



Department of  
Mechanical Engineering

Cordially invites you to the  
Senior Design Presentation  
Banquet

Tuesday  
February 28, 2006  
7:00 P.M.

Connelly Center  
Villanova Room

## Agenda

*Introduction 7:45 AM*  
*Dr. Gerard Jones, Chairman*  
*Presentations 8:00 AM – 6:30 PM*  
*Connelly Center Cinema*  
*Reception and Dinner 7:00 PM*  
*Award Presentations 8:00 PM*  
*Connelly Center Villanova Room*

### Senior Design Advisors

*Dr. Young Chun*  
*Prof. Edmond Dougherty*  
*Prof. Gerard Gambis*  
*Prof. Jordan Ermilio*

### Judges

*Dean Cave*  
*Lockheed-Martin Company*  
*S. Dyer Harris*  
*Equipment Engineering Services*  
*Bill Dierkes*  
*University of Pennsylvania*  
*Erin Vogel*  
*ME Graduate Student*

### Scoring Official

*Dr. Charles H. Marston*

## In Appreciation

Special thanks to the following for  
their contributions to the Senior  
Design Projects:

### 2005-2006 Project Sponsors

- ◆ Advanced Cerametrics
- ◆ New Balance Shoes
- ◆ Alaska Aerospace Company
- ◆ Rise, LLC.
- ◆ Ed Allen
- ◆ Neil Hughes
- ◆ Wayne Hughes
- ◆ Ayres Composite Panels
- ◆ Villanova College of Engineering
- ◆ Villanova Engineering Alumni Society
- ◆ Villanova University Mechanical Engineering Department

# Senior Design Projects

## Gravity Flow Water Distribution System

(8:00)

Jonathan Kasper, Barry Wood,  
Kacy Moran, Madeline Flynn

## Automated Chlorination Device

(8:25)

Rachel Karl, Bradley Harcourt,  
Michael Bruno, Mark Rowlenson

## Mini-Baja Floatation Device

(8:50)

Pat Kirby, Sam Carella,  
Russell Bloodgood, Mike O'Neil

## Steadycam Tilt Head

(9:15)

John Fisher, Kevin Zutell,  
Stephen DeGrazio

## Biofuel

(9:40)

Carl Hansen, Mike Alexander  
Steve Quinn

## SAE Formula One

(10:05)

Ryan Stiltner, Matthew Brown,  
Jevon Avis, Sean Brogan,  
Frederick Robinson, Joseph Marlowe,  
Michael Caifa, Chris Matamis

**BREAK - 10:30**

## Instrumented Football Helmet

(10:45)

Shawn Kachnowski, Joe Jackson,  
Matthew Wellner\*, Adam McCauley\*

## Kite Camera A

(11:10)

Brian Cleary, David DeGeorge,  
Nick Schneck\*, Vincent Falcone\*

## Solar Powered Water Pump

(11:35)

Kellie Bucha, Garrard Esposito,  
Ben Woolley, Thong Nguyen\*,  
David Chang\*

## Blocking Sled Sensor

(12:00)

Michael Slinko, Eric Peterson,  
John Rossi\*, Sean Connolly\*,  
Tu Hoang\*

## DaVinci Devices

### Spring Powered Car B

(12:25)

Kerry Cooley, Katie Dunne,  
Angela Hair, Brian Weed,  
Charles Rumpf\*

**LUNCH - 12:50**

## Personal Energy Harvesting Device

(1:35)

Ursula Zangrilli, Clifton Weng,  
Tao Nguyen, Ross Martin\*,  
Michael Erwin\*

## Athletic Field Line Marker

(2:00)

Anthony Cortese, Patrick Shaughnessy,  
John Sudia\*, Matthew Lawler\*,  
Ryan Crump\*

## DaVinci Devices

### Spring Powered Car A

(2:25)

Joe Parisi, Paula Endicott,  
Rebecca Vernot, Sheena Moody,  
Charles Rumpf\*

## Kite Camera B

(2:50)

Marc Bland, Mark Burchill,  
Rob Popovitch,  
Walter Perry\*, Andrew Theriault\*

## Underwater Camera Platform

(3:15)

Matt Capetola, Kyle Westby,  
Brian Allen\*, John Paul Nguyen\*,  
Joseph Gallagher\*

## Adjustable Ramp for Wheelchairs

(3:40)

Frank Genova, Dan Peters,  
Tony Rossi, Dean Perdikakis

**BREAK - 4:05**

## Recoil Force Reduction System

(4:20)

Nick Bencivenga, Jeff Harrison,  
Chris Chamberland

## Pumpkin Chunking

(4:45)

Jackie Carlow, Danielle DeSilvio,  
Merideth Mendenhall, Alicia Hayter

## Mini-Baja Suspension

(5:10)

Frank Lagor, Nick Orticelli,  
Mike Gibbons, Jason Guertin

## High Speed Flycam

(5:35)

Matt Bochanski, Garrett Newman,  
Hyung Eun Jung

## Rotocam

(6:00)

John Odenbach, Brian Niessing,  
Mike Bolton

## Senior Banquet-7:00

Connelly Center Villanova Room

\* - ECE student