

## Department of Electrical Engineering and Computer Science

Academic year 2005 has proven to be a time of new beginnings for the Department of Electrical Engineering and Computer Science (EECS). It started on September 1, 2004, with a new team in place: Rafael Reif as the department head, Eric Grimson as the associate department head for computer science, Duane Boning as the associate department head for electrical engineering, and George Verghese as education officer. In December 2004, Agnes Chow became the new administrative officer for the department.

The strategic plan for the department will concentrate on reexamining and possibly reinventing what EECS does and how we do it. This will involve renovating the curriculum to emphasize the common foundations of EECS, as well as making it current. We hope to bring rapidly growing research and important technical areas into the curriculum, including communication and information theory, life sciences, and quantum concepts. We intend to integrate globalization into the EECS educational experience as well as reinvigorate EECS–industry interactions. We also will continue our efforts to increase the diversity of faculty and students in the EECS community.

Various committees have been formed to facilitate the above changes, including the Curriculum Innovation Committee, Tomas Lozano-Perez, chair; the Education Committee, George Verghese, chair; and the EECS–Industry Working Group, Chris Terman, chair.

Other existing committees are also involved in fostering these changes among other departmental functions, including the Committee on Graduate Students, Arthur Smith, chair; the Safety Committee, Ron Roscoe, chair; the Graduate Admissions Committee, Terry Orlando, chair; the Faculty Search Committee, Eric Grimson and Duane Boning, cochairs; and the Personnel Committee, Rafael Reif, chair.

In addition, we have the following six research areas:

- I Systems, Communication, Control, and Signal Processing, Greg Wornell, chair
- II Computer Science, Srinivas Devadas, chair
- III Electronics, Computers, and Systems, Harry Lee, chair
- IV Energy and Electromagnetic Systems, Leslie Kolodziejski, chair
- V Materials and Devices, Leslie Kolodziejski, chair
- VII Bioelectrical Engineering, Louis Braid, chair

### Service Awards

Four of our EECS colleagues were inducted into the society of the School of Engineering's Infinite Mile Awards: Lisa Bella (assistant to the education officer), Peggy Carney (graduate administrator), Kathy Sullivan (administrative assistant), and Carolyn Collins (administrative assistant) were all recognized for their merit and service to the department. Agnes Chow was presented with an Institute-wide MIT Excellence Award for providing exceptional client service to the Institute. Donna Kaufman and Patricia Sampson received the Richard J. Caloggero Award for distinguished service in EECS.

## Women's Technology Program

This summer marked the fourth year of the Women's Technology Program (WTP). Over 400 applications were received from female high school juniors from 41 states, 3 territories, and 15 countries to fill just 40 spots. For four weeks, these young women explore topics in electrical engineering (EE) and computer science (CS), focusing on engaging hands-on experiments and projects interspersed with lectures in EE, CS, and discrete math. With the help of the dedicated MIT graduate and undergraduate women who teach their courses, these young women work hard to advance their knowledge of complex college-level subject matter and take full advantage of this opportunity to explore the MIT community. Four of the MIT students working in WTP this summer are alumnae of the program who attended as high school students in 2002 and 2003. Of the 107 WTP alumnae from AY2004, 47 will be enrolled as MIT students as of September 2005; others are pursuing engineering and science majors at top colleges around the country.

## Undergraduate Teaching Laboratories

The undergraduate labs (6.111, 6.115, 6.021J, 6.121J, and 6.131) on the 6th floor of Building 38 went through major renovation during the summer of 2004. EECS funded a major upgrade of the instructional labs through the purchase of about 100 new lab benches and state-of-the-art equipment (scopes, power supplies, etc.). Facilities replaced the original roof on Building 38 and the lab space was repainted.

