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 3, 2014
Order of Events

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

5:00-5:15pm 
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

Presentation of Service and Teaching Awards by Vice Provost Amy Burkert

Closing

5:15-6:00pm  
The exhibition and reception continue until 6pm
2014 Graduate Student Service Award

Rebecca Balebako
Department of Engineering & Public Policy
Carnegie Institute of Technology

2014 Graduate Student Teaching Award

Skyler Speakman
School of Information Systems & Management
H. John Heinz III College
Carnegie Institute of Technology

Aimon Iftikhar
Biomedical Engineering
Genipin-Crosslinked Polymeric Networks for Vascular Tissue Engineering Grafts

Alan Campbell
Biomedical Engineering
Enzyme-Nanomaterial Interaction Studies with Application in in-situ Decontaminant Production

Anusha Alathur Rangarajan
Biomedical Engineering
Machine Learning Based Signal Processing for Classification of Respiratory Disorders

Pallavi Gunalan
Biomedical Engineering
Thermoelastic Response of a Soft Tissue Under a Shearing Motion

Yue Guo
Biomedical Engineering
Evaluation of Vision Framework of Cell Microinjection with a Handheld Micromanipulator

Alexander Dowling
Chemical Engineering
Optimization of a Clean Coal Powerplant

Benjamin Yezer
Chemical Engineering
Electrochemical Impedance Spectroscopy of Doped Nonpolar Liquids

Gamze Gumuslu
Chemical Engineering
High-throughput Characterization of H2-D2 Exchange Activity of PdxCu1-x Alloys

John Riley
Chemical Engineering
Spherical Polymer Brush Nanoparticles: Swelling and Adsorption to the Solid/Liquid Interface

Akanksha Garg
Civil & Environmental Engineering
Failure/Instabilities in Nanoscale Films

Argha Namhata
Civil & Environmental Engineering
Multi – model Predictive System for CH4 and H2S in Water at Shale Gas Sites

Arka Roy
Civil & Environmental Engineering
Role of Inertia and Dissipation Mechanism on Soft Particle Suspensions

Chandrayee Basu
Civil & Environmental Engineering
Smart Buildings for Smart Grid

Milad Memarzadeh
Civil & Environmental Engineering
Probabilistic Learning and Planning for Optimal Management of Wind Farms

Tianhao Tang
Civil & Environmental Engineering
Feature Analysis of Temperature Gradient Effect on Indirect and Direct Bridge SHM

Xue Yang
Civil & Environmental Engineering
A Formal Approach to Provide Information Support for Troubleshooting of HVAC Related Problems

Omer Ozdemir
Electrical & Computer Engineering
Ultrasonic Power Transfer to mm-Sized and Deep Implants

Shahriyar Amini
Electrical & Computer Engineering
PrivacyGrade

Shashank Donthi, Robbie Chen, David Harbor, Malika Waller
Energy Science, Technology & Policy
The Smart Pump
Allison Weis  
*Engineering & Public Policy*
Cost and Emission Impacts of Controlled Electric Vehicle Charging

Amy Wesolowski  
*Engineering & Public Policy*
Quantifying Travel Behavior for Infectious Disease Research: A Comparison of Data from Surveys and Mobile Phones

Casey Canfield  
*Engineering & Public Policy*
Redesigning Bills: The Effect of Format on Responses to Electricity Use Communications

Dena Asta  
*Engineering & Public Policy*
Nonparametric Density Estimation on Hyperbolic Space

Emmanuel Owusu  
*Engineering & Public Policy*
OASIS: On Achieving a Sanctuary for Integrity and Secrecy on Untrusted Platforms

Jihoon Min  
*Engineering & Public Policy*
Assessing Regional Differences in Lighting Heat Replacement Effects in Residential Buildings across the United States

Jinhyok Heo  
*Engineering & Public Policy*
Air Quality Impacts from Carbon Capture and Storage

John Helveston  
*Engineering & Public Policy*

Nathaniel Horner  
*Engineering & Public Policy*
Effects of Government Incentives on Wind Innovation in the United States

Ellen Reifler  
*Materials Science & Engineering*
Measurement of In-Plane Lattice Constants and Observation of Electronic Transitions in Two-Dimensional Transition-Metal Dichalcogenides

Lauren Powell  
*Materials Science & Engineering*
Optical and Surface Characterization Studies of CdSe Quantum Dots Undergoing Photooxidation

Mina Abadier  
*Materials Science & Engineering*
Characterization of Extended Defects in Silicon Carbide

