

The Department of Industrial and Engineering Technology



Morehead State University
Industrial and Engineering Technology

October 2005

Volume 7 Issue 1

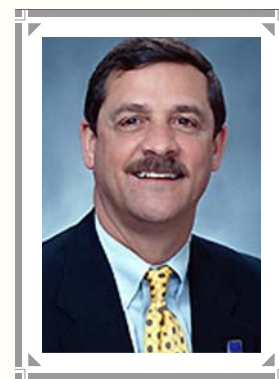
Inside this issue:

<i>Helping Hands</i>	2
<i>New Equipment</i>	3
<i>Student Organizations</i>	4
<i>Robotics Team</i>	4
<i>Student Serves in Kuwait</i>	5
<i>IET Graduate Highlights</i>	5
<i>International Student & Project Lead the Way</i>	6
<i>Advisory Board Highlight</i>	7
<i>KATEA President</i>	7

MSU President to be a Keynote Speaker

Dr. Wayne Andrews, 13th president of Morehead State University, has been invited to be a keynote speaker at the November 2005 NAIT Convention, "Converging Technologies: Linking Boundaries," November 16-19, 2005, at the Sheraton Westport Lakeside Chalet in St. Louis, Missouri. Dr. Andrews will talk about the challenges of being an in-

dustrial technology professional in higher education. His keynote address, "Journey to Higher Education Administration," will reflect upon the paths into higher education administration and the unique opportunities and skills that the industrial technology professional can bring to the administration of a university.



Dr. Wayne Andrews

Welcome New and Returning Faculty

Special points of interest:

- MSU seeking applications for two Assistant Professors of Industrial Technology. Application reviews begin in October 19, 2005 and February 24, 2006.
- Student Technology Leadership Program, Nov. 11, 2005; Crager Rm. , ADUC
- NAIT Convention, St. Louis, MO, Nov. 16-19, 2005.
- Graduation Reception, December 16, 2005



Yuqui You

Having graduated from Morehead State University in May 2002 with a Master of Science in Industrial Technology, Mrs. You returns to IET as a faculty member, teaching in the Manufacturing Technology option. She received a Bachelor in Engineering degree in Automation Engineering from Huazhong University of Science and Technology in China prior to coming to MSU and expects to receive her Ph.D. in Technology Management, majoring in Manufacturing Systems, from Indiana State University in December 2005.

Office: Lloyd Cassity Building 216A

Sam Mason earned both his undergraduate and graduate degrees at MSU. He returned to the University in 2000 to work in the Office of Information Technology and began teaching classes for IET during spring of 2002.



Sam Mason

After taking the opportunity to work for a leading international manufacturing company, Sam returns to us as an IET Instructor for both the Manufacturing Technology and Computer Aided Design and Graphics options. Welcome back, Sam.

Office: Lloyd Cassity Building 301

Helping Hands from Industry Partners



General Shale: pictured with Dr. Patrick and Dr. Zargari are Mike Stacey (Plant Manager, Ind.) and Scott Ledford (Training and Quality Manager).

The Department of Industrial and Engineering Technology has been very fortunate this year in receiving assistance from industry partners in obtaining much needed equipment for student laboratories.

General Shale Brick, headquartered in Johnson City, TN., donated funds which made it possible to purchase new concrete testing equipment.

The Walker Company of Mt. Sterling, KY., donated equipment for the construction methods and materials laboratory. This equipment, along with the items purchased using the funds from General Shale Brick, is part of the equipment that enables IET students to obtain a Level I Field Technician Certification from the American Concrete Institute (ACI). Although our students have participated in ACI certification for several years, this is the first time IET has had an entire set of concrete testing equipment available for student use.

The Mazak Corporation, headquartered in Florence, KY., donated and delivered the Vertical Machining Center pictured to the right. Moving this 4 ton piece of machinery into the IET Robotics Lab was a true event for the Department.



