

CIT Department List

Undergraduate Research Office

DEPARTMENT	Biomedical Engineering	COLLEGE	Carnegie Institute of Technology
STUDENT	Wendy Shung	DEPARTMENT	Biomedical Engineering
ADVISOR	Asim Smailagic	DEPARTMENT	Electrical & Computer Engineering
ROOM	Rangos 3	TIME	12-2:30
	<i>Accurate EKG lead placement</i>	EXPECTED GRAD YEAR	2011
		TYPE	Poster Presentation
STUDENT	Rachel Bradley	DEPARTMENT	Chemical Engineering
ADVISOR	Stephen Garoff Todd Przybycien Robert Tilton	DEPARTMENT	Physics Biomedical Engineering Chemical Engineering
ROOM	Rangos 3	TIME	12-2:30
	<i>Aerosol delivery of self-dispersing pulmonary drug formulations</i>	EXPECTED GRAD YEAR	2011
		TYPE	Poster Presentation
STUDENT	Youngeun Kim	DEPARTMENT	Materials Science Engineering
ADVISOR	Yu-Li Wang	DEPARTMENT	Biomedical Engineering
ROOM	Rangos 1 & 2/Sigma Xi Group 7	TIME	10:15
	<i>Cellular Response to 1D-2D Topographic Features on Adhesive Substrates</i>	EXPECTED GRAD YEAR	2011
		TYPE	Poster Presentation
STUDENT	Si Won Choi	DEPARTMENT	Chemical Engineering
ADVISOR	Kris Dahl	DEPARTMENT	Biomedical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Computational Pathology to Discover Common Mechanisms of Premature Aging Diseases

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Sebastien Persaud	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Kris Dahl	Biomedical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Cytokine-induced changes in force generation in tendon cells

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Robert Morhard	Biomedical Engineering	2012

ADVISOR	DEPARTMENT
Justin Crowley	Biological Sciences

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 9	11:00	Poster Presentation

Determination of Neuroanatomical Borders through the Use of Optical Imaging of Intrinsic Signals

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Nikunja Kolluri	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Todd Przybycien	Biomedical Engineering
Robert Tilton	Chemical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	10:45	Poster Presentation

Determining the effects of PEGylation on therapeutic enzymes

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Priyanka Venkatesh	Biological Sciences	2011

ADVISOR	DEPARTMENT
Kris Dahl	Biomedical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 7	10:00	Poster Presentation

Effects of Fluid Shear Stress on Heterochromatin Regulation in Endothelial Cells

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jeffrey Cooper	Computer Science	2014
Jitu Das	Computer Science	2012
Priyanka Deo	Computer Science	2014
Daniel Jacobs	Electrical & Computer Engineering	2013
Michael Ornstein	Mechanical Engineering	2013
Harrison Rose	Biomedical Engineering	2013
James Wahawisan	Electrical & Computer Engineering	2013
Alexander Zirbel	Computer Science	2013

ADVISOR	DEPARTMENT
Sanjiv Singh	Robotics Institute

ROOM	TIME	TYPE
Peter	1:40	Oral Presentation

Exploration and Mapping of Unstructured Environments using an Autonomous Quadrotor

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Ming-Yang Hung	Mechanical Engineering	2011

ADVISOR	DEPARTMENT
Kerem Pekkan	Biomedical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 9	10:45	Poster Presentation

Novel cardiovascular flow regimes in patient-specific anatomies

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Josh Heuslein	Biomedical Engineering	2011

ADVISOR	DEPARTMENT
Newell Washburn	Chemistry

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 1	11:00	Poster Presentation

Reduction of burn progression with topical delivery of (anti-TNF-a)-hyaluronic acid conjugates

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Kathryn Kukla	Biomedical Engineering	2012
ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 1	11:30	Poster Presentation

Tissue Engineering Approach to Breast Reconstruction Surgery

DEPARTMENT	Chemical Engineering	COLLEGE	Carnegie Institute of Technology
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STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jule Carr	Civil and Environmental Engineering	2013
Cynthia Clement	Mathematics	2014
Carineh Ghafafian	Materials Science Engineering	2014
Elissa Goldner	Civil and Environmental Engineering	2013
Mahaesh Jayaraman	Chemical Engineering	2014
Lane Kurkjian	Civil and Environmental Engineering	2013
Anna Lenhart	Civil and Environmental Engineering	2011
Kaiyang Liew	Mechanical Engineering	2014
Agnieszka Marszalik	Civil and Environmental Engineering	2013
Tejank Shah	Materials Science Engineering	2014
Lauren Sittler	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Paulina Jaramillo	Engineering and Public Policy

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	11:45	Poster Presentation

A Feasibility Study of Bio-Gas Digesters and Composting Systems at Carnegie Mellon University

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Joyce Xu	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Robert Tilton	Chemical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Adsorption of anionic surfactants in silica nanoparticles grafted with poly(2-(dimethylamino)ethyl methacrylate) brushes

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Heather Dolan	Chemical Engineering	2011

ADVISOR
James Schneider

DEPARTMENT
Chemical Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Advancements to a Novel method of Length-Based DNA Separation, End-Labeled Free Solution Electrophoresis

STUDENT
Rachel Bradley

DEPARTMENT
Chemical Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Stephen Garoff
Todd Przybycien
Robert Tilton

DEPARTMENT
Physics
Biomedical Engineering
Chemical Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Aerosol delivery of self-dispersing pulmonary drug formulations

STUDENT
Itai Stein

DEPARTMENT
Materials Science Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Mohammad Islam

DEPARTMENT
Chemical Engineering

ROOM
Rangos 1 & 2/Sigma Xi Group 5

TIME
12:00

TYPE
Poster Presentation

Carbon Nanotube Aerogel Based Conducting Polymer Composites

STUDENT
Si Won Choi

DEPARTMENT
Chemical Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Kris Dahl

DEPARTMENT
Biomedical Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Computational Pathology to Discover Common Mechanisms of Premature Aging Diseases

STUDENT
Sebastien Persaud

DEPARTMENT
Chemical Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Kris Dahl

DEPARTMENT
Biomedical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Cytokine-induced changes in force generation in tendon cells

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Chin Shu Watt	Chemical Engineering	2011
Kenneth Yan	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Jeffrey Hollinger	Biological Sciences

