



TOP STORY

CCM'S GILLESPIE ELECTED TO 2013 SME COLLEGE OF FELLOWS



CCM Director Jack Gillespie is one of just six people recently elected to the **2013 Society of Manufacturing Engineers (SME)** College of Fellows. He was officially inducted in June and will be recognized during a ceremony in Dearborn, Mich., in November.

In addition to being Director of CCM, Gillespie is Donald C. Phillips Professor of Civil and Environmental Engineering with appointments in the Department of Materials Science and Engineering and the Department of Mechanical Engineering.

The [Society of Manufacturing Engineers \(SME\)](#) College of Fellows honors members who have made outstanding contributions to the social, technological, and educational aspects of the manufacturing profession. The highly prestigious honor can be earned only through 20 or more years of dedication and service.

At the University of Delaware, Gillespie has led the establishment of several major multidisciplinary programs with government-industry-academia partnerships and headed several Department of Defense Centers of Excellence.

“Although Jack has spent his entire career in academia, he has had an astounding impact on composites manufacturing,” said Jon DeVault, former President of Hercules Aerospace Company. “Jack has contributed to the development of a number of new composites processing technologies, and he is a master at facilitating technology transition.”

Gillespie’s international reputation is reflected in dozens of prestigious appointments, including, for example,

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his being named to the National Research Council's Board on Manufacturing and Engineering Design to provide guidance on leading issues in manufacturing that derive from technical considerations with implications for national policy.

"Dr. Gillespie's scholarship record is outstanding," said Richard Wysk, Dopaco Distinguished Professor of Industrial and Systems Engineering at North Carolina State University. "He has more than 650 publications, including a large number of high-quality journal papers and fifteen patents. The unique model he created for basic and applied research to be conducted at an academic center with strong participation by government and industrial partners fosters collaboration, promotes productivity, and facilitates technology transfer.

In addition to being Director of CCM, Gillespie is Donald C. Phillips Professor of Civil and Environmental Engineering with appointments in the Department of Materials Science and Engineering and the Department of Mechanical Engineering.

"Dr. Gillespie epitomizes the interdisciplinary approach that is essential to scientific and technological progress in areas like manufacturing in the 21st century," said Ben Wang, Gwaltney Chair in Manufacturing Systems and Executive Director of the Georgia Tech Manufacturing Institute.

Article by Diane Kukich

OTHER NEWS

Strong Tradition of Undergraduate Research Continues at CCM

On August 9, twenty-six undergraduate students who worked at the University of Delaware Center for Composite Materials labs over the summer participated in its annual undergraduate research symposium. The students presented posters and delivered one-slide/two-minute summaries of their work to an audience of faculty, graduate students, and staff researchers. After the presentation session, the presenters invited the audience to learn more about their work at a poster session during the break.

The symposium gives undergraduate researchers the chance not only to present their own work but also to learn about what others are

doing and get a better idea of the "big picture" in CCM's Composites Manufacturing Science Laboratory. Awards were given based on audience evaluations.

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The following four students received prizes for their work:

- First Place: Alan Radojcic, Title: Carbon Nanotube Sheet Integrated Multifunctional Composites for Damage Sensing
- Second Place: Christine Sauerbrunn and Colleen Murray, Title: Investigation of Lateral Constraints to Utilize Higher Buckling Modes
- Third Place: Stephanie Kyung Bin Lee, Title: Characterizing the Heat Storage Capability of Microencapsulated Phase Change Material Composites in Polymer Matrices



First Place Winner Alan Radojcic



2nd Place Winners Colleen Murray and Christine Sauerbrunn



3rd Place Winner Stephanie Kyung Bin Lee

First Place winner Alan Radojcic says that his research at CCM “has helped in developing and aiding my pursuit of real world engineering experience which is difficult to obtain in class. In my engineering curriculum, I gained theoretical knowledge whereas at CCM I gained real world experience. As a rising senior, I believe that my time and experience at CCM will prove to be invaluable in the future.”



2013 Symposium Participants

OTHER NEWS

(Continued)



"Touy" Thiravong Retirement Celebration

Anthony "Touy" Thiravong, Senior Research Technician, has announced that he will be retiring from the University of Delaware's Center for Composite Materials, effective August 30, 2013. During Touy's 31 years of service to CCM, he has provided countless students, researchers, faculty and industrial visitors training and assistance in their research endeavors.

A celebration of Touy's hard work and dedication to CCM will be held on Friday, August 30, 2013 from 4:00 – 6:00 p.m., Room 106 at the Center for Composite Materials, Newark DE 19716.

Please RSVP to Robin Mack, rmmack@udel.edu by 8/26/13 if you plan on attending. Anyone wishing to submit photos of Touy, as well as send a congratulatory note, may do so by posting on our [Facebook Event Page](#) or simply sending it to Robin Mack at rmmack@udel.edu.

