



UNC CHARLOTTE

The WILLIAM STATES LEE COLLEGE of ENGINEERING

Senior Design Newsletter

Vol. 5, No. 2, September 2011



Fall Kickoff Breakfast:

College of Engineering Newsletter Article sums it up with pictures:

<http://coe.uncc.edu/component/content/article/21-news/347-senior-design-kickoff.html>

Deadline for Spring 2012 Projects

Project Descriptions for Spring 2012 (January Start) are due November 1st. This year we hope to have assignment of students earlier so that we can notify sponsors earlier of their expected attendance to the kickoff breakfast planned for January 27th. Forms and instructions are on our website at:

www.srdesign.uncc.edu/company-information.html

2011 Schedule of Events

Here is the schedule of events for the 2011-2012 school year. Be sure to put the Expos on your calendar, as they promise to be the biggest yet!

- October 7, October 14 Prototype Review dates for spring 2011 projects, schedule below
- October 27-28, November 3-4, Conceptual Design Review dates for fall 2011 projects
- December 9, FALL EXPO, Student Activity Center-Arena, 11am- 2pm OPEN TO PUBLIC
- January 27, Spring Kickoff Breakfast for Invited Sponsors, Mentors and Students
- February 23-24 Project Design Review dates for fall 2011 projects
- March 16, 23 Conceptual Design Review dates for spring 2012 projects
- May 4, SPRING EXPO, Student Activity Center-Arena, 11am-2pm OPEN TO PUBLIC

2011 Fall Project List

210 Students were placed in these 56 projects.



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Energy Education Project for High Schools	AREVA	Turbine Cover Fixture	Southern Company
Improving Electrical Distribution System (EDS) in Nuclear Power Plant Utilizing ETAP- Post Fukushima Study	AREVA	Pet Locator	TVL International
Nanofluids Flow and Heat Transfer	ASHRAE	Propane Tank Weight Monitoring Scale	TVL International
Motor Test Fixture with variable shaft loads	Baldor Electric	BAJA Gearbox	UNC Charlotte
Pedestrian Safety Alert System 1&2	Bosch Engineering	BAJA Overall	UNC Charlotte
Plastic Bottle Recycler 1&2	CGI Initiative	Electromagnetic Propulsion	UNC Charlotte
Cooling Water Intake Structure Modification	Duke Energy	Electron Beam Induced Deposition in SEM: Setup and Test	UNC Charlotte
Grid-Connected Renewable and Modular Micro-Source for Smart Grid Applications	Duke Energy	FSAE Chassis	UNC Charlotte
Predictive Technologies and Service Life of Electronic Components	Duke Energy	FSAE Drivetrain	UNC Charlotte
Water Intrusion Prevention	Duke Energy	FSAE Engine	UNC Charlotte
Ballast Loader for Chassis Test	Freightliner Custom Chassis	Hydraulic UTM Upgrade	UNC Charlotte
IEEE SoutheastCon 2012 Hardware Competition Team 1	IEEE	Masonry Air Filter	UNC Charlotte
Improving Clamping Efficiency of a OHBC	Irwin Tools	Maximizing Efficiency of Solar Arrays via Dynamic Control of Panel Interconnects	UNC Charlotte
VFD Driven Variable Hydraulic Pump Performance Testing	Livingston &Haven	Medical Remote Monitoring System	UNC Charlotte
Assembly Line Automation	Maclean Power Systems	Negative Capacitance /Inductance Integrated Circuit	UNC Charlotte
Biomass Gasification	METSO Power	Pipe-Traversing Robot	UNC Charlotte
NASA Student Launch	NASA	Prognostics of Switch Mode Power	UNC Charlotte
Prognostics and Remaining Life Estimation for Switch-Mode Power Convertors	NASA	Solar Traffic Light	UNC Charlotte
Self Buying Asteroid Anchor	NASA	Vortex Air Filter	UNC Charlotte
Lunabotics Competition	NASA/UNC Charlotte	AFOSR Challenge-Climbing Assist Team A	US Air Force