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	3-5	Poster Presentation

Delivery of siRNA Using Cationic Nanostructured Star Polymers to Prevent Cell Differentiation to Bone

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Katia Bazzi	Chemical Engineering	2014
Eric Chu	Chemical Engineering	2012
Jyo Lyn Hor	Chemical Engineering	2013
Travis Horst	Chemical Engineering	2012
Yong Kim	Chemical Engineering	2012
Stacey Lee	Chemical Engineering	2013
Annelie Niebuhr	Chemical Engineering	2013
Kaitlyn Nowak	Chemical Engineering	2014
Alexander Yoshikawa	Chemical Engineering	2012
Amy Yuan	Chemical Engineering	2014
Minghui Zhang	Chemical Engineering	2013
Ziyi Zhu	Chemical Engineering	2014

ADVISOR	DEPARTMENT
James Miller	Chemical Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	12-2:30	Poster Presentation

Design and Development of Fuel Cell and Pressure Based Cars

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Nikunja Kolluri	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Todd Przybycien	Biomedical Engineering

Robert Tilton

Chemical Engineering

ROOM RANGOS 1 & 2/SIGMA XI GROUP 5
TIME 10:45
TYPE POSTER PRESENTATION

Determining the effects of PEGylation on therapeutic enzymes

STUDENT DEPARTMENT EXPECTED GRAD YEAR
Samuel Kernion Materials Science Engineering 2012
Edward Smongeski Chemical Engineering 2013

ADVISOR DEPARTMENT
Michael McHenry Materials Science Engineering

ROOM HOCH COMMONS-2ND FLOOR, WINDOW SIDE
TIME 12-2:30
TYPE POSTER PRESENTATION

Modeling of Planar Flow Casting Process for Efficiency in Synthesizing Magnetic Ribbon

STUDENT DEPARTMENT EXPECTED GRAD YEAR
Kristen Severson Chemical Engineering 2011

ADVISOR DEPARTMENT
Ignacio Grossman Mechanical Engineering
Martin Mariano Chemical Engineering

ROOM RANGOS 1 & 2/SIGMA XI GROUP 6
TIME 12:00
TYPE POSTER PRESENTATION

Optimal production of biodiesel from the transesterification of algal oil using bioethanol

STUDENT DEPARTMENT EXPECTED GRAD YEAR
Richard Pattison Chemical Engineering 2011

ADVISOR DEPARTMENT
Ignacio Grossman Mechanical Engineering

ROOM RANGOS 3
TIME 12-2:30
TYPE POSTER PRESENTATION

Optimizing the Flexibility of a Chemical Plant Subject to Random Failures and Planned Maintenances

STUDENT DEPARTMENT EXPECTED GRAD YEAR
Laura McKee Chemical Engineering 2011

ADVISOR DEPARTMENT
Robert Tilton Chemical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Polymer encapsulated nanoscale zero-valent iron for ground water decontamination.

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Brandon Chock	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Lynn Walker	Chemical Engineering

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Protein Transport through Nanostructured Block Copolymer Hydrogels

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Alexander Yoshikawa	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Robert Tilton	Chemical Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

Rheology of Pickering Emulsions and Colloidosome Synthesis

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Greta Michalczuk	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Robert Tilton	Chemical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Saponin as a Naturally Derived Surfactant

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Nathaniel Ondeck	Chemical Engineering	2013

ADVISOR	DEPARTMENT
Nisha Shukla	Physics

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	3-5	Poster Presentation

Separation of Chiral Molecules Using Nanoparticles

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Abigail Ondeck	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Nisha Shukla	Physics

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Shape and Size Controlled Synthesis of Nanoparticulate Catalysts

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Sharanya Venkat	Chemical Engineering	2013

ADVISOR	DEPARTMENT
Christopher Bettinger	Materials Science Engineering

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Synthesis and Characterization of Biodegradable Polymers

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Ryan Kissell	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Nisha Shukla	Physics

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	12-2:30	Poster Presentation

SYNTHESIS OF SUB-NANOMETER SIZED METALLIC NANOPARTICLES

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Sojung (Lindsey) Lee	Chemical Engineering	2011

ADVISOR	DEPARTMENT
James Miller	Chemical Engineering

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

ZnO Functional Layers for Chemiresistive Sensors

DEPARTMENT **Civil and Environmental Engineering**

COLLEGE **Carnegie Institute of Technology**

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jessica Guerrero	Civil and Environmental Engineering	2013
Emilia Howard	Civil and Environmental Engineering	2013
Adrian Lopez	Civil and Environmental Engineering	2013
Hermona Tamrat	Civil and Environmental Engineering	2013
Amy Zhang	Civil and Environmental Engineering	2013

ADVISOR	DEPARTMENT
Sarah Christian	Civil and Environmental Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

A Case Study of Gustav Lindenthal's Smithfield Street Bridge in Pittsburgh

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jule Carr	Civil and Environmental Engineering	2013
Cynthia Clement	Mathematics	2014
Carineh Ghafafian	Materials Science Engineering	2014
Elissa Goldner	Civil and Environmental Engineering	2013
Mahaesh Jayaraman	Chemical Engineering	2014
Lane Kurkjian	Civil and Environmental Engineering	2013
Anna Lenhart	Civil and Environmental Engineering	2011
Kaiyang Liew	Mechanical Engineering	2014
Agnieszka Marszalik	Civil and Environmental Engineering	2013
Tejank Shah	Materials Science Engineering	2014
Lauren Sittler	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Paulina Jaramillo	Engineering and Public Policy

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	11:45	Poster Presentation

A Feasibility Study of Bio-Gas Digesters and Composting Systems at Carnegie Mellon University

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Ya Qi Niu	Economics	2012
Karen Yu	Civil and Environmental Engineering	2012
ADVISOR	DEPARTMENT	
Ines Azevedo	Engineering and Public Policy	
ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

An Assessment of 33% RPS in California and Projection of its position and CO2 Emissions from the Electricity Sector in 2020

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Dyanna Becker	Civil and Environmental Engineering	2011
Daisy Wang	Civil and Environmental Engineering	2011
ADVISOR	DEPARTMENT	
David Dzombak	Civil and Environmental Engineering	
ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Analysis of the Thermal Performance of Green Roofs

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Rentaro Matsukata	Electrical & Computer Engineering	2012
Christopher Palmer	Electrical & Computer Engineering	2013
Robert Wedler	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Susan Finger	Civil and Environmental Engineering	
ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	3-5	Poster Presentation

