

**COLLEGE OF TECHNOLOGY REGIONAL CENTER FOR NEXT GENERATION  
MANUFACTURING (COT-RCNGM)**

# LATEST UPDATES ABOUT THE CENTER

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**COLLEGE OF  
TECHNOLOGY**  
Connecticut  
Community  
Colleges



[www.nextgenmfg.org](http://www.nextgenmfg.org)

**WORDS FROM COT-  
RCNGM PROGRAM  
DIRECTOR**



As part of our efforts to inform the state of CT about our accomplishments, the COT-RCNGM team have created a newsletter. The goal of this letter is to familiarize all the CT state agencies with the work that we accomplish in promoting technology and engineering education throughout CT and regionally. Part of our success as a center relies not only on our work, but also on everyone's input and collaboration.

Therefore, we want all the state agencies to be involved in our growth as a center. With the support of NSF, we are committed to excellence in science and technology education. For this reason, I urge you to work together for our present and future generations to make CT a state of innovative education.

*Karen Wosczyzna-Birch*

**SPECIAL POINTS OF INTEREST:**

- *National Visiting Committee*
- *Enrollment Improvements in Manufacturing, Engineering & Technology*
- *Important Conferences*
- *Upcoming Events*

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## NSF NATIONAL VISITING COMMITTEE

The National Visiting Committee meeting will be held on Dec. 10-12 in Hartford, CT. This represents an important event for COT-RCNGM since it is an opportunity to present the work so far accomplished based primarily on the following four goals: (1) professional development, (2) curriculum development, (3) articulation/pathways, and (4) student recruitment/ retention.

Through these goals the Center has developed a synergistic combination based on traditional and novel techniques to achieve broader impact. In this way, COT-RCNGM and its partners have impacted next generation manufacturing workers throughout the state, the region, and the nation. Also, keep in mind, faculty are encouraged to attend the event.

The 2007 National Visiting Board Committee members:

- Andrew Summerville
- Doug Webster
- Mel Cossette
- Ken Patton
- Kathy Alfano
- Al Schwabenbauer

### COT-RCNGM'S IMPACT: ENROLLMENT FINDINGS & SCHOLARSHIPS AWARDED

The impact of the Center in the last three years has been very significant in the areas of manufacturing, engineering, and technology. As it can be deduced from the Table, the Computer Aided and Manufacturing Programs have had the most significant growth since 2005 representing approx. 16% of student enrollment per each area of study. In addition, the combined Engineering programs represent approx. 20% of total community college COT enrollment. Stay tuned for enrollment data regarding matriculated students in engineering and technology.

No. Stu- dents	Fall 2005	Fall 2006	Fall 2007
<b>CAD Sub- ject</b>	485	551	777
<b>ENGR. SCI. Subject</b>	100	172	226
<b>MFG. Sub- ject</b>	165	590	756

Scholarships have been awarded every year to 12 community college students in Connecticut through the NASA Space Grant College Consortium.

Faculty should start student nominations for the upcoming year. For more information, please visit: <http://uhaweb.hartford.edu/CTSPGRANT/welcome.htm>



National Science Foundation

“PARTNERSHIPS ALLOW [US] TO CAPITALIZE ON EACH OTHER’S ACCOMPLISHMENTS. INSTEAD OF REINVENTING THE WHEEL, LET’S ADAPT AND IMPLEMENT IN CONNECTICUT”

*Karen Wosczyzna-Birch,  
RCNGM Executive Director*



## NEW NSF GRANT PROPOSAL 2007

The Regional Center for Next Generation Manufacturing has submitted a new grant proposal, which will be an extension of the current work done on the COT-RCNGM. The main motivation to continue the ATE Center is to expand our work on a national level by partnering with aerospace centers, virtual factory, and rapid prototyping centers, just to mention a few.

So far, the Center has actively worked with other ATE centers, such as RapidTech,

MatEd, and CREATE for faculty training workshops in the areas of manufacturing including industry-driven curriculum. In addition, the Center has actively participated with NEBHE in the area of photonics and laser manufacturing.

Currently, the Center is partnering locally with CCAT and nationally with FLATE and TIME ATE centers to develop ideas for best practices in virtual reality and virtual factories.

Partnerships allow COT-RCNGM and the other centers to capitalize on each other’s accomplishments. Instead of “re-inventing the wheel”, the Center will focus on adapting and implementing new methods in CT. Hence, synergy will be created between initiatives in what is called “*proven practices*”. Special thanks to the faculty and industry involved in successfully completing this grant proposal.

## NCATC CONFERENCE

The National Coalition of Advanced Technology Centers (NCATC) is a network of higher education resources advocating and promoting the use of technology application that enhance economic and workforce development programs and services.

COT-RCNGM was nominated and officially elected to be a member of the NCATC

coalition in March 2007. The RCNGM participated in the 2007 Fall Conference.

Dr. Wosczyzna-Birch participated in two panel discussions. The first presented strategies on how to obtain grants and successfully administer the grant’s goals and objectives. The second panel focused on recruitment/retention of underrepre-

sented populations in engineering and technology.

