

2008 Graduate Student Research and Development Showcase
List of Student Projects

Name	Major	Project Title
Leming Zhou	CS	Universal spaced seeds - improving the accuracy of cross-species CDNA-to-genome alignment
Darren Broemmer	CS	Controlled language programming - using domain specific languages to create more natural programming languages
Therese Suaris	MAE	Three-Link Swimmer - bio-robotics and bio-inspired control
Mazdak Taghioskoui	ECE	Micro inductively coupled plasma on a chip: fabrication, generation, and applications
Deniz Ozkan	EMSE	Financial analysis and cost optimization of offshore win energy under uncertainty and in deregulated power markets
Valerie Seefried	CERM	Incremental Dynamic Decisions (IDD) Model for timely and accurate decision making when recognizing and responding to public health incidents
Clinton Mexted-Freeman	EMSE	Earthquake mass-care planning innovation for Mid-America
Eugen Leontie	CS	Code-Seal: Securing program execution in encrypted execution platforms
Christian Salmon	EMSE	Modeling aviation accident relative frequency near non-towered airports as a spatially probability distributed
Sava Stanic	ECE	Physical security in transparent all-optical networks
Mike Wakid	CS	Image guided surgery for medialization laryngoplasty
Can Kirmizibayrak	CS	Visualization and analysis of olympic-class swimming
Mohammed Al-Kuwaiti	ECE	Performance of information infrastructures: a concept comparison framework with A QoS mapping model
Gloria Washington	CS	Towards finding an acceptable level of user frustration for human computer interations
Arush Gadkar	ECE	Fiber delay line (FDL) design in time-wavelength switched optical networks
Amir Askarian	ECE	Cross-layer all-optical network design
Sebnem Koyunluoglu Aynur & Sandip Chaterjee	CEE	Bench scale evaluation of enhanced digestion processes for producing class A biosolids
Juman Byun	CS	Spelling-error resistant full-text search using vertically arranged bit-attribute matrix
Edward Hagarty	EMSE	Predictive risk modeling system for the management of small-scale water and wastewater facilities: toward long-term of our national parks

2008 Graduate Student Research and Development Showcase
List of Student Projects

Bethany Koetje	CEE	A new methodology for the geometric standardization of vehicle hoods to compare real-world pedestrian crashes
Jeremy Keen	ECE	Ears: enhanced accuracy RSS - based target localization techniques for wireless sensor networks
Stefan Popoveniuc	CS	100% secret variable elections
Majid Al-Naimi	ECE	Wavebanding in WDM ring networks with limited reconfigurability
Mehta Bhaven & Tsai Yiping	ECE	Quantitative analysis of the human movement
Huda Asfour	ECE	Impedance measurements of cultured mouse fibroblasts plated on microelectrode arrays
Andrew Chen	ECE	An efficient algorithm for calculating fluctuation field and simulating the thermal magnetic after effects
Colleen Lingley-Papadopoulos	ECE	Texture analysis of optical coherence tomography images of the urinary bladder for the recognition and staging of bladder cancer
Onur Turkcu	ECE	Transponder wavelength assignment in optical networks
Yalcin Tarkocin	ECE	Dielectric constant measurements of seawater for NASA's Aquarius Mission
Bassam Shuhaibar	CEE	A Preliminary Study of Harmful Algal Bloom Outbreaks in Kuwait Bay using GIS
Otega Ejofodomi	ECE	Soft Tissue Phantom For Ultrasonic and Optical Imaging
Jeneva Hinojosa/Seth Fink	CEE	Estimating the Kinetics of Heterotrophic Denitrifying Bacteria that Utilize Glycerol as an External Carbon Source
Peter Si	EE	Configurational Stability of Patterned Magnetic Nanosystems
Soudeh Baghernejad	Str. Eng	Stability of Steel Girder Bridges under Construction
Harry C Shaw	ECE	A DNA-inspired encryption methodology for secure mobile ad-hoc networks
Proshanta Saha and Miaqing Huang	ECE	Productive Use of Reconfigurable Computers Through Automatic Hardware-Software Co-Design
Olivier Serres	ECE	Programming Models for Parallel Reconfigurable and Heterogeneous Processing Systems
Esam EIDin Aly	ECE	Productivity Assessment of High-Level Programming for Reconfigurable Computing Systems
Esam EIDin Aly	ECE	Virtualizing Processing Resources for High-Performance Reconfigurable Computing Systems (HPRCs)

2008 Graduate Student Research and Development Showcase
List of Student Projects

Abdullah Kayi	DSc CE	Performance Analysis and Improvements in Multicore Computing Systems
Amer Khan	EE	Optimized Scheduling and Quality of Service Provisioning for Real-Time Applications in Multi-Rate Wireless LAN
Abdulrazaq Ferhadi	Str. Eng	Extending Span Range of Prestressed Concrete Bridge Girders
Jinhong Wu	ECE	Partial iterative signal processing at iterative receivers for advanced wireless communication systems
Ingrid Mihai	CS	Predicting coding regions in sequence alignments using a seed model
Kartik Bulusu et. al	MAE	Applications of conventional and pressure exchange ejectors
Amir A. Arab	Str. Eng	End zone cracking in precast prestressed concrete highway bridge girders
Oludare Owolabi	Geo. & Trans	Development and application of finite elements and elastoplasticity for meso-scale analysis of soils
Ashish Bhargaya	CEE	Fatigue design of steel bridges: a hot spot stress approach
Vishnu P. Nosum	ECE	Performance Analysis and modeling of the cell processes
Daniel Ndiki	ECE	Quality of service Support in IEEE 802.162004.16e
Xiaowei Zeng	MAE	Multi-scale modeling of dynamic crack propagation in BCC Iron
Thomas Farmer	ECE	Novel circuit design for a Silicon-Germanium (SiGe) 30 GHz power amplifier
Nayef Al-Delbah	ECE	A robust image modeling technique for removing speckle noise
Chia-Pin Chang	ECE	Chemical and Biochemical Analysis: solutions in microchannels; methodology for computing optical calibration curves
Hsu-Cheng Ou	ECE	Using surface acoustic waves for device for IF filters and other applications
Damoon Soudbakhsh	CEE	Measuring Speed Behaviors for Future Intelligent, Adaptive Speed Management Systems