

The Department of Industrial and Engineering Technology



Morehead State University

March 2006

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IET Robotics Team Places 3rd at NAIT Convention

The IET Robotics Team placed 3rd out of eleven universities participating in the Tele-Operated Robotic Manipulator Contest during the 2005 NAIT Convention in St. Louis, MO held November 16-19, 2005. The team was required to design and build their own robotic manipulator without using any robotic kits or off-the-shelf robot manipulators and prepare a flat poster regarding the manipulator. The robot was required to run an obstacle course, pick up and carry an 8 inch long piece of 1.5 inch EMT conduit and place it through a 3-inch hole at the end of the course.

In the contest, MSU competed

against teams from Central Connecticut State University, Eastern Kentucky University, Indiana State University, Iowa State University, Millersville University, Ohio Northern University, Purdue University, Spoon River Community Technical College, University of North Dakota, and the University of Wisconsin-Platteville. Congratulations, team, for a job well done.

Six IET faculty members and five graduate students also attended the convention. Faculty members were Dr. Farouq Al-Hourani, Dr. Yudi Gondokaryono, Dr. William Grise', Sam Mason, Dr. Charles Patrick, and Dr. Ahmad Zargari. The GA's attending were Joseph Barker,



IET Robotics Team (standing, from left) David Nickel, Dwayne Yearly, Dr. Farouq Al-Hourani (faculty adviser), and Brandon Osborne. (kneeling) Bill Lindberg and Casey Brown

Roy Gentry, Yogesh Patil, and Keith Roe. Faculty and GA's teamed up to make eight presentations at the convention.

Special points of interest:

- NAIT/SME Student Chapter Toyota tour, April 5, 2006.
- Honor's Day Dinner for the College of Science and Technology, May 4, 2006 at 6:00 p.m.
- Graduation Reception, May 12, 2006 at 4:00 p.m.
- STIEC '05 Conference May 10-12, 2006 in Wilmington, NC.
- NAIT 2006 Convention, November 15-18, 2006.

Welcome New IET Graduate Assistants



Ariana working in the GA office.

Ariana Gracia-Medrano: Graduated in December 2005 from MSU with a BS in Industrial Technology. She is originally from Mexico City and came to MSU on an athletic scholarship in tennis.

Her GA assignments include assisting and tutoring in the CAD/ Graphics labs and courses.

Antonio Tramber:

Graduated from MSU in 2005 with a BS in Management. He is currently pursuing a MSIT and is assigned to assist Dr. Patrick. Hailing from Louisville, KY, Tony is a big sports fan and plays competitively in the city league and MSU intramurals.



Antonio assisting undergraduate Steven Field with a project.

IET Hosts TSA Review at MSU



Sam Mason helps students register their entries for the dragster competition.

On February 24, 2006, Morehead State University's (MSU) Department of Industrial and Engineering Technology (IET) and the Eastern Kentucky Technology Education Association (EKTEA) hosted the 9th Annual TSA Review. Approximately 100 high school and middle school students from the University's service region participated in eight competitive technology events. The events were held to enhance students' technological problem-solving skills in order to prepare them for more challenging and competitive events at the state TSA conference to be held in Louisville, March 31 and April 1, 2006.

The Review began with opening remarks from Dr. Ahmad Zargari, IET Chair, and Dan Kelly, EKTEA President for 2005-2006.

The EKTEA TSA Review was established based upon recommendations from members of the Eastern Kentucky Technology Education Association (EKTEA). The members rec-

ognized the need for incorporating the current challenges of modern-day technology, such as use of the Internet, as well as the fundamental skills of mathematics, science, communication, and design in order to develop technological problem solving skills.

The participating schools and technology teachers whose dedication made the TSA Review a success were: Billy Allen, Lewis County; Dan Kelly and Randy Heaberlin, Paul G. Blazer High School; Wendell Morris, Raceland High School; Phil French, Nicholas County High School; Charlie Charles and Todd Campbell, Rowan County High School; Lowell E. Cantrell, Morgan County High School; Jerry Howard, Wolfe County High School; and Steve Holland, Mason County High School.

