

AET INFORMER

DEPARTMENT OF APPLIED ENGINEERING AND TECHNOLOGY

M O R E H E A D S T A T E U N I V E R S I T Y

Volume 13 Issue 1

October 2011

Exceeding Expectations!

The Applied Engineering and Technology Advisory Board have generously continued to provide expert advice and professional support essential to AET programs/curricula and their potential impact on the economic development of MSU's service region. The department has developed a new program of distinction – Engineering Management (EM) which is aimed at enhancing AET students' STEM skills. This will require higher level courses in engineering, mathematics and physics. The Engineering Management program is a direct response to an increasing need in the Eastern Kentucky region for industrial personnel who are capable of solving engineering related problems that require a stronger mathematical and scientific background. The purpose of the EM program is consistent with MSU's mission to provide superior academic preparation to students in its service area so that they can take on challenging positions in industry, government, and education in order to aid the economic development of MSU's service region.

AET faculty has revised and enhanced the Associate of Applied Science in Industrial Technology (AASIT) to the AAS in Engineering Technology. This revision aligns the existing AASIT with our ATMAE accredited Bachelor of Science in Engineering Technology program and options: 1) Construction Management and Civil Engineering Technology, 2) Design and Manufacturing Engineering Technology, and 3) Electronics & Computer Engineering Technology. The alignment will provide the students entering the AET Department the opportunity to earn both the AAS and BS degree in four years.

The Master of Science in Engineering and Technology Management (MSETM) is now available in online and hybrid formats in order to provide the already employed industrial personal with access to a flexible engineering based graduate program; at the same time it continues to serve traditional graduate students who hold a BS degree in Engineering Technology, Computer Science, Computer Engineering and other Engineering related fields. This program prepares advanced engineering/technology management personnel for industrial organizations in the region and beyond.

In response to the CPE's mandate to double the number of college graduates in 2020, AET offers an online complete Bachelor of Science degree in Technology Management (BSTM). The BSTM has made higher education accessible to non-traditional distance learners who are employed in your corporations. BSTM students have earned an associate degree from KCTCS or other community and junior college systems.

AET's graduate and undergraduate programs in Industrial Education have continued to prepare Technology and CTE teachers and administrators for the public and private schools in the Commonwealth of Kentucky.

In an effort to recruit, retain, and prepare AET students to be competitive in the workplace, the Advisory Board continues to assist us in developing a plan for lab and facilities renovation, as well as marketing strategies that are essential to our success. The Advisory Board Scholarship has established a merit-based scholarship endowment that will have a lasting impact on AET's growth. Congratulations! The Board scholarship has reached the mandated threshold with an endowment balance of \$25,040. Additional donations from the advisory board companies, employers, alumni, faculty/staff, and AET friends will make our dream of a \$250,000 endowment a reality.

Dr. Ahmad Zargari
AET Chair



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FACULTY spotlight



Dr. Hans Chapman

Dr. Hans Chapman's research on the topic "Enhancing the Solar Energy Resource Database in Eastern Kentucky" is currently underway. The purpose of this research is to develop more location-specific solar resources in the Eastern Kentucky

region. The research is funded by a grant from the MSU Research and Creative Productions Committee.

In May, 2011, Dr. Chapman attended the National Solar Energy Conference at Raleigh, NC. In June, 2011, Dr. Chapman completed a one-week "Train the Trainer Solar Energy Installation" workshop at J. D. Patton ATC, Fort Mitchell, KY. Participation in the conference and workshop was funded through a partnership between the AET Department and the Magoffin County School District.

A technical paper titled "Design, Operation, and Analysis of a Floating Water Fountain System Using Renewable Energy Technology" has been accepted for publication by the Journal of Technology Studies. Dr. Chapman coauthored the article with AET faculty colleagues, Dr. Joshi and Dr. Adhikari.

Dr. Chapman will also present a paper on the topic "An Energy Systems and Sustainability Course for Manufacturing and Construction Engineering Technology Students" at the upcoming ATMAE conference.



