



TECHNOLOGY & INNOVATION IN MANUFACTURING EDUCATION

# TIME center

An NSF sponsored ATE center



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N E W S L E T T E R

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## IT'S THE RIGHT TIME ...

In October 2003 the National Science Foundation awarded a \$3 million grant to establish the Technology and Innovation in Manufacturing Education (TIME) Center. This four-year grant charges TIME Center's educational and business partners to develop initiatives that meet the educational needs of Maryland's manufacturers while improving the industry image.

### BY LAND OR BY SEA – TIME IS THERE

To prove that they will do anything to creatively promote manufacturing in Maryland, the TIME Center and RMI are co-sponsoring an entry in the American Visionary Art Museum Kinetic Sculptures Race. Kinetic Sculptures are amphibious, people-powered, manufactured works of art designed to travel on land and in deep water. The race is a 15-mile, eight-hour event, mostly on pavement, but with two segments in the harbor, one segment in thick mud and one through sand.

Seeing the race as a unique opportunity to improve the image of manufacturing and foster private/public partnerships, Ed Fangman, Director of the TIME Center, and Mike Galiazzo, Executive Director of RMI, began a search for race entry partners and found a perfect fit. The Industrial Design program at Towson University, which had previously sponsored race entries, was struggling to enter in 2006. They needed financial support, sponsors and engineering expertise. Mittal Steel had just supported

the creation of a series of steel sculptures by Setsuko Ono and was interested in continuing its involvement in the community. Fitting need and opportunity, the two were brought together and out of this union a giant anteater was born.

"Thanks to the partnership with Mittal Steel, our 2006 entry is far more mechanically advanced than any of our prior entries," said David Zezulinski, Team Leader and a senior sculpture major at Towson University. "Their technical support allowed us to devote more time ensuring that the entry was aesthetically accurate." To stimulate their creative juices, Dave and the team spent time at the Baltimore Zoo observing and photographing their real life mascot.

Join us in cheering on the TU-Mittal Steel-TIME Center-RMI giant furry creature on May 6, 2006, at the Inner Harbor. For more information on the race go to [www.avam.org](http://www.avam.org) or [www.marylandmanufacturing.info](http://www.marylandmanufacturing.info)

## TIME PARTNERS OFFER LEAN WORKSHOPS

The TIME Center, through its partner colleges and the Maryland Technical Extension Service, has announced a series of one-day lean workshops scheduled May through July and again in fall 2006. The workshops combine the convenience, customer service and low cost offered by community colleges with highly qualified and experienced lean consultants made available through the TIME Center.

“As we began to identify the needs of manufacturers, one need transcended all industry groups—modern manufacturing techniques otherwise known as lean practices,” said Ed Fangman. “Our research of how best to meet the need identified two highly capable public provider organizations: the World Class Manufacturing Consortium (WCMC) and the Maryland Technical Extension Service (MTES). The WCMC is a member-supported organization specializing in total lean solutions while the MTES focuses on lean manufacturing and engineering solutions tailored to individual company needs. Great programs that could benefit from lean introductory offerings focused on the mass of manufacturers who have ‘unknown’ needs.”

The workshops are designed to introduce companies of all sizes and shapes and their employees to the tools and techniques found in most lean toolboxes. Trainers for the one-day workshops are experienced lean consultants who will provide an in-depth introduction, simulations and hands-on applications to the specific lean topic. They will assist attendees in answering questions such as: How can my operation benefit from specific lean applications? Who needs to be trained and in what areas? Who can best help me adopt lean practices (Lean Training Partnership, MTES, WCMC, other organizations)?

The cost of a one-day workshop is \$250. Employees of manufacturing companies may be eligible for a 50% reduction in tuition sponsored by the Department of Business and Economic Development. To determine your eligibility for funding support and/or to find the workshop schedule in your area, go to [www.marylandmanufacturing.info](http://www.marylandmanufacturing.info). For questions about the TIME Center Lean Training Partnership, please call a member of the TIME Center staff at 410-455-6101.

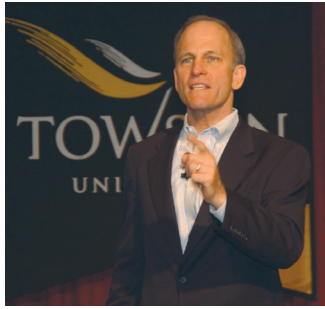
## INNOVATION—MARYLAND’S COMPETITIVE EDGE

On Friday, March 24, 2006, over 300 business men and women, government officials, and educators converged on the Towson University Student Union to hear sage advice from Robert Tucker. Author of *Growth Through Innovation*, Tucker was invited by the Regional Manufacturing Institute to spread the word that innovative concepts, products, and ideas are essential for continued industry expansion in Maryland.