In addition, major donations were received from Intel (high-performance PCs), Tektronix (state-of-the-art logic analyzers), and Xilinx (high-performance FPGAs) for Course 6.111 Introductory Digital Systems Laboratory. EECS and Xilinx funded the prototyping and production of new lab kits for 6.111. Linear Technology provided a donation for the purchase of Agilent function generators and digital multimeters to help complete the lab stations in Rooms 38-500 and 38-601 (6.101 lab).

With support from the School of Engineering, we have expanded our Microfluidics Project Laboratory to include 10 workstations, each consisting of a set of microfluidics experiment chambers, a high-quality video microscope, and a computer with associated software to collect and record results. Laboratory projects include microfabrication, microscale fluid flow, particle velocimetry, molecular diffusion, and biochemical separation. During the past two years, more than 250 students have completed the Microfluidics Project Laboratory as part of 6.021J Quantitative Physiology: Cells and Tissues or 6.152J Microelectronics Processing Technology.

## VI-A Internship

The department's VI-A Internship Program is in its 88th year. This year, 75 students applied to the VI-A Program during the annual orientation and selection process and 38 were selected as members of the incoming VI-A class. Currently there are 40 undergraduates and 14 MEng students in the program. To compare, in 2004, 70 students applied and 21 were selected; in 2003, 129 students applied and 27 were selected; and in 2002, 144 students applied and 26 were selected. Since the last report, approximately 8 students have withdrawn from the VI-A Internship Program, as they felt their needs

were better matched with the opportunities available on campus. However, most VI-A students continue to find the program professionally rewarding. Participating companies continue to offer challenging and well-supervised assignments.

D. E. Shaw of New York City has joined the VI-A Program. Shaw has two students on their first assignments. Some companies did not participate in the annual orientation and selection process this year, but these companies are continuing with the students already in the program, and many of them have indicated an interest in resuming their active participation in the future. There have been numerous inquiries from new companies interested in the VI-A Program, and we hope that we can obtain new members in the near future.

### **Graduate Program**

In September 2004 there were 893 graduate students enrolled in the department. About 32 percent of them were foreign nationals. The department supported 561 research assistants and 106 teaching assistants. In addition, there were 141 fellowships, including 43 National Science Foundation fellows and 24 Department of Defense fellows. The remaining students had industrial or foreign support or were using their own funds.

During 2004 the department awarded 109 master of science degrees and 65 doctoral degrees.

EECS received 2,521 applications for AY2005, a slight decrease from AY2004; 189 were admitted for the year, which resulted in 102 new graduate students registering in September.

### **Undergraduate Program**

Enrollment of undergraduates averaged 806 in AY2005, down 7% from AY2004, with 19% in the Electrical Engineering Program (6-1), 23% in the Computer Science Program (6-3), and 58% in the Electrical Engineering and Computer Science Program (6-2). From the Class of 2007, 205 students were enrolled in Course 6. About 240 students from the Class of 2008 have so far selected Course 6, an increase of 17%.

The Master of Engineering (MEng) program entered its 11th year with an average of 227 students.

There were also 15 Phi Beta Kappa electees for AY2005.

### **Faculty Notes**

Faculty on sabbatical:

Saman P. Amarasinghe	(09/01/04–05/31/05)
John V. Guttag	(09/01/04–01/15/05)
Nancy A. Lynch	(09/01/04–01/15/05)
John L. Wyatt	(09/01/04–05/31/05)
Anant Agarwal	(01/16/05–05/31/05)
Dimitri A. Antoniadis	(01/16/05–05/31/05)

Faculty on junior research leave:

Michael J. Collins	(09/01/04–01/15/05)
Jovan Popovic	(09/01/04–01/15/05)
Joel Voldman	(09/01/04–01/15/05)
Steve G. Massaquoi	(01/16/05–05/31/05)

Faculty on family release:

Hari Balakrishnan	(09/01/05–01/15/05)
Robert C. Miller	(01/16/05–05/31/05)

Retired faculty:

Paul L. Penfield Jr.  
Henry I. Smith

The following eight new faculty members joined the department this year.

