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2001 Graduate Salaries
High - \$80,000
Low - \$50,000

64% have received a promotion since program completion

100% Agree or Strongly Agree professional competency is a result of the IET department

100% rate this program Good or Excellent

100% have FULL Time employment

A recent survey of our Alumni says:

Did you know.....?

The IET department had 75 graduates for the Fall 2005 and Spring 2006 terms. One of the highest in the College of Science and Technology. During the Spring 2006 Commencement, a high percentage of Master of Science Degrees conferred were MSIT or MSCTE.



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IET Informer



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IET Faculty Attends PLTW Workshops



During the summer, four IET faculty attended Project Lead the Way (PLTW) workshops held in various states and universities across the country. The workshops were offered in three sessions throughout the summer starting from early June until early August. The topics covered in these two-week workshops were based on the PLTW curricula and included such courses as Introduction to Engineering Design, Principles of Design, Computer-Aided Manufacturing (CIM), and Digital Electronics.

Sam Mason participated in two PLTW trainings: Computer Integrated Manufacturing and Gateway to Technology. The CIM workshop, held at the University of South Carolina, focused on computer and software integration roles in automated manufacturing at the high school level. The Gateway to Technology curriculum training, held at Sinclair Community College, focused on areas of electronics, design and modeling using Autodesk Inventor, science of technology and automation and robotics.

Dr. Jaby Mohammad attended the workshop on the Principles of Design at Purdue University. Dr. Ali Alavi participated in Introduction to the Engineering Design workshop held at the University of Maryland at Baltimore County. Also, Dr. Xiaolong Li attended the workshop on Digital Electronics at Sinclair Community College.

see *PLTW* pg 2...

<i>PLTW</i>	Pg 2
<i>New Faculty</i>	Pg 2
<i>Students Highlights</i>	Pg 3
<i>PCG Interviews</i>	Pg 4
<i>Alumni Highlights</i>	Pg 4
<i>Faculty News</i>	Pg 5
<i>IET's New GAs</i>	Pg 6
<i>Advisory Board Highlights</i>	Pg 7
<i>Newest Members of IET</i>	Pg 7

Of Interest...

NAIT Convention
Oct. 23-27, 2007 Panama City Beach, FL

ITEA Conference
Feb. 21-23 2008,
Salt Lake City, UT

ASEE Annual Conferennce
June 22-25, 2008
Pittsburg, PA

PLTW

Project Lead The Way is a not-for-profit organization that promotes pre-engineering courses for middle and high school students. It forms partnerships with public schools, higher education institutions and the private sector to raise the quantity and quality of engineers and engineering technologists graduating from the educational system.

The mission and vision of PLTW, as stated in their website, is to create dynamic partnerships with the participating schools to prepare an increasing and more diverse group of students to be successful in science, engineering, and engineering technology. For more information on this program, visit their website at: <http://www.pltw.org>.



Mr. Sam Mason and Dr. Jaby Mohammed

In addition, two IET faculty will be Project Lead the Way (PLTW) Certifiers for the State team. **Dr. Jaby Mohammed** and **Mr. Sam Mason** are among six other fellow members; Henry Lacy and Diane Sharp, Kentucky Department of Education, Dr. Debra Besser and James Ballard, University of Kentucky, Dr. Danny Claiborne, Murray State and Dr. Sergio Sgro, EKU.

The Commonwealth of Kentucky is undertaking this pilot project for National Certification of its qualified PLTW high schools throughout the state. The primary purpose is to certify programs that recognize successful implementation of the PLTW program and provide an opportunity for students to apply for college credit. The certified school will also achieve national recognition as a certified pre-engineering site. The training ground for the Certifying Team will be Scott County High School and will consist of two days consisting of a Self-Assessment analysis, Site Visit and Final Certification Report. Kentucky currently has 54 schools using the PLTW curriculum.

New Faculty Joins IET

Dr. Wahed R. Wasel joins the IET department this fall. He obtained his doctoral degree in Mechanical Engineering from the University of Kentucky in May, 2006. Also, he holds an MS degree in Technical Education, Minor in Refrigeration and Air Conditioning from Fotsys University of Professional Education and Eindhoven University of Technology, in Eindhoven, The Netherlands, and a Bachelor of Science in Mechanical Engineering, Minor in Heat Exchangers Performance from Mansoura University in Egypt.



In January 2007 he joined a team from the University of Kentucky to visit Nippon steel company in Japan, also in March 2007; he traveled to Mexico to represent the College of Engineering at the EXPO Manufactura 2007 Monterrey, Mexico.

In August, 2007, Dr. Wasel, with a team of researchers at University of Kentucky, submitted a patent on a new method and system to quickly cure paint. This patent was approved by UKY in the same month.

