chicago, Cheryl Hyman helps others to become educated, something she herself achieved despite having troubled parents.

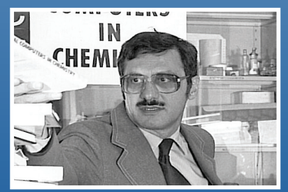
Abdur Chowdhury (Ph.D. in Computer Science, 2001) With a background in information retrieval, query processing, and networks, Abdur Chowdhury is now Chief Scientist for Twitter.

Find profiles of these computer science alumni at:
iit.edu/csl/cs/about/prominent_grads.shtml

Where did your computer science degree take you? Email us your story at:
info@cs.iit.edu

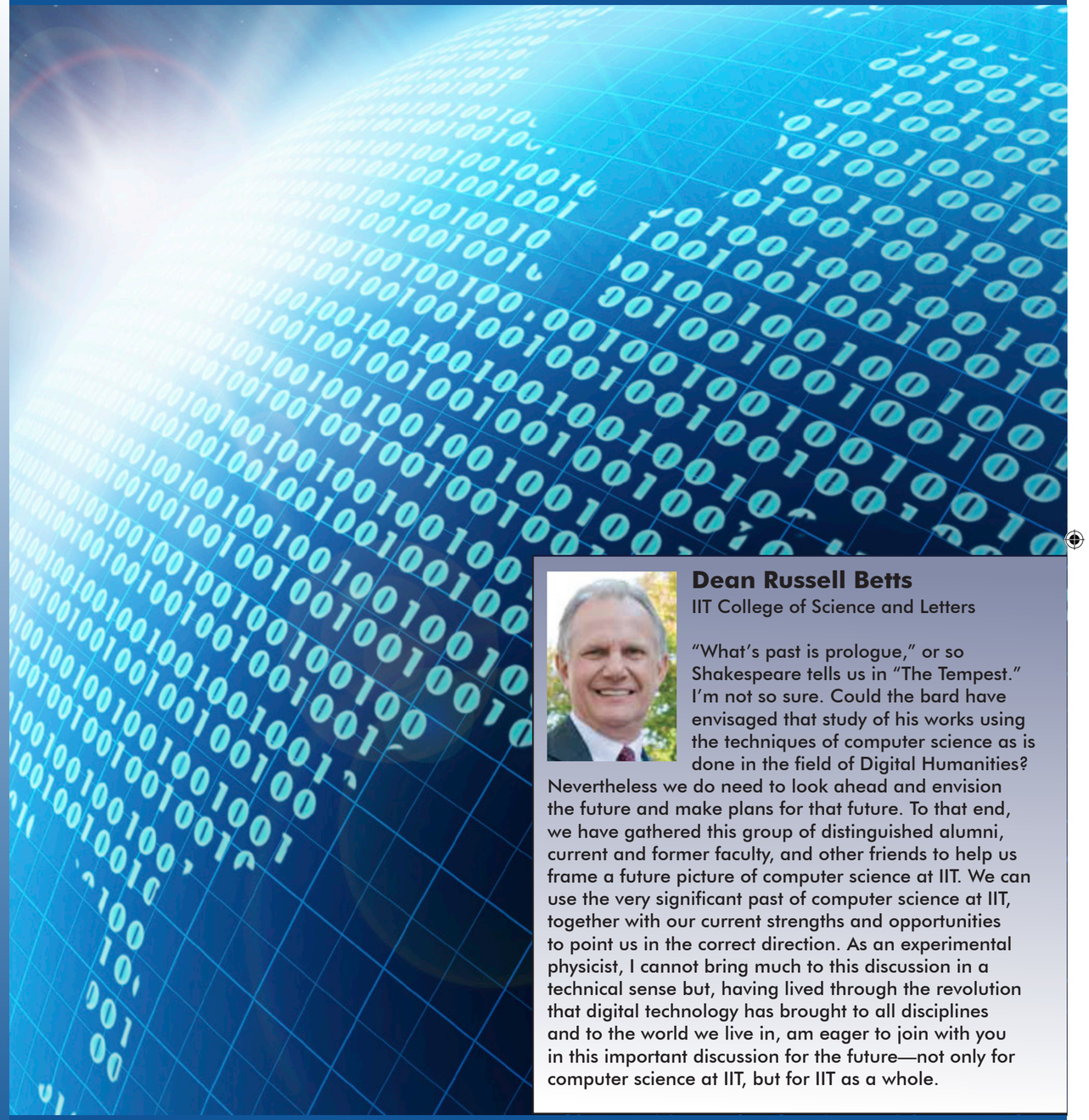
Can You Identify Anyone in These Photos?