Design of a Modular Data Acquisition and Processing System

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Karen Yu	Civil and Environmental Engineering	2012
ADVISOR	DEPARTMENT	
Greg Lowry	Civil and Environmental Engineering	

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	10:15	Poster Presentation

Effect of Silver Nanoparticles on Bacterial Populations

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
John Sourbeer	Civil and Environmental Engineering	2011

ADVISOR	DEPARTMENT
Jeanne VanBriesen	Civil and Environmental Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Estimating the Ecological Integrity of a Stream from a Water Quality Perspective: Using Dunkard Creek as a Case Study

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Zachary McCabe	Civil and Environmental Engineering	2011

Michael Shedlosky	Civil and Environmental Engineering	2011
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ADVISOR	DEPARTMENT
Larry Cartwright	Civil and Environmental Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

FENCR Material Coating

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Dasha Adamchik	Biological Sciences	2012

Jennifer Frazier	Civil and Environmental Engineering	2011
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ADVISOR	DEPARTMENT
David Rakison	Psychology

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	12-2:30	Poster Presentation

Infants' detection of recurrent evolutionary threats

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jonathan Boerner	Mechanical Engineering	2012

Ibuki Kamei	Mechanical Engineering	2012
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Paul Kimball Jr.	Mechanical Engineering	2012
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ADVISOR	DEPARTMENT
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Susan Finger

Civil and Environmental Engineering

ROOM: Hoch Commons-2nd Floor, Window side
TIME: 3-5
TYPE: Poster Presentation

Jack Plate and Trim Switch Implementation for Thrust Optimization

STUDENT: Peter Trocha
DEPARTMENT: Civil and Environmental Engineering
EXPECTED GRAD YEAR: 2011
ADVISOR: Jacobo Bielak
DEPARTMENT: Civil and Environmental Engineering
Ricardo Taborda Rios
DEPARTMENT: Unknown
ROOM: Rangos 3
TIME: 12-2:30
TYPE: Poster Presentation

Parametric Study of Soil-Structure Interaction Effects

STUDENT: Peter Trocha
DEPARTMENT: Civil and Environmental Engineering
EXPECTED GRAD YEAR: 2011
ADVISOR: Craig Maloney
DEPARTMENT: Civil and Environmental Engineering
ROOM: Hoch Commons-2nd Floor, Window side
TIME: 12-2:30
TYPE: Poster Presentation

Sheared Suspensions near Random Close Packing

STUDENT: Nicola Carey
DEPARTMENT: Civil and Environmental Engineering
EXPECTED GRAD YEAR: 2012
ADVISOR: Irving Oppenheim
DEPARTMENT: Civil and Environmental Engineering
ROOM: Hoch Commons-2nd Floor, Rangos side
TIME: 12-2:30
TYPE: Poster Presentation

Temperature and Stiffness Correction of SAW Devices for Wireless Strain Sensing

STUDENT: Charles Alexander
DEPARTMENT: Civil and Environmental Engineering
EXPECTED GRAD YEAR: 2011
Lara Mann
DEPARTMENT: Art
2011
ADVISOR: Patricia Bellan-Gillen
DEPARTMENT: Art

ROOM	TIME	TYPE
Connan	3-5	Visual Arts

the Attraction of Forms//an Attraction to Form

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Timothy Pianka	Civil and Environmental Engineering	2012
Shane Rife	Civil and Environmental Engineering	2011
ADVISOR	DEPARTMENT	
Mario Berges	Civil and Environmental Engineering	

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	12-2:30	Poster Presentation

The Wattcher: A Crowd-Sourcing Application for Energy Management

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Michael Panzitta	Civil and Environmental Engineering	2011
ADVISOR	DEPARTMENT	
Kaushik Dayal	Civil and Environmental Engineering	

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Use of Time and Space Averaging to Model One-Dimensional Strain

DEPARTMENT **Electrical & Computer Engineering**

COLLEGE **Carnegie Institute of Technology**

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
James Carroll	Computer Science	2013
Willis Chang	Electrical & Computer Engineering	2013
Jeffrey Cooper	Computer Science	2014
Priyanka Deo	Computer Science	2014
Devendra Gurjar	Electrical & Computer Engineering	2013
John Howland	Mechanical Engineering	2012
Daniel Jacobs	Electrical & Computer Engineering	2013
Alexander Lam	Computer Science	2014
Joseph Lee	Electrical & Computer Engineering	2013
Abraham Levkoy	Electrical & Computer Engineering	2012
Matthew McKay	Computer Science	2014
Nicolas Paris	Electrical & Computer Engineering	2012

John Sexton	Electrical & Computer Engineering	2011
Prashant Sridhar	Undecided	2014
Vinay Vemuri	Computer Science	2013
Benjamin Wasserman	Electrical & Computer Engineering	2013
Mark Williams	Electrical & Computer Engineering	2014
Alexander Zirbel	Computer Science	2013
ADVISOR	DEPARTMENT	
George Kantor	Robotics Institute	
ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	3-5	Poster Presentation

A Calibration Platform for Achieving Sensor Accuracy in a Low-Cost Robot Colony

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Matthew Belenky	Economics	2011
Timothy Higgins	Economics	2011
John Sperger	Social & Decision Sciences	2012
Chao Wang	Electrical & Computer Engineering	2012
Tian Wu	Business Administration	2012
ADVISOR	DEPARTMENT	
Brian Junker	Statistics	
ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	12-2:30	Poster Presentation

Accuracy of Pittsburgh Bus Timetables Used by CMU Students

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Joel Feinstein	Electrical & Computer Engineering	2011
ADVISOR	DEPARTMENT	
Kenneth Mai	Electrical & Computer Engineering	
ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 6	11:00	Poster Presentation

Achieving Extreme Processor Performance Using Unconventional Cooling

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Rentaro Matsukata	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Thomas Werner	Philosophy	

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 8	10:30	Poster Presentation

An Assessment on Current Methodology for Teaching Japanese

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Andrew Noh	Electrical & Computer Engineering	2012
Amber Xu	Electrical & Computer Engineering	2011
ADVISOR	DEPARTMENT	
Tai-Sing Lee	Computer Science	

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 6	11:15	Poster Presentation

Center-out Decoding Using an Emotiv EEG Headset

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Kwabena Agyeman	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Anthony Rowe	Electrical & Computer Engineering	

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	12-2:30	Poster Presentation

CMUcam4: Open Source Programmable Embedded Color Vision Platform

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Rentaro Matsukata	Electrical & Computer Engineering	2012
Christopher Palmer	Electrical & Computer Engineering	2013
Robert Wedler	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Susan Finger	Civil and Environmental Engineering	

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	3-5	Poster Presentation

Design of a Modular Data Acquisition and Processing System

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Wesley Myers	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Manuela Veloso	Computer Science	

ROOM	TIME	TYPE
Wright	12-2:30	SCS Independent Study (Pos..