The eight events and their coordinators were:

- * Promotional Graphics - Mr. Sam Mason
- * Research and Design - Mr.

Sam Mason and Mr. David Flora

- * Structural Engineering - Dr. Farouq Al-Hourani
- * Technology Bowl - Dr. Rodney Stanley
- * Technology and Problem Solving - Dr. Yudi Gondokaryono
- * Prepared Presentation - Dr. Rodney Stanley
- * Cyberspace Pursuit - Mr. Sam Mason
- * Computer Aided Design/Drafting & Technical Sketching - Dr. Ronald Spangler

In addition, several IET students assisted in the successful completion of the events. These students included graduate students Dalcus Sparks, Keith Roe, Ariana Gracia-Medrano, Antonio Tramber, and Yogesh Patil; student teacher Doug Klein; and technology education student Dave Roeser.

IET Servers



Dr. Yudi Gondokaryono works with the two IET servers.

In the past year, IET department had received two servers. One from the Title Ic grant and the other from Dr. Gondokaryono's internal grant. With the collaboration with the IT department, we have both servers connected to the campus network. The two servers are named iet1.morehead-st.edu and iet2.morehead-st.edu.

Both servers are running RedHat Linux AS 4.0. We have a web server running on iet2.morehead-st.edu for publishing the result of Dr. Gondokaryono's research. The iet1.morehead-st.edu is currently

running Samba file server which serve as a departmental file storage system for the faculty and staff usage. We are in the process of making account for all faculty and staff. Each faculty and staff will have a personal storage space and also we will have a shared storage space for information exchanges. Access to iet1.morehead-st.edu is currently limited to our network (not the entire campus).

In the future we will definitely expand the use of the server for other function such as NAIT portfolio storage, per-

sonal web pages, classes web pages, department's mailing list, and many others. Obviously we need more storage space where we can access it from anywhere. Maybe we can have student accounts in the near future.

This is just the beginning, we need more support for having more storage space, backup systems, and UPS backup system. Also these server requires an full time administrator which is willing to maintain them.

KCTCS - MSU "Completer" Degree

Morehead State University plans to offer a new degree program in Technology Management from the Department of Industrial and Engineering Technology (IET) in the College of Science and Technology beginning fall 2006. This degree is designed to meet the expanding need for challenging jobs in technology and engineering management. The 2+2 Technology Management Program specifically targets Kentucky Community and Technical College System (KCTCS) associate-level graduates from technology-related programs and is intended as a "completer" program for the KCTCS associate degree graduates. Students must have graduated with an associate degree from the KCTCS with a technology-related degree. The BS in Technology Management seeks to enhance the Academic offerings and opportunities for associate-level graduates, par-

ticularly graduates from the KCTCS. The program would heighten the capabilities of graduates to answer the call for an advanced workforce in the Commonwealth of Kentucky

Admission Requirements:

1. Unconditional acceptance to Morehead State University through the Office of Enrollment Services. The Office of Enrollment Services may be contacted at (606) 783-2000 or 1-800-585-6781.
2. Student must have graduate with an associate degree from the KCTCS with a technology-related degree and cumulative GPA of 2.0 on all college work. Such associate-level degree programs include: Computer Aided Drafting, Electrical/Electronics Technology, Machine Tool Technology, Applied Process Technology, In-

dustrial Maintenance Technology, Quality Management Systems, Manufacturing Systems Technology Surveying and Mapping, Industrial Maintenance Technology, Wood Manufacturing Technology, Industrial Automation Technology, Industrial Chemical Technology, Instrumentation and Process Control, and Civil Engineering Technology. Students with other technology-related degrees from KCTCS or other community college systems may petition IET to qualify under this requirement.