For more information about the history of the Department of Computer Science at IIT visit iit.edu/csl/cs/about/history.shtml

Department of Computer Science Newsletter Spring 2011



Dean Russell Betts

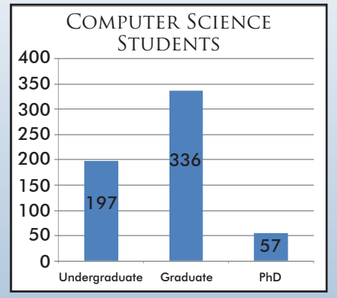
IIT College of Science and Letters

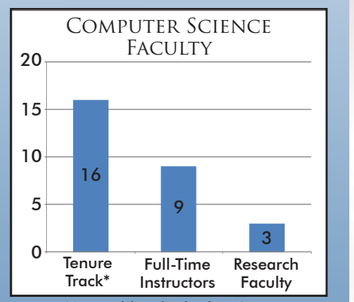
"What's past is prologue," or so Shakespeare tells us in "The Tempest." I'm not so sure. Could the bard have envisaged that study of his works using the techniques of computer science as is done in the field of Digital Humanities? Nevertheless we do need to look ahead and envision the future and make plans for that future. To that end, we have gathered this group of distinguished alumni, current and former faculty, and other friends to help us frame a future picture of computer science at IIT. We can use the very significant past of computer science at IIT, together with our current strengths and opportunities to point us in the correct direction. As an experimental physicist, I cannot bring much to this discussion in a technical sense but, having lived through the revolution that digital technology has brought to all disciplines and to the world we live in, am eager to join with you in this important discussion for the future—not only for computer science at IIT, but for IIT as a whole.

IIT College of Science and Letters
ILLINOIS INSTITUTE OF TECHNOLOGY

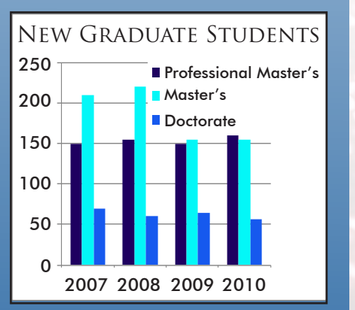
CS
COMPUTER SCIENCE

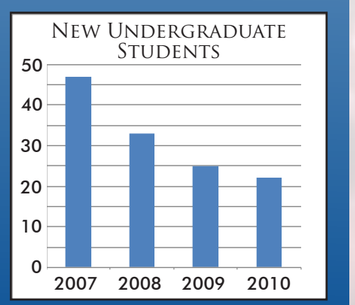
IIT Department of Computer Science Snapshot





*3 new hires in the last 2 years



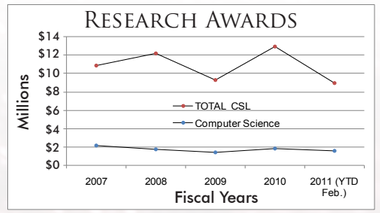


Xian-He Sun
Department of Computer Science Chair

IIT has a history of fueling innovation that has enabled our graduates to develop breakthrough technologies. When you send a twitter message on your cell phone via a wireless network, you would be proud to know that there was an IIT alumnus who played a major part in making that happen. The same could be said about numerical libraries, wireless communication gateways, and many other innovations. Each of our computer science graduates has learned the critical, analytical and computational skills that have formed the foundation of their success in academia, industry and government.