Designing a Kicking Behavior for the NAO Robots

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Wesley Myers	Electrical & Computer Engineering	2012
Ryan Oksenhorn	Computer Science	2013

ADVISOR	DEPARTMENT
Manuela Veloso	Computer Science

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

Designing an Attacker Behavior for the NAO Robots

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Apoorv Khandelwal	Electrical & Computer Engineering	2012

ADVISOR	DEPARTMENT
Christopher Bettinger	Materials Science Engineering

ROOM	TIME	TYPE
Peter	4:20	Oral Presentation

Elastomer Degradation Modeling

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Mian Luo	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Dan Siewiorek	Human Computer Interaction Inst.
Asim Smailagic	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Ergobuddy

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Eric Turner	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Franz Franchetti	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Error Analysis Supporting Logic in Memory Implementation of Polar Format Algorithm for Synthetic Aperture Radar

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jeffrey Cooper	Computer Science	2014
Jitu Das	Computer Science	2012
Priyanka Deo	Computer Science	2014
Daniel Jacobs	Electrical & Computer Engineering	2013
Michael Ornstein	Mechanical Engineering	2013
Harrison Rose	Biomedical Engineering	2013
James Wahawisan	Electrical & Computer Engineering	2013
Alexander Zirbel	Computer Science	2013

ADVISOR	DEPARTMENT
Sanjiv Singh	Robotics Institute

ROOM	TIME	TYPE
Peter	1:40	Oral Presentation

Exploration and Mapping of Unstructured Environments using an Autonomous Quadrotor

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Rajeev Krithivasan	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Bruce Krogh	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Graph Morphisms To Support Consistency Checking In Cyber Physical System Architectures

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Philip Bailey	Electrical & Computer Engineering	2014
Gerald Carlson	Mechanical Engineering	2013
Daniel Curhan	Mechanical Engineering	2013

ADVISOR	DEPARTMENT
Roger Dannenberg	Computer Science

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

GuitarBot

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Amal El-Ghazaly	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Jim Bain	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 6	11:30	Poster Presentation

Lateral Tracking Electrothermal Actuator

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Zhi Yang Lim	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Franz Franchetti	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 6	11:45	Poster Presentation

Low Energy Image Reconstruction with Magic Memory

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Pooya Khorrami	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Vijayakumar Bhagavatula	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Low-Resolution Face Recognition using Coupled Locality Preserving Mappings

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Rachael Harding	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Onur Mutlu	Electrical & Computer Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	3-5	Poster Presentation

Memory Scheduling for Multi-threaded Applications

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Vincent Teo	Computer Science	2011
ADVISOR	DEPARTMENT	
Priya Narasimhan	Electrical & Computer Engineering	
ROOM	TIME	TYPE
Peter	12:00	SCS Honors Thesis (Poster ..

Mobile Cloud Computing for Data-Intensive Applications

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
John Sexton	Electrical & Computer Engineering	2011
ADVISOR	DEPARTMENT	
Robert Murphy	Biological Sciences	
ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Modeling the Relationship between the Subcellular Location Patterns of Co-observed Proteins

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
John Langford	Mechanical Engineering	2011
ADVISOR	DEPARTMENT	
Bruce Krogh	Electrical & Computer Engineering	
ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Modular Modeling Frameworks: Opportunities and Limitations of Causal and Acausal Approaches

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Philip Etling	Electrical & Computer Engineering	2013
ADVISOR	DEPARTMENT	
Manuela Veloso	Computer Science	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	12-2:30	Poster Presentation

Multi-Robot Interaction and Design

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Manish Burman	Electrical & Computer Engineering	2014
Brian Devinentis	Mechanical Engineering	2014
Brandon Kase	Electrical & Computer Engineering	2014
ADVISOR	DEPARTMENT	
David Kosbie	Computer Science	

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

Navigating Carnegie Mellon

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
James Carroll	Computer Science	2013
Willis Chang	Electrical & Computer Engineering	2013
Jeffrey Cooper	Computer Science	2014
Priyanka Deo	Computer Science	2014
Megan Dority	Mechanical Engineering	2010
Devendra Gurjar	Electrical & Computer Engineering	2013
John Howland	Mechanical Engineering	2012
Daniel Jacobs	Electrical & Computer Engineering	2013
Alexander Lam	Computer Science	2014
Joseph Lee	Electrical & Computer Engineering	2013
Abraham Levkoy	Electrical & Computer Engineering	2012
Matthew McKay	Computer Science	2014
Nicolas Paris	Electrical & Computer Engineering	2012
John Sexton	Electrical & Computer Engineering	2011
Daniel Shope	Mechanical Engineering	2010
Prashant Sridhar	Undecided	2014
Vinay Vemuri	Computer Science	2013
Benjamin Wasserman	Electrical & Computer Engineering	2013
Mark Williams	Electrical & Computer Engineering	2014
Alexander Zirbel	Computer Science	2013
ADVISOR	DEPARTMENT	
George Kantor	Robotics Institute	

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 7	11:30	Poster Presentation

Navigating Dynamic Traffic Environments in a Low-Cost Robot Colony

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Archa Jain	Electrical & Computer Engineering	2012
Neereja Sundaresan	Electrical & Computer Engineering	2012

ADVISOR	DEPARTMENT
Diana Marculescu	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 9	11:15	Poster Presentation

Parameterizable On-Chip Communication Synthesis for Multi-Core Systems

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Nicholas Letwin	Electrical & Computer Engineering	2013
Michael Tomovich	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
William Whittaker	Robotics Institute

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 7	11:45	Poster Presentation

Power for Lunar Surface Systems

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Si Ying Hu	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Marios Savvides	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Real Time Expression Recognition Using GPUs for Home Automation and Driver Awareness Applications.

