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N E W S L E T T E R

Volume One

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.

Steering Committee Gives Direction to TIME

"The first year of the TIME Center grant was devoted to planning, organizing and partnership building. Year two is devoted to meeting the 'hard' deliverables, especially curriculum development."

Upon hearing those comments by the Center staff, the TIME Center Steering Committee urged that deliverables incorporate computer literacy, distance learning, and dissemination to other educational providers in Maryland. This exchange aptly depicts the purposes of the Steering Committee: providing guidance that will enhance the chances of Center success and promoting collaborative partnerships among stakeholder groups.

The Steering Committee also endorsed the (1) inclusion of world class/lean manufacturing practices into the curriculum, (2) continued support for Project Lead the Way and Maryland Career Clusters, and (3) exploring possible partnerships with the National Association of Manufacturers "Dream it, Do it" campaign and/or the Maryland Business Roundtable for Education "Be What I Want to Be" teen web-site.

Member organizations represented on the TIME Center Steering Committee include: Department of Business and Economic Development, Department of Labor, Licensing and Regulation, Maryland State Department of Education, World Class Manufacturing Consortium, Maryland Technical Extension Service, Regional Manufacturing Institute (RMI), Baltimore Museum of Industry, Morgan State University, UMES and TIME Center partner community colleges.

Industrial Maintenance Technology is on the Way

Progress on the Industrial Maintenance Technology program is accelerating. The DACUM and WorkKeys® profile information has been converted into a curriculum plan and two new adjunct faculty with extensive industry and training experience have been retained to develop the specific courses, modules and learning activities for the new program. Faculty has reviewed a number of commercial curriculum packages and will integrate the 'best-of-the-best' into the curriculum offering. Program components should be available during the first quarter of 2005.

Manufacturing Technology is More Than Technical Skills

Lean Thinking - *Lean Manufacturing, Lean Supply Chains, Lean Offices*...are manufacturing organizations on a diet? The answer is yes – a 'lean' diet intended to eliminate waste that doesn't add value to the final product and/or service. Having a highly trained/skilled work force is one step in the journey to global competitiveness, however, without the adoption of 'lean thinking' the journey will be long, hard, and may lead to a dead end. It is important that manufacturing leaders of today, and those we train for tomorrow, view 'lean' as a process for eliminating waste and adding value throughout the supply chain and its supporting organizations.

First Line Supervisory Training - *Highly Trained/Skilled Shop Floor Employees, Lean Manufacturing, Lean Supply Chain*...you have the foundation for success – almost. Highly trained first line supervisors are also essential for success, as they have primary responsibility for day-to-day operations. These individuals, who often have little or no formal training, require skills such as leading, coaching, team building and conflict resolution. Without adequate training, supervisors are often held hostage by a daily barrage of problems. The availability of supervisory training also demonstrates a pathway for shop floor employees, a key retention strategy.

First line supervisor training was a prominent discussion topic at TIME's last Regional Industry Advisory Committee meeting. The discussion confirmed the direction of the TIME Center in offering a three-tiered skills ladder; entry level, full performance and team leader/first line supervisor.

Look forward to more information from the TIME Center on Lean and First Line Supervisory training.

TIME "Tracks" RFID

The TIME Center and its partner colleges have been invited to join a multi-university initiative led by the University of Maryland, College Park to establish a Center for Sensor-based Supply Chains (CSSC) at UMCP. Initial efforts include preparing a funding pre-proposal for the National Science Foundation and learning more about the growing RFID (Radio Frequency Identification Devices) technology. If the pre-proposal review scheduled for March 2005 is favorable, a full proposal will be developed with the final award anticipated in March 2006.

Current RFID technology enables organizations to track items through the entire manufacturing, distribution and supply chain. The next generation RFID technologies will include miniature and nano-scale sensors that can generate information about what the particular product experienced during manufacture and distribution. Leaders in deploying this new technology include the Department of Defense, Wal-Mart and a number of similar organizations.

The TIME Center role in this project will be to develop curriculum components for inclusion into secondary and post-secondary curriculum, to assist manufacturers and other RFID users to learn more about the technology and its deployment, and to develop new learning opportunities for engineers, technicians and IT professionals.

TIME Center Goes Public

The TIME Center has been actively disseminating information on the Center, its partners, and its accomplishments to date.