His professional work experiences includes post doctoral researcher at the University of Kentucky's College of Engineering where he was working on Carbon Nanotubes applications, IR application in nondestructive testing, and measurements by GC and LEASR such as LDV and PIV. In addition, Dr. Wasel worked as a research assistant at the University of Kentucky where he was working on Gas Chromatographer, Electronic Microscopes (SEM, & TEM) and LASER (LDV and PIV), as well as using Non Destructive Testing (NDT) techniques to detect small defects in steel sheets, and also to measure the concentration of live bacteria in solution by using Infrared (IR) technology.

Advisory Board Highlights

Tony Frazier

Tony Frazier, a 1988 IET graduate in Mining, Reclamation, and Energy Studies is Operations Manager of the Automation and Technology Division at General Shale Brick. He was hired with General Shale Brick in June of 1988 as a plant supervisor in the Corbin, Kentucky plant where he was responsible for the manufacturing processes.

After three years, he was promoted to Assistant Plant Manager at the Corbin location and held this position for six years. In May of 1997, Tony was promoted to Plant Manager of Cumberland Mountain Sand in Hillsboro, Tennessee, a company owned by General Shale Brick and held this position for almost four years. At the plant, concrete and masonry sand were manufactured.

In November of 2001, he was promoted to Plant Manager back at the Corbin, Kentucky location and worked there for almost six years. Tony has just been promoted to Operations Manager of the Automation and Technology Division of General Shale Brick, also in Corbin. He has been with this company for almost 20 years.



Tony is married with two children. He met his wife, Missy Frazier, while they were students at Morehead State University. Their oldest child is Morgan; she is 14 and enjoys sports (soccer, basketball and track). Their son, Nicholas, is 10 and also enjoys sports (football, soccer and baseball).

Newest Members to IET Family and Future MSU Students



Abdoul Wasel

September, 2007

Photo Courtesy of Dr. Wahed Wasel



Lora Zhang

July, 2007

Photo Courtesy of Dr. Yuqiu You

IET's New GA's

Arjunkumar Tummuri is from India. He is majoring in Industrial Technology. He earned his Bachelor of Technology in Mechanical Engineering from Vidya Jyothi Institute of Technology in India (Affiliated to Jawaharlal Nehru Technological University). He also received a Diploma in Automobile Engineering from Sanjay Gandhi Memorial Government Polytechnic in India.



Marc Beck is working as a Graduate Assistant at the Space Science Center. Originally from Frankfurt, Germany, he has been in the States since 2003. Marc graduated with a Bachelor's degree in Computer Science from Brescia University in Owensboro/ Kentucky. Currently he is enrolled in the MSIT program and is auditing Space Science classes.



Prabhakara Rao Eluru is a Graduate Assistant in the Space Science Center. He earned a Bachelor of Science in Mechanical Engineering from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, India. He also holds an Associates degree in Mechanical Engineering from State Board Technical Education & Training, Hyderabad, India. Rao joined IET department in 2006 as a graduate student in Industrial Technology.

Rao has been selected to work in the KySat 2 Satellite Project as a Design Team Member. The KySat project. He visited NASA Ames, Stanford University, California Polytechnic University, and University of Kentucky as a part of the KySat Project Training. He received a research fellowship of \$18,000 to support his education and career. As the lead on ground operations, his responsibilities include tracking satellites, trouble shooting software problems, and working on Packet Station.

Other projects include the overhaul, refurbishment and testing of two anechoic chambers and the associated instrumentation. Also, Rao is working in the assembly of the noise injection test system for the L-Band radio-astronomy feed horn and S-band high-bandwidth antenna testing for the 21 meter Morehead State University Space Tracking Antenna (21 M STA). In addition, he is involved in a research project on Weather station, to find wind speed, direction & Automatic Packet Reporting System (APRS) to send the data globally. This project is part of a direct study course he is currently enrolled in.



Santosh Kumar Kurella is a graduate student at MSU and is currently working as a graduate assistant in both the IET and INFS departments. He came to MSU in January 2006 to pursue a Master of Science in Industrial Technology. Currently, he is in his second semester. Santosh is from India. He obtained his undergraduate degree in Mechanical Engineering from Jawaharlal Nehru Technological University, Hyderabad.



Jennifer Carter is a fourth semester graduate student in the MSIT program. Jennifer graduated with a BS in Mathematics and Physics from MSU and is currently a graduate assistant to the Space Science Center and a member of the KySat engineering team. Jennifer is the only MSU graduate student to be awarded a Kentucky Space Grants Consortium (KSGC) fellowship. The first fellowship was awarded for the proposal of the determination of Morehead State's 21 Meter Space Tracking Antenna as the ground station for the Super Nova/Accelerating Probe (SNAP) and totaled \$17,000. In addition, she was awarded two other KSGC graduate research fellowships totaling \$29,800 to participate in the design and construction of Ky-Sat (Kentucky Satellite).



