

RICHARD J. FASENMYER
ENGINEERING DESIGN CONFERENCE
SATURDAY, APRIL 28, 2018



**OUTSTANDING
CAPSTONE
PROJECT SPONSOR**



SCHEDULE OF EVENTS

7:30–11:30 a.m.

Refreshments
112 Burke

8:00–11:30 a.m.

Senior Presentations
Half-hour sessions including Q&A

11:45 a.m.–12:15 p.m.

Keynote Speaker
Brian Kupchella '90
Samuel P. "Pat" Black III Conference Center
180 Burke

12:15–12:30 p.m.

Student and Sponsor Award Presentations
Samuel P. "Pat" Black III Conference Center
180 Burke

Class Pictures Immediately Following Awards

Photos will be taken in 180 Burke. Assemble in the hallway outside of 180 Burke and wait to be called to the stage. Class photo times: ME 12:35, IE 12:40, MET 12:45, PLET 12:50, CSSE 12:55, ECE 1:00, ECET 1:05, IBE 1:10.

KEYNOTE SPEAKER



BRIAN KUPCHELLA '90

Brian Kupchella, a 1990 graduate of Behrend's Plastics Engineering Technology program, was named president and CEO of Truck-Lite in 2016. He began his career with the company and has held a variety of engineering positions, including manager of product engineering. In 1998, he was named vice president of business development with responsibility for coordination of all internal resources to support new business opportunities, leading to the development of LED technology for commercial and military applications and the first full LED headlamp system in the transportation industry.

Kupchella is a Penn State Alumni Fellow and a member of the college's Council of Fellows, the School of Engineering Board of Visitors, and the Navistar Supplier Council. He and his wife, Pamela '89, have three children: Nathen, a Plastics Engineering Technology student, Morgan, and Jake.

ABOUT THE CONFERENCE

The Richard J. Fasenmyer Conference showcases the results of year-long engineering senior capstone projects supervised and managed by students and guided by their faculty and industry advisers. In many cases the projects address applied problems posed by industrial sponsors.

In 2005, the conference was named to honor the legacy of Richard J. Fasenmyer. An Alumni Fellow and Distinguished Alumnus of the University, Fasenmyer was the first alumnus of Penn State Behrend to donate \$1 million to the college.



PennState
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RICHARD J. FASENMYER ENGINEERING DESIGN CONFERENCE

SENIOR PROJECTS

Computer Science and Software Engineering

8:00 a.m.

Use of Social Media to Trend Climatic Events — 103 Burke

Erie Insurance Group, sponsor
Jaechan Lee, Maxwell Rowan, Rohith Sunder
Dr. Meng Su, faculty adviser

4-H Performance Horse Annual Record Book App — 107 Burke

Penn State Behrend School of Engineering, sponsor
Brian Ristau, Joel Krause, Michael Okobi
Melanie Ford, faculty adviser

8:30 a.m.

Bloom Filter Based Time and Space Efficient Deduplication Framework on Aquari Storage Platform — 103 Burke

Concurrent Computer Corporation, sponsor
Behrooz Yoosefi, John Friedrich, Sean Greenawalt
Dr. Wen-Li Wang, faculty adviser

9:00 a.m.

Building a Consumer Based App in the Hospitality Industry — 103 Burke

Tildstar LLC, sponsor
John Werbowsky, Nicholas Antonelli, Travis Smith
Dr. Zhifeng Xiao, faculty adviser

ChatBot for Electronics BuyBack — 208 Burke

MaxBack LLC, sponsor
Brandon Bench, Nicholas Demarco
Dr. Meng Su, faculty adviser

9:30 a.m.

Smartphone App: Building Navigation — 103 Burke

Erie Insurance Group, sponsor
Michael Ferry, Michael Cellerini, Ryan Maas
Dr. Naseem Ibrahim, faculty adviser

Scheduling Program for College for Kids — 106 Burke

Penn State Behrend Youth Education Outreach, sponsor
Julianna Kuemmerle, Robert Parise, Ripudaman Tomar
Thomas Rossi, faculty adviser

10:00 a.m.