Mike Galiazzo, Executive Director of RMI, invited over 100 K-12 educators to join the discussion with Tucker. Working with Baltimore County Public Schools Superintendent Joe Hairston and the TIME Center, 49 schools were offered the opportunity to participate in the conference to strengthen the working partnerships between manufacturing and our public school system. In addition, the manufacturing community wanted to thank them for their accomplishments in making improvements in test scores and other school performance data.

Tucker spoke of innovative companies that have increased revenue or market share by coming up with new ideas in product, strategy, or processes. He cited examples such as Whirlpool, which developed a new

product line in garage organization systems; Wal-Mart, with its marketing strategies and supply chain innovations; and Google with its many innovations in web search strategies.



Other speakers included Susan Ganz, President of Lyon Brothers, and Aris Melissaratos, Secretary of the Department of Business and Economic Development. Melissaratos spoke of the many businesses in the state that exist because of innovative practices, and how these practices were building a very strong economic future for Maryland. He stated that the only way for Maryland to compete globally is through research and the development of new and innovative products.

Principals and teachers who attended the conference spoke highly of the session and the ideas presented. One school has already implemented “an innovation design team” in the School Improvement Team structure. The TIME Center is working with RMI to follow up on the conference and identify next steps for educators who want to actively explore ways to bring innovation to their curriculum and organizational activities.

## **FACULTY PROFESSIONAL DEVELOPMENT ON THE RISE**

A key objective of the TIME Center is to ensure that the technical and pedagogical skills of our secondary and post-secondary faculty and staff support the advanced training required of manufacturing technicians and engineers. And, support has been given!

In the NSF program year, which ended March 31, 2006, the TIME Center reported that it had supported a total of 147 secondary and post-secondary faculty and staff with some form of professional development opportunity including:

- Participation in five Inside Manufacturing seminars sponsored by RMI and the World Trade Center Institute (38)
- Participation in the RMI Speed to Market Luncheon (13)
- Project Lead The Way training sessions (8)
- Chesapeake College’s Manufacturing Education Partnership for Excellence 10 week program (15)
- Lean Manufacturing Summer Workshop for Secondary Teachers (19)
- Two-week industry internships for secondary teachers (8)
- Various workshops and training events (46)

## **SUMMER INTERNSHIPS – 2006**

Summer Internships are being sponsored again and the process is moving along smoothly. This program places instructors and counselors into the manufacturing arena to enhance their teaching and curriculum and to promote the various career pathways in manufacturing. Currently, we are searching for mentors for our summer internships and completing necessary paperwork to pay participants. The TIME Center would like to thank the Career and Technical Coordinators and Deans throughout Maryland for their support of the TIME Center’s Summer Internships program. These Directors and Deans have been the vehicle for the

dissemination of information from the TIME Center. Look for our e-mails in early October 2006 containing the application and details for Summer 2007 internship experiences.

All participants must complete a project that will be shared with interested parties who may in turn incorporate them into their teaching. The TIME Center will be distributing these projects to all Career and Technical Coordinators and Deans as well as place them on our website ([time-center.org](http://time-center.org)) in late September or early October. The topics for these projects include awareness of career pathways and important concepts and processes used in manufacturing today.



### **TIME Center Director to Serve on Workforce Development Council**

Ed Fangman, Director of the TIME Center has been appointed as the TIME Center representative to serve on the Baltimore County Workforce Development Council (WDC). The WDC is a group of business leaders, educators and government officials who advise the Office of Employment and Training on matters related to workforce development.

### **TIME Videos Visit to Mittal Steel**

The cameras were rolling as about 50 participants toured Mittal Steel's Sparrows Point Plant and heard from its new President and General Manager, Tom Russo. The talk and tour, which was part of the RMI/WTCI *Inside Manufacturing Series*, will be made into a video and lesson plan and provided to educators for use in the class room.

### **Recent and Upcoming Events**

- May 5                      TIME Center Steering Committee meets from 10:00 am. to 12 noon at the Catonsville Campus of CCBC
- May 6                      American Visionary Art Museum Kinetic Sculpture Race (See above article for details)
- May 8                      Governor's Workforce Conference, University of Maryland, University College  
(Go to [www.conference-edge.us/gwc](http://www.conference-edge.us/gwc) for details)
- May 31-June 2          NCATC Summer Conference, Birmingham, AL
- June 15-Aug. 15        Summer Internships
- June 12                    Baltimore County Executive's Advisory Board for Higher Education Conference  
(Go to [www.co.ba.md.us/agencies/economicdev/edd\\_vision.html](http://www.co.ba.md.us/agencies/economicdev/edd_vision.html) for more information)
- June 13/14              Maryland Workforce Development Assn. Conference  
(Go to [www.mwda.org/rtb06/rtb06home.htm](http://www.mwda.org/rtb06/rtb06home.htm) for more information)

### **TIME Center Contact**

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TIME Center Website: [www.time-center.org](http://www.time-center.org)



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