Dr. Sadeta Krijestorac

Dr. Sadeta Krijestorac was one of the coauthors in an article, titled "An Algorithm for Optimizing Vertical Handoff between WLAN and Cellular Networks". The article was published in the Fall 2011 edition of the Cyber Journals: Multidisciplinary Journals in Science

and Technology (Selected Areas in Telecommunications). Dr. Krijestorac was also a coauthor of another article "Border Gateway Protocols", which was published in the International Journal of Modern Engineering (IJME), Spring/Summer 2011 edition.

Dr. Krijestorac attended a workshop funded by the National Science Foundation (NSF) on the topic VHDL and FPGA. The workshop was held at Michigan Technological University.



Dr. Sanjeev Adhikari

Dr. Sanjeev Adhikari received a grant of \$2,500 from the MSU Center of Leadership and Professional Development to travel to Osaka University in December 2011. Dr. Adhikari will, in collaboration with Prof. Motohide

Tada of Osaka University, present a lecture about Green Construction and Sustainability. Dr. Adhikari's paper titled, "The Sensitivity of Aggregate Size within Sand Mastic to Model the Microstructure of Asphalt Mixture" has been accepted for publication in the Journal of Materials in Civil Engineering. Dr. Adhikari attended the 2011 Material Handling Teachers Institute (MHTI) in Auburn, AL, from July 31 - August 4th, 2011. The MHTI seminar was focused on the planning of material handling in industry. Dr. Adhikari will be presenting five papers related to construction, sustainability and green building at the annual ATMAE conference.



Dr. Nilesh Joshi

Dr. Nilesh Joshi is currently working on various projects in the areas of Engineering Systems Design and Operations Management. Graduate and undergraduate students who are interested in these areas should contact him directly. He will

be giving a presentation titled, "Application of System Dynamics and Agent Based Modeling to Supply Chain Simulation" at the 2011 ATMAE Annual Conference in Cleveland, OH. His co-presenters are Dr. Yuqiu You and Dr. Rajeev Madhavannair.



Dr. Rajeev Madhavannair

Dr. Rajeev Nair is currently working on an internal research grant from the MSU Research and Creative Productions Committee for a research proposal titled, "Performance Evaluation of Patterns of Metallic and Polymer

Stents by Static Implicit and Dynamic Explicit Finite Element Analysis." The main objective of this research is to investigate the bio-mechanical behavior of metallic and polymer stents during deployment inside an artery and the evaluation of stresses and fatigue life in the vascular

FACULTY spotlight

wall caused due to stent deployment by computer-aided engineering and design (CAE/CAD) and Finite Element Analysis (FEA) techniques. Jared May, a graduate student in the AET department is currently working with Dr. Nair's guidance towards his Master of Science (Engineering Technology) Thesis in this field. Dr. Nair is also guiding an undergraduate student, Brandon White, in his SME research scholarship competition. This research is on optimization of die parameters in a bimetal extrusion process using the finite element method.

Dr. Nair has authored/co-authored four proposals accepted for the upcoming 2011 ATMAE conference in Cleveland, Ohio. The presentations are "Predicting an Optimal Die Shape Design in Bimetal Extrusion using Finite Element Analysis," "Computer Simulation of the Mechanical Properties of Asphalt Highways with Laboratory Measurements" with Dr. Adhikari, "Application of System Dynamics and Agent Based Modeling to Supply Chain Simulation" with Dr. Joshi, and "An Online Manufacturing Information System for Robotic Systems" with Dr. You. Dr. Nair has developed a new undergraduate course titled, Mechanics of Materials (ITCD 303) that is awaiting approval by the University committee. The aim of this course is to determine stresses, strains, and displacements in structures and their components due to the loads acting on them using theoretical knowledge and then augmenting it with laboratory work by use of finite element analysis software.