Mazak: VTC-41 CNC 3-axis Vertical Machining Center arrives at the Robotics Lab in Reed Hall

Interplex Plastics, Inc. of Lexington recently donated molds and ferrofluidics for use by students in the Manufacturing Technology option.

These gifts will provide excellent opportunities for our Construction Management and Manufacturing Technology students to acquire hands-on experience with the type of equipment they will encounter as they enter the workforce. A special thank you goes to all those involved.

IET CAD and Graphics Labs on the MAP



Ariana Gracia-Medrano is using Inventor in LC 215

On the MAP! Thanks to people who care about students and this department, we now have a modern twenty-five station CAD Lab on the second floor of Lloyd Cassity and a fifteen station lab on the third. Yes, with the help of Dr. Ahmad Zargari, IET Department Chair; Brent Jones, Director of Technical Services at Information Technology; Beth Patrick, Vice President for Planning, Budgets, and Technology; and other administrative units, our CAD and Graphics Labs are now on the three-year replacement cycle of the Microcomputer Acquisition Program (MAP). In the past, it took the department five to eight years to replace the computers in those labs.

These particular IBM stations have enough power and speed to handle demanding Viz, Inventor, Revit and other

intensive graphics applications. Our students have already made comments that they are able to open and manipulate files that previously crashed our older computers. In the Graphics Computer Lab in LC 305, students were previously unable to save their work to the hard drive because of the limited storage space. Because the computers were packed with software that both CAD and Graphics students use, the computers were slow and malfunctioned on numerous occasions. Now students are able to go right to work without first rebooting the machines to help increase their chances of success on a particular graphics assignment. Students are now opening multiple applications concurrently and increasing their productivity and quality of work.

Graphics Lab Gets New Equipment

In order to revitalize the Computer Graphics option, funding of \$42,000 was made available for the upgrade of equipment and software for the Lloyd Cassity 305 and 306 laboratories.

The equipment list of purchases included a single color AB Dick 9910 Offset Lithography printing press. This brand of press was chosen because of its safety features, ease of operation design, ability to use polyester or metal plates and print full-bleed 11" x 17" substrate. This modern, updated press replaced previous, outdated equipment.

To compliment this offset printing press and with safety in mind, a new computer-to-plate technology was purchased. The D-Stat platemaking system will replace conven-

tional cameras and chemical platemaking techniques for one and two color work. It provides a low-cost, flexible solution to multi-media originals and comes complete with AB Dick's ScanMaster software, a color scanner, computer workstation, Harlequin®RIP—and a compact desktop platesetter that uses clean, toner free, thermal ribbon technology to image onto polyester plates. Each plate is rated at 5,000 impressions which is more than enough for our purposes in class and the department.

To accommodate certain applications associated with the offset press, platemaker, and other printing applications in industry, the laboratory needed focus on pre-press operations as well. The funding also supported the purchase of five HP digital scanners and the Adobe



Sam Mason demonstrates use of the Offset Lithography printing press to John and Derek Williams and Jabmaine Wells

Creative Suite software package which includes Photoshop, Illustrator, In-Deign, Go-Live web editor and Acrobat. This software package will assist teaching in areas of graphical communication of photo repair/correction/alteration and layout/design for the printing industry in shapes of forms, receipts, documents, Web pages, posters, magazines, logos, soda labels, menus and other graphical representations for products people use every day.

Grant Helps IET Purchase New Lathe

The IET lab in Reed Hall has been enhanced by the purchase of a Mazak Nexus Quickturn-100 CNC Lathe. This purchase was made possible through the use of grant money and University funds and represents a significant investment in the students of the IET Department.

"The capabilities that this machine brings to our department are awesome," said David Flora, Laboratories and Facilities Manager for the Department of Industrial and Engineering Technology. "We've been without a large CNC

lathe since the Taiyo Seiki lathe we had went out of service a few years ago. The Mazak Fusion 640-T control has a 64-bit RISC processor and can suggest more efficient paths for turning objects."

