

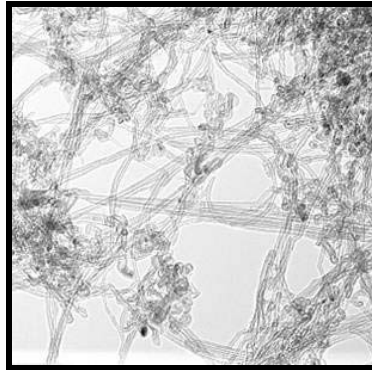


Dayton Region

# SEPTEMBER 2008

## NCC HOLDS NANO-COMPOSITE BOOTCAMP TO PROMOTE TECHNOLOGY APPLICATIONS

NCC is holding a Nano-Composite Bootcamp that will help participants learn how to apply nanomaterials to products, introduce the technology to customers, understand the latest emerging nano-composite materials and technologies and how to use nano-composites to boost profitability. Guest speaker is Dr. Phillip Wilson, President of Inspired Innovations, LLC



and former Chief Technologist for Magna International. The event will be held October 16, 9 a.m. to 4 p.m. at NCC.

The cost is \$300 per person. NCC member companies can attend for a discounted fee of \$250. Register by emailing Debra Talentino at [dtalentino@compositecenter.org](mailto:dtalentino@compositecenter.org) or call 937-297-9465.

## NCC WELCOMES NEW MEMBER COMPANIES TO GROWING COMMUNITY CLUSTER

NCC continues to build a resource cluster of businesses with a broad range of expertise through its network of member companies. This month NCC welcomes Rocket Ventures, Stratek Plastics Ltd and Tulsa Technology Center.



under the "nXmix Mixer" name by the well-known plastics machinery company, Xaloy ([www.xaloy.com](http://www.xaloy.com)). The mixers are designed and constructed to take advantage of Extensional Flow's natural benefits for mixing and blending. These benefits include greatly improved distribution and dispersion of additives such as anti-oxidants, lubricants, nanoclays, carbon nanotubes, pigments, as well as a marked improvement in the survivability of sensitive additives.

**Rocket Ventures**, based in Toledo Ohio, supports business development and technology commercialization. Rocket Ventures, along with Regional Growth Partnership and its many resource providers, helps create high-tech, high-wage jobs in northwest Ohio. The Regional Growth Partnership (RGP) is a private-sector-driven and funded economic development company, focused to meet the needs of clients in a confidential, innovative and time-sensitive fashion. For more information visit [www.rocketventures.org](http://www.rocketventures.org)

**Stratek Plastic Ltd.** is a privately held, independent technology development company that creates treatment processes that improve the physical properties and manufacturability of a wide variety of materials. The company's specialty is Extensional Flow (also known as Elongational Flow) mixing and blending.

Headquartered in Wallingford, Connecticut, Stratek has also developed patented technology called Tek-Mix™. Tek-Mix™ is a mechanically-based process performed by a cavity treatment device, and it is being commercialized

Typical customer benefits are reduced carbon nanotube percolation points with lower CNT concentrations, improved color mixing at lower processing temperatures, and improved nanoclay masterbatches and let-downs with significant particle size reductions.

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## NCC WELCOMES NEW MEMBER COMPANIES TO GROWING COMMUNITY CLUSTER

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Stratek's customer-driven solutions feature a multi-line material processing / pre-production facility, state-of-the-art laboratory, and project management resources. "Stratek is very pleased to have the opportunity to become a member of the National Composite Center," said Thomas Hicks Vice President, Sales & Marketing. "We look forward to sharing Stratek's capabilities with other members involved in polymer, elastomeric, biological, optical, and even cosmetic materials." For more information visit [www.stratek-plastics.com](http://www.stratek-plastics.com).

**Tulsa Technology Center** is the oldest and largest technology center in Oklahoma's Career Tech System. Founded in 1965 as part of Tulsa Public Schools, Tulsa Tech purchased its single campus (now the Lemley Campus) from Tulsa Public Schools and became an independent school district in 1973.

In 1992, the school's name was changed from Tulsa Vo-Tech to better identify and promote the type of career-focused training provided at the school's growing number of campuses.