Dr. Yuqiu You

Dr. Yuqiu You will present her research project "An Online Manufacturing Information System for Robotic Systems" and two other presentations at the annual ATMAE conference in Cleveland, OH in November 2011.

She reviewed two manuscripts for the International Journal of Modern Engineering (IJME). Dr. You was awarded a SOTL grant from the Center for Leadership and Professional Development to visit the Department of Automatic Control of the Electrical Engineering College at Guangxi University in China. The purpose of the trip is to study and analyze the differences in teaching and learning strategies applied in similar courses offered from two different universities in the area of Manufacturing Automation, and also to seek collaboration opportunities. Dr. You has taught a robot-builder summer camp for

middle school students collaborating with faculty in the College of Education. She is the advisor for the AET Department Robotics Team, which is preparing for the national competition at the ATMAE conference.



Mr. Sam Mason

Sam Mason, for the past three years, has been consulting for and with CNC Software Inc. on development of online/e-learning high school design, manufacturing and machining curriculum that involves Science, Technology,

Engineering and Mathematics (STEM) initiatives and new projects for teachers to introduce to their students. This curriculum is delivered through Mastercam University (MastercamU), an online training center with 10 available courses that utilizes curriculum delivered by professionals in the field. The CAD/CAM software is called Mastercam and is the most widely used software of its kind in the world. As pioneers in CAD/CAM for over two decades, CNC Software, and Mastercam continue to set the pace for the CAD/CAM industry. Sam is also a member of the CNC Software/ MastercamU advisory board and has represented CNC Software as a Technical Information Specialist for the past three summers in Kansas City, MO during the SkillsUSA competition that hosts 4500 students.

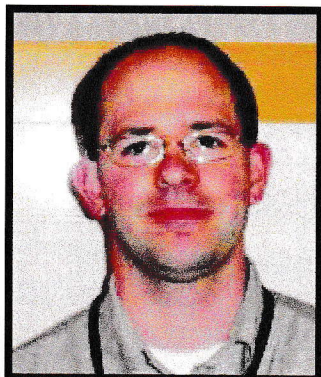


Dr. Joyce Stubbs

Dr. Joyce (Wogoman) Stubbs and Dr. Lewis (Ed) Workman, NKU, have authored an article titled "Aligning Career and Technical Education". The article was accepted for publication by the Research in Higher Education

Journal. The article is a study of issues facing Career and Technical Education in Kentucky and the nation. Dr. Stubbs, in collaboration with Steve Stubbs and Laken Ruth, presented "Vet Tech Career Pathway" at the CTE Summer Program, Agriculture Education Section, July, 19 in Louisville, KY. Dr. Stubbs and Steve Stubbs have been accepted to present at National Career Pathways Network (NCPN) Conference October 14, at the Orlando World Center Marriott. The presentation is "Veterinary Technician Middle School through Associate of Applied Science Degree".

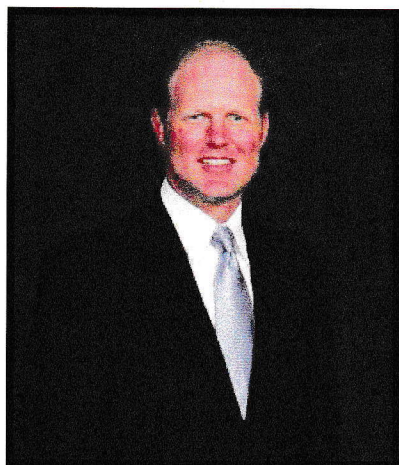
ADVISORY BOARD **spotlight**



Chris Daniels, Advisory Board Chair

Christopher Daniels, is the General Manager for Boneal, Inc. located in Means, KY. Boneal Incorporated is a Prime-contract manufacturer for government agencies and various private sector companies.