Siva Krishna Nannapaneni is another new graduate student coming from India. He is pursuing a Master of Science in Industrial Technology degree. Siva is a graduate assistant in the Information Systems department. He holds a bachelor's degree in Electrical and Electronics engineering from Anna University (Chennai, India).

She will be the lead in the ground operations aspect of the project in which she will use both a UHF/VHF and the 21 Meter STA (Space Tracking Antenna) antenna systems to command, track, and retrieve data and telemetry from the satellite. The VHF/UHF ground station at the Space Science Center successfully tracked its first satellite, GeneSat, on August 14, 2007. She gave a presentation titled Kentucky Satellite (KySat): Design, Construction and Analysis of a VHF/UHF Ground Control Station for a Small Satellite at the Kentucky Academy of Career and Technical Education Conference in Louisville, KY on July 25, 2007. She was one of four graduates accepted to give a presentation at the National NAIT convention October 23-27, 2007 in Panama City, FL.



Pavankumar kurmagadda, native of India, is a Graduate student of the Industrial Technology Department. He is working as a Graduate Assistant to Dr. Jaby Mohammad. Pavankumar obtained his Bachelor of Technology in Mechanical Engineering from Vidya Jyothi Institute of Technology (Affiliated to Jawaharlal Technological University Hyderabad, India). He has a Diploma in Mechanical Engineering from KDR Govt. Polytechnic College. His work experience includes working as an Associate Rotary Project (Vendor Development Engineer) in Tecumseh Products India Pvt. Ltd.

Curtis M. Adkins, a senior Engineering Technology student, sparked the interest of many when he developed a unique portable water purifier, which he dubbed "Osmo". Mr. Adkins began the research project through the IET499c Senior Project course in the Spring of 2007. He was assisted by Mr. Sam Mason, Dr. Grise and the MSU Water Testing Lab. For his accomplishment, Curtis was honored with the "Outstanding Senior Project" award. Currently, he is seeking research funding and engineering a more advanced design that will far surpass its predecessor.



PCG Interviews Construction Majors

On Wednesday, 10-03-07, Ms. Robyn Danbury with Performance Contracting Group (PCG) based in Lenexa, KS visited Dr. Patrick's ITCM 101 class to conduct interviews with IET construction majors. PCG is one of the largest specialty construction companies in the U.S. Their primary focus is in commercial interior contracting and mechanical insulation. PCG has eight divisions with total revenues that exceed \$745 million annually. Mrs. Danbury is a corporate recruiter for PCG in their human resources division. She visited on Tuesday and Wednesday, Oct. 2 and 3 to interview ten (10) continuing students for intern positions during summer 2008 and seven (7) students graduating either Dec. 2007 or May 2008 for full-time position as Assistant Project Engineers. One of our Construction Management graduates, Mr. Tony Hamby was hired in May 2007 and is now working in Las Vegas, NV as a Project Engineer for PCG. Two of our students, Eric Bennett and Kevin Woods, worked for PCG this past summer as interns in Indianapolis and Atlanta. They were both offered full time positions recently with PCG at very competitive salaries (plus signing bonuses). Eric will be located in Lexington, KY and Kevin will be in Atlanta – both as Assistant Project Engineers.



Alumni Highlights

Dennis Moody earned his Bachelor of Science degree in Industrial Technology/Electronics from Morehead State University in December 2000. In May 2005, Dennis earned his Master of Science degree in Industrial Technology from Eastern Kentucky University. He has been employed by Hitachi Automotive Products in Harrodsburg, Kentucky since June 2001.



Hitachi Automotive Products was established in Harrodsburg Kentucky in January, 1985, and is a wholly owned subsidiary of Hitachi America Ltd. Hitachi ranks among the 50 largest industrial corporations in the world producing over 20,000 different products.

The Harrodsburg plant produces various powertrain sensors and controls including electronic throttle bodies, air flow meters, and control modules for engines, transmissions, and transfer cases.

Dennis began his career in the quality department as a line engineer. In 2004 he was promoted to Assistant Manager in the quality department. Dennis was promoted to Lead Engineer in the Control Unit quality department in September 2007.

His career at Hitachi has spanned several projects including the launch of two engine control unit lines and two design generations of continuously variable transmission control units. Dennis helped launch Hitachi's solder rework training program saving the company thousands of dollars in outsourced training costs.

Raised in Owingsville, KY, Dennis now lives in Harrodsburg, KY, where he spends his spare time operating his car wash business.

Dr. Yuqiu You attended the National Science Foundation Day with Dr. Mohammed, Dr. Alungbe, and Dr. Alavi in Oak Ridge, Tennessee, on April 19.