Ease of interface is an important feature with this lathe. It contains a port for a 3.5 floppy disk and an RS-232C port for loading turning programs into the machine. We are also getting equipment to establish a wireless network with the machine, greatly improving its flexibility and function.

The Mazak lathe arrived from



Michael Ganske talks with IET Laboratories and Facilities Manager David Flora about the new Mazak lathe.

North Carolina October 5th and should be under power and operational within a few weeks.

NAIT/SME Student Organizations Officers: Casey Brown (SME President/NAIT Vice President); Nancy Artrip DiDi (NAIT President/SME Vice President); Robert Harmon (Treasurer); Brandon Osborne (Secretary). Faculty advisors are Dr. Farouq Al-Hourani, Dr. Charles Patrick, and Dr. Ahmad Zargari.

Student Organizations



*Nancy Artrip DiDi
NAIT President/SME Vice
President*

The MSU student chapters of the National Association of Industrial Technologists (NAIT) and the Society of Manufacturing Engineers (SME) have merged. Previously, two sets of officers led the two organizations, yet both held joint meetings and shared joint activities. This made the roles of all officers redundant. Therefore, the groups decided that each organization would have its own president who would also hold the office of vice president for the other group, but they would share one secretary and one treasurer.

The next joint student chapter meeting will be on Tuesday, October 18, 2005 at 5:30 p.m. in Lloyd Cassity Building, room 204. The regional SME chapter meetings are still on the first Wednesday of each month in Lexington, KY. Because the group travels to these meetings together each month, members are requested to register for the trip at least 48 hours in advance in the IET departmental office in LC 210.

The goal of this fall's membership drive is to obtain 50 new members before the 2005 NAIT Convention which will be held in St. Louis, Mis-

souri starting November 16th. The keynote speaker at the conference for this year's banquet will be the current President of Morehead State University Dr. Wayne Andrews. We are very excited that Dr. Andrews has become involved with our department and our organizations and hope to work together with him to improve the quality of education that students receive as well as instill leadership abilities through participation in the NAIT and SME organizations.

Other events that student are preparing for include the robotic manipulator contest and the quiz bowl competition. Eight students have been involved with the design and construction of the current robot and feel very strongly that they have the winning entry.

For more information about the student organizations or to become a member, contact Nancy DiDi by telephone at (606) 462-0405 or by email at sisartrip@yahoo.com or Casey Brown by email at caseybrown@adelphia.net.

IET Robotics Team



*Casey Brown
SME President/NAIT Vice
President and Robotics Team*

It's once again fall and the NAIT robotics competition is drawing closer. But, that isn't a problem here at Morehead State University. This year we have a terrific team with truly dedicated and hard working members who are putting in very long and productive hours in the labs.

The rubric for this year's competition is almost entirely different from the previous years, with new, more demanding tasks robot. This year the robot must pick up an 8 inch long piece of 1 1/2 inch emt conduit that may be placed either vertically or horizontally; carry the conduit the length of the course over, around, or under obstacles; and place it into a 3 inch hole located 6 inches from the floor and release. The time will stop when the conduit hits the floor on the other side.

Even though the team started working less than two months before the competition, members feel they have a design that will be a 1st Place winner this year. Hopefully, before the competition, they will be ready to give a demonstration to the faculty and club members at one of the upcoming NAIT/SME meetings.



Christina Hook - left

IET Student Stays Connected While in Kuwait

An IET student, a wife, and a mom. Christina Hook is all of these - and one more - she is also a soldier in the U.S. Army Reserves.

Unexpectedly called to duty overseas in November 2004, Christina said good-bye to her husband and two small children, ages 5 and 3, and left for Camp Arifjan in Kuwait on an 18-month deployment with the 295th Ordnance Company of the U.S. Army Reserves.

Prior to her call for duty, Christina was looking forward to completing her last semester in robotics manufacturing at Morehead State University. She was in the middle of her cooperative education course when she received her orders.

