



Connecticut Space Grant College Consortium

VOL. VI

MISSION STATEMENT

Spring 2014

Make Connecticut the national Leader in NASA-related education, research and workforce development.

NEWSLETTER

Welcome to Our Community College Affiliates!

With the arrival of spring weather in Connecticut and the publishing of the Space Grant spring newsletter, some notable additions have been made to the Connecticut Space Grant team! Connecticut Community Colleges are now able to join the Consortium and be represented by a campus director (C.D.) at each college. The institutions that have signed on are:

Capital Community College

Linda Domenitz, C.D.

Gateway Community College

Susan Spencer and Eric Flynn, C.D.'s

Naugatuck Valley Community College

Dr. Peter Angelastro, C.D.

Three Rivers Community College

Patrick Knowles Jr., C.D.

Tunxis Community College

Karen Wosczyzna-Birch, C.D.



offers Community College scholarships that “relieve some of that financial burden, which allows students to focus more on their coursework,” says Angelastro. Six Community College Scholarships were awarded from the spring 2014 application cycle (see Page 4).

The direct affiliations between CT Space Grant and CT Community Colleges may be new, but Angelastro has high hopes for their future growth and success. Angelastro believes that NVCC's affiliation with CT Space Grant “will aid in connecting the four-year universities and the community colleges. This will help to prepare and to benefit students who are underrepresented in the STEM fields by giving them the access and support that a community college can provide for their first two years before moving to a four-year university to complete their bachelor's degree. The CT Space Grant gives students opportunities that would otherwise be unavailable. As the Space Grant name starts to spread through the campus and students learn about the success of their

peers, I expect we will see greater participation from our student body.” ♦

We interviewed Peter Angelastro, the Campus Director of Naugatuck Valley Community College to get an idea of what joining the Space Grant will mean for NVCC. Many students and faculty from the 4-year institutions affiliated with the CT Space Grant apply for project, research, and travel grants; however at a community college like Naugatuck Valley, CT Space Grant has the biggest impact on helping students afford tuition and textbooks. CT Space Grant

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Cadet Lieutenant Colonel Daniel J. Ray: CCSU Lunar Exploration Club Team Leader

Cadet Lieutenant Colonel Daniel J. Ray is the Central Connecticut State University Lunar Exploration Club's NASA Rover Challenge Team Leader. He first became involved with the team when searching for a senior project. Last spring was his first semester with the team, which he spent as a volunteer helping to tear apart and rebuild the team's moon-buggy with better components. Last April the team took sixth place out of approximately 50 universities from about 5 different countries.

Ray has since stepped up as this year's team leader. Together with a tight-knit group and a grant from the Connecticut Space Grant Consortium, Ray prepared for the NASA Human Exploration Rover Challenge (formerly known as the NASA Great Moonbuggy

Race) which was held April 10-12, 2014 at the U.S. Space and Rocket Center in Huntsville, Alabama. His main goal for the LEC team was "to have two vehicles to go down to Alabama and take home two medals between the vehicles." While he recognizes that these are high hopes, Ray felt confident about the team's ability to succeed. Financial support from CT Space Grant helped with the cost of sending team members to the competition so the rest of their funds could be directed toward improving their vehicles and reaching their goals in the challenge.

This year, the NASA Human Exploration Rover Challenge had some updated regulations, which forced the team to overhaul parts of their rover design before they departed for Huntsville. One of the regulation changes required a new tire design that didn't include chambered tires to be filled with air. The team needed to redesign the tires on both vehicles in order to qualify for competition.

When the moon dust finally settled in Huntsville after the rover challenge ended, the CCSU teams ended up placing 16th out of nearly 50 universities with a time of 23:47. "We had difficulties with our transmission, which hindered our race time greatly and forced the drivers to get off the vehicle and push, which incurred multiple [time] penalties," says Ray. However, CCSU did win the Technology Challenge Award, which was given to the team that best addressed this year's unique wheel technology challenge, designing an innovative



Standing Left to Right: Dr. Viatcheslav Naoumov, Engineering Professor at CCSU; Thomas Frost, Mechanical Engineering Sophomore; Amanda Haraghey, Mechanical Engineering Junior; Daniel Ray, Mechanical Engineering Senior; Jacqueline Coraizaca, Mechanical Engineering Junior

Sitting/Kneeling Left to Right: Michael Russell, Mechanical Engineering Senior; Brian Ventura, Mechanical Engineering Senior; Josiah Roberts, Mechanical Engineering Senior; Nhan Nguyen Mechanical Engineering Senior

mobility system to aid navigation over the course. According to Ray, Josiah Roberts, a Mechanical Engineering Senior and previous Connecticut Space Grant Industrial Internship recipient, led the design and fabrication of the team's special wheels (shown in the photo). The design incorporated rubber air hose as a cushion, rubber floor matting for the tire treads, and many rivets and 550 paracord to hold everything together. For winning, the team received an award plaque as well as a \$1,000 prize which they plan to put toward materials for next year's technology challenge.

Ray has high hopes for the future of the team.