Xinye Liu  
*Materials Science & Engineering*
Titanomagnetite Properties and Microstructures

Arden Rosenblatt  
*Mechanical Engineering*
PieceMaker Technologies

Chaohui Gong, Matthew Tesch  
*Mechanical Engineering*
Extended Gait Equation of Sidewinding

Christopher Nelson  
*Mechanical Engineering*
Particle Augmented Mixed Lubrication Approach for Modeling Chemical Mechanical Polishing

Keith Regner  
*Mechanical Engineering*
Universal Phonon Mean Free Path Spectra in the High Temperature Limit
Lili Ehrlich  
*Mechanical Engineering*  
Thermal Conductivity of Aqueous Dimethyl-Sulfoxide Solutions at Low Temperatures

Matthew Woodward  
*Mechanical Engineering*  
MultiMo-Bat: Biologically Inspired Integrated Jumping-Gliding Robot

Nateé Johnson  
*Mechanical Engineering*  
Fabrication of Ultra-Flexible Bioelectronic Semiconductors

Noah Tovares  
*Mechanical Engineering*  
Experiential Conjoint Analysis

Paul Egan  
*Mechanical Engineering*  
Robust Functioning Emerges from Myosin Isoform Heterogeneity

Shuda Mo  
*Mechanical Engineering*  
GD/SPM13 Experience

Tugce Yuksel  
*Mechanical Engineering*  
Evaluation of the Effects of Thermal Management on Battery Life in PHEVs

Michael Cioffi, Marcus Townsend, Beth Herlin, Radhika Sawhney, Peri Levi-Faigen, Crystal Wai  
*Product Development*  
Bloomberg Businessweek Design: A Closer Look at Today’s Design Impact

College of Fine Arts

Jihyun Park  
*Architecture*  
Data Acquisition and Visualization for Indoor Environmental Quality Assessment: A Case Study of Daylight Field Measurement

Ray Yun  
*Architecture*  
Energy Dashboard and Environmental Behavior

Jesse Kauppila  
*Art*  
I.O.P. I.E.D. (Inside Out Printer Improvised Explosive Device)

Lucia Nhano  
*Art*  
“Persona” at 5th International Video Art Festival, Camagüey Cuba

Oreen Cohen  
*Art*  
Between a Stone and a Shrine

Brett Leber  
*Design*  
Commuter Science: Design-Enabled Experiments in Lifestyle Change

Brynn Flynn  
*Design*  
Co-Design for Learning: Building Collaboration Skills by Making Games

Christiana Lackner, Shiba Sheik  
*Design*  
IxDA Conference 2014

Molly Johnson  
*Design*  
Future Fictions: An Experience Design Approach to Producing and Consuming Multimedia Novels

Nicolas Perez Cervantes, Mark Choi  
*Design*  
IxDA Conference 2014

Robyn Hammond  
*Design*  
Go and Make Disciples: A Design Approach to Educating and Engaging a Church Community in Missions Outreach

Stella Zubeck  
*Design*  
Music Festival Experience Design

Xinran Lu, Joy Chen, Chia-fang Lue  
*Design*  
Experience Mapping and Storytelling
Laci Corridor, Kelsey Carthew, Jeremy Hois, Alexis Floyd
Drama
Looks Like Rain: A Ten Minute Play in Seven Scenes

Margo Gray
Drama
The Message: Developing New Work in Collaboration

Sophie Hood
Drama
Technology in Costume: Plastic Bag Creature

Erin Yanacek
Music
The History of the Trumpet

Dietrich College of Humanities & Social Sciences

Kubra Komek
Center for the Neural Basis of Cognition
Role of NMDA Receptors in Modulating Cortical Synchrony with Relevance to Schizophrenia

Colleen Davy
Cognitive Psychology
Developing Speaking Skill in Adult Second Language Learners

DJ Schuldt
English
The Debates to Repeal the Test and Corporation Acts, 1787-90: Social Movements in the English Romantic Media

Douglas Phillips, Carolyn Commer
English
Argumentative Frames: Shaping Public Understanding

Julie Bowman
English
Sixteenth Century Society Conference

Justin Mando, Alexis Teagarden, Ana Cooke, Carolyn Commer
English
Opening the Writing Classroom to Intellectual Risk

Kristin Shimmin
English
Scientific Approaches to Language: Plain Style and the Interplay of Convention, Artistry, and Communicative Intention in Francis Bacon and the Early Royal Society

Alissa Bellotti
History
Between Rock ‘n Roll and a Hard Place: International Youth Culture and the Struggle for the Future in East Germany, 1961-1989

Amund Tallaksen
History
“Junkies and Jim Crow”

Cassie Miller
History
Creating a Color Line in the Catholic Church: Brooklyn’s Catholics, 1922-1944

Jay Roszman
History
The Genealogy of Outrage -- Irish Agrarian Violence and the British State

Matthew McGrath
History
Labor and Environment in the Western Alaskan Fisheries, 1934-1976.