—Elfar Adalsteinsson joined MIT on 9/1/04 as assistant professor of electrical engineering and computer science and health sciences and technology. He received his PhD from Stanford University. Elfar's research area is medical imaging with magnetic resonance, focusing on optimal methods for acquisition, reconstruction, and processing of in vivo imaging data. He is a member of the Research Lab of Electronics.

—Sangeeta Bhatia joined MIT on 3/1/05 as associate professor of electrical engineering and computer science and health sciences and technology. She received her PhD from MIT and an MD from Harvard University. Sangeeta's work focuses on using micro- and nanotechnology tools to repair damaged tissues.

—Manolis Kellis joined MIT on 9/1/04 as assistant professor of electrical engineering and computer science. He received his PhD from MIT. Manolis' primary research interest is computational biology. He is a member of the Computer Science and Artificial Intelligence Laboratory.

—Jing Kong joined MIT on 9/1/04 as assistant professor of electrical engineering and computer science. She received her PhD from Stanford University. Currently her research interest is novel electronic devices using carbon nanotubes. She is a member of the Research Lab of Electronics.

—Pablo Parrilo joined MIT on 10/1/04 as assistant professor of electrical engineering and computer science. He received his PhD from the California Institute of Technology. Pablo's research interests are in algebraic optimization.

—Devavrat Shah joined MIT on 3/1/05 as assistant professor of electrical engineering and computer science and in the Engineering Systems Division. He received his PhD from Stanford University. Devavrat's research interests are network/internet and wireless algorithms.

—Vladimir Stojanovic joined MIT on 1/16/05 as assistant professor of electrical engineering and computer science. He received his PhD from Stanford University. Vladimir is working on the optimization of integrated circuits and systems. He is a member of the Research Lab of Electronics.

—Collin Stultz joined MIT on 9/1/04 as assistant professor of electrical engineering and computer science and health sciences and technology. He received his PhD and MD from Harvard University. Collin's research focus is in computational and systems biology. He is a member of the Computer Science and Artificial Intelligence Laboratory.

The department hosted two visiting faculty this year: Professor Michael J. Kelly of Cambridge University and Professor Harry R. Lewis of Harvard University.

## Faculty Honors

Academic year 2005 was a stellar time for honors given to faculty, graduate, and undergraduate students. Below is a list of the awards (internal and external).

Faculty Awardees	Award Title	Citation/Date of Award
Anant Agarwal	Louis Smullin Award	EECS Awards Ceremony, May 2005
Hari Balakrishnan	NSDI Best Paper Award	Symposium on Networked Systems Design and Implementation (NSDI), May 2005
Regina Barzilay	Best Paper Award of the Joint Human Language Technology Conference	At annual meeting of North American chapter of the Association for Computational Linguistics held in Boston in May 2004 (coauthor, Lillian Lee)
	NSF Career Award	
Duane Boning	Fellow of the Institute of Electrical and Electronics Engineers	For his "contributions to modeling and control in semiconductor manufacturing," January 2005
Rodney Brooks	Matsushita Professor of Robotics	Through a contribution from the Matsushita Corporation and specifically designated for a leader in the field of robotics
Vladimir Bulovic	Presidential Early Career Award for Scientists and Engineers (PECASE)	The nation's highest award for academic researchers in their early careers; presentation of these awards was made at the White House on September 9, 2004
	Selected this year by <i>Technology Review</i> as one of 100 outstanding young researchers in technology	Researchers from around the world who are under the age of 35 years and who will transform the nature of such fields such as biotechnology, computing, and nanotechnology; Kresge presentation of awards, September 29–30, 2004