3. Students must meet the full general education requirements for a bachelor degree at MSU.

Application Procedure:

1. Submit an application packet containing the fol-

- * Official transcript from each university /college attended.
- * Copy of course description(s) if transfer credit (where indicated by Enrollment Services.)

2. Upon acceptance to MSU, contact:

IET Technology Management
210 Lloyd Cassity Bldg.
Morehead State University
Morehead, KY 40351-1689

Phone: 606-783-2418

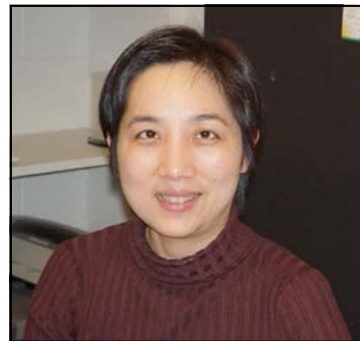
Congratulations ! (continued on page 6)



Congratulations to Dr. Charles Patrick, who was selected as the NAIT Region 3 Outstanding Industrial Technology Professor (OITP) during the 2005 NAIT Convention in November.

Pictured above (from left) Dr. James Edwards, San Francisco State University;

Mr. John Flanagan, President of Goodheart-Wilcox Publisher, sponsor of the OITP Awards; Dr Mahyar Izadi, President, NAIT University Division; Dr. Larry Olson, Arizona State University; Dr. Charles Patrick, Morehead State University; Dr. Lynda Kenney, University of North Dakota; and Dr. Fred Walker, University of Southern Maine.



Yuqiu You, Assistant Professor of Industrial and Engineering Technology, has successfully defended her dissertation to be awarded her Ph.D. in Technology Management with a specialization in Manufacturing Systems

from Indiana State University. Yuqiu received her bachelor degree in Engineering from Huazhong University of Science and Technology in China and graduated from Morehead State University in December 2001 with a Master of Science in Industrial Technology. She has been employed as an Assistant Professor at MSU since August 2005. Congratulations Dr. You!

Advisory Board Highlights



*James LeMaster,
The Walker Company*

James (Jim) LeMaster is a Project Coordinator and Estimator for The Walker Company in Mt. Sterling, KY. The Walker Company is a multi-faceted general construction, construction and construction materials supply company. Jim's career did not start here, however. He did not follow the construction trades originally, even though he loved the fields encompassing drafting and design. A love of flying drew him into his first career and brought him to Morehead State University. At MSU, he earned enough college credits (1965 - 67) to apply for Officer Candidate and Flight School through the U.S. Army. Upon completion of Officer Candidate and Flight School and a tour in Vietnam, the Army sent him back to MSU to complete a Bachelor Degree in Industrial Technology (1972). After a tour in Germany, it

was back to MSU for completion of a Master of Science in Industrial Education (1975). Later, during a second tour at Ft. Knox, KY., he earned 16 hours of Business Organization and Management at the University of Louisville.

Jim left the Army in 1975 to pursue a career as a corporate pilot, flew as a commercial pilot for 12 years, and was named Professional Pilot of the Year by the Association of Professional Pilots. It was at this time that the U.S. Army asked Jim to re-join and assist the National Guard in a new R.O.T.C. initiative designed to entice college students into joining the National Guard and become career officers. Jim stayed with the military and used his Industrial Technology skills while working with the Design and Development arm of

the National Guard Bureau in Washington, DC. In this assignment, Jim's primary job was to assist in the development of computer training for combat crews learning to man the new Abrams Main Battle Tank.

After completing 30 years of service with 19,000+ flying hours and attaining the rank of Lieutenant Colonel, he retired from active service and returned, again, to Morehead. Being too young to retire permanently, Jim learned that The Walker Company was initializing a new General Construction division in their company and needed an experienced person with management, print reading, and estimating skills to fill the position of Program Coordinator/Estimator. Jim's daily duties include, but are not limited to, estimating the cost of building projects such as schools, courthouses, churches, and bridges; coordinating and training company personnel in the art of print reading and the interpretation of a project's scope of work; reviewing supplier's shop and assembly drawings for conformance to project specifications;

and scheduling supervisory staff continuing management and education training requirements.