Today, we celebrate the accomplishments of the early pioneers of computing and the modern practitioners of computer science at IIT. In partnership with the Dean of the IIT College of Science and Letters and faculty, we are poised to shape the future of computer science at the university. The field of information technology is dynamic and filled with opportunities. Where to begin? How can we prepare our students to make the most of these opportunities, lead tomorrow's businesses or create new industries? I hope we can harness our collective wisdom and resources to set a bold course for computer science at IIT for the next 40 years.

Computer Science Research Awards



Recent Computer Science Research Awards

In the fiscal year of 2010 the Computer Science Department received 15 awards totaling $1.85 million in computer science and wireless networks research. Such awards as:

Shangping Ren	Application-Aware Many-Core Virtualization for Real-Time Embedded Computing		
	NSF CSR	$299,845	08/01/2010-07/31/2013
Dennis Roberson	Dynamic Spectrum Access for Mission Critical Wireless Networks		
	NSF NeTS	$450,000	08/01/2010-07/31/2013
Xiang-Yang Li, Shang-Ping Ren, Paul Anderson, Fouad Teymour	USA NSF CPS:Medium: The Study of and Methodology Development for Loosely Coupled Networked Control Systems with Disturbances		
	NSF CNS-1035894	$750,000	09/15/2010–09/14/2013
Ioan Raicu	Avoiding Achilles' Heel in Exascale Computing with Distributed File Systems		
	NSF Career Award, NSF, OCI	$450,000	01/2011-12/2015

Cloud and Distributed Systems

Zhiling Lan
Parallel and Distributed Systems, High Performance Computing.

Ioan Raicu
Distributed Systems, Grid Computing, Supercomputing, Cloud Computing.

Shangping Ren
Coordination Models for Open Distributed & Embedded Systems, High-Level Programming Languages for Domain Specific Applications.

Xian-He Sun
Parallel & Distributed Processing, Software Systems, Performance Evaluation, & Scientific Computing.

Network; Sensor; and Social Network

Cynthia Hood
Network & Systems Management, Wireless Networks, Adaptive Systems, Innovation In Education.

Xiang-Yang Li
Algorithm Design & Analysis for Networks, Wireless Sensor Networks, Computational Geometry, Game Theory.

Dennis Roberson
Wireless Networking, Dynamic Spectrum Access Networks, Spectrum Occupancy & Spectrum Management, & Wireless Interference.

Peng-Jun Wan
Wireless Networks, Optical Networks, & Algorithm Design & Analysis.

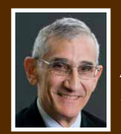
Current Key Areas of Computer Science Research

Theory/Algorithm

Gruia Calinescu
Algorithms & Approximation Algorithms.

Sanjiv Kapoor
Computational Geometry, Graph Algorithms, Combinatorial Optimization, Graphics, & Data Structures.

Xiang-Yang Li
Algorithm Design & Analysis for Networks, Wireless Sensor Networks, Computational Geometry, Game Theory.



Edward M. Reingold
Analysis of Algorithms & Data Structures, Calendars.

Peng-Jun Wan
Wireless Networks, Optical Networks, & Algorithm Design & Analysis.

Information Retrieval; Data Mining; AI; Computer Graphics

Gady Agam
Advanced Computational Algorithms for Visual Computing, Algorithms for Computer Vision, Machine Learning, Pattern Recognition.

Shlomo Argamon
Machine Learning, Computational Linguistics, Stylistics, & Information Retrieval.

Mustafa Bilgic
Data Mining, Machine Learning, Active Learning, Probabilistic Graphical Models, Statistical Relational Learning, Social Network Analysis, & Information Visualization.

David Grossman
Information Retrieval, Integrating Structured & Unstructured Data, & Data Mining.