Michael Gallen
History
Through a Diplomatic Eye: American Diplomats in Early Twentieth-Century Liberia

Robert Hutchings
History
Imperialism, the Cold War, and Orange Juice

Stephanie Skipp
History
Takashi Matsumaru  
*History*  
Reordering a White City: Blacks and Asians in Seattle, 1960-1990

Dan Walter  
*Modern Languages*  
Developing Teachers’ Critical Language Awareness: A Case Study of Guided Participation

Sihui Ke  
*Modern Languages*  
Cross-linguistic Transfer in Chinese-English Biliteracy Acquisition: A Synthesis Study

Konstantin Genin  
*Philosophy*  
Contraction and the Loss of True Belief

Rebecca Morris  
*Philosophy*  
Changing Mathematical Presentations

Remco Heesen  
*Philosophy*  
Three Ways To Become An Academic Superstar

Brittany Jakubiak  
*Psychology*  
“I’m Touched by Your Support”: How Imagined Touch Support Buffers Stress and Pain

Lucy Erickson  
*Psychology*  
Individual Differences in Statistical Word Segmentation Abilities and Later Vocabulary Development

Alycia Chin  
*Social and Decision Sciences*  
Perceptions of Bankruptcy and Bankruptcy Filers

David Hagmann  
*Social and Decision Sciences*  
Polya’s Bees: Decentralized Decision Making With Quorum-Based Strategies

Eric VanEpps  
*Social and Decision Sciences*  
Online Ordering for Healthier Eating: A Field Experiment

Shereen Chaudhry, David Klinowski  
*Social and Decision Sciences*  
The Impact of Autonomy on Motivation

Zach Kurtz  
*Statistics*  
Nonparametric Density Estimation in Capture-Recapture

H. John Heinz III College

Matthew Kleiman  
*Information Systems & Mgmt: Information Systems*  
Sloan Sports Analytics Conference

Will Liu  
*Information Systems: Information Security Plcy Mgmt*  
An Analysis of Facebook Network Traffic

William Rhoades, Kate Neeuf, Matt Hutchison, Mike Cook  
*Information Systems: Information Security Plcy Mgmt*  
Cyber 9/12 Student Challenge

Jacqueline Shimshoni  
*Public Policy & Mgmt: Creative Enterprises*  
Reflections From NAMPC 2013

Jingya Liu  
*Public Policy & Mgmt: Creative Enterprises*  
Cannes Film Festival

Marissa Finer, Deb Sherrer, Kelly Englert, Caroline Brent, Nicole Houghton  
*Public Policy & Mgmt: Creative Enterprises*  
dog & pony DC: Organizational Structure

Su Wang  
*Public Policy & Mgmt: Creative Enterprises*  
2013 Annual Conference of Alliance of Artists Community

Ankit Agrawal  
*Public Policy & Mgmt: Health Care Policy*  
Networking with Big BIOTECH

Kimberly Fierst  
*Public Policy & Mgmt: Health Care Policy*  
The American College of Healthcare Executives 2014 Congress
Amaris Whitaker
*Public Policy & Mgmt: Public Policy & Mgmt*
The One Step Project Journey: The Initiative Towards Accessible Design in an Old City

Bao Le
*Public Policy & Mgmt: Public Policy & Mgmt*
How to Use the PISA International Data Explorer Tool

Changmi Jung
*Public Policy & Mgmt: Public Policy & Mgmt*
Volume Based Learning in eVisit

Guangwei Li
*Public Policy & Mgmt: Public Policy & Mgmt*
What Can The Chinese Domestic Patent Explosion Tell Us About Real Innovation in China?