Faculty Awardees	Award Title	Citation/Date of Award
Munther Dahleh	George S. Axelby Outstanding Paper Award of the IEEE Control Systems Society (CSS) for the Year 2004	For his paper “Distributed Control of Spatially Invariant Systems,” with professors Bamieh and Paganini.
Randall Davis	Jerome Saltzer Award	EECS Awards Ceremony, May 2005
Erik Demaine	Cowinner of the annual Institute-wide Edgerton Faculty Achievement Award.	The Edgerton Award was established in 1982 to honor junior faculty members “for distinction in research, teaching and service to the MIT community”
Martin Demaine	Artist-in-Residence in the Department of Electrical Engineering and Computer Science	Made possible through generous donations to the Angelika and Barton Weller Artist-in-Residence Fund
Mildred Dresselhaus	IEEE Founders Medal	June 2004: First woman ever to be so honored)
	Honorary Member Sigma Pi Sigma	October 2004
	Honorary Fellow of the Institute of Physics	January, 2005: First woman ever to be so honored
	Honorary Doctor of Science degree, University of Michigan	April 2005
	Honorary Doctor of Science degree, George Washington University	May 2005
Fredo Durand	Hainz Award for Technology, the Economy, and Employment	May 2005
	Eurographics Association Young Researcher Award	One of two recipients in 2004 “in recognition of his outstanding creative and inspiring contributions to Computer Graphics”
	MSR Faculty Fellowship	Announced in 5/12/05 <i>TechTalk</i>
	NSF Career Award	
Robert M. Fano	Honorary Degree in Telecommunication Engineering	Politecnico di Torino; Dr. Fano was born in Torino, Italy, and did most of his undergraduate work at the School of Engineering of Torino before coming to the United States in 1939

<b>Faculty Awardees</b>	<b>Award Title</b>	<b>Citation/Date of Award</b>
Clifton Fonstad	Fellow of the Institute of Electrical and Electronics Engineers	For his "leadership in compound semiconductor heterostructure devices," January 2005
Dennis Freeman	2005 Bose Award for Excellence in Teaching	The Bose Award for Excellence in Teaching was established in 1990 by the School of Engineering to recognize outstanding contributions to undergraduate education by members of its faculty; the award stands as a tribute to one of the School's finest teachers, Dr. Amar Bose, EECS professor and founder of the Bose Corporation; May 10, 2005
James Fujimoto	Fellow of the American Association for the Advancement of Science (AAAS)	For "distinguished contributions to the field of nonlinear interactions of laser light with matter and their application"
Shafira Goldwasser	Elected to the National Academy of Engineering	For contributions to cryptography, number theory, and complexity theory and their applications to privacy and security
Alan Grodzinsky	ACM/IEEE Award for the Best Academic Advisor	Award given by MIT Chapter of ACS/IEEE
John Guttag	Fellow of the American Academy of Arts and Sciences (AAAS)	"Fellows are selected through a highly competitive process that recognizes individuals who have made preminent contributions to their disciplines and to society at large"
Frans Kaashoek	<a href="#">Fellow of the Association for Computing Machinery (ACM)</a>	For contributions to distributed, mobile, and parallel systems; June 2005
Dina Katabi	NSDI Best Student Paper Award  NSF Career Award	For the paper "Botz-for-Sale: Surviving DDoS Attacks that Mimic Flash Crowds"
Jin Au Kong	IEEE Electromagnetics Award	IEEE International Geoscience and Remote Sensing Symposium in Anchorage, Alaska, September 2004
Butler Lampson	Elected member of National Academy of Sciences	Distinguished engineer, Microsoft Corp., Cambridge, MA
Jeffrey Lang	Louis Smullin Award	EECS Awards Ceremony, May 2005