Business Application: Notes and Reminders — 103 Burke

Erie Insurance Group, sponsor
Bradley Steen, Karlene McCleary, Kaytlynn Chuzie
Dr. Xiaocong Fan, faculty adviser

10:30 a.m.

Framework for Deploying Hybrid Cloud Storage Solutions with Aquari Storage Platform and Public Cloud Storage Platforms — 103 Burke

Concurrent Computer Corporation, sponsor
Andres Valenzuela, Devon Graves, Samuel Williams
Dr. Naseem Ibrahim, faculty adviser

Voice Control Hub for Penn State Web Applications — 105 Burke

Penn State Behrend School of Engineering, sponsor
Brandon Alankas, Corey Zalewski, Matthew Benkart,
Zachary Bowman
Dr. Richard Zhao, faculty adviser

Design and Deploy Industrial Network and Cybersecurity Simulator — 202 Burke

Process and Data Automation, sponsor
Andrew Roseman, Andrew Rodland, Matthew Jerko,
Shawn Weaver
Dr. Zhifeng Xiao, faculty adviser

11:00 a.m.

Cloud Based Intelligent Video Surveillance & Predictive Monitoring Platform — 103 Burke

Concurrent Computer Corporation, sponsor
Daniel Felix, Kyle Deddo, Moustafa Elhadary,
Zachary Osborne
Dr. Xiaocong Fan, faculty adviser

LORD Aerospace & Defense Standard Parts Selector — 104 Burke

LORD Corporation, sponsor
Marie Magraw, Sky O'Donnell
Sanaz M. Takaghaj, faculty adviser

Virtual Reality Video Viewer — 202 Burke

ImmersiMap Global, sponsor
Johanna Hardner, Michael Ragaini
Dr. Patrick Byrnes, faculty adviser

Systematic Mold Balance Analysis Website Design — 203 Burke

Beaumont Technologies, sponsor
Aiden Chiavatti, Elijah Rydzewski, Patrick Frawley
Dr. Jalaa Hoblos, faculty adviser

Electrical and Computer Engineering

8:00 a.m.

Automated Capture of Usage Data from Heavy Duty Trucks — 106 Burke

Penn State Applied Research Laboratory, sponsor
Aaron Barraclough, Amy Voss, James Bruce
Dr. Abdallah Abdallah, faculty adviser

Inverted Pendulum — 202 Burke

Penn State Behrend School of Engineering, sponsor
Mark Zvolensky, Matt Cornelius, Tyrell Yoder,
Faridah Mohd Faruk
Dr. Mohammad Rasouli, faculty adviser

Electronic Total Board — 203 Burke

Shriners Hospitals for Children–Erie, sponsor
Tristen Tamanji-Stein, Tyler Nosal, Chris Pham
Robin Panda, faculty adviser

8:30 a.m.

Scantron Reader — 202 Burke

Penn State Behrend School of Engineering, sponsor
Matthew Washburn, Robert Gunton, Brad Nulsen
Dr. Thomas Hemminger, faculty adviser

Electronic Total Board — 203 Burke

Shriners Hospitals for Children–Erie, sponsor
Krishna Ramesh, Radhika Navdiya, Jordan Herrmann
Dr. Kyeiwaa Asare-Yeboah, faculty adviser

9:00 a.m.

Upgrade Flow Trainer Control Hardware and Software — 202 Burke

Process and Data Automation, sponsor
Kristine Nutter, Moises Cruz, Elizabeth Conroy, Justin Kennah
Dr. Kyeiwaa Asare-Yeboah, faculty adviser

Near Field Communication — 203 Burke

Truck-Lite Co. LLC, sponsor
Natalie Brock, Sarah Sternby, Jeremy Zacharia,
Jordan Hartung
Dr. Mohammad Rasouli, faculty adviser

9:30 a.m.

Autonomous Tracking System for VidCam Drone — 104 Burke

K.S. Drone, sponsor
Steven Root, Dylan Hoffman
Dr. Tarek Elarabi, faculty adviser

RFID Device Design — 203 Burke

Truck-Lite Co. LLC, sponsor
Amber Larson, Mason Long, James Frances
Robin Panda, faculty adviser

Powdered Metal Process Improvement — 206 Burke

Clarion Sintered Metals, sponsor
Anthony Ferragine, David Tritt, Boe Rice, Derek Mengel
Dr. Sudarshan Nelatury, faculty adviser

Electrical and Computer Engineering Technology

8:30 a.m.