Boneal provides a single contact point for technology, procurement, sourcing, and manufacturing. Since joining Boneal in 2003, Mr. Daniels has served in a variety of roles for the organization. Beginning in 2007 through 2009, he served as Programs Manager for the company, including direct oversight of Boneal's MD-1 Universal Tow Bar program for the United States Air Force. Mr. Daniels holds a BS in Mechanical Engineering from the University of Kentucky and a BS in Physics from Morehead State University,



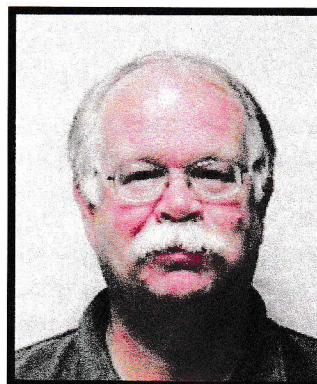
Dr. Dale Winkler

Before joining the Kentucky Education & Workforce Development Cabinet as Executive Director of Career and Technical Education in June 2011, Dale Winkler earned his Bachelor of Science in Accounting (1994), Certification

in Business Education (1996), and Master of Arts in Education (1999) from Cumberland College. In 2002, he completed a Rank I in Educational Leadership and Administration from Eastern Kentucky University. In May 2010, Winkler graduated from the University of Kentucky with a Doctor of Education (EdD) in Educational Leadership Studies.

Dr. Winkler is a product of career and technical education. He started as a high school student in the business and office program at KY-Tech Madison County. He was involved in Future Business Leaders of America (FBLA)

and eventually became the Phi Beta Lambda State President while attending college. Over the course of his career, Winkler gained valuable experiences by serving as a classroom teacher in a local high school and area technology center, state academic consultant for business and marketing education, state service coordinator for federal programs, and KY Tech principal.



Dick Konopka, Past Advisory Board Chair

Dick Konopka of Toyota Motor Manufacturing (TMM) has been on the AET Advisory Board for years. He graduated from Miami University in Oxford, Ohio in 1976 with a Bachelors of Science degree in Engineering Technology.

Mr. Konopka has been employed with Toyota Motor Manufacturing since 1989 when he began his career as a Powertrain Quality Engineering Specialist with Toyota Motor Manufacturing Kentucky (TMMK) before being promoted to Manager of his division. His responsibilities included machining and assembly of four cylinder and six cylinder engines and axles.

From 1997 until 2004 he worked with Toyota Motor Manufacturing West Virginia (TMMWV). His role in the Buffalo, WV facility was Quality Manager. In this plant, his duties included overseeing the machining and assembly of four cylinder and six cylinder engines as well as five and six speed automatic transmissions.

In 2004, Mr. Konopka moved on to become Manager in Supplier Commodity Engineering for Toyota Motor Engineering & Manufacturing North America, Inc. In this current position his role is to support the development of the North American supply base in the Toyota Way.

Previously, he worked with Outboard Marine Corporation in Burnsville, NC from 1987 until 1989. In this company, he was the Quality Engineer supporting the machining and assembly of Johnson and Evinrude outboard motors. His previous experience had been with Browning Manufacturing located in Maysville, KY. From 1977 through 1986, He served as the Quality Engineer supporting the manufacturing of gears, sheaves, sprockets, and bearing units for the company.

ALUMNI spotlight



Bill Lindberg

Bill Lindberg, Industrial Engineer for A. Raymond Tinnerman in Flemingsburg, Kentucky is a student at Morehead State University seeking a BS in Industrial Technology with a Manufacturing Robotics option. He previously worked as a Total Industrial Engineer for Kyosan

Denso Manufacturing Kentucky (KDMK) from March of 2007 to July of 2011, where he started as a co-op while attending classes at Morehead. Prior to that, Bill served in the Army as a 19D Cavalry Scout for six years gaining the rank of Sargent E5 and serving one tour in support of Operation Iraqi Freedom.

