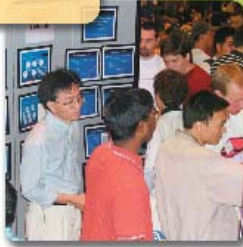




Research Fest 2004



Oregon State
UNIVERSITY **OSU**

School of Electrical Engineering
& Computer Science

EECS Research Clusters

Mixed Signal Integration

(Bose, Fiez, Forbes, Liu, Magaña, Mayaram, Moon, Settaluri, Temes, Wang, Weisshaar)

Computer Graphics and Vision

(Bailey, Dietterich, Lucchese, Metoyer, Mortensen, Quinn, Zhang)

End Users Shaping Effective Software

(Burnett, Cook, Erwig)

Energy Systems

(von Jouanne, Wallace)

Information Security

(Koç, Wang)

Intelligent Information Systems

(Dietterich, Fern, Herlocker, Lee, Marple, Minoura, Nguyen, Pancake, Shor)

Learning and Adaptive Systems

(Dietterich, Tadepalli)

Materials and Devices

(Forbes, Jander, Plant, Wager)

EECS Quick Facts

Graduate Student Enrollment, 2003-2004

CS: 123

ECE: 210

Total: 333

Research Expenditures, 2003-2004

CS: \$3.18 million

ECE: \$3.72 million

Total: \$6.9 million

SCHOOL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE
Research Fest 2004
Accomplishments

<i>Conference & Journal Papers by Graduate Students</i>	<i>Advisor(s)</i>
Robin Abraham	<i>Martin Erwig</i>
Sirisha Adluri (Texas Instruments)	<i>Terri Fiez, Karti Mayaram</i>
Emmanuel Agamloh	<i>Annette von Jouanne</i>
Gilcho Ahn	<i>Un-Ku Moon</i>
Sulaiman Al-Bassam (Univ of Petroleum and Minerals, Saudi Arabia)	<i>Bella Bose</i>
Bader AlBdaiwi (University of Kuwait)	<i>Bella Bose</i>
K. Anderson	<i>Annette von Jouanne</i>
Sasi Kumar Arunachalam	<i>Terri Fiez, Karti Mayaram</i>
Adam Ashenfelter (Cleverset, Inc.)	<i>Tom Dietterich</i>
M. Bae (IBM)	<i>Bella Bose</i>
Laura Beckwith	<i>Margaret Burnett</i>
Manas Behera (Epoch Microelectronics)	<i>Karti Mayaram</i>
Jeff Bender (Intel)	<i>John Wager</i>
Patrick Birrer (Cadence, Germany)	<i>Terri Fiez, Karti Mayaram</i>
Darren Brown	<i>Margaret Burnett</i>
Merrick Brownlee	<i>Un-Ku Moon</i>
D. H. Buck	<i>Mario Magaña</i>
Yaroslav Bulatov	<i>Tom Dietterich</i>
Jeff Cavener	<i>Paul Cull</i>
Jose Ceballos	<i>Gabor Temes</i>
I. Chandra	<i>Len Forbes</i>
Dong-Young Chang (Texas Instruments)	<i>Un-Ku Moon</i>

Madhu Chenam (Silicon Laboratories)	<i>Terri Fiez</i>
Hai Chiang (HP)	<i>John Wager</i>
E. Rogan Creswick	<i>Margaret Burnett</i>
Shaoan Dai (Marvel)	<i>Annette von Jouanne</i>
Raghavendra Darapu	<i>Len Forbes</i>
Doug Dechow	<i>Tim Budd</i>
Nicci Dehuff (Boeing)	<i>John Wager</i>
F. Delgado	<i>Mario Magaña</i>
Xiaochun Duan	<i>Karti Mayaram</i>
Taras Dudar (Texas Instruments)	<i>Karti Mayaram</i>
Mike Durham	<i>Margaret Burnett</i>
Serdar Suer Erdem (AGebze Technology Institute, Turkey)	<i>Çetin Koç</i>
Darren Ferwalt (TriQuint)	<i>Andreas Weisshaar</i>
Zhe Fu	<i>Martin Erwig</i>
Vojislav Gajic	<i>Terri Fiez</i>
Jie Gao	<i>Huaping Liu</i>
Harish Gopalakrishnan (Best Paper Award)	<i>Wen-Tsong Shiue</i>
Brandon Greenley (Tektronix)	<i>Un-Ku Moon</i>
Kala Gururajan	<i>Raghu Settaluri</i>
Husni Habal	<i>Terri Fiez, Karti Mayaram</i>
Jifeng Han	<i>Annette von Jouanne</i>
Pavan Hanumolu	<i>Un-Ku Moon</i>
Taran Harman (Wafertech)	<i>John Wager</i>
Randy Hoffman (HP)	<i>John Wager</i>
Jim Holloway (Xymo Genetics)	<i>Paul Cull</i>
David Hong	<i>John Wager</i>
Jumnit Hong (Intel)	<i>Ben Lee</i>