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Nathaniel Barshay	Computer Science	2013
Alex Klarfeld	Electrical & Computer Engineering	2013

ADVISOR	DEPARTMENT
Mark Stehlik	Computer Science

ROOM	TIME	TYPE
Pake	12:40	Oral Presentation

RoboBuggy - Fully autonomous robotic buggy

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jonathan Boerner	Mechanical Engineering	2012
Andrew Burks	Mechanical Engineering	2012
Katherine Coste	Materials Science Engineering	2011
Jaywoo Kim	Mechanical Engineering	2012
Michael Ornstein	Mechanical Engineering	2013
Nicolas Paris	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Roger Dannenberg	Computer Science	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	12-2:30	Poster Presentation

RobOrchestra Vibraphone Project

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Emily Boncek	Science and Humanities Scholars	2012
Christopher Chang	Statistics	2012
Kelly Chang	Electrical & Computer Engineering	2012
Stephanie Sindler	Economics	2011
ADVISOR	DEPARTMENT	
Brian Junker	Statistics	

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

Survey of Carnegie Mellon Faculty Regarding Attendance Policy and Student Performance

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Ilya Kelner	Electrical & Computer Engineering	2011
Siddharth Nangia	Electrical & Computer Engineering	2011
ADVISOR	DEPARTMENT	
Philip Koopman	Electrical & Computer Engineering	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

SWANDRIVE - Smart Wireless Analysis Network for Driver Information and Vehicle Efficiency

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Theodore Martin	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Garth Gibson	Computer Science

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

Systematic Testing of YFS

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Eric Cheng	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Seth Goldstein	Computer Science

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Tap Detection and Localization in Claytronics Blinky Blocks

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Rachita Chandra	Electrical & Computer Engineering	2011

ADVISOR	DEPARTMENT
Franz Franchetti	Electrical & Computer Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 9	11:45	Poster Presentation

Utilizing GPUs for benchmarking an autotuning system

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jesse Salazar	Electrical & Computer Engineering	2012

ADVISOR	DEPARTMENT
Ananda Gunawardena	Computer Science

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Wi-Fi Triangulation Using RSSI

DEPARTMENT	Engineering and Public Policy	COLLEGE	Carnegie Institute of Technology
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STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jule Carr	Civil and Environmental Engineering	2013
Cynthia Clement	Mathematics	2014
Carineh Ghafafian	Materials Science Engineering	2014
Elissa Goldner	Civil and Environmental Engineering	2013
Mahaesh Jayaraman	Chemical Engineering	2014
Lane Kurkjian	Civil and Environmental Engineering	2013
Anna Lenhart	Civil and Environmental Engineering	2011
Kaiyang Liew	Mechanical Engineering	2014
Agnieszka Marszalik	Civil and Environmental Engineering	2013
Tejank Shah	Materials Science Engineering	2014
Lauren Sittler	Chemical Engineering	2012

ADVISOR	DEPARTMENT
Paulina Jaramillo	Engineering and Public Policy

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	11:45	Poster Presentation

A Feasibility Study of Bio-Gas Digesters and Composting Systems at Carnegie Mellon University

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Ya Qi Niu	Economics	2012
Karen Yu	Civil and Environmental Engineering	2012

ADVISOR	DEPARTMENT
Ines Azevedo	Engineering and Public Policy

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

An Assessment of 33% RPS in California and Projection of its position and CO2 Emissions from the Electricity Sector in 2020

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Sandeep Patel	Information Systems	2011

ADVISOR	DEPARTMENT
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Erica Fuchs

Engineering and Public Policy

ROOM

TIME

TYPE

Kirr Commons-1st Floor, Window side

12-2:30

Poster Presentation

The Impact of Manufacturing Offshore on Firm Technology Trajectories

DEPARTMENT **Materials Science Engineering**

COLLEGE **Carnegie Institute of Technology**

STUDENT

DEPARTMENT

EXPECTED GRAD YEAR

Jule Carr
Cynthia Clement
Carineh Ghafafian
Elissa Goldner
Mahaesh Jayaraman
Lane Kurkjian
Anna Lenhart
Kaiyang Liew
Agnieszka Marszalik
Tejank Shah
Lauren Sittler

Civil and Environmental Engineering 2013
Mathematics 2014
Materials Science Engineering 2014
Civil and Environmental Engineering 2013
Chemical Engineering 2014
Civil and Environmental Engineering 2013
Civil and Environmental Engineering 2011
Mechanical Engineering 2014
Civil and Environmental Engineering 2013
Materials Science Engineering 2014
Chemical Engineering 2012

ADVISOR

DEPARTMENT

Paulina Jaramillo

Engineering and Public Policy

ROOM

TIME

TYPE

Rangos 1 & 2/Sigma Xi Group 5

11:45

Poster Presentation

A Feasibility Study of Bio-Gas Digesters and Composting Systems at Carnegie Mellon University

STUDENT

DEPARTMENT

EXPECTED GRAD YEAR

Oliver Lam
Michael Len
Go Okumura
Dunyang Wang
Wentian Zhu

Psychology 2011
Computer Science 2012
Mechanical Engineering 2012
Materials Science Engineering 2012
Science and Humanities Scholars 2012

ADVISOR

DEPARTMENT

Brian Junker

Statistics

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

A Study on Students' Change of Majors, What They Choose and Why.

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Marco Dyer	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Satyajeet Ojha	Materials Science Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Analysis of Miscibility of Silicone Dioxide nanoparticles in Poly(Methyl Methacrylate) and Styrene Acrylonitrile

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Itai Stein	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Mohammad Islam	Chemical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	12:00	Poster Presentation

Carbon Nanotube Aerogel Based Conducting Polymer Composites

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Youngeun Kim	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Yu-Li Wang	Biomedical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 7	10:15	Poster Presentation

Cellular Response to 1D-2D Topographic Features on Adhesive Substrates

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jane Herriman	Chemistry	2011

ADVISOR	DEPARTMENT
Lisa Porter	Materials Science Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

Contact Development to AlGaIn/GaN HEMT Chemical Sensors

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Michael Schmitt	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Robert Davis	Materials Science Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	3-5	Poster Presentation

Creating Polymer Grafts to CdSe Quantum Dots for Use in Light-Emitting and Photovoltaic Nanocomposites with Emphasis on Understanding the Polymer-Surface Morphology

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Juan Infante	Materials Science Engineering	2013

ADVISOR	DEPARTMENT
Paul Salvador	Materials Science Engineering

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

Effects of Fabrication Conditions on the Structure and Performance of TiO₂ based Resistive Switching Data Storage Devices

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Apoorv Khandelwal	Electrical & Computer Engineering	2012

ADVISOR	DEPARTMENT
Christopher Bettinger	Materials Science Engineering

ROOM	TIME	TYPE
Peter	4:20	Oral Presentation

Elastomer Degradation Modeling

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Eric Pripstein	Materials Science Engineering	2012

ADVISOR	DEPARTMENT
Paul Salvador	Materials Science Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

Electron Band Edge Location in Semiconductors for use in Renewable Energy Applicable PEC Devices

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Tejank Shah	Materials Science Engineering	2014

ADVISOR	DEPARTMENT
Michael Bockstaller	Materials Science Engineering

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

Feasibility Study of Campus-Installed Energy-Harvesting Walkway

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Marianna Sofman	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Michael McHenry	Materials Science Engineering
Katie McNerny	Materials Science Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Investigating Antibody-Magnetic Nanoparticle Complexes for Attachment to Tissue Scaffolds

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Anna Colletti	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Michael McHenry	Materials Science Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Investigation of Spinodal Decomposition in FeNi Invar Alloys for Magnetic Sensor Applications

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Woong Young So	Chemistry	2011

ADVISOR	DEPARTMENT
Lisa Porter	Materials Science Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

Investigation of Transparent Multilayer Films

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Matthew Ondeck	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Michael McHenry	Materials Science Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Magnetic Particle Composites for Flip-Chip Packaging

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Samuel Kernion	Materials Science Engineering	2012

Edward Smongeski	Chemical Engineering	2013
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ADVISOR	DEPARTMENT
Michael McHenry	Materials Science Engineering

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	12-2:30	Poster Presentation

Modeling of Planar Flow Casting Process for Efficiency in Synthesizing Magnetic Ribbon

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Yue Ma	Materials Science Engineering	2011

ADVISOR	DEPARTMENT
Michael McHenry	Materials Science Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Modeling the kinetics of spinodal decomposition in the Fe₂TiO₄-Fe₃O₄ pseudo-binary system

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Emily Walker	Materials Science Engineering	2012

ADVISOR	DEPARTMENT
Michael McHenry	Materials Science Engineering

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	12-2:30	Poster Presentation

Novel Solder-Magnetic Nanoparticle Composites and Their Reflow Using AC Magnetic Fields

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jonathan Boerner	Mechanical Engineering	2012
Andrew Burks	Mechanical Engineering	2012
Katherine Coste	Materials Science Engineering	2011
Jaywoo Kim	Mechanical Engineering	2012
Michael Ornstein	Mechanical Engineering	2013
Nicolas Paris	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Roger Dannenberg	Computer Science	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	12-2:30	Poster Presentation

RobOrchestra Vibraphone Project

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Anya Prasitthipayong	Materials Science Engineering	2013
ADVISOR	DEPARTMENT	
Michael McHenry	Materials Science Engineering	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Solder Magnetic Nanoparticles and their Reflow

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Sharanya Venkat	Chemical Engineering	2013
ADVISOR	DEPARTMENT	
Christopher Bettinger	Materials Science Engineering	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Synthesis and Characterization of Biodegradable Polymers

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Leah Yingling	Materials Science Engineering	2013

ADVISOR
Michael McHenry

DEPARTMENT
Materials Science Engineering

ROOM
Wean Commons-1st Floor, Connan side

TIME
12-2:30

TYPE
Poster Presentation

The characterization of lead free solders and the relation to magnetic nanoparticles used in biomedical applications

STUDENT
Anthony Rice

DEPARTMENT
Materials Science Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Michael McHenry

DEPARTMENT
Materials Science Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Torsional Magnetoelastic Deformation of Ferrogels

DEPARTMENT **Mechanical Engineering**

COLLEGE **Carnegie Institute of Technology**

STUDENT
James Carroll
Willis Chang
Jeffrey Cooper
Priyanka Deo
Devendra Gurjar
John Howland
Daniel Jacobs
Alexander Lam
Joseph Lee
Abraham Levkoy
Matthew McKay
Nicolas Paris
John Sexton
Prashant Sridhar
Vinay Vemuri
Benjamin Wasserman
Mark Williams
Alexander Zirbel

DEPARTMENT
Computer Science
Electrical & Computer Engineering
Computer Science
Computer Science
Electrical & Computer Engineering
Mechanical Engineering
Electrical & Computer Engineering
Computer Science
Electrical & Computer Engineering
Electrical & Computer Engineering
Computer Science
Electrical & Computer Engineering
Electrical & Computer Engineering
Undecided
Computer Science
Electrical & Computer Engineering
Electrical & Computer Engineering
Computer Science

EXPECTED GRAD YEAR
2013
2013
2014
2014
2013
2012
2013
2014
2013
2012
2014
2012
2011
2014
2013
2013
2014
2013

ADVISOR
George Kantor

DEPARTMENT
Robotics Institute

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Rangos side	3-5	Poster Presentation

A Calibration Platform for Achieving Sensor Accuracy in a Low-Cost Robot Colony

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jacob Beatty	Mechanical Engineering	2011

ADVISOR	DEPARTMENT
Cecil Higgs	Mechanical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

A Computational Fluid Dynamic Study of the Application of Momentum Kill Procedure to Oil Drilling

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jule Carr	Civil and Environmental Engineering	2013

Cynthia Clement	Mathematics	2014
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Carineh Ghafafian	Materials Science Engineering	2014
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Elissa Goldner	Civil and Environmental Engineering	2013
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Mahaesh Jayaraman	Chemical Engineering	2014
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Lane Kurkjian	Civil and Environmental Engineering	2013
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Anna Lenhart	Civil and Environmental Engineering	2011
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Kaiyang Liew	Mechanical Engineering	2014
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Agnieszka Marszalik	Civil and Environmental Engineering	2013
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Tejank Shah	Materials Science Engineering	2014
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Lauren Sittler	Chemical Engineering	2012
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ADVISOR	DEPARTMENT
Paulina Jaramillo	Engineering and Public Policy

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 5	11:45	Poster Presentation

A Feasibility Study of Bio-Gas Digesters and Composting Systems at Carnegie Mellon University

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Oliver Lam	Psychology	2011

Michael Len	Computer Science	2012
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Go Okumura	Mechanical Engineering	2012
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Dunyang Wang	Materials Science Engineering	2012
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Wentian Zhu	Science and Humanities Scholars	2012
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ADVISOR
Brian Junker

DEPARTMENT
Statistics

ROOM
Kirr Commons-1st Floor, Window side

TIME
3-5

TYPE
Poster Presentation

A Study on Students' Change of Majors, What They Choose and Why.