As a member of the Department of Industrial and Engineering Technology Advisory Board, Jim feels that a collaborative group such as this is very important to the growth of MSU, the IET Department, and the various industries they endeavor to support. With individuals of different backgrounds and experience from both the University and industry that are willing to give constructive input, IET is able to glean first hand knowledge as to what skills are marketable and how to design and develop a curriculum to meet those needs. This approach allows the Department the opportunity to design the student course load necessary to develop students that are fully qualified to be hired into the ever-changing industrial complex. The construction trades are a constantly evolving field and you must stay abreast of the technology and skills required to apply the technology in this competitive environment. There-

fore, the cooperation and coordination between our institutions of higher learning and industry are paramount if today's students are to be successful. Jim says he is very proud of the strides IET has made, which is one of the many reasons he is glad to assist the Department, whether it is teaching a class, mentoring co-op students, or advising individuals on career choices.

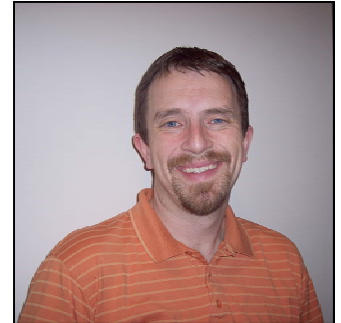
IET Graduate Highlights

Randy Alexander, Systems Administrator, Lexmark International, Inc., graduated from Morehead State University, Magna Cum Laude in December, 1996 with a Bachelor of Science in Industrial Education and Technology. He has worked for Lexmark since January 1997.

Randy's career at Lexmark has spanned several projects, including designing printer covers for several Lexmark printers. He currently is heading a major

CAD data migration. He received the "Make It Happen" award (Nov '03) and the "Vision Excellence" Award (Jan '04). The "Vision Excellence" award is given to only 12 employees corporate wide each year. Along with engineering systems support, Randy also coordinates and provides training and education for engineering applicants for Lexmark. He trains employees on a variety of applications worldwide. Randy's spare time is spent with his family and friends. He serves

as vice-president of the Sigma Pi, Delta Rho Alumni Association and serves as webmaster for Harmony Christian Church. He resides in Georgetown with his wife of ten years, Krista, and their four year old son, William.



*Randy Alexander
Lexmark International, Inc.*

IET Student Honors

Outstanding Senior Project

The Department of Industrial and Engineering Technology had a total of 24 graduates for December 2005 in the follow categories:

- * 2 Associate of Applied Science
- * 16 Bachelor of Science
- * 6 Master of Science

The IET Graduate Reception was held in the Commonwealth Room, ADUC on December 16, 2005 for graduates and their guests. During the reception, Ariana Gracia-Medrano was honored as the student with the Outstanding Senior Project in IET 499C. Ariana's project was titled "Efficient Use of Space in Small Apartments" and her poster is currently on display on the third floor of Lloyd Cassity Building.

Honor's Day Dinner

The College of Science and Technology will hold it's Honors Day Dinner in the Crager Room, ADUC on May 4, 2006. The IET students who will receive recognition for their outstanding performance are:

- * Roy L. Gentry - Outstanding Graduate, Industrial and Engineering Technology Student
- * Ariana R. Gracia-Medrano - Outstanding Undergraduate, Industrial and Engineering Technology Student
- * Tayshing Chen - Outstanding Graduate, MSIT
- * Joe M. Mayabb - Outstanding Graduate, MSCTE
- * Nancy D. Artrip - Outstanding Student, Com-

puter Aided Design and Graphics

- * Andrew I. Thompson - Outstanding Student, Manufacturing Technology
- * Connie L. Shepherd - Outstanding Student, Technology Education



IET Graduate Reception, Dec. 2006



Dr. Charles Patrick, instructor for IET 499C, congratulates Ariana Gracia-Medrano.

Student Organizations

MSU has active student chapters of the National Association of Industrial Technology (NAIT) and the Society of Manufacturing Engineers (SME) that meet each month in the Lloyd Cassity Building, room 204. Members participate in meetings of regional chapters and tours of regional industry, such as the Toyota tour scheduled for April 15, 2006.

The purpose of these student organizations is to involve students in professional organizations to promote leadership and teamwork, and to stay abreast of new technologies in the workplace.




The National Association of Industrial Technology's (www.nait.org) goal is the promotion of industrial technology in business, industry, education, and government. It is also an accreditation agency for industrial technology programs in colleges, universities, and technical institutes and provides certification of industrial technologists and the recognition of their continued professional development.

The Society of Manufacturing Engineers (www.sme.org) brings people and information together to advance manufacturing knowledge through member services, publications, events, professional development resources, and chapter and technical community networking.

Current NAIT/SME student chapter officers are:

- * President - Casey Brown
- * Vice-President - Dwayne Yeary
- * Secretary - Brandon Osborne
- * Treasurer - Bill Lindberg

Faculty advisors are Dr. Farouq Al-Hourani and Dr.

PRESENT:

TOYOTA TOUR

2006



*Come and see TOYOTA
&
Attend the SME meeting
in Lexington!*

Wednesday, April 5th, 2006

*Sponsored by MSU's
NAIT/SME Student Organizations*

**Contact Dr. Farouq Alhourani (LC310) for
tour reservations.
*Seats are limited!***

Congratulations! (continued)



IET faculty and staff congratulate Keith Roe, MSIT student and IET Graduate Assistant, who has recently accepted a job offer from Stober Drives, Inc. of Maysville, KY. Keith graduated from MSU in 1996 with a BS in Physics and was admitted to the MSIT program in spring 2005. Keith's position at Stober Drives will be Electromechanical Engineer.

IET Advisory Board Members

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.

<i>Company/Institution</i>	<i>Primary Representative</i>
Abner Construction Company, Morehead, KY.	Tod Barhorst
AINAK, Inc., Winchester, KY.	Velva Hall
AK Steel, Ashland, KY.	Susan Lester
Ashland Community & Technical College, Ashland, KY.	Walter Stu Taylor
Blue Star Plastics, Inc., Lexington, KY.	Roger Storch
Boneal, Inc., Means, KY.	Jeffrey Arnold and Keith Gannon
Cabinet for Workforce Development, Frankfort, KY.	Dr. Ahmed Sabie
City of Richmond, Richmond, KY.	Mike Roberts
Cooper Standard Automotive, Mt. Sterling, KY.	Steve Defazio and Sam Stapleton
DP & L Maysville, Maysville, KY.	Steve Barnoski
General Shale Brick, Corbin, KY.	Tony Frazier
Guardian Automotive, Morehead, KY.	Shannon Gagliano and Dick Miceli
Hitachi Automotive Products (USA), Harrodsburg, KY.	Dennis Moody
KMAC, Lexington, KY.	Jerry Duncan and Lynn Witten
Lexmark International, Lexington, KY.	Dave Buckles
Mazak Corporation, Florence, KY.	George Harperink
Palmer Engineering, Winchester, KY.	Kevin Hale
Sealmaster Bearings, Morehead, KY.	Randy Norwood
Summit Polymer, Mt. Sterling, KY.	Christie Smallwood
Technical Training Aids, Covington, KY.	Herb Wedig
The Walker Company, Mt. Sterling, KY.	James LeMaster
Thortek Innovation Laboratories, Irvine, KY.	Douglas Thorpe
Toyota, Ewing, KY.	Tom Holland

IET Welcomes New Representatives to the Spring 2006 Meeting of the Advisory Board: Carlson Software, Inc., Maysville, KY. and Stober Drives, Maysville, KY.

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We are on the Web!

www.moreheadstate.edu/iet



The student comes first.

Morehead State University

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