Jamar Thrasher
*Public Policy & Mgmt: Public Policy & Mgmt*
National Association of Black Journalists Convention

Usha Chandna
*Public Policy & Mgmt: Public Policy & Mgmt*
Change Begins Here: Key Takeaways

Yi-Chin Lin
*Public Policy & Mgmt: Public Policy & Mgmt*
Evaluating Consumer m-Health Services for User Engagement and Health Promotion: An Organizational Field Experiment

Yi-Chin Lin
*Public Policy & Mgmt: Public Policy & Mgmt*
Process Visibility Analysis in Ambulatory Care: A Simulation Study with RFID Data

Mellon College of Science

Alys Cheatle Jarvela
*Biological Sciences*
Modularity in DNA Binding Preference of a Tbrain Transcription Factor May Allow for More Versatile Transcriptional Responses and Increased Evolvability

Andrew Kehr
*Biological Sciences*
ADAR2: Towards a Structural And Kinetic Understanding of RNA Editing

Dave Bauer
*Biological Sciences*
Pressurized Ejection of the Herpes Virus Genome

Ezgi Kunttas-Tatli
*Biological Sciences*
Self-Association of the APC Tumor Suppressor is Required for the Assembly, Stability and Activity of the Wnt Signaling Destruction Complex.

Madhumitha Ramesh
*Biological Sciences*
Understanding the Roles of Eukaryote-Specific rRNA Expansion Segments in Ribosome Biogenesis

Michael Gamalinda
*Biological Sciences*
A Hierarchical Model for Assembly of Large Ribosomal Subunits

Olivia Molinar
*Biological Sciences*
Mechanisms of APC-Diaphanous Mediated Actin Assembly

Stacie Oliver
*Biological Sciences*
Molecular Mechanisms Governing Stem Cell Niche Architecture

Chenjie Zeng
*Chemistry*
Thiolate Ligand Induced Size and Structure Transformation in Gold Nanoclusters

Katlyn Meier
*Chemistry*
Mössbauer and Density Functional Theory Characterization of Two Short-Lived Intermediates in the Catalytic Cycle of Y257F Homoprotocatechuate 2,3-Dioxygenase

Matthew Mills
*Chemistry*
Degradation of Ethinyl Estradiol in Water Using Iron Coordination Compounds
Saumya Saurabh  
*Chemistry*
Exploiting Binding Kinetics of Fluoregen Activating Peptides to Enhance Photostability: Applications to Live Single Cell Molecule Imaging

Will Boney  
*Mathematical Sciences*
Nonforking in Short and Tame AECs

Shadab Alam  
*Physics*
Testing Gravity with Large Scale Structure (LSS)

Udom Sae-Ueng  
*Physics*
Mechanical Properties of Viruses

School of Computer Science

Shailie Thakkar  
*Human-Computer Interaction*
Thinktank on the Future of the Library

Arun Kalyanasundaram  
*Institute for Software Research*
Measuring Human Concurrency in Large Collaborative Editing Systems

Momin Malik  
*Institute for Software Research*
Sensors and Social Network Analysis

Matthew Marge  
*Language Technologies Institute*

Meghana Kshirsagar  
*Language Technologies Institute*
Multi-Task Learning for Modeling Disease Interactions Jointly

Aaditya Ramdas  
*Machine Learning*
Margins - Geometry, Analysis and Algorithms

Seth Flaxman  
*Machine Learning*
Correlates of Homicide: Finding Leading Indicators of Crime with Kernel-Based Space/Time Interactions Tests

Christopher Tomaszewski  
*Robotics*
Planning Energy Efficient Paths through Flow Fields in Small and Uncertain Domains

Michael Koval  
*Robotics*
Pose Estimation for Contact Manipulation with Manifold Particle Filters

Noam Brown  
*Robotics*
Regret Transfer in Games

Tepper School of Business

Zia Hydari  
*Business Technologies*
Saving Patient Ryan - Can Health IT Make Patient Care Safer? Evidence from Pennsylvania Hospitals

Cigdem Gizem Korpeoglu  
*Economics*
Regulation and the Market Game

Carlos Ramirez  
*Financial Economics*
Basket Securities in Segmented Markets

Yang Yang  
*Marketing*
Love It Longer: Sentimental Value Slows Hedonic Adaptation

Xin Fang  
*Operations Management & Manufacturing*
Managing Suppliers: Joint Audit and Shared Supplier Information
Ying Xu  
*Operations Management & Manufacturing*  
The Benefit of Introducing Variability in Single-Server Queues with Application to Quality Based Service Domains

Erin Fahrenkopf  
*Organizational Behavior & Theory*  
Firm Learning and Employee Mobility in the US

Evelyn Zhang  
*Organizational Behavior & Theory*  
From Micro to Macro: The Effect of Personality on Network Position

Jonathan Kush  
*Organizational Behavior & Theory*  
Transactive Memory, Turnover and Team Performance

Nazli Turan  
*Organizational Behavior & Theory*  
Your Cost or My Benefit? : Effects of Concession Frames in Distributive Negotiations

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