Hydrophone A to D Converter for Spectrum Analysis — 207 Burke

TechnipFMC, sponsor
Joshua Gloeckner, Trevor Hajec, Brian Rushing
David Loker, faculty adviser

9:00 a.m.

K-12 Electrical Circuit Activity — 106 Burke

Penn State Behrend Youth Education Outreach, sponsor
Ryan Miely, John Nowakowski
Steve Strom, faculty adviser

9:30 a.m.

BOTEC Batch System Deployment — 202 Burke

Process and Data Automation, sponsor
Arkadiy Burdak, Charles Capper, Nicholas Roehrig-Parks
Dr. Xinwei Niu, faculty adviser

Wireless Networking of a Wind Farm — 207 Burke

Poseidon Systems LLC, sponsor
Brian Bendure, Vaughn Peters, Tyler Stazer, Daniel Kochmar
David Loker, faculty adviser

10:30 a.m.

Site Load Correction Board to Optimize Loading of Tier 4 Generators — 205 Burke

ASCO Power Technologies, sponsor
Yadhav Adhikari, Kevin Josue, Kevin Zalewski
Dr. Xinwei Niu, faculty adviser

Interdisciplinary Business with Engineering Studies

8:00 a.m.

Creation of an App for Hospitality Industry–Market Survey and Monetization — 001 Burke

Tildstar LLC, sponsor
David Boehme, Casey Cogley
Dr. Diane Parente, faculty adviser

Peanut Shell Press Board — 002 Burke

Peanut Shell Press Board, sponsor
Ryan Innes, Sean Palmer, Brandon Smail
Dr. Diane Parente, faculty adviser

8:30 a.m.

Event-Based Ondemand Insurance — 001 Burke

Erie Insurance Group, sponsor
Rebecca Patterson, Logan White, Cory Woods
Dr. Diane Parente, faculty adviser

Product Enhancement and Business Analysis of MIDEO — 002 Burke

Institute on HealthCare Directives, sponsor
Joshua Holbert, Nolan Knipe, Tevan Marzka, Shane Zozos
Gary R. Smith, faculty adviser

9:00 a.m.

Tech Companies in the Insurance Market — 001 Burke

Erie Insurance Group, sponsor
Deni Pagni
Dr. Diane Parente, faculty adviser

Neuromarketing Research — 002 Burke

Thalamus One, sponsor
Allison Altman, Ayden Hanes, Stephen Nelson
Gary R. Smith, faculty adviser

9:30 a.m.

Fork Truck Technology Assist–Military — 001 Burke

Penn State Applied Research Laboratory, sponsor
Connor Kasten, Gwendolyn Lowery, Max Muzik, Ryan Sword
Gary R. Smith, faculty adviser

Quantifiable Education Results — 002 Burke

Thalamus One, sponsor
Alex Herzing, Amanda Mostowy, Colton Smith
Dr. Diane Parente, faculty adviser

10:00 a.m.

Fork Truck Technology Assist–Commercial — 001 Burke

Penn State Applied Research Laboratory, sponsor
Matthew Dieter, Allison Lent, Brady Thompson
Gary R. Smith, faculty adviser

Erie to Pittsburgh–High Speed Rail — 002 Burke

All Aboard Erie, sponsor
Brooks Bennett, Jacob Carniewski, Cassandra Stelter
Dr. Diane Parente, faculty adviser

10:30 a.m.

Automated Capture of Usage Data from Heavy Duty Trucks — 001 Burke

Penn State Applied Research Laboratory, sponsor
Jacob Lorch, Duncan Park, Ashley Pettit
Gary R. Smith, faculty adviser

Mobility Challenge — 002 Burke

Kent International Inc., sponsor
Andrew Clark, Megan Stetz, Joshua Vanderhoof
Dr. Diane Parente, faculty adviser

11:00 a.m.