- The Center was an event sponsor and exhibitor for **RMI's Manufacturing Luncheon, 'Innovation and Transformation in Maryland Manufacturing - the new IT'**, on October 5th with keynote addresses by Maryland's Governor Robert Ehrlich and the new President of the National Association of Manufacturers, former Michigan Governor John Engler. Approximately 600 people attended the luncheon.
- TIME Center staff and partners attended the **National Science Foundation's Annual ATE Principal Investigators Conference** in mid-October. The conference, co-sponsored by the American Association of Community Colleges, brings together approximately 740 faculty and staff from NSF-sponsored projects and centers to share information on the products and services they have developed.
- TIME Center staff attended the **National Center for Workforce Education (NCWE)** conference in Baltimore, also in mid-October. In addition to the exhibition booth, Dennis Faber, Jim Rogers, Cliff Ishmael, Mike Galiazzo and Lynn Gilli (MSDE-CTAL) presented a workshop entitled "Tackling the Manufacturing Transformation: Maryland's Collaborative Strategy". Aris Melissaratos, Secretary of the Department of Business and Economic Development, was a keynote speaker. Approximately 250 people attended the conference.
- Center staff attended and exhibited at the **Governor's Workforce Development Conference** sponsored by the Governor's Workforce Investment Board, held in mid-November. 350 people, three quarters of whom represented private sector employers, attended the conference.
- Judy Loar recently spoke to a group of instructors participating in the **Technology Education Association of Maryland (TEAM)** statewide conference about the TIME Center. Joining Ms. Loar for the presentation were Rachel Barnett and Richard Harbach who spoke about their summer manufacturing internship experiences funded through the TIME Center.

New Partner Joins TIME

The TIME Center is pleased to welcome the Upper Shore Manufacturing and Business Council (USMBC) as an industry partner. The USMBC, with approximately 150 members, is actively involved in a number of collaborative workforce development initiatives. A special thanks to Jackie Potter, Executive Director, for her assistance in making this partnership a reality. The USMBC has offices at Chesapeake College, and additional information on the organization can be found on their website (<http://www.usmbc.org/>).



Industry Experts Needed for Fabrication Skill Standards Session

The next area of focus for developing industry standards and curriculum options is in the Fabrication industry sector—the DACUM and WorkKeys® profiling session is scheduled for February 2nd and 3rd. Expert production workers, team leaders and first-line supervisors from around the state are needed to help in this critical task. Companies in this manufacturing sector create new products from raw materials or assemble and fabricate new products from manufactured components. Examples of fabricating companies

include GM Powertrain-Baltimore Transmissions, GM Assembly, Black & Decker, Marquip-Ward-United Machinery, Lion Brothers, BAI, Independent Can, AMBEC, Inc. and Under Armour.

If you have a recommendation for either a company or a specific employee, please contact Dennis Faber at 410-455-4297 or dfaber@ccbcmd.edu. Costs for participant travel and overnight accommodations will be reimbursed.

TIME Tapes Paul Reed Smith

For the last year, the TIME Center has been videotaping the RMI "Inside Manufacturing" series. The RMI Inside Series offers a rare inside look at what makes innovative companies successful, competitive and growing. The most recent edition highlighted the Paul Reed Smith guitar production facility on Maryland's Eastern Shore. The event offered a wonderful opportunity to see an effective marriage of good management practices, advanced manufacturing technologies and the artistry of guitar making. Video of the event is available on RMI's website (<http://www.marylandmanufacturing.info/>).

Previously recorded events are also available on RMI's website and the TIME Center has a limited number of DVD copies of all events for use in classroom activities available free of charge. Please contact the TIME Center to request a copy.

Engineering Challenge Needs Help

The Engineering Challenge Planning Committee, comprised of instructors and administrators from Harford County and Baltimore County Schools and CCBC, will pilot two challenges in the manufacturing area. One will be for students in Technology Education programs and the other for students in Career and Technology Manufacturing programs. Engineers are needed to help with specific plans and to help judge the results on April 16th at the Baltimore Museum of Industry. If interested in assisting, please contact Judy Loar at jloar@ccbcmd.edu or by calling 410-455-6120.

Upcoming Events

- January 21, 2005---TIME Center Steering Committee meets from 10:00 am to 12:00 noon at the Catonsville Campus of CCBC
- February 2 & 3, 2005---The DACUM and WorkKeys® profiling session for the Fabrication Industry at the Catonsville Campus of CCBC

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