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Plating Bath Sensor Development	Pavco Inc.	Auto Lube for Conveyor System	ICB Greenline
Neural Network Algorithm Development and Test	Pavco Inc.	Multiple Axis Cartesian Robot	Schaeffler Group
FAS Assembly Machine	Performed Line Products	Feedwater Heater Rigging and Removal	Shaw Group
Tidal Power Generator II	Shaw Group	Renewable Energy Site Development	Shaw Group
Winding Drum Handler	Siemens	Beach Wheelchair	Smith Setzer and Sons.
Box Handler for Manufacturing Line	US Leisure	Working Model of Gen Nuclear Plant	Westinghouse
Video Inspection System for Bonded Seals	Sabo USA	Telemetric Transmission Bearing	Schaeffler Group
Dynamic Control of Panel Interconnects	UNC Charlotte		

2011 Spring Project Prototype Review Presentation Schedule

If you would like to attend a PRP, send an email or call Bill Heybruck so he can have a parking token or hangtag ready when you arrive.

2011SPRINGPROJECTS				
Project name	Company	PRP DATE	PRP Time	PRP ROOM
Masonry Air Filter	UNC Charlotte			none
Vapor Driven Turbine II	UNC Charlotte			none
Cascade Water Powered Generator	Char-Meck Utilities	10/7/2011	1430	DUKE 106A
Handheld Starter Tester	Husqvarna	10/7/2011	1500	DUKE 106A
Vault Water Powered Generator	Char-Meck Utilities	10/7/2011	1530	DUKE 106A
Virtual Reality Buck	John Deere	10/7/2011	1600	DUKE 106A
Personal Hovercraft	UNC Charlotte	10/7/2011	1400	DUKE 227
BAJA Chassis	UNCC Motorsports	10/7/2011	1430	DUKE 227
FSAE Suspension Steering	UNC Charlotte	10/7/2011	1500	Duke 227
BMW M42 Turbo	UNCC Motorsports	10/7/2011	1530	DUKE 227
FSAE Engine Supercharger	UNCC Motorsports	10/7/2011	1600	DUKE 227
Robotic Fish Sniffer	UNC Charlotte	10/7/2011	1400	DUKE 324
Urban VAWT	UNC Charlotte	10/7/2011	1430	DUKE 324
Dyno Improvement	UNCC Motorsports	10/7/2011	1500	DUKE 324
Chemical Wear of Diamond Tools	UNC Charlotte	10/7/2011	1530	DUKE 324
Analysis and Design of Convection Oven	ITW	10/7/2011	1600	DUKE 324
NASA Virtual Presence	NASA	10/7/2011	1400	Woodward



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2011 SPRING PROJECTS

Project name	Company	PRP DATE	PRP Time	PRP ROOM
				140
Image Analysis For Fault Detection	UNC Charlotte	10/7/2011	1425	Woodward 140
Renewable and Modular Micro-Source for Smart Grid Applications	UNC Charlotte	10/7/2011	1450	Woodward 140
VSM Head Development	UNC Charlotte	10/7/2011	1515	Woodward 140
Music Synthesizer	UNC Charlotte	10/7/2011	1540	Woodward 140
RRP Bedding Machine	Randall Race parts	10/14/2011	1400	DUKE 227
CO Exhaust Test Tool	Husqvarna	10/14/2011	1430	DUKE 227
Ice Cream Cabinet Development	Halprin Dev.	10/14/2011	1530	DUKE 227
Allograft Storage System	Carolinas Medical Center	10/14/2011	1600	DUKE 227
Vortex Grinding	UNC Charlotte	10/14/2011	1400	DUKE 324
Coating Bioactive Ceramics	UNC Charlotte	10/14/2011	1430	DUKE 324
Measurement of Zeta Potential of Bioactive Ceramics	UNC Charlotte	10/14/2011	1500	DUKE 324
Liburdi Test Fixture	UNC Charlotte	10/14/2011	1530	DUKE 324

For more information or questions

Visit: www.srdesign.uncc.edu or contact Bill Heybruck at 704-687-2934 or wfheybru@uncc.edu.

Please REPLY with "REMOVE" if you do not want to receive future issues.