Polyethylene Products & Markets — 001 Burke

Shell Global Solutions, sponsor
Frank Casertano, Evan Dougherty, Aimee Ozarchuk
Dr. Diane Parente, faculty adviser

Global Digital Business for Engineering Attribute Platform — 002 Burke

La Trobe Innovation & Entrepreneurship Foundry (LIEF), sponsor
Adi Arnautovic (International Burch University, Bosnia),
Noor Raheem (La Trobe University, Australia)
Dr. Eddie Custovic (La Trobe University, Australia)
& Dr. Diane Parente, faculty advisers

Industrial Engineering

8:00 a.m.

Analysis of Medicare Spending Per Beneficiary at UPMC Hamot — 204 Burke

UPMC Hamot, sponsor
Alyssa Andrzejewski, Joseph Lang, Nicholas Bowers,
Jared Cirelli
Dr. Faisal Aqlan, faculty adviser

8:30 a.m.

Analysis of Seven-Day Patient Readmission at UPMC Hamot — 204 Burke

UPMC Hamot, sponsor
Benjamin Reuscher, Hannah Saunders, Nilesh Pandey
Dr. Omar Ashour, faculty adviser

Industrial Engineering, CONTINUED

8:30 a.m.

Simulation Modeling to Schedule Finishing Operations — 205 Burke

Andritz Inc., sponsor
Erica Coval, Hamza Sindi, Juan Leoni,
Ricardo De La Guardia
Dr. Paul Lynch, faculty adviser

9:00 a.m.

ELBS Student Cafeteria: Analysis of Environmental Design and Climate — 206 Burke

Barber National Institute, sponsor
Dennis Ramirez, Faris Alzahrani, Gina Demeo,
Lucas Lovenduski
Dr. Yuan-Han (Rick) Huang, faculty adviser

Mechanical Engineering

8:00 a.m.

Scaled 3-D Printed Wind Tunnel — 102 Burke

Dresser-Rand, A Siemens Business, sponsor
Haley Flecker, Christopher Shepherd, Gary Schultz,
Emmett Vorisek
Jill Johnson, faculty adviser

Additive Engine Inlet Strainer — 104 Burke

GE Transportation, sponsor
Andrew Bradley, Steven Kunzman, Daniel Troutman,
Eric Armel
Dr. John T. Roth, faculty adviser

Adjustable Stiffness Test Isolator — 105 Burke

LORD Corporation, sponsor
Samuel McGaughran, Jacob Nelson, Kelly Miller,
Maura Franks
Dean Lewis, faculty adviser

Automatic Pipe Painter — 205 Burke

Abbott Furnace Company, sponsor
Timothy Mosebarger, David Lachendro, Ethan Buckley,
Conner Vanderwiel
Dr. Shraddha Sangelkar, faculty adviser

Robust Microwave Tuner for Life Support Application — 206 Burke

NASA Marshall Space Flight Center, sponsor
William Aldridge, Zachery Smith, Alec Hydock,
Dylan McAnallen
Dr. Charlotte de Vries, faculty adviser

Air Flow Sensor — 207 Burke

Tasseron Sensors Inc., sponsor
Aaron Blair, Paige Lorson, Ryan Siggins, Alex Shindledecker
Dr. Yi (Elisa) Wu, faculty adviser

8:30 a.m.

Impeller Overspeed Tooling — 102 Burke

Dresser-Rand, A Siemens Business, sponsor
Timothy Kovalesky, Tony Antonucci, Devon Hinterlang
Dr. Adam Hollinger, faculty adviser

10:00 a.m.

Preventive Maintenance Inventory Management Project — 205 Burke

Keystone Foundry Division of United Brass Works, sponsor
Ahmed Mushaikh, Carly Wolkiewicz, Frank Hall,
Nicholas Smith
Dr. Yuan-Han (Rick) Huang, faculty adviser

10:30 a.m.

Pattern Storage and Handling Process Improvements — 207 Burke

Urick Ductile Solutions, sponsor
Christian Bechaalani, Christian Gayton, Katherine Collins
Dr. Faisal Aqlan, faculty adviser

Ultrasonic Weld Sensitivity Analysis & DOE — 104 Burke

GE Transportation, sponsor
Zane Elliott, Daniel Filges, Tyler Ripper, Matthew Weiland
Dr. John T. Roth, faculty adviser

Passive Vibration Analyzer — 105 Burke

LORD Corporation, sponsor
Elizabeth Mamros, Neil Solan, Julia Guidry, Lexi Burton
Dean Lewis, faculty adviser

9:00 a.m.