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They continually work hard to apply for funding from organizations like the Connecticut Space Grant Consortium and others through CCSU, which allows them to purchase new tools and materials to keep their rover designs on the cutting edge. They also focus on longer-term team member planning by reaching out to involve underclassmen so the experience and knowledge won't disappear when the group's seniors graduate. This effort and vision is important to any student-run organization, especially one in the STEM field. "I've volunteered in a few different organizations, STARBASE and the First Lego League, through which I've found that kids at a young age know plenty about STEM fields and are interested in them. Yet the kids I sit next to in class generally don't share that enthusiasm," says Ray. "Clubs and competitions such as the LEC and the NASA Rover Challenge, respectively, bring back the enthusiasm for

STEM in an applicable way which is hard to emulate in the classroom."

Organizations and clubs like CCSU's Lunar Exploration Club also give students like Daniel Ray their chance to step up, develop, and hone their own leadership skills. With some leadership experience already under his belt from the UConn Air Force Reserve Officer Training Corps (AFROTC), Ray was able to effectively lead and advance the CCSU LEC on their journey to the NASA Rover Challenge this month. "The leadership experience I have gained through the AFROTC program has aided the maintenance and progress of the team. [...] Without the experience gained through my time with the AFROTC program I am not confident in saying I could have led the team to where they are now," says Ray. ♦

A Fond Farewell to Tom Filburn

On behalf of all of the grant recipients and affiliate institutions within the Connecticut Space Grant College Consortium, we'd like to thank Dr. Thomas Filburn for all of his hard work and dedication to the mission and vision statements of Connecticut Space Grant. Dr. Filburn is a Professor of Mechanical Engineering at the University of Hartford and Assistant Director of the Clean Energy Institute. He has also served as the Director of the Connecticut Space Grant Consortium since 2004, and is stepping down at the end of May. Shown in the photograph to the right, Dr. Filburn accepted a commemorative award, which was presented to

him in honor of his 10 years of leadership of the Connecticut Space Grant Consortium. Stepping up to fill the position of Director is Associate Dean of the College of Engineering, Technology, and Architecture at the University of Hartford, Dr. Hisham Alnajjar.



Pictured left to right: Dr. Mary Arico, Associate Director; Dr. Thomas Filburn, Director; Janet Spatcher, Program Coordinator; Dr. Hisham Alnajjar, Incoming Director



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Space Grant Award Recipients (Spring 2014)

Faculty Collaboration Grant

Dr. Arthur Hand (UCHC)

Faculty Curriculum

Development

Dr. Jani Pallis (Bridgeport)

Dr. A. Meredith Hughes (Wesleyan)

Graduate Research Fellowship

Amanda Zaleski (UConn)

Undergraduate Research

Fellowships

Dilovan Serindag (Wesleyan)

Jack Singer (Wesleyan)

Student Project Grants

Casey Beasley (Hartford)

Jeffrey Fleurantin (Bridgeport)

Undergraduate Travel Grants

Jeffrey Fleurantin (Bridgeport)

Capital Community College Interns

Hazel Colon

Kayahra Harris

Tyron Hill

2014 NASA Academy

John Cooper (UConn), NASA Langley

David Etim (UConn), NASA Goddard

Community College Scholarships

Jared Schmidt (Capital)

William Sennet (Gateway)

Michael Bond (Gateway)

Shanita Burke (Naugatuck Valley)

Shughla Ghafoor (Naugatuck Valley)

Amanda Saglimbeni (Naugatuck Valley)

2014 Aircraft Readiness Workshop

Enrico Obst (Hartford)

Jason Willets (Naugatuck Valley CC)

Damaris Zachos (Hartford)

2014 Industrial Interns

Kyle Allingham (UNH), UTAS

Benjamin Williams (Trinity), Dymotek

Contact Info	Academic Affiliates	Non-Academic Affiliates	Industrial Affiliates
<p>Program Director: Dr. Thomas Filburn</p> <p>Associate Director: Dr. Mary "Cater" Arico</p> <p>Program Coordinator: Mrs. Janet Spatcher</p> <p>Office Assistants: Chris Cutler Adam Paul, Newsletter Author</p> <p>860.768.4813 ctspgrant@hartford.edu www.ctspacegrant.org</p>	<p>Capital Community College Central Connecticut State University Eastern Connecticut State University Fairfield University Gateway Community College Naugatuck Valley Community College Southern Connecticut State University Three Rivers Community College Trinity College Tunxis Community College University of Bridgeport University of Connecticut Univ. of Connecticut Health Center University of Hartford University of New Haven Wesleyan University Yale University</p>	<p>State of Connecticut of Education Connecticut Science Center CCAT (Connecticut Center for Advanced Technology) Discovery Museum Connecticut Pre-Engineering Program Connecticut Invention Convention Connecticut Corsair NEAM (New England Air Museum)</p>	<p>Pratt & Whitney Aircraft UTC Aerospace Systems UTC Research Sikorsky Aircraft UTC Power KAMAN Aerospace GKN Aerospace Services HABCO, Inc. Otis Elevator Carrier Dymotek Doncasters Wood Group ACMT Pioneer Aerospace Proton OnSite</p>



CT Space Grant Lead Institution:

University of Hartford



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