In his work as a Total Industrial Engineer for KDMK, Bill has been a key member in many Kaizen Projects at first in support of productivity improvement, and later implementing Kanban production systems. He also helped develop and teach classes in standardized work and TPS basic concepts. Also at KDMK, Bill led a team of three full time fabricators who implemented Continuous Improvement projects and built racks and equipment for KDMK's continuous new model introduction.

At A. Raymond Tinnerman, Bill now leads the Continuous Improvement activities while performing other duties as an Industrial Engineer such as supporting new model introduction, creation of work instructions, leading

the preventative maintenance program, packaging engineering and others. A. Raymond Tinnerman, whose products currently consist of metal stampings, roll formed metals, metal assemblies and plastic clip assemblies, plans to expand into Plastic Injection Molding in 2012.

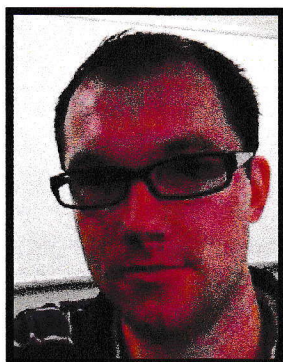
Bill spends his spare time with his family in Flemingsburg, Kentucky. He is a vegetarian and enjoys yoga, meditation and various outdoor activities including hiking, biking and camping.



Glenn Meade

MSU alumnus Glenn Meade recently joined the staff of Adams Communication and Engineering Technology, a defense contract company headquartered in Waldorf, Maryland. In this position, Glenn is currently training in Yuma, Arizona, as an Operator/

Senior Technician on the Aerostat Persistent Ground Surveillance System, which he will operate from a base in the Afghanistan theatre. Glenn is an engineering professional with 20+ years' experience in electronics and electro-mechanical subspecialties in both military and civilian roles. Since 2007, he has spent 3 years in the Iraq/Afghanistan theatres. In 2009, he founded Meade Robotics, a start-up robotics technology laboratory focused on evolutionary tactical applications for IED/EFP detection and disposal.

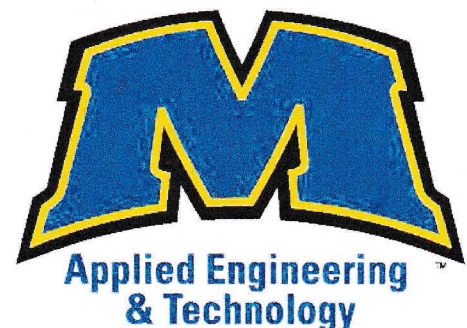


Daniel Risner

Daniel Risner is a Spring 2003 Graduate of the Design and Manufacturing program in the Department of Applied Engineering and Technology Department at Morehead State University. From 1999-2002 he was a member of the Morehead State Basketball team.

In the fall of 2003, Daniel gained employment with Guardian Automotive in Morehead (now SRG Global) as a Manufacturing Engineer overseeing new model program launches. In the winter of 2007 he was promoted to his current position of Launch Manager/Manufacturing Engineer.

Mr. Risner is an active member of Crosspoint Church in Morehead, KY. In his spare time he enjoys golf and mountain biking.



AET NEWS spotlight

Dr. Chapman Selected for President's Leadership Academy

This past summer, the President's Leadership Academy (PLA) Class of 2012 for Morehead State University was announced by MSU President Wayne Andrews at a reception. Dr. Hans Chapman of the Department of Applied Engineering and Technology is one of the twelve selected MSU faculty and staff announced for the class.

Academy members were named after a competitive nomination and selection process that included interviews conducted by a group of community leaders. The President's Leadership Academy provides quality professional development, mentorship, and internship to selected faculty and staff who show potential to be more effective leaders.

The class has so far been engaged in leadership learning activities, projects, lectures, and meetings with MSU's administrative personnel. In August, the class went on a trip to Frankfort and Versailles, KY, where they met with the Council for Post-Secondary Education (CPE) of the Commonwealth of Kentucky.