Diffuser Vane Study — 102 Burke

Dresser-Rand, A Siemens Business, sponsor
Victoria Reaher, Matthew Brockett, Owen Ballew,
Tyler Tumulty
Dr. David Beevers, faculty adviser

Hot Ring Measurement Project — 105 Burke

McInnes Rolled Rings, sponsor
Parth Bhatia, Michael Eardley, Ahmed Ali, Ryan Spengler
Dr. Yi (Elisa) Wu, faculty adviser

Ball Complement Tool — 204 Burke

SKF Aerospace, sponsor
Rakan Al-Murshed, Wesley Duda, Michaela Roth
Jill Johnson, faculty adviser

Improving Engine Efficiency on the Supermileage Car Engine — 207 Burke

Penn State Behrend Supermileage, sponsor
Scott Delaney, Nathaniel Rothert, Jonathan Warren,
Brandon Fuchs
Brian Lani, faculty adviser

9:30 a.m.

Linear Hone Automation — 204 Burke

SKF Aerospace, sponsor
Adam Lovenduski, Ryan Presloid, Benjamin Herbstritt,
Tyler Frank
Dr. Hamid Sanei, faculty adviser

Mechanical Engineering, CONTINUED

9:30 a.m.

Helix Forming Machine — 208 Burke

Erie Technical Systems Inc., sponsor
Brandon Schneider, Brian Marx, Justin Lanuka, Zachary Willis
Dr. John T. Roth, faculty adviser

10:00 a.m.

Direct Drive Wet Drum Shell Head Cost Reduction — 102 Burke

Eriez Manufacturing Co., sponsor
John Findlay, Ryan Horstman, Jacob Alexander, Jacob Hetzer
Dr. Chetan Nikhare, faculty adviser

Life Cycle Monitor for Fixed Wing Engine Mount — 104 Burke

LORD Corporation, sponsor
Nathaniel Conti, Jacob Parsons, Jordan Oberlander, Eric Orton
Dr. Adam Hollinger, faculty adviser

Commercial Robotic Lawn Mower — 203 Burke

Parkview Lawn and Landscapes LLC, sponsor
Jacob Dipasquale, Cameron Regester, Christine Douglas, Aaron Rech
Dr. Charlotte de Vries, faculty adviser

Rolling Contact Fatigue Thermal Upgrade — 204 Burke

SKF Aerospace, sponsor
Chelsea Benson, Nicholas Spangler, Nathan Weckerly, Ryan Oberlander
Dean Lewis, faculty adviser

Gimble Fan — 206 Burke

Novel Engineering, sponsor
Andrew Katrina, Jonathan Cavalier, Nick Garner, Aaron Veness
Brian Lani, faculty adviser

Link Motion Dampening — 207 Burke

Swanson-Erie Corporation, sponsor
Michael Donaldson, Joshua Meyers, Rachel Weyand, Zachary Marino
Dr. Shraddha Sangelkar, faculty adviser

10:30 a.m.

Drag Reduction Test Fixture — 104 Burke

LORD Corporation, sponsor
Alexander Hajduk, Christopher Ruppen, Adam Field, Zachary Murray
Dr. Amir Danesh-Yazdi, faculty adviser

Sectional Heat Treat of Tube for Dynamic Crash Test — 107 Burke

Penn State Behrend School of Engineering, sponsor
Jacob Yakopovich, Joseph Michaels, Matthew Pennock, Patrick Murphy
Jill Johnson, faculty adviser

Replaceable Foam TOR Bar — 203 Burke

LB Foster Company, sponsor
Donald Kerr, Sean Donnelly, Ryan Bradfield, Jeremiah Petrick
Dr. Hamid Sanei, faculty adviser

Bearing Rolling Element Automated Data Collection — 204 Burke

SKF Aerospace, sponsor
Lindsey Tunney, Phillip Barnett, Sean Gallagher, Nicholas Erway
Dr. Charlotte de Vries, faculty adviser

Hybrid VTOL Drone — 206 Burke

General Anomaly Design LLC, sponsor
Anthony Walker, Tyler Grimm, Marco Nunez, Derek Shaffer
Dr. Barukyah Shaparenko, faculty adviser

11:00 a.m.