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Barbara Liskov	2005 Saul Gorn Memorial Lecture	University of Pennsylvania, Department of Computer and Information Science and the Institute for Research in Cognitive Science: "Providing Secure Storage on the Internet"
Samuel Madden	VLDB 2004 Best Paper Award  NSF Career Award	"Model-Driven Data Acquisition in Sensor Networks," September 2004
Robert Miller	NSF Career Award	
Pablo Parrilo	Donald P. Eckman Award for the year 200, given by American Automatic Control Council, part of the International Federation of Automatic Control (IFAC)	In recognition of pioneering contributions to the integration of algebraic and numerical techniques as computational tools for the optimization and robustness of control systems
David Perreault	2005 Society of Automotive Engineers (SAE) Ralph R. Teetor Educational Award  IEEE Power Electronics Society Transactions Prize Paper Award	April 12, 2005, during the Honors Convocation at the SAE 2005 World Congress in Detroit, MI  For the paper entitled "Filters with Active Tuning for Power Applications"
L. Rafael Reif	First holder of the newly established Fariborz Maseeh Professorship of Emerging Technology	For his work on microelectronics in the emerging area of nano- and microtechnologies, coined "Tiny Technologies"
Ronald Rivest	Fellow of the International Association of Cryptologic Research (IACR)  Elected to in the National Academy of Sciences	For breakthrough research contributions and for sustained leadership in the technical, educational, and commercial development of cryptology and security; September 2004  April 2004
Daniela Rus	ACM SenSys 2004 Best Paper Award	David Moore, John Leonard, Daniela Rus, and Seth Teller, "Robust Distributed Network Localization with Noisy Range Measurements," ACM Conference on Sensors and Systems
Rahul Sarpeshkar	Ruth and Joel Spira Award	EECS Awards Ceremony, May 2005



<b>Faculty Awardees</b>	<b>Award Title</b>	<b>Citation/Date of Award</b>
Michael Stonebraker	IEEE John von Neumann Medal	For contributions to the design, implementation, and commercialization of relational and object-relational database systems; December 2004
Madhu Sudan	Distinguished Alumni Award of the Indian Institute of Technology	One of three alumni awarded the Distinguished Alumni Award by the Indian Institute of Technology in New Delhi at its 35th Convocation
	Fujitsu Chair	This chair is provided through a contribution from the Fujitsu Corporation
	Guggenheim Fellowship	Algebraic Methods in Error-Correction, June 20, 2005
Gerald Sussman	Fellow of the American Association for the Advancement of Science (AAAS)	For “pioneering the design and implementation of the Digital Orrery, an artificial intelligence-based, special-purpose computer for astrophysics, which enabled discovery of chaotic motions in the outer solar system”; November 3, 2004
Seth Teller	ACM SenSys 2004 Best Paper Award	David Moore, John Leonard, Daniela Rus, and Seth Teller, “Robust Distributed Network Localization with Noisy Range Measurements,” ACM Conference on Sensors and Systems
Alan Willsky	Honoris Causa from L’Université de Rennes	IRISA (Institut de Recherche en Informatique et Systèmes Aléatoires), a joint laboratory of INRIA (Institut National de Recherche en Informatique et Automatique), CNRS (Centre National de la Recherche Scientifique), and the University of Rennes; this will take place in October 2005
Patrick Winston	Eta Kappa Nu Underground Guide Excellence in EECS Teaching Award	EECS Awards Ceremony, May 2005

## Student Awards

Student Name	Award Name/Group	Citation/Date
Raul Blazquez	DAC/ISSCS Student Design contest	This year's operational category and overall winner is from MIT; the entry was "A single-chip ultra-wideband transceiver"
David Blau	David A. Chanen Writing Award for Outstanding Paper	D-Bus: Simple yet Effective
Michael Bolin	William A. Martin Memorial Thesis Prize for Outstanding Master's Thesis in CS	"End-User Programming for the Web"
Robert Cassels	Northern Telecom/BNR Project Award for best 6.111 lab project fall term 2004	3D Game Using Ray Casting
Shuodean Chen	Morris Joseph Levin Award for Outstanding MasterWorks Oral Thesis presentation, spring term 2004	"The Effect of Dynamic Shear Forces on Chondrocyte Biosynthesis in Agarose Gel Culture"
Erich Caulfield	Martin Luther King Jr. Leadership Award	February 7, 2005
Nirav Dave	CADathlon at the International Conference on Computer Aided Design	Tied for first place
Delphine Dean	Gold Medal	Paper presented at Materials Research Society, Boston, December 1, 2004: "Normal Nanomechanical and Electrical Interaction Forces between Opposing Cartilage Aggrecan Macromolecules"
Anne Dreyer	Second Place: Ernst A. Guillemin Thesis Award for Outstanding Master's Thesis in EE	"Predicting Lateralization Performance at High Frequencies from Auditory-Nerve Spike Timing"
Shihab Elborai	Carlton E. Tucker Teaching Award	EECS Awards Ceremony, May 2005
Jeremy Fineman	Morris Joseph Levin Award for Outstanding MasterWorks Oral Thesis Presentation, spring term 2004	"Provably Good Race Detection that Runs in Parallel"