AET Faculty and Students Tour Toyota-Georgetown

AET's faculty and students were given the opportunity to visit Toyota Motor Manufacturing Kentucky's Georgetown plant on Wednesday, October 12, 2011. The group was given a tour of the facilities and details on the manufacturing and assembly processes involved in making Toyota vehicles in the plant. Those who attended the tour included:

Undergraduate Students: Lindsay Lancaster, Travis Fisher, Tommy Newkirk, Amariah Fultz, Eric Kazee, Bryan Shay, Brian Hanes, Andrew Abbott, Phillip Fitch, Quentin Gaille, Nicholas Morgan, Ian Fowler, Nathan Moore, Tony Knipp, and Kelsey Bundler

Graduate Students: Jared May, Samantha Boone, Justin Hamilton, Lakmal Molligoda, and Cheng Cheng

AET Purchases New Testing Equipment



The Department of Applied Engineering and Technology has put its Departmental Budget to good use as they have been able to purchase a new Universal Testing Machine (UTM) for its programs. The UTM will be delivered this semester and installed with included customer familiarization training for all of the AET Faculty. The machine will be put to use in the IET 307 Materials Science course and many others as the AET department continues to strive toward providing the best education and training for their students and many Advisory Board members that employ them. The machine comes equipped with grips that will allow for both compression and tensile testing of materials. The Universal Testing Machine, supplied by Shimadzu, is a significant upgrade for the AET labs allowing students the opportunity to use equipment that they will see in industry after completing their programs at Morehead State University.

AET NEWS **spotlight**

Simio Awards Grant to AET

Simio LLC, a developer of 3D object-oriented simulation software, has awarded a \$118,800 grant to Applied Engineering and Technology (AET) department. The grant gives the AET department Academic Edition licenses of Simio software to support teaching and research in Simulation Modeling.

"The faculty at Morehead State University is committed to providing the best environment for their students to learn simulation," said Dr. Dennis Pegden, Founder and CEO of Simio. "We are honored to provide them with the best software available to teach their students."

"We are pleased to be the recipient of this grant. It will contribute significantly to our students' hands-on experiences in modeling complex industrial systems", said Dr. Ahmad Zargari, Chair of the AET Department.

"This grant will help us build advanced simulation capabilities in the AET labs" said Dr. Nilesh Joshi, Assistant Professor of AET. "It will also help enhance research activities in the AET department involving discrete and continuous modeling and 3D animation".

With this grant, Morehead State University joins over a 190 universities worldwide including Georgia Tech, Stanford University, and the University of Virginia to participate in Simio's academic program.

2011 ATMAE Presentations

Presenters: Dr. Ahmad Zargari, Dr. Yuqiu You, Morehead State University
Topic: ATMAE Alumni - A Trends Analysis and Demographics of 2006 ATMAE Accredited Programs Alumni

Presenters: Dr. Ahmad Zargari, Morehead State University, Dr. John Sutton, University of Central Missouri
Topic: Trends and Characteristics of the ATMAE Faculty - A Demographics Study

Presenters: Dr. Ahmad Zargari, Morehead State University, Dr. Charles Coddington, East Carolina University
Topic: How to Recruit and Retain Qualified ATMAE Faculty: Establishing a Benchmark and Enhancing Visibility in a Market Driven Economy

Presenters: Dr. William Grise, Mr. Josh Wakeman, Morehead State University
Topic: Ballistic Spin Transport in Narrow Quantum Wires - a Numerical Analysis

Presenters: Dr. Yuqiu You, Mr. Lakmal Molligoda, Dr. Nilesh Joshi, Dr. Rajeev Madhavannair, Morehead State University
Topic: An Online Manufacturing Information System for Robotic Systems

Presenters: Dr. Nilesh Joshi, Dr. Yuqiu You, Dr. Rajeev Madhavannair, Morehead State University
Topic: Application of System Dynamics and Agent Based Modeling to Supply Chain Simulation

Presenters: Dr. Rajeev Madhavannair, Dