INNOVATION WITH IMPACT

A Celebration of Graduate Student Projects, Research, Teaching and Service

Cross-Disciplinary Exhibition of Graduate Student Work
Awards Ceremony and Reception
Rangos Ballroom, University Center
April 4, 2013
Order of Events

4:30-6:00pm
Exhibition of Graduate Student Work and Reception

5:00-5:25pm
Presentation of Graduate Student Service and Teaching Awards - please gather by the stage

Reading of State Proclamation for Graduate and Professional Student Appreciation Week by Carolyn Commer, GSA VP for External Affairs

Welcome Address by President Jared Cohon

Presentation of Teaching and Service Awards by Vice Provost Amy Burkert

Closing

5:25-6:00pm
The exhibition and reception continue until 6pm
2013 Graduate Student Teaching Award

Julie Bowman
Department of English

2013 Graduate Student Service Award

Matthew Beckler
Department of Electrical & Computer Engineering
Carnegie Institute of Technology

Pallavi Gunalan  
*Bioengineering*  
Fabrication of Dissolvable Micro-Needles for Delivering Flexible Neural Probes

Anita Lee  
*Chemical Engineering*  
Characterizing Ionic Liquids for CO2 Capture

Christopher Wirth  
*Chemical Engineering*  
AC electrophoresis of a particle in the direction normal to an ideally polarized electrode  
(Projected on stage)

Matthew Reichert  
*Chemical Engineering*  
Microscale Fluid-Fluid Interfacial Measurements

Stephen Spagnol  
*Chemical Engineering*  
Temporal alteration of nuclear structure and stiffness accompany gene expression changes from force and cytokine treatment

Todd Moyle  
*Chemical Engineering*  
Predicting Microscale Tipstreaming for Soluble Surfactants

Alyssa Moore  
*Civil & Environmental Engineering*  
Development of a process-based model to estimate beef cattle ammonia emissions

Jason Marshall  
*Civil & Environmental Engineering*  
Multiscale Mechanics with Electrostatic Interactions

Kamran Karimi  
*Civil & Environmental Engineering*  
Soft particle packings near jamming: correlations in static structure

Mohan Jiang  
*Civil & Environmental Engineering*  
Life cycle water impacts of Marcellus shale development

Akshay Rajhans  
*Electrical & Computer Engineering*  
Addressing Heterogeneity in Model-Based Development of Cyber-Physical Systems  
(Projected on stage)

Ankush Kochhar  
*Electrical & Computer Engineering*  
Using Scan Diagnosis To Characterize DFM Rule Performance

Jian Li  
*Electrical & Computer Engineering*  
Otitis Media Vocabulary And Grammar

Miray Kas  
*Electrical & Computer Engineering*  
Incremental Centrality Algorithms for Dynamic Network Analysis

Alan Jenn  
*Engineering & Public Policy*  
Trends in Future Vehicle Fleet Mix in Response to Corporate Average Fuel Economy Standards (CAFE) Using an Optimization Construct

Amy Dale  
*Engineering & Public Policy*  
Modeling Transformations in Freshwater Sediments for Nanosilver Risk Assessment

Chia-Hsuan Yang  
*Engineering & Public Policy*  
Gains from Others’ Losses: Technology Trajectories and the Global Division of Firms  
(Projected on stage)

Huimin Tan  
*Engineering & Public Policy*  
Assessing federal regulations on mercury emissions from lighting  
(Projected on stage)
John Helveston  
*Engineering & Public Policy*
Comparing Consumer Preferences for Electrified Vehicles in China and the U.S.

Paul van der Boor  
*Engineering & Public Policy*
Innovation by users in emerging economies: evidence from mobile banking services  
(Projected on stage)

Stefan Schwietzke  
*Engineering & Public Policy*
Reducing uncertainty in life cycle CH₄ emissions from natural gas using atmospheric inversions

Hoan Ho  
*Materials Science & Engineering*
Controlling Microstructure and Magnetic Properties of L10 FePt Magnetic Media Using Underlayers  
(Projected on stage)

Huseyin Ucar  
*Materials Science & Engineering*
Tuning the Curie Temperature of γ-FeNi Nanoparticles for Magnetocaloric Applications by Controlling the Oxidation Kinetics

Lauren Powell  
*Materials Science & Engineering*
Determination of the Photooxidation Mechanisms in CdSe Quantum Dots

Siyang Xu  
*Materials Science & Engineering*
Magnetic Nanoparticles Based Solder Composites for Electronic Packaging Applications

Ankit Jain  
*Mechanical Engineering*
Thermal Conductivity of Nanostructures

Bekir Bediz  
*Mechanical Engineering*
An Impact Excitation System for Repeatable, High-Bandwidth Modal Testing of Miniature Structures  
(Projected on stage)

Bryony DuPont  
*Mechanical Engineering*
Wind Energy Systems Optimization

Elizabeth Traut  
*Mechanical Engineering*
U.S. Residential Charging Potential for Plug-In Vehicles

Jason Larkin  
*Mechanical Engineering*
Predicting the Thermal Conductivity of Alloys using the Virtual Crystal Approximation  
(Projected on stage)

Jeremiah Mpagazehe  
*Mechanical Engineering*
A Computational Modeling Framework to Predict Tribological Phenomena  
(Projected on stage)

Michael Burkholder  
*Mechanical Engineering*
Nonlinear analysis of two phase flow dynamics in a polymer electrolyte fuel cell cathode

Noah Tovares  
*Mechanical Engineering*
Capturing Preference Through an Interactive Virtual Reality Experience  
(Projected on stage)

Robert Brik  
*Mechanical Engineering*
Medical Devices Summit Summary

Samarth Raut  
*Mechanical Engineering*
Summer Bioengineering Conference 2012  
(Projected on stage)

Wee-liat Ong  
*Mechanical Engineering*
Thermal Transport in Nanocrystal Superlattices

College of Fine Arts

Alejandra Munoz Munoz  
*Architecture*
ARCSA 2012

Duy Vo  
*Architecture*
Helionastic Facade Exploration
Karl Willis  
*Architecture*  
Rapid 2012  
(Projected on stage)

Craig Fahner  
*Art*  
Import/Export

Elizabeth Buschmann  
*Art*  
Gross National Product

Felipe Castelblanco  
*Art*  
Artist talk: We Paint Houses

JaeWook Lee  
*Art*  
Creative Time Summit 2012 - Conflict Kitchen  
(Projected on stage)

Scott Andrew  
*Art*  
Primate Enrichment

Steve Gurysh  
*Art*  
How to improve the world (you will only make things worse)  
(Projected on stage)

Alison Servis  
*Design*  
Connecting People and Poetry  
(Projected on stage)

Shahrzad Samadzadeh  
*Design*  
Insights & Implications from Interaction 13  
(Projected on stage)

Shree Lakshmi Rao  
*Design*  
Interaction13- Designing for social impact

Somya N Jampala  
*Design*  
Multicultural values of Indian immigrant families in the United States

Chris Rummel  
*Drama*  
An Exploration of Alternative Methods and Tools for Composition in Theatrical Sound

Lindsey Slaugh  
*Drama*  
Patterning Historical Fashions

Paula Ries  
*Drama*  
Historic Collections and Museum Visit

Dietrich College of Humanities & Social Sciences

Kubra Komek  
*Center for Neural Basis of Cognition*  
Modeling the effects of dopamine in auditory cortical entrainment in schizophrenia

Kristin Shimmin  
*English*  
Rhetorical Conceptions of Science in Lectures on Chemistry and Natural Philosophy archived at the American Philosophical Society, 1800-1840  
(Projected on stage)

Natalie Freed  
*English*  
Anesthesiologist Assistants in Pennsylvania: A Feasibility Study  
(Projected on stage)

Andrew Simpson  
*History*  
Planning for the Medical Metropolis: Creating A Biomedical Research Economy in Pittsburgh, 1960-2005  
(Projected on stage)

Dawn Winters  
*History*  
You Can Do It With A Hatchet: Women's Temperance Activism in the American Midwest, 1850-1874  
(Projected on stage)
Jay Roszman  
*History*  
Outrage -- Irish Agrarian Violence in the Archives  
(Projected on stage)

Jiacheng Liu  
*History*  
The Emergence of Actresses and Their Challenges in the Beijing Theatrical World, 1912-1919  
(Projected on stage)

Maroon David  
*History*  
Cancelled Claims: How the West Was Lost Under the Homestead Act of 1862

Meredith Soeder  
*History*  
“‘Jazz’ it is—and ‘jazz’ it will remain”: German Perceptions of American Jazz, 1918-1933  
(Projected on stage)

Michael Gallen  
*History*  
Christianity and Capitalism in Liberia  
(Projected on stage)

Rachel Oppenheimer  
*History*  

Ashlie Henery  
*Modern Languages*  
Pragmatic Production and Awareness Development in the Study Abroad Context: A Summer in France

Mamoru Hatakeyama  
*Modern Languages*  
Lexical Inferencing in L2 Japanese Reading: L2 Proficiency and L1 Reading as Predictors of Semantic Gap Filling (SGF) at Word Level  
(Projected on stage)

Wenhao Diao  
*Modern Languages*  
Socializing stance in the youth space during a semester in China  
(Projected on stage)

Yan Liu  
*Modern Languages*  
Semantic Gap Filling (SGF) in Chinese as a Foreign Language