The Riverside Campus is adjacent to the R.L. Jones Airport and is the home of several aviation programs. Students can earn FAA Airframe and Powerplant certifications, ACMA Certified Composites Technician, NCATT Aircraft Electronics Technician certification, SpaceTEC Certified Aerospace Technician, and IPC 620A Wiring certification. The Riverside staff also works with the aerospace industry to provide customized training for employee refresher or upgrade. For more information visit [www.tulsatech.edu](http://www.tulsatech.edu)

## NCC ADDS TWO ENGINEERS IN POLYMERS AND NANOCOMPOSITES TO ITS TEAM

As a commercialization and manufacturing acceleration agent, a key part of NCC's economic strategy is to develop advanced materials for end uses, help establish new businesses when appropriate and spin-off skilled personnel. This flexible infrastructure also provides ongoing opportunities to include new talent.

NCC is excited to announce it has added polymer engineer Rujul Mehta and nanocomposite engineer John Schultz to its team as full time staff members.

Dr. Mehta has made valuable contributions to NCC's



**Rujul Mehta**

nanotechnology program and was a key engineer in helping to establish the Center's nanotechnology laboratory. As part of his new responsibilities, Dr. Mehta will develop a new laboratory at NCC's Dayton campus specializing in rheology



**John Schultz**

of polymer-biocomposites and chemical functionalization of nanomaterials and biomaterials. He brings a broad range of experience to his new position. Dr. Mehta specializes in engineering of interfaces in polymer blends,

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## NCC ADDS TWO ENGINEERS IN POLYMERS AND NANOCOMPOSITES TO ITS TEAM

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composites and nanocomposites. He has expertise in chemical modification and functionalization of inorganic fillers and nanoparticles such as carbon nanotubes, layered silicate clays, etc.

He also has experience in synthesis and development of polymer resin chemistries, in addition to characterization of surfaces and interfaces in multiphase systems.

Dr. Mehta will combine these skills to enhance and tailor polymer nanocomposites that have applications in a wide range of sectors from energy to aerospace. He will also contribute to NCC's Sheet Molding Compound (SMC) program.

Dr. Mehta began his career in research for National Organic Chemical Industries Ltd in Thane, India. He also held key research positions at the Institute of Polymer Engineering, The University of Akron and the Department of Chemistry at the University of Tennessee.

He has contributed to a number of published technical articles and papers. He holds a bachelors degree in polymer engineering from The University of

Pune, India and a PhD in polymer engineering from the University of Akron. He is the recipient of the OMNOVA Solutions Signature University Award for outstanding research in polymer engineering.

As a nanocomposite engineer, Schultz brings more than seven years experience to NCC in process development, scale-up and troubleshooting of free-radical polymerizations used in the Deep Ultra-Violet (DUV) microelectronics industry. His broad range of skills includes proficiency with standard and advanced laboratory analytical equipment and a first hand understanding of management.

Schultz is currently working to develop a continuous production process for nanocomposite membranes for NCC and will assume responsibility for scale-up and development of functionalized nanomaterials.

In his full time role at NCC, Schultz will also oversee processing, manufacturing, and analyzing nanomaterial membranes used in a variety of applications; as well as the optimization and scale-up of current manufacturing practices of

nanocomposite membranes. In addition, he will coordinate the site safety team and corresponding safety protocols and procedures.

Schultz began his career in research for the University of Wisconsin – Eau Claire. As a technician for American Coating Technology, Inc., he successfully took lab-scale paper coatings to large scale production as well as implementing new lab safety and organization procedures.

Schultz also made valuable contributions to Sherwin-Williams' Technology Group and as a process development chemist for DuPont Electronic Polymers, L.P.

He holds a bachelor's degree in chemistry from the University of Wisconsin – Eau Claire and a master's degree in materials engineering from the University of Dayton. Schultz has published his research material in Organometallics chemistry journal.

He is co-inventor of a patent recently filed with the U.S. Patent Office for a technology developed during his employment at DuPont.





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**NCC ANNOUNCES DEPARTURE OF PHIL MOWRY**

This month NCC announced the departure of Phil Mowry. Phil has served the Center for almost three years as Vice President of NCC and Chief Operating Officer for its Dayton Campus for Advanced Materials Technologies. Since 2006, Phil has

helped to significantly strengthen the leadership team at NCC and position the Center to move forward positively in 2009.

With a strong management team and employees of the highest caliber in place, the Center is committed to advancing key

programs and core business strategies. The management and staff of NCC wish Phil success in his new ventures and express gratitude for the service, hard work and contributions he made to the Center.