Shu-Ching Hsu (Intel)	<i>Terri Fiez, Karti Mayaram</i>
Tai Hsu (Northwest Polytechnic)	<i>Paul Cull</i>
Yutao Hu (Agilent)	<i>Karti Mayaram</i>
Jin Jia	<i>Eric Mortensen</i>
Ruoxin Jiang (Maxim)	<i>Terri Fiez</i>
Mustafa Keskin (Qualcomm)	<i>Un-Ku Moon, Gabor Temes</i>
Mingyu Kim	<i>Un-Ku Moon</i>
Fuminao Kinjo (Okinawa Power)	<i>Annette von Jouanne</i>
Volodymyr Kratyuk	<i>Karti Mayaram</i>
Triet Le	<i>Terri Fiez</i>
Jipeng Li (National Semiconductor)	<i>Un-Ku Moon</i>
Chi-Young Lim	<i>Raghu Settaluri, Andreas Weisshaar</i>
Michael Y. Louie (Agilent Technologies)	<i>Len Forbes</i>
Amy Luoh	<i>Andreas Weisshaar</i>
Matt MacClary	<i>Terri Fiez</i>
Martin Main	<i>Margaret Burnett</i>
Alec Maki	<i>Toshi Minoura</i>
Evelyn Matheson (Boeing)	<i>Annette von Jouanne</i>
John M. Matson (Intel)	<i>Ben Lee</i>
Yevgeniy Mayevskiy (TDA Systems)	<i>Andreas Weisshaar</i>
Matthew McLaughlin	<i>Jon Herlocker</i>
Daniel Melendy (National Semiconductor)	<i>Andreas Weisshaar</i>
Charlie Myers	<i>Un-Ku Moon</i>
Alexandr Nagornyy (NASA Glenn)	<i>Annette von Jouanne</i>
A. Negi	<i>Bella Bose</i>
Jarrold Nelson	<i>Ben Lee</i>
Ben Norris (Intel)	<i>John Wager</i>

Luke Norris (Wafertech)	<i>John Wager</i>
Eriko Nurvitadhi	<i>Ben Lee</i>
Paul Oprisan	<i>Bella Bose</i>
Daniel Ortiz-Arroyo (Aalborg University, Denmark)	<i>Ben Lee</i>
Brian Owens (Sandia Labs)	<i>Terri Fiez, Karti Mayaram</i>
C.-H. Park	<i>John Wager</i>
J. P. Park	<i>Bella Bose</i>
S. Park (Michigan Tech. University)	<i>Bella Bose</i>
Harish Peddibhotla	<i>Raghu Settaluri</i>
Amit Phalgune	<i>Margaret Burnett</i>
Mike Phillips	<i>Raghu Settaluri</i>
Shreenivasarao Prabhakararao	<i>Margaret Burnett</i>
Shrinu Prabhakararao	<i>Margaret Burnett</i>
Andre Ramme	<i>Annette von Jouanne</i>
Sachin Ranganathan (Texas Instruments)	<i>Terri Fiez</i>
Arun Rao (National Semiconductor)	<i>Gabor Temes</i>
Deling Ren	<i>Martin Erwig</i>
Thomas J. Robertson	<i>Margaret Burnett</i>
Francisco Rodriguez-Henriquez (Instituto Politecnico Nacional, Mexico)	<i>Çetin Koç</i>
Joseph R. Ruthruff	<i>Margaret Burnett</i>
Gokay Saldamli	<i>Çetin Koç</i>
Janakiram Ganesh Sankaranarayanan	<i>Karti Mayaram</i>
Junya Sano	<i>Toshi Minoura</i>
Erkay Savas (Sabanci University, Turkey)	<i>Çetin Koç</i>
Raj Senguttuvan	<i>Andreas Weisshaar</i>
Ajit Sharma	<i>Terri Fiez, Karti Mayaram</i>
Robert Shreeve	<i>Terri Fiez, Karti Mayaram</i>