STUDENT
Patrick Dougherty

DEPARTMENT
Mechanical Engineering

EXPECTED GRAD YEAR
2010

ADVISOR
Cecil Higgs

DEPARTMENT
Mechanical Engineering

ROOM
Hoch Commons-2nd Floor, Rangos side

TIME
12-2:30

TYPE
Poster Presentation

An Investigation of the Wear Mechanisms Leading to Self-Replenishing Transfer Films

STUDENT
Robert Piston

DEPARTMENT
Mechanical Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Yong Tae Kim
Philip LeDuc

DEPARTMENT
Mechanical Engineering
Mechanical Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Chemotactic Separation of Human Epithelial and Fibroblast Cells Using a Microfluidic Channel

STUDENT
Jeffrey Cooper

DEPARTMENT
Computer Science

EXPECTED GRAD YEAR
2014

Jitu Das

Computer Science

2012

Priyanka Deo

Computer Science

2014

Daniel Jacobs

Electrical & Computer Engineering

2013

Michael Ornstein

Mechanical Engineering

2013

Harrison Rose

Biomedical Engineering

2013

James Wahawisan

Electrical & Computer Engineering

2013

Alexander Zirbel

Computer Science

2013

ADVISOR
Sanjiv Singh

DEPARTMENT
Robotics Institute

ROOM	TIME	TYPE
Peter	1:40	Oral Presentation

Exploration and Mapping of Unstructured Environments using an Autonomous Quadrotor

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Philip Brown	Mechanical Engineering	2012
Dev Doshi	Computer Science	2012
Christopher Tomaszewski	Mechanical Engineering	2012

ADVISOR	DEPARTMENT
Illah Nourbakhsh	Robotics Institute

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	3-5	Poster Presentation

Fire Identification and Localization for Autonomous Firefighting Robotics

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Philip Bailey	Electrical & Computer Engineering	2014
Gerald Carlson	Mechanical Engineering	2013
Daniel Curhan	Mechanical Engineering	2013

ADVISOR	DEPARTMENT
Roger Dannenberg	Computer Science

ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

GuitarBot

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
John Boyle	Mechanical Engineering	2011

ADVISOR	DEPARTMENT
Shawn Litster	Mechanical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

In-Situ Through Plane Measurements to Determine the Effects of Nafion Loading in the Cathode Catalyst Layer of a PEMFC

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jonathan Boerner	Mechanical Engineering	2012
Ibuki Kamei	Mechanical Engineering	2012

Paul Kimball Jr.	Mechanical Engineering	2012
ADVISOR	DEPARTMENT	
Susan Finger	Civil and Environmental Engineering	
ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	3-5	Poster Presentation

Jack Plate and Trim Switch Implementation for Thrust Optimization

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
David Stonestrom	Mechanical Engineering	2011
ADVISOR	DEPARTMENT	
Cecil Higgs	Mechanical Engineering	
ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Measuring Fractional Coverage of a Powder Lubricant Transfer Film in a Sliding Contact

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
John Langford	Mechanical Engineering	2011
ADVISOR	DEPARTMENT	
Bruce Krogh	Electrical & Computer Engineering	
ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Modular Modeling Frameworks: Opportunities and Limitations of Causal and Acausal Approaches

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Manish Burman	Electrical & Computer Engineering	2014
Brian Devinentis	Mechanical Engineering	2014
Brandon Kase	Electrical & Computer Engineering	2014
ADVISOR	DEPARTMENT	
David Kosbie	Computer Science	
ROOM	TIME	TYPE
Wean Commons-1st Floor, Connan side	3-5	Poster Presentation

Navigating Carnegie Mellon

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
James Carroll	Computer Science	2013

Willis Chang	Electrical & Computer Engineering	2013
Jeffrey Cooper	Computer Science	2014
Priyanka Deo	Computer Science	2014
Megan Dority	Mechanical Engineering	2010
Devendra Gurjar	Electrical & Computer Engineering	2013
John Howland	Mechanical Engineering	2012
Daniel Jacobs	Electrical & Computer Engineering	2013
Alexander Lam	Computer Science	2014
Joseph Lee	Electrical & Computer Engineering	2013
Abraham Levkoy	Electrical & Computer Engineering	2012
Matthew McKay	Computer Science	2014
Nicolas Paris	Electrical & Computer Engineering	2012
John Sexton	Electrical & Computer Engineering	2011
Daniel Shope	Mechanical Engineering	2010
Prashant Sridhar	Undecided	2014
Vinay Vemuri	Computer Science	2013
Benjamin Wasserman	Electrical & Computer Engineering	2013
Mark Williams	Electrical & Computer Engineering	2014
Alexander Zirbel	Computer Science	2013

ADVISOR

George Kantor

DEPARTMENT

Robotics Institute

ROOM

Rangos 1 & 2/Sigma Xi Group 7

TIME

11:30

TYPE

Poster Presentation

Navigating Dynamic Traffic Environments in a Low-Cost Robot Colony

STUDENT

Ming-Yang Hung

DEPARTMENT

Mechanical Engineering

EXPECTED GRAD YEAR

2011

ADVISOR

Kerem Pekkan

DEPARTMENT

Biomedical Engineering

ROOM

Rangos 1 & 2/Sigma Xi Group 9

TIME

10:45

TYPE

Poster Presentation

Novel cardiovascular flow regimes in patient-specific anatomies

STUDENT

Sean Lubner

DEPARTMENT

Mechanical Engineering

EXPECTED GRAD YEAR

2011

ADVISOR

Cecil Higgs

DEPARTMENT

Mechanical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Numerical Modeling of the Soft Elastohydrodynamic Tribosystems

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Edward Burns	Mechanical Engineering	2011

ADVISOR	DEPARTMENT
Donghyun You	Mechanical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Numerical Simulation of Unsteady Separation Over a Pitching Airfoil