Mate Szabo  
*Philosophy*  
Kalmar’s Argument Against the Plausibility of Church’s Thesis

Sarah Wellen  
*Philosophy*  
Learning Causal Structure through Local Prediction-Error Learning

Crista Crittenden  
*Psychology*  
Acute Stress Reactivity in Asthma

Dianne Palladino  
*Psychology*  
Health Implications of Relationships among Emerging Adults with and without Diabetes

Matthew Wood  
*Psychology*  
Shared Mental Model Development in Problem Solving Teams

Rodlescia Sneed  
*Psychology*  
A Prospective Study of Volunteerism and Hypertension Risk Among Older Adults

Xiaonan Liu  
*Psychology*  
The Distinct Effect of Emotional Valence and Arousal on Working Memory --- an fMRI Study

Daniel Schwartz  
*Social and Decision Sciences*  
The Hawthorne Effect and Energy Awareness  
(Projected on stage)

Fabrizio Lecci  
*Statistics*  
Prediction of Dementia using Trajectory Models
Georg Goerg  
*Statistics*  
Automated pattern recognition in fMRI data using optimal nonparametric local forecasts

Lubov Zeifman  
*Statistics*  
Point Spread Function Estimation Using a Circularly Symmetric Basis Set: Application to Cosmology

H. John Heinz III College

Thogori Karago  
*Information Systems & Mgmt: Information Systems*  
Inspiring Women in Technology: The Grace Hopper Celebration for Women in Computing  
(Projected on stage)

Yiye Zhang  
*Information Systems & Mgmt: Information Systems*  
Data-driven Order Set Development in the Pediatric Environment: Toward Safer and More Efficient Patient Care  
(Projected on stage)

Courtney Ehrlichman  
*Public Policy & Mgmt: Policy & Mgmt*  
Women's Leadership  
(Projected on stage)

Ngiste Abebe  
*Public Policy & Mgmt: DC Track*  
Olympic Bid Process: An Engine for Transportation Development  
(Projected on stage)

Stephanie Garrison, Sara Ryan  
*Public Policy & Mgmt: Creative Enterprises*  
2012 Americans for the Arts Convention

Stephanie Garrison  
*Public Policy & Mgmt: Creative Enterprises*  
Benchmarking National Craft Education Centers

Audrey Kwong  
*Public Policy & Mgmt: Creative Enterprises: MAM*  
The League of American Orchestras - Essentials of Orchestra Management  
(Projected on stage)

Dana Weinstein  
*Public Policy & Mgmt: Creative Enterprises: MAM*  
National Arts Marketing Project Conference  
(Projected on stage)

Kate Piatt-Eckert  
*Public Policy & Mgmt: Creative Enterprises: MAM*  
Theatre Communications Group Fall Forum on Governance

Sara Ryan  
*Public Policy & Mgmt: Creative Enterprises: MAM*  
American for the Arts Conference 2012

Alexandra Hansen  
*Public Policy & Mgmt: Health Care Policy*  
American College of Healthcare Executives Congress Experience

Jake Arakal  
*Public Policy & Mgmt: Health Care Policy*  
HIMSS 13

Katelynd McElhany  
*Public Policy & Mgmt: Health Care Policy*  
ACHE Congress on Healthcare Leadership 2013

Alice McKenney  
*Public Policy & Mgmt: Public Policy & Mgmt*  
Just Food Conference  
(Projected on stage)

Anna Kasunic  
*Public Policy & Mgmt: Public Policy & Mgmt*  
Marijuana Legalization: Lessons from the 2012 State Proposals

Bao Le  
*Public Policy & Mgmt: Public Policy & Mgmt*  
Comparative and International Education Society Conference 2013  
(Projected on stage)

Carlos Saborio  
*Public Policy & Mgmt: Public Policy & Mgmt*  
Gay and Lesbian Leadership Conference
Channing Martin
Public Policy & Mgmt: Public Policy & Mgmt
Heritage and Horizons: Highlights from the Black Policy Conference
(Projected on stage)

Dany Diaz Mejia
Public Policy & Mgmt: Public Policy & Mgmt
Education in South Africa
(Projected on stage)

Georgina Coolidge
Public Policy & Mgmt: Public Policy & Mgmt
National journal conference
(Projected on stage)

Jessica Varone
Public Policy & Mgmt: Public Policy & Mgmt
Childhood Obesity: Causes & Policy Solutions

Kats Sasanuma
Public Policy & Mgmt: Public Policy & Mgmt
Capacity provisioning for a service system with impatient customers
(Projected on stage)

Rajiv Garg
Public Policy & Mgmt: Public Policy & Mgmt
LinkedIn and Job Search by Unemployed Individuals
(Projected on stage)

Sandeep Munnangi, Aadam Soorma, Sundus Naeem Siddiqi, Saqib Rasheed
Public Policy & Mgmt: Public Policy & Mgmt
International Development
(Projected on stage)

Mellon College of Science

Ardon Shorr
Biological Sciences
Ph.D. Students in Science Policy: very gradual change we can believe in

Daniel Shiwarski
Biological Sciences
Heterologous Regulation of u-Opioid Receptor Recycling by the Neurokinin-1 Receptor

Kiran Rafiq
Biological Sciences
Expanding the PMC GRN: Genome-Wide Analysis of Ets1 and Alx1 Targets

Tanvi Shashikant
Biological Sciences
Selective Activation of the PMC GRN in Large Micromeres of the Sea Urchin
(Projected on stage)

Zhongling Sun
Biological Sciences
Expanding the PMC GRN: Genome-Wide Analysis of Ets1 and Alx1 Targets

Lea Veras
Chemistry
Computational Studies of the Molecular Mechanisms Responsible for Ca2+ Permeation and Mg2+ Block of NMDA Receptors

Penglin Ye
Chemistry
Secondary Organic Aerosol Production from Pinanediol

Santosh Kumar
Chemistry
244th ACS National Meeting
(Projected on stage)

Mingyang Hu
Physics
Determining the Gaussian Curvature Modulus of Lipid Membranes in Simulations

You-Cyuan Jhang
Physics
Applications of the Stochastic LapH Method
(Projected on stage)

Tabitha Voytek
Physics
Measuring the 21-cm Sky Brightness Temperature Spectrum at High Redshifts
School of Computer Science

Gunhee Kim
Computer Science
Time-Sensitive Web Image Ranking and Retrieval via Dynamic Multi-Task Regression

Stefan Muller
Computer Science
Towards a Practical Secure Concurrent Language

Harper LaFave
Human-Computer Interaction
VIEW Conference Experience
(Projected on stage)

Marwa Muhammad
Human-Computer Interaction
VIEW Conference
(Projected on stage)

Ashwini Rao
Institute for Software Research
Effect of Grammar on Security of Long Passwords

Darya Kurilova
Institute for Software Research
Synthesizing Binary Tree Operations from Specifications (Undergraduate Research Project)
(Projected on stage)

Kartik Mandaville
Language Technologies Institute
Predictive Modeling with Clinical and Genetic Data

Konstantin Salomatin
Language Technologies Institute
Auctions and Guaranteed Delivery in Sponsored Search

Siddharth Gopal
Language Technologies Institute
Bayesian Models for Large-scale Hierarchical Classification
(Projected on stage)

Alona Fyshe
Machine Learning
Hierarchical Latent Dictionaries for Models of Brain Activation

Hai-Son Le
Machine Learning
Probabilistic error correction for RNA sequencing

Heather Jones
Robotics
Global Localization for Planetary Rovers

Tepper School of Business

Chen Li
Accounting
Mutual Monitoring within Top Management Teams
(Projected on stage)

Ran Zhao
Accounting
The Corporate Governance Role of Information Quality and Corporate Takeovers
(Projected on stage)

Julianne Harty
Business Administration
Game Development Conference

Uttam Mukherjee
Business Administration
Wake Forest Marketing Summit Case Competition

Zia Hydari
Information Systems
Is Patient Data Better Protected in Competitive Healthcare Markets?
(Projected on stage)

Yang Yang
Marketing
Love it Longer: Sentimental Value Slows Hedonic Adaptation

Xin Fang
Operations Management & Manufacturing
Stability and Endogenous Formation of Inventory Transshipment Networks
(Projected on stage)
Tinglong Dai  
*Operations Management of Manufacturing & Automation*  
Contracting for On-Time Delivery in the US Influenza Vaccine Supply Chain  
(Projected on stage)

Amanda Weirup  
*Organizational Behavior & Theory*  
Favors Feel Different for Females: Gender Differences in Favor Deliberation

Jin Wook Chang  
*Organizational Behavior & Theory*  
An Aversion to Dominance: The Effect of Newcomer Behavioral Style on Status Conferral  
(Projected on stage)

Entertainment Technology Center

Justin Sabo  
*Entertainment Technology Center*  
dreamTableTop

Yibo Xing  
*Entertainment Technology Center*  
A third-person controller in Unity
Special Thanks to our Graduate & Professional Student Appreciation Week Sponsors:

The Center for Innovation and Entrepreneurship
Counseling & Psychological Services (CAPS)
CulinArt Catering Service
Department of Athletics, Physical Education and Recreation
Eberly Center for Teaching Excellence
Graduate Student Assembly
Health Services
The HUB
Office of the Dean of Student Affairs
Scientists & Engineers for America
University Center

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Brought to you by the Office of the Assistant Vice Provost for Graduate Education