Jose Silva (Analog Devices)	<i>Un-Ku Moon, Gabor Temes</i>
Adriaan Smit	<i>Terri Fiez</i>
Berk Sunar (Worcester Polytechnic Institute)	<i>Çetin Koç</i>
Ravikanth Suravarapu (Silicon Labs)	<i>Karti Mayaram</i>
Luca Tallini (University of Teramo, Italy)	<i>Bella Bose</i>
A. Tjahjadi	<i>Mario Magaña</i>
Melinda Valencia (HP)	<i>John Wager</i>
Sudheer Vemulapalli	<i>Huaping Liu</i>
Savithri Venkatachalapathy (PMC-Sierra)	<i>Ben Lee</i>
Vinod Venkatesan	<i>Huaping Liu</i>
V. Venkatesan	<i>Mario Magaña</i>
Naroot Wanalertlak	<i>Toshi Minoura</i>
X.Y. Wang	<i>Len Forbes</i>
Xin Wang (Microsoft)	<i>Tom Dietterich</i>
Paphun Wangmutitakul	<i>Toshi Minoura</i>
Adam Watson (Intel)	<i>Andreas Weisshaar</i>
Chulho Won	<i>Ben Lee</i>
Pengcheng Wu	<i>Tom Dietterich</i>
Liang Xian	<i>Huaping Liu</i>
Shelly Xiao (Qualcomm)	<i>Gabor Temes, Un-Ku Moon</i>
H. Yanagi	<i>John Wager</i>
J. H. Youn (University of Nebraska, Omaha)	<i>Bella Bose</i>
Luis Zeron	<i>Martin Erwig</i>
B. L. Zhang (Trident Technologies)	<i>Len Forbes</i>
C. W. Zhang	<i>Len Forbes</i>
Shiwei Zhao	<i>Huaping Liu</i>
David Zier	<i>Ben Lee</i>

CAREER Awards

Tim Budd

Margaret Burnett

Tom Dietterich

Terri Fiez

Jon Herlocker

Karti Mayaram

Ron Metoyer

Un-Ku Moon

Gregg Rothermel

Annette von Jouanne

Editors-in-Chief of Journals

Karti Mayaram: IEEE Trans. on Computer-Aided Design

Associate Editors and Editorial Boards

Bella Bose: Assoc. Editor, IEEE Trans. on Computers

Paul Cull: Theory Editor, Computing Reviews

Tom Dietterich: Assoc. Editor, Neural Computation

Çetin Koç: Associate Editor, IEEE Transactions on Computers; Associate Editor, IEEE Transactions on Mobile Computing

Luca Lucchese: Assoc. Editor for IEEE Trans. on Image Processing

Un-Ku Moon: Associate Editor, IEEE TCAS II

Prasad Tadepalli: Board of Editors, Machine Learning

Gabor Temes: Board of Editors, Analog Integrated Circuits and Signal Processing, Kluwer

Zhongfeng Wang: Associate Editor, IEEE Trans. on Circuits and Systems I

Andreas Weisshaar: Associate Editor, IEEE Microwave and Wireless Components Letters; Associate Editor, IEEE Transactions on Advanced Packaging

General Chairs/Program Chairs of Conferences

Bella Bose

- Program Co-Chair, 11th International Conference on Advanced Computing and Communication, India

Margaret Burnett

- 2003 IEEE Symposia on Human-Centric Computing Languages and Environments: Symposium on Visual/Multimedia Software Engineering (Program Co-Chair)

Tom Dietterich

- Co-Organizer ICML-2004 Workshop: Statistical Relational Learning: Connections to Other Fields, Banff, Alberta, Canada
- Co-Organizer Modern AI and Human-Level AI: The Big Picture, Asilomar, CA

Textbooks Published

Mike Quinn: *Ethics for the Information Age*, Addison-Wesley

Oregon State University Awards

- **OSU Professional Faculty Excellence Award:** Todd Shechter

College of Engineering Awards

- **Burgess/Tektronix Award:** Kami Vaniea
- **Graduate Teaching Assistant:** Mike Phillips
- **Graduate Research Assistant:** Jose Silva
- **Research Award:** Karti Mayaram
- **Research Collaboration:** Tom Dietterich
- **COE Professional Faculty:** Fran Saveriano