The conference was held in San Antonio, TX on Oct. 3-6. It was hosted by the Alamo Community College District. For more information, please visit:

<http://www.ncatc.org/>

## ATE PI CONFERENCE



**Advanced Technological Education**  
an AACC/NSF project

The Fourteenth annual Advanced Technology was held in Washington DC from Oct. 17-19 at the Omni Shoreham Hotel. The COT-RCNGM was actively involved in the planning of the conference since Dr. Wosczyzna-Birch was part of the Steering Committee -the planning committee for the conference. In addition, RCNGM faculty and staff, representatives from CBIA, Education Connection, and 7 students from the University of Hartford, Manches-

ter CC, and Three Rivers CC participated in the conference showcase that included the Center’s showcase and three project showcases.

The students from U of H and MCC supervised by Ron Adrezin, John Birch and Mehrdad Faezi showcased the work so far accomplished with the Institute for Life Support and Sustainable Living on premature newborns equipment for apnea. Three Rivers CC presented the work students from the pipeline grant related to Pre-Tech

curriculum to bring awareness of technology programs as well as reinforce of basic skills through math and science. The program is led by Anthony Benoit.

COT-RCNGM has received excellent reviews primarily for the selection of Dr. Wosczyzna-Birch as an expert PI for the NSF Pre-Conference Workshop on evaluation along with the presentation about leveraging and maximizing tech funds. She was the panel moderator on involving industry, which included Lauren Kaufman, VP CBIA and Al Schneider, Technical Director of IBM. Both are major partners for COT-RCNGM.

## NATIONAL EDUCATORS WORKSHOP

NEW 2007 is a workshop for educators designed to enhance materials science, engineering and technical education at the university and community college levels, and to provide support to high school teachers in math, science, and technology.

This year the conference was hosted by the Materials & Process Development Center in Seattle, WA on Nov. 4-7.

COT-RCNGM participated in the presentation on the Center's marketing campaign

Former Astronaut Bonnie Dunbar and Paola Jaramillo at NEW Conference.

and nanotech curriculum presented by Dr. Wosczyzna-Birch. Also, a preliminary research project focused on the understanding of the electrical characteristics of pure and impure carbon nanotubes presented by Paola Jaramillo, new team member of COT-RCNGM.



## IMPORTANT CONFERENCES: SAME-TEC & PHOTONICS CLUSTER

Semiconductors, Automated Manufacturing, Electronics-Training and Education Conference (SAME-TEC) was held on July 25-26, 2007 in Irving, TX and hosted by the Maricopa Advanced Technology Education Center (MATEC). The conference comprised individuals from 2-year and technical colleges, industry, K-12 and 4-year universities. The theme of



Kerry Simoneau, Program Manager at the SAME-TEC showcase.

the conference was *seamless connections* with the goal to "call attention to how different technologies are seamlessly merging into new all-encompassing technologies". RCNGM participated in a showcase along with other ATE centers. Manufacture Your Future DVDs and Teacher Packets were delivered to educators across the nation.

RCNGM sponsored the CT Optics and Photonics Association 1-day seminar meeting featuring keynote speaker Dr. Mary L. Good from University of Arkansas. Additional industry speakers included TRUMPF and CT Innovations. Dr. Wosczyzna-Birch presented the work accomplished by the RCNGM. The event was held at UCONN on Nov. 16.

### OTHER RELATED INFORMATION & EVENTS

- The Epsilon Pi Tau National Honor Society Ceremony will be held on April 18th 2008 at Manchester Community College. Faculty are welcomed to participate and encouraged to start nominating students as well as honorary inductees from industry and academia. Please visit the website for more information: <http://www.epsilonpitau.org/>
- On Nov. 13, The CT Cen-

ter for Advanced Technology (CCAT) inaugurated its new building facility. The event was presided by Congressman John B. Larson as well as State Representatives. For more information, refer to: <http://www.ccat.us>.

- Save the date for **Manufacture Your Future: Careers Expo** on June 3-5, 2008 at the Connecticut Expo Center in Hartford, CT. The expo is conducted by CBIA in part-

nership with COT-RCNGM. The main goal of the expo is to motivate students to continue careers in manufacturing as a response to the great demand of skill workers in the state of CT. Approximately 3500 students are expected to participate in the expo which will allow them to experience working on a manufacturing floor. Please check: [www.nextgenmfg.org](http://www.nextgenmfg.org) for more information about the expo.



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Kerry Simoneau (left), Program Manager and Paola Jaramillo (right) newsletter editor.

**WE'RE ON THE WEB AT:  
WWW.NEXTGENMFG.ORG**

## BRIEF HISTORY ABOUT RCNGM

The Regional Center for Next Generation Manufacturing was created in 2004 from funding approved by the NSF ATE grant. The Center addresses the need for highly skilled workers in the new manufacturing workplace by building programs that provide resources to educators and students interested in learning new technologies in manufacturing. The Center is directed by the CT College of Technology - a virtual organization representing technology curriculum geared toward engineering and technician education offered at CT's 12 Community Colleges. Currently, the COT-RCNGM is in its fourth year of operation and has catalyzed technology and engineering education through the 2+2+2 seamless pathways as well as industry and university validated curricula.