The Army needed people with Christina's skills.

In Kuwait, she works as a heavy construction equipment repairer and is the section sergeant for her platoon in the motor pool. She supervises four people and is responsible for the maintenance of 21 vehicles.

An active member of the Morehead State University's Society of Manufacturing Engineers Student Chapter S303, Christina looked for ways to stay involved from a distance.

"I want to keep in touch with what's going on in the industry world", said Christina. "I enjoy reading the e-newsletters and staying updated with the activities and technology that SME stays involved in."

Christina Hook took part in the Tele-Operated Robotic Manipulator Contest at the 36th Annual Convention of the National Association of Industrial Technology (NAIT) in 2003. The MSU team's robotics poster took first place and their robot took third for overall performance, design and presentation.

IET Graduate Highlight

Tim Molton, C.I.T. is a Six Sigma Black Belt in the Logistics and Manufacturing Division for Cintas Corporation. Headquartered in Cincinnati, OH., Cintas Corporation provides highly specialized services to businesses of all types throughout North America. Cintas designs, manufactures, and implements corporate identity uniform programs, and provides improvement tools and techniques and statistical problem solving methodologies to eliminate or dramatically reduce variations, cycle time, and process waste in any given system or process.

Prior to his current position, Tim was Plant Manager at Rockcastle Manufacturing, Cintas' oldest manufacturing facility.

"I have always had the utmost confidence in Tim's ability to manage our Rockcastle facility", said Harry Hosey, Senior Manufacturing Manager. "He

has a valuable combination of engineering perspective for attention to detail, along with great leadership and people skills. He is professional in everything he does."

Tim received his Associate in Applied Science degree in Welding Technology from Morehead State University in 1983 and returned to graduate with a Bachelor of Science in Industrial Technology in Manufacturing in 2003.

"The education I received at MSU was the best investment I've made in terms of securing a foundation for a successful career. It has allowed me to be diverse in the direction of my career path. This could only have been achieved through the continual future planning of the IET faculty, recognizing the needs of industry, both now and in a future state. Students enrolled at MSU, and specifically in the IET programs, are truly fortunate to have a staff of



Tim Molton

Professionals dedicated to developing curriculum with the students' future success in mind."

Raised in Olive Hill, KY., Tim now lives with his wife and two children in Berea, KY., and is planning to start working toward his Masters of Science in Industrial Technology at MSU during the upcoming spring semester.

International Student Finds Home with IET



Hello. I am Priya Shekar and I come from India. India is a diverse country. It has different states and there are several languages, cultures, religions, etc. Therefore, one can say that each state is like a country in itself.

I was born in south of India; however, I have been brought up in the west of India. I come from a beautiful city called Pune. It is the hub of information technology and also has one of the best universities in India.

I have completed by Bachelor degree in Commerce and a

Masters in Personnel Management. I have also worked in a service industry for more than 4 years.

I have come to America with many dreams and ambitions. I want to excel in the field of Industrial Technology—mainly quality control and management. I am positive that my hard work, dedication, and my advisor’s strong guidance will help me achieve the same.

I want to make my parents proud because they have sacrificed a lot to make me a person that I am and also that I have a quality life with a great future.

IET faculty are active in professional organizations. Dr. Ahmad Zargari is Chair of the Executive Board of the National Association of Industrial Technologists (NAIT). Dr. William Grise is a member of the NAIT Executive Board and President of the NAIT Research Division. Dr. Charles Patrick is Chair of the committee charged with the establishment of an independent review board for the Journal of Industrial Technology.

Project Lead the Way Begins



Nicholas Conley

IET has its first Project Lead the Way (PLTW) student, Mr. Nicholas Conley. Nick also participated in the Governor’s scholar program held last summer at Eastern Kentucky University. He graduated from Morgan County High School last May.