<b>Student Name</b>	<b>Award Name/Group</b>	<b>Citation/Date</b>
Emily Fox	David Adler Memorial Thesis Prize for Outstanding Master's Thesis in EE, second place	"Detection and Localization of Aerosol Releases from Sparse Sensor Measurements"
Nitzan Gadish	Siebel Scholar	In recognition of the most talented students at the world's leading graduate schools of business and computer science
Amir Hirsch	Northern Telecom/BNR Project Award for best 6.111 lab project, spring term 2004	Midi-Controlled Sample Based Synthesizer
Tracey Ho	Honorable mention for Sprowls Scholarship Fund	Networking from a Network Coding Perspective
	Winner of the Best Student Paper Award (IWWAN), 2004	International Workshop on Wireless Ad-Hoc Networks
Stephen Hou	Frederick C. Hennie III Teaching Award	EECS Awards Ceremony, May 2005
Alex Iheir	Best Student Paper Prize at the 2004 International Symposium on Information Processing in Sensor Networks	"Nonparametric Belief Propagation for Self-Calibration in Sensor Networks"
Ramesh Johari	Honorable mention from the Association for Computing Machinery	For dissertation entitled, "Efficiency Loss in Market Mechanisms for Resource Allocation"
	George M. Sprowls Scholarship Fund for Outstanding PhD Thesis in CS	"Efficiency Loss in Market Mechanisms for Resource Allocation"
Srikanth Kandula	Usenix NSDI Best Student Paper Award	For the paper, "Botz-for-Sale: Surviving DDoS Attacks that Mimic Flash Crowds" (Networked System Design and Implementation Conference, March 2004)
Ashish Khisti	Harold L. Hazen Teaching Award	EECS Awards Ceremony, May 2005

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Fred Lee	DAC/ISSCS Student Design contest	This year's operational category and overall winner is from MIT; the entry was "A single-chip ultra-wideband transceiver"
Andrew Leiserson	Northern Telecom/BNR Project Award for best 6.111 lab project, spring term 2004	Midi-Controlled Sample Based Synthesizer
Tiferet Levine	Morris Joseph Levin Award for Outstanding MasterWorks Oral Thesis Presentation, spring term 2004	"A Flexible Framework for Non-Invasive Source Localization in Pediatric Focal Epilepsy"
Zhejuan Lu	Nylander Award for Advanced Undergraduate Project	Effect of E187K Mutation on the Ability of LR5 to Bind Calcium
Timothy Mamtora	Northern Telecom/BNR Project Award for best 6.111 lab project	3D Game Using Ray Casting
Wojciech Matusik	Honorable mention for Sprouls Scholarship Fund	A Data-Driven Reflectance Model
Panayiotis Mavrommatis	Computer Research Association	Selected for honorable mention in CRA Outstanding Undergraduate Award 2005
Kale McNaney	George C. Newton UG Lab Prize for best UG lab project, spring term 2004	iGameplay
Scott Meninger	RFIC 2005 second place, Best Student Paper	"Bandwidth Extension of Low Noise Fractional-N Synthesizers"
David Moore	ACM SenSys 2004 Best Paper Award	David Moore, John Leonard, Daniela Rus, and Seth Teller, "Robust Distributed Network Localization with Noisy Range Measurements," ACM Conference on Sensors and Systems
Puneet Newaskar	DAC/ISSCS Student Design contest	This year's operational category and overall winner is from MIT; the entry was "A single-chip ultra-wideband transceiver"
Mihai Patrascu	Computer Research Association	2005 Outstanding Male Undergraduate