Dr. You attended a four-day MAZAK programming workshop in Florence KY in the summer to prepare for the NC/CNC manufacturing technology course in the fall semester.

Also, Dr. You and Dr. Mohammed set up two demonstration sessions on AutoCAD and MasterCAM in Lee County High School for the middle school and high school students on May 4th. to introduce the technology applications and academic programs. Dr. You also worked with Dr. Dora Ahmadi, the chair of the Mathematics department, in the TMP program in both spring and fall semesters. They visited several elementary schools in the program conducting technology consulting and training for math and technology teachers.

Dr. You and Dr. Alavi attended one SOAR session for recruiting new students and helping them register in their desired IET programs.

Dr. Xialong Li published a paper entitled Modeling and Analysis of Link Stability in Mobile Ad Hoc Networks in the International Journal of Ad-Hoc & Sensor Wireless Networks, Vol. 3, No. 2-3, pp. 237-254, 2007. Also, his paper on Development and Application of a New Curriculum for Computer Networking was accepted for presentation at the ASEE Engineering Technology Division Conference on Industry Education Collaboration in New Orleans, LA in February, 2008.

Dr. Jaby Mohammed was commissioned as a Kentucky Colonel in the Commonwealth of Kentucky for his work with Kentucky Governors scholar program. He is the third faculty after Mr. Bob Hayes and Dr. Ahmad Zargari to receive the honor. He was also mentioned in the American Registry for Outstanding Professionals for the year 2007. Dr. Mohammad has presented two papers in Dallas, TX and Detroit, MI on material Innovation for die casting molds and manufacture of die casting Molds via DMD, respectively. He will attend NAIT to present three papers with Dr. Gabriel Alungbe, Mr. Sam Mason, and Dr. Ahmad Zargari.

Sam Mason received funding from the Center for Teaching and Learning at MSU to participate in a Mastercam training workshop in Gig Harbor, WA during July 30th ~ August 3, 2007. This was the second award he has received to attend training pertaining to Integration of Mastercam into the Classroom which he is including in the ITMT 186 Manufacturing and Fabrication course and integration into other manufacturing related courses. Also, Sam Mason and Dr. Rodney Stanley attended the International Technology Education Association (ITEA) conference in San Antonio, TX this past spring.

The conference covered topics of engineering and technology design throughout all grade levels from elementary to post secondary as well as integrative and collaborative programs throughout the United States and global community. They are hoping that a Design Integration/ Collaborative project can be acquired through a local high school in the area and one in Australia.

Sam Mason will be presenting at the NAIT conference with Dr. Ahmad Zargari and Dr. Jaby Mohammed. The presentations titled "The Status and Demographics of Industrial Technology Alumni: A National Survey of Selected Industrial Technology Graduates of 2002" and "Application of Autodesk Inventor Solid Modeling and Analysis of MEMS-Nano Structure" were accepted to the 40th annual NAIT convention that is being held October 23~27, 2007 in Panama City, Florida.

Through involvement in PLTW and ITEA conferences, Sam Mason is performing an outreach activity with a local elementary school. The project is a STLP/ Engineering Club at Tilden Hogge Elementary School in Morehead, KY. The club, which is one of many others, meets every available Friday for approximately one hour. Principal Debbie Howes stated, "we want the students to engage in different activities to provide motivational activities on the least motivated day of the week at the least motivated time of that day. The clubs provide a creative way to meet core content, in an environment that is stimulating because it is non-routine." The intermediate team teachers are able to have a common planning period during club time. Both Principal Debbie Howes and Sam Mason are alumni from Morehead State University.

Sam Mason had four presentation abstracts accepted to the ITEA's 70th annual conference to be held in Salt Lake City, Utah on February 21~23, 2008. The presentations titled "Blue Licks Battlefield Model", "PLTW Certification through Technology Education Programs", "IT Program Effectiveness Through Surveys of Graduates" and "Implementing PLTW POE Curriculum with GSP Students" will be presented by he and Drs. Rodney Stanley and Jaby Mohammed.

On May 7 - 8, 2007, **Dr. Ahmad Zargari**, Accreditation Consultant representing the National Association of Industrial Technology (NAIT), visited the Holmes Community College campus in Grenada, Mississippi. The purpose of the visit was to review two AAS programs' readiness for initial NAIT accreditation. The programs are: AAS in Manufacturing Technology and AAS in Electronics Technology. He chaired the NAIT visiting team representing the board of accreditation for their initial accreditation visit to Ivy Tech Community College, Bloomington, Indiana on April 2 - 3, 2007. He also served as a member of the NAIT visiting team to Ivy Tech Community College at Lafayette, Indiana.