Mr. Lowell Cantrell, PLTW Coordinator for Morgan County and master teacher for PLTW, recently sent the new articulation agreement be-

tween his school and Morehead State University. Mr. Cantrell has completed five of the six required classes through the PLTW program at Purdue University.

IET faculty member Dr. Ron Spangler will be attending classes at Purdue next summer in order to facilitate articulation agreements with counties in the Morehead State University service region.

Advisory Board Highlights

Shannon Gagliano is the Assistant HR Manager for Guardian Automotive in Morehead, KY. Guardian Automotive is a manufacturer of automotive trim parts. Shannon graduated from Morehead State University in 1992 with a Bachelor of Arts in Paralegal Studies. After a year and a half in Tucson, Arizona, Shannon moved to Glenwood, Illinois and began working for Allied Tube and Conduit Corporation, a Tyco International Company, as a Paralegal in the corporate legal department. In addition to her legal duties, Shannon had human resource responsibilities at smaller Tyco facilities across the country. This was when she discovered that she really enjoyed working with the employees at the plant level.

After nine years with Tyco, Shannon felt it was time for a change. She and her family

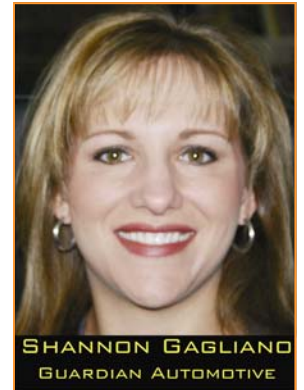
wanted to move to a small town in the south. It so happened that Guardian Automotive's Morehead plant was looking for an Assistant HR Manager. On February 13, 2003, the move was made.

Shannon's daily duties include employee relations, recruiting, training, workers' compensation, safety and wellness, to mention just a few. She is active in the community, professionally and personally. She is a member of the local Emergency Planning Committee (L.E.P.C.), HazMat 8 and Society for Human Resources Management (SHRM). Shannon has also been included in the 2005-2006 Chamber of Commerce Leadership Academy and is the Chair of the IET Advisory Board.

As an active member of the Advisory Board and now the Chair, Shannon understands

the relationship between education and industry. Guardian Automotive has a robust co-op program in not only engineering, but accounting, environmental and human resources. The co-op students that work at Guardian Automotive in Morehead have the opportunity to be hired full time or in some cases to go to other Guardian plants if an opening becomes available. Guardian Automotive not only provides IET students with co-op positions, but also provides for some class work and interesting case studies. Several IET classes have come to the plant to do time and motion studies.

"Human resources in a manufacturing setting is challenging, but rewarding," says Shannon. "The pace is always brisk and the landscape is always changing. It is something different everyday."



In October of 1997, the Department of Industrial and Engineering Technology established an Advisory Board of leading professionals who are actively involved in the management of educational, business, and industrial organizations. The primary purpose of this Board is to provide expert suggestions and feedback relative to IET programs and their potential impact on the economic development of MSU's service region.

New KATEA President is IET Faculty

IET faculty member Dr. Rodney Stanley will become the new president of the Kentucky Applied Technology Education Association (KATEA) at their fall banquet in November 2005. KATEA serves to bring educators together from a wide range of technical fields at the secondary and postsecondary levels. KATEA is in its 48th year and Dr. Stanley will become the sixth faculty member from Morehead State University to serve as president.

Upon approval from the membership at this year's banquet,

KATEA will be changing its structure to become much more active on a regional level by organizing regional conferences and workshops while maintaining a yearly statewide banquet and business meeting. This proposed change is an effort to help reduce travel and lodging expenses for the members and to better serve the members by directing the workshops toward the needs of the regional teachers and programs. KATEA's emphasis is in the promotion of technical education through education

of the teachers, recognition of outstanding teachers and programs, and through scholarships to technical education students. KATEA has a close working relationship with other statewide education associations such as the Kentucky Association of Career and technical Education (KACTE) and is affiliated at the national level with the International Technical Education Association (ITEA).



Dr. Rodney Stanley

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