OSU HKN/ACM Faculty/Staff Awards

- **Professor of the Year:** Annette Von Jouanne
- **Innovative Teaching Award:** Roger Traylor
- **Most Enthusiastic:** Jon Herlocker
- **Most Inspirational:** Paul Cull
- **Most Knowledgeable:** Todd Shechter
- **Most Outstanding:** Ferne Simendinger

OSU IEEE/ACM Student Chapter Award

- **Professor of the Year Award:** Huaping Liu

Other Honors/Awards Related to Research, Teaching, and Service

Margaret Burnett: Patent awarded, "Methodology for testing spreadsheet grids"

Paul Cull: Best Paper Award, ER Ciainello Award for Bio-Mathematics, Cybernetics and System Theory Conference; Forty Year Award from the Mathematical Association of America

Tom Dietterich: President, International Machine Learning Society; Member, NIPS Foundation Board; JAIR Award for Best Paper in Previous Five Years, 2003

Terri Fiez: Silicon Laboratories Distinguished Lecturer, UT Austin: "Wideband delta-sigma ADCs in deep submicron CMOS processes," "TekBots: Using a hands-on Platform for Learning to reinvent engineering education"

Un-Ku Moon: CDADIC best faculty project award; Keynote speaker, IEEE Northeast Workshop on Circuits and Systems (NEW-CAS)

Cheri Pancake: Appointed to NSF Engineering Advisory Committee; Special Advisor on Cyberinfrastructure, NSF; Executive Committee, National Partnership for Advanced Computational Infrastructure

Harish Gopalakrishnan and Wen-Tsong Shiue: Best Paper, IEEE Workshop on Microelectronics and Electron Devices

Gabor Temes: Distinguished Lecturer, University of Toronto

Club Mil (Grants > \$1M)

Margaret Burnett, Martin Erwig, Curtis Cook: NSF ITR: Collaborative Research: Dependable End-User Software

Tom Dietterich: NSF:ITR Pattern Recognition for Ecological Science and Environmental Monitoring; NSF IGERT: Ecosystem Informatics (program for interdisciplinary graduate stipends)

Terri Fiez, Karti Mayaram, Un-Ku Moon, Gabor Temes: US Air Force/DARPA: Nanocommunicator: A High Performance Communication Microsystem Based on Adaptively Compensated Noise Hardened Mixed-Signal Circuits

Karti Mayaram: (Subcontract from U. of Illinois) NSF: ITR/SY: Large-Scale Computational Design of Mixed-Technology Systems-on-a-Chip; (Subcontract from Stanford) DARPA: Synthesized Compact Models (SyCaMore) for Mixed Signal Design and Noise Analysis

Cheri Pancake: NSF subaward through UCSD: Upgrading Oregon State's Multidirectional Wave Basin for Remote Tsunami Research; NSF: George E. Brown Jr. Network for Earthquake Engineering Simulation NEES Consortium Development Project

Mike Quinn: Hewlett Foundation: Integrated Activities to Improve Engineering Recruitment and Retention

John Wager: ARO/MURI: Intelligent Luminescence for Communication, Display and Identification

Other Accomplishments

Faculty Promoted/Tenured

- Annette von Jouanne, promoted to professor
- Andreas Weisshaar, promoted to professor

Student Fellowships

- Robert Batten, Semiconductor Research Corporation Graduate Fellow (Terri Fiez)
- Scott Dijmal, Oregon Laurels Scholarship (Alan Fern)
- Shu-Ching Hsu, Semiconductor Research Corporation Master's Scholar (Terri Fiez, Karti Mayaram)
- Pavan Hanumolu, Intel PhD Fellowship (Un-Ku Moon)
- Matt MacClary, Oregon Laurels Scholarship (Terri Fiez)
- Jarrod Nelson, Oregon Laurels & Supplemental Laurels Graduate Scholarship; Oregon Sports Lottery Scholarship (Ben Lee)
- Colin VanDyke, Oregon Laurels Scholarship (Çetin Koç)
- David Zier, Oregon Laurels & Supplemental Laurels Graduate Scholarship (Ben Lee)