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Kristen Severson	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Ignacio Grossman	Mechanical Engineering
Martin Mariano	Chemical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 6	12:00	Poster Presentation

Optimal production of biodiesel from the transesterification of algal oil using bioethanol

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Gabriella Coloyan	Mechanical Engineering	2011

ADVISOR	DEPARTMENT
Alan McGaughey	Mechanical Engineering

ROOM	TIME	TYPE
Rangos 1 & 2/Sigma Xi Group 7	10:45	Poster Presentation

Optimizing the Design of Carbon Nanotubes Aerogels for Thermal Transport Applications

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Richard Pattison	Chemical Engineering	2011

ADVISOR	DEPARTMENT
Ignacio Grossman	Mechanical Engineering

ROOM	TIME	TYPE
Rangos 3	12-2:30	Poster Presentation

Optimizing the Flexibility of a Chemical Plant Subject to Random Failures and Planned Maintenances

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Jonathan Boerner	Mechanical Engineering	2012
Andrew Burks	Mechanical Engineering	2012
Katherine Coste	Materials Science Engineering	2011
Jaywoo Kim	Mechanical Engineering	2012
Michael Ornstein	Mechanical Engineering	2013
Nicolas Paris	Electrical & Computer Engineering	2012
ADVISOR	DEPARTMENT	
Roger Dannenberg	Computer Science	

ROOM	TIME	TYPE
Kirr Commons-1st Floor, Window side	12-2:30	Poster Presentation

RobOrchestra Vibraphone Project

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Richard Musgrave	Mechanical Engineering	2012
ADVISOR	DEPARTMENT	
Cecil Higgs	Mechanical Engineering	

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	3-5	Poster Presentation

Single Particle Coefficient of Restitution Studies: Experiments and Modeling

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
David Chang	Mechanical Engineering	2012
ADVISOR	DEPARTMENT	
Nadine Aubry	Mechanical Engineering	

ROOM	TIME	TYPE
Hoch Commons-2nd Floor, Window side	3-5	Poster Presentation

The Design, Modeling, and Analysis of a Chaotic Microfluidic Heat Exchange Chip

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
Andrew Kojzar	Mechanical Engineering	2011

ADVISOR
Shelley Anna
Stephen Garoff

DEPARTMENT
Mechanical Engineering
Physics

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

The Detection of Multiple Ions in a Single Drop of Sample

STUDENT
Douglas Bernstein
Julia Lekht

DEPARTMENT
Mechanical Engineering
Biological Sciences

EXPECTED GRAD YEAR
2012
2012

ADVISOR
Lee Weiss

DEPARTMENT
Robotics Institute

ROOM
Rangos 1 & 2/Sigma Xi Group 7

TIME
11:00

TYPE
Poster Presentation

Towards a Bioadhesive Controlled-Release Microchip Drug Delivery System

DEPARTMENT **Undecided**

COLLEGE **Carnegie Institute of Technology**

STUDENT
James Carroll
Willis Chang
Jeffrey Cooper
Priyanka Deo
Devendra Gurjar
John Howland
Daniel Jacobs
Alexander Lam
Joseph Lee
Abraham Levkoy
Matthew McKay
Nicolas Paris
John Sexton
Prashant Sridhar
Vinay Vemuri
Benjamin Wasserman
Mark Williams
Alexander Zirbel

DEPARTMENT
Computer Science
Electrical & Computer Engineering
Computer Science
Computer Science
Electrical & Computer Engineering
Mechanical Engineering
Electrical & Computer Engineering
Computer Science
Electrical & Computer Engineering
Electrical & Computer Engineering
Computer Science
Electrical & Computer Engineering
Undecided
Computer Science
Electrical & Computer Engineering
Electrical & Computer Engineering
Computer Science

EXPECTED GRAD YEAR
2013
2013
2014
2014
2013
2012
2013
2014
2013
2012
2014
2012
2011
2014
2013
2013
2014
2013

ADVISOR
George Kantor

DEPARTMENT
Robotics Institute

ROOM
Hoch Commons-2nd Floor, Rangos side

TIME
3-5

TYPE
Poster Presentation

A Calibration Platform for Achieving Sensor Accuracy in a Low-Cost Robot Colony

STUDENT	DEPARTMENT	EXPECTED GRAD YEAR
James Carroll	Computer Science	2013
Willis Chang	Electrical & Computer Engineering	2013
Jeffrey Cooper	Computer Science	2014
Priyanka Deo	Computer Science	2014
Megan Dority	Mechanical Engineering	2010
Devendra Gurjar	Electrical & Computer Engineering	2013
John Howland	Mechanical Engineering	2012
Daniel Jacobs	Electrical & Computer Engineering	2013
Alexander Lam	Computer Science	2014
Joseph Lee	Electrical & Computer Engineering	2013
Abraham Levkoy	Electrical & Computer Engineering	2012
Matthew McKay	Computer Science	2014
Nicolas Paris	Electrical & Computer Engineering	2012
John Sexton	Electrical & Computer Engineering	2011
Daniel Shope	Mechanical Engineering	2010
Prashant Sridhar	Undecided	2014
Vinay Vemuri	Computer Science	2013
Benjamin Wasserman	Electrical & Computer Engineering	2013
Mark Williams	Electrical & Computer Engineering	2014
Alexander Zirbel	Computer Science	2013

ADVISOR
George Kantor

DEPARTMENT
Robotics Institute

ROOM
Rangos 1 & 2/Sigma Xi Group 7

TIME
11:30

TYPE
Poster Presentation

Navigating Dynamic Traffic Environments in a Low-Cost Robot Colony

DEPARTMENT **Electrical & Computer Engineering**

COLLEGE **Unknown**

STUDENT
Wendy Shung

DEPARTMENT
Biomedical Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Asim Smailagic

DEPARTMENT
Electrical & Computer Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Accurate EKG lead placement

STUDENT
Mian Luo

DEPARTMENT
Electrical & Computer Engineering

EXPECTED GRAD YEAR
2011

ADVISOR
Dan Siewiorek
Asim Smailagic

DEPARTMENT
Human Computer Interaction Inst.
Electrical & Computer Engineering

ROOM
Rangos 3

TIME
12-2:30

TYPE
Poster Presentation

Ergobuddy

TOTAL DEPARTMENTS: 9