Harnessing Wind Power in Vehicles Using Micro-Turbines — 106 Burke

Penn State Behrend School of Engineering, sponsor
William Johnson, Mitchell Macri, Matthew Musial, Ian Martinez-Eskenasy, Kevin Carlins
Dr. Barukyah Shaparenko, faculty adviser

Mechanical Engineering Technology

8:00 a.m.

Trench Drain Optimization — 208 Burke

Zurn Industries LLC, sponsor
Jason Brown, Andrew Heitzenrater, Jarrod Lipsey
Michael Lobaugh, faculty adviser

8:30 a.m.

Water Flow Test Device — 106 Burke

Penn State Behrend School of Engineering, sponsor
Bruno Cavalline, Isaac Howard, Madhav Khadka
Robert Edwards, faculty adviser

9:00 a.m.

Stone Skipping Machine — 104 Burke

K.S. Drone, sponsor
Jesse Brandon, Collin Culpepper, Thomas Hall
Dr. Azize Akcayoglu, faculty adviser

9:30 a.m.

Weld Project 17-4 Wire — 102 Burke

Dresser-Rand, A Siemens Business, sponsor
Zach California, Jarrod Dannibale, Gabriel Despres
Fred Nitterright, faculty adviser

Mechanical Engineering Technology, CONTINUED

9:30 a.m.

Finite Element Analysis of Punch Tool — 105 Burke

McInnes Rolled Rings, sponsor
Brandon Beilstein, Anthony Bauccio, Daniel Sills
Michael Lobaugh, faculty adviser

10:00 a.m.

An Application of a Tuned Vibration Absorber with Finite Elements — 105 Burke

Penn State Behrend School of Engineering, sponsor
Corey Lenhardt, Jeremy Main, Nicholas Roth
Phil Jones, faculty adviser

10:30 a.m.

New ECS Rotor Design — 102 Burke

Eriez Manufacturing Co., sponsor
Matthew Johnson, Hari Khadka, Hayden Krysiak
Michael Lobaugh, faculty adviser

11:00 a.m.

StackCell Mixer Blade Optimization — 102 Burke

Eriez Manufacturing Co., sponsor
Andre Graef, Scott Groenendaal, Kyle Novak
Dr. Nancy Study, faculty adviser

Piping System Model — 204 Burke

Onex Inc., sponsor
Dominic Casasanta, Mansur Shakhbazov, Jake Wilson
Dr. Liyong (Leo) Sun, faculty adviser

Development of Test for Evaluating Wire Harness Splice Connections — 206 Burke

Cummins Inc., sponsor
Randy Bish, Chris David, Raymond Demmel
Shannon Sweeney, faculty adviser

Plastics Engineering Technology

8:30 a.m.

Study of Melt Rotation and Melt Temperature on Weld Line Crystallinity and Strength — 107 Burke

Penn State Behrend School of Engineering, sponsor
Mike Cummings, Matt Krause
Brad Johnson, faculty adviser

Functional Rapid Prototyping — 206 Burke

Caplugs, sponsor
Nolan Beresford, Ben Katarsky
Jonathan Meckley, faculty adviser

9:00 a.m.

Biodegradability of Hemp — 107 Burke

Penn State Behrend School of Engineering, sponsor
Brendan Macfarlane, Freddy Birkel
Brian Young, faculty adviser

9:30 a.m.

Measuring Microplastic Pollution in PA Tributaries Feeding Lake Erie — 107 Burke

Penn State Behrend School of Engineering, sponsor
Dutch Shaffer, James Beaumont, Gian Carlo Riccadonna
Jason Williams, faculty adviser

Effects of Nucleating Agents on the % Crystallinity of Bioabsorbable Polymers — 205 Burke

MTD Micro Molding, sponsor
Patrick Haney, Jess Siegel
Dr. Gary F. Smith, faculty adviser

10:00 a.m.