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Johnna Powell	2004 IEEE Antennas and Propagation International Symposium Student Paper Competition	For the paper coauthored by Professor Anantha Chandrakasan entitled, "Differential and Single Ended Elliptical Antenna for 3.1-10.6 GHz Ultra Wideband Communication"
Asfandyar Qureshi	Morris Joseph Levin Award for Outstanding MasterWorks Oral Thesis Presentation, spring term 2004	"A Flexible Application Driven Network Striping over Wireless Wide Area Networks"
	Charles and Jennifer Johnson Thesis Prize for Outstanding Master's Thesis in CS	"Flexible Application Driven Network Striping over Wireless Wide Area Networks"
Daniel Rosenband	<a href="#">CADathlon at the International Conference on Computer Aided Design</a>	Tied for first place
Alp Simsek	Second place: Ernst A. Guillemin Thesis Award for Outstanding Master's Thesis in EE	"Analysis of Critical Points for Nonconvex Optimization"
Martijin Stevenson	George C. Newton UG Lab Prize for best UG lab project, spring term 2004	iGameplay
Olga Strollova	David A. Chanen Writing Award for Outstanding Paper	"The SBI Specification: A Slot-Based Approach to Designing a Flexible Peripheral Connection System"
Sara Su	Morris Joseph Levin Award for Outstanding MasterWorks Oral Thesis presentation, spring term 2004	"Perceptual Picture Emphasis Using Texture Power Maps"
Jay Kumar Sundararajam	Morris Joseph Levin Award for Outstanding MasterWorks Oral Thesis presentation, spring term 2004	"Extending the Birkhoff-von Neumann Switching Strategy to Multicast"
Sheila Tandon	Women in Science Award	The Loreal Women in Science Foundation
Kazutaka Takahashi	Department Special Recognition Award	EECS Awards Ceremony, May 2005

Student Name	Award Name/Group	Citation/Date
Mathew Tschantz	Anna Pogosyants UROP Award for Best UROP in CS	Javari-Adding Reference Immutability to Java
Ying-Chih Wang	Helen Carr Peake Research Prize for 2005	
Ben Vandiver	Goodwin Medal	Presented to a graduate student whose performance of teaching duties is "conspicuously effective over and above ordinary excellence"
Joshua Weaver	Frederick C. Hennie III Teaching Award	EECS Awards Ceremony, May 2005
Colin Weltin-Wu	David Adler Memorial Thesis Prize for Outstanding Master's Thesis in EE, first place	"A Low Phase Noise Ring Oscillator Phase-Locked Loop for Wireless Applications"
Thomas Wilson	George C. Newton UG Lab Prize for best UG lab project, spring term 2004	iGameplay
Emmett Witchel	George M. Sprowls Scholarship Fund for Outstanding PhD Thesis in CS	"Mondriaan Memory Protection"
	Honorable mention from the Association for Computing Machinery	For dissertation entitled, "Mondriaan Memory Protection"
Keyuan Xu	First place: Ernst A. Guillemin Thesis Award for Outstanding Master's Thesis in EE	"Stochastic Modeling of Biological Sequence Evolution"
Yelena Yasinnik	Robert M. Fano UROP Award	EECS Awards Ceremony, May 2005
David Ziegler	Frederick C. Hennie III Teaching Award	EECS Awards Ceremony, May 2005

**L. Rafael Reif**  
**Department Head**  
**Fariborz Maseeh Professor of Emerging Technology**

*More information about the Department of Electrical Engineering and Computer Science can be found online at <http://www.eecs.mit.edu/>.*