POSITIONS AVAILABLE

The Center for Composite Materials in the College of Engineering at the University of Delaware is currently recruiting applicants for the following positions:

Postdoctoral Researcher

This position is in the area of electrical conductivity modeling of carbon composites. Qualifications include a PhD in engineering, physics, materials science or related field with an emphasis in electromagnetic and/or composites. Research work will be aimed at the development of a modeling foundation to capture the fundamental electrical transport mechanisms for CFRP materials. The conduction physics will be developed initially for unidirectional prepreg and extended for other material forms. The influence of high electric currents due to high intensive electrical field will be evaluated. The position requires a good understanding of FEA and multi-physics modeling.

POSITIONS AVAILABLE

Hands on experience in fabricating and testing of composites are also a plus. Good written and oral communication skills are required, as well as the ability to interact effectively with industrial/government sponsors and other CCM staff and students.

[To apply for this position, please go to the UD JOBS website.](#)

Postdoctoral Researcher

This position is in the area of thermoplastic process modeling. Qualifications include a PhD in engineering or related field with an emphasis on polymer composites. Applicants are required to be knowledgeable in thermoplastic processing (PEEK, PEKK, PEI), first principle process modeling and finite element analysis. Hands on experience in fabricating and testing of composites is required. Good written and oral communication skills; ability to interact effectively with industrial and government sponsors, as well as other CCM staff and students.

Postdoctoral Researcher

This position is in the areas of numerical analysis & design and/or process modeling and manufacturing science of composite materials structures. Qualifications include a PhD in engineering or related field with an emphasis on polymer composites. Applicants are required to be knowledgeable in finite element analysis and current state-of-the-art FEA software, possess a solid understanding of the basic principles of structural mechanics and be able to apply these principles to composite structures. Hands on experience in fabricating and testing of composites are also a plus. Good written and oral communication skills are required, as well as the ability to interact effectively with industrial/government sponsors and other CCM staff and students.

Limited Term Researcher

This position is in the areas of numerical analysis & design and/or process modeling and manufacturing science of composite materials structures. Qualifications include a Masters in engineering or related field with an emphasis on polymer composites. Applicants are required to be knowledgeable in finite element analysis and current state-of-the-art FEA software, possess a solid understanding of the basic principles of structural mechanics and be able to apply these principles to composite structures. Hands on experience in fabricating and testing of composites are also a plus. Good written and oral communication skills; ability to interact effectively with industrial and government sponsors, as well as other CCM staff and students

[To apply for these positions, submit a cover letter and resume to Corinne Hamed at \[hamed@udel.edu\]\(mailto:hamed@udel.edu\)](#)

POSITIONS AVAILABLE

Industrial and Government Sponsors

Engineer, Oxford, PA

Leading Edge Composites

Requirements:

- Minimum 2 years experience with a 3D CAD design software package
- Experience in creation, modification, and interpretation of technical engineering drawings
- Basic knowledge of composites manufacturing techniques, materials, and terminology
- Experience with shop tools and measurement equipment commonly used in composites fabrication
- Detail oriented and self motivated, ability to be productive with little or no supervision
- Strong written communication and organizational skills
- Ability to effectively communicate with customers and various shop personnel
- Willingness to learn and research current and future technologies related to composites
- Ability to work well under pressure and short timelines when necessary

Additional Qualities Preferred:

- Experience in composite tooling design
- Knowledge of ISO9001 and AS9100 quality control practices
- Knowledge of FAA – PMA and STC procedures
- Experience with CNC operation and/or programming
- Experience with process engineering and documentation



We encourage skilled and motivated professionals to submit their resumes.

Please send to Sue Corby: scorby@lec-composites.com

Leading Edge Composites is an Equal Opportunity Employer.

Early-Stage Researcher Position, RWTH Aachen University

3T TextilTechnologie Transfer GmbH

- In close collaboration with the Institut für Textiltechnik of RWTH Aachen University, the new employee will work on methodical approaches to analyse and increase energy efficiency in textile machines. The job includes the enrollment in the doctoral programme of the faculty of mechanical engineering at RWTH Aachen University.



[Click here for details.](#)

Position openings are posted on the CCM website as a benefit offered to consortium & affiliated members only.

An Equal Opportunity/Affirmative Action Employer: The University of Delaware is committed to assuring equal opportunity to all persons and does not discriminate on the basis of race, color, gender, religion, ancestry, national origin, sexual orientation, veteran status, age, or disability in its educational programs, activities, admissions, or employment practices as required by Title IX of the Education

Amendments of 1972, Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, the Americans with Disabilities Act, other applicable statutes and University policy.

Inquiries concerning these statutes and information regarding campus accessibility should be referred to the Affirmative Action Officer, 305 Hullihen Hall, (302) 831-2835 (voice), (302) 831-4552 (TDD).

CONSORTIUM MEMBER NEWS

We would like to thank **Bowman Scientific and Scientific Industrial Nano Engineering, Rehoboth, DE** for becoming our newest consortium member. Thanks to our many other consortium members for continuing to participate in CCM's research and development activities.

To learn more about the benefits of becoming a member, please visit us on the web at www.ccm.udel.edu/Consortium/benefits.html



*Celebrating 40 years
of significant
contributions to
composites science
and technology, the
education of students,
and the creation and
transfer of technology
to industry.*

Please visit us on the web at <http://www.ccm.udel.edu>

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