Bio-Resorbable Composites for Bone Implants — 106 Burke

Penn State Behrend School of Engineering, sponsor
Adam Winkleman, Haley Palys
Dr. Alicyn Rhoades, faculty adviser

Developing a New Living Hinge Design Guide — 107 Burke

Penn State Behrend School of Engineering, sponsor
Ben Shade, Kalin Dipaolo
Jason Williams, faculty adviser

Electronic Screwdriver Concept Commercialization — 202 Burke

Penn State Behrend School of Engineering, sponsor
Jacob Burgard, Mitch Garus
Jonathan Meckley, faculty adviser

10:30 a.m.

Additives for Improved 3D Printing Layer Adhesion — 106 Burke

Penn State Behrend School of Engineering, sponsor
Nathan Albensi, Tyler McGee
Dr. Alicyn Rhoades, faculty adviser

11:00 a.m.

Effect of Test Conditions on Dynamic Mechanical Property Data for Polymeric Materials — 105 Burke

Penn State Applied Research Laboratory, sponsor
Angela Deangelo, Mike Riley
Jason Williams, faculty adviser

Recycled PET Roof Panels — 107 Burke

Penn State Behrend School of Engineering, sponsor
Mitch Reichart, Dalton Zalesco
Jonathan Meckley, faculty adviser

A BRIEF HISTORY OF THE RICHARD J. FASENMYER ENGINEERING DESIGN CONFERENCE

The first public presentation of senior design projects took place on Saturday, April 22, 1995 in the Hammermill and Fasenmyer buildings on the west end of campus. Seventy-nine students participated, presenting thirty-one projects.

Seventeen industry sponsors supported projects presented at the first conference. We gratefully acknowledge these organizations' early commitment to Penn State Behrend's engineering students:

Autoclave Engineers Inc.
Bliley Electric
CONAIR Inc.
Contine Corp.
Copes-Vulcan Inc.
Erie Press Inc.
ExpERIEence Children's Museum
General Electric Co.
Hamot Medical Center
Huber Reversible Fan Co.
Hydro-Pac
IBM
LORD Corporation
Titan Tool
Weld Tooling Inc.
Werner Co.
ZURN Industries

In 2005, the conference was named to honor the legacy of Richard J. Fasenmyer. An Alumni Fellow and Distinguished Alumnus of the University, Dick Fasenmyer was the first Penn State Behrend graduate to donate \$1 million to the college.

From its beginning, the conference has had an exceptional track record of distinguished keynote speakers. Previous keynote addresses were given by:

1995

Thomas Sorovetz
Chrysler Rapid Prototyping Lab
Jeep and Truck Engineering Facility

1996

Dr. Henry Stone
Jet Propulsion Laboratory
California Institute of Technology

1997

Frank Zaffino
Equipment Manufacturing
Kodak

1998

P.C. "Hoop" Roche '96H
President
Erie Plastics

1999

John Swanson
Founder
ANSYS

2000

Dr. James Pawelczyk
Payload Specialist, U.S. Space Shuttle Columbia
NASA

2001

James Davis
President and CEO
Aalborg Industries Inc.

2002

George Jamesson
Senior Vice President,
Engineering
Fisher-Price

2003

Michael Chesley
Plant Manager
Dana Brake Parts

2004

Thomas Lennox
CEO
BTC Solutions Inc.

2005

Kenneth Schultz
Engineering Manager
Lockheed Martin

2006

Lane Miller
Director of Mechanical and Process Technology
LORD Corporation

2007

John Dineen
President and CEO
GE Rail

2008

H. Allan Kidd
Director, Emerging Technologies
Dresser-Rand

2009

Dr. Michael Mankosa
Vice President, Operations
Eriez Magnetics

2010

John Golombeck
Director, Systems Engineering
Northrop Grumman Corporation

2011

Salvatore (Sam) Dedola
Director, Sterile Disposables Manufacturing Strategy
Medrad Inc.

2012

Jim Ertl
Vice President and General Manager, Measurements Solutions
FMC Technologies Inc.

2013

John Twerdok
Digital Simulation Products
Autodesk

2014

George Dodworth '99
Owner
Lightwave International

2015

Greg Zimmerman '02
Director, Global Application Engineering
SKF Aerospace

2016

Mary (Good) Lawrence '01
Flight Director,
International Space Station
NASA

2017

Tiffany Beers '02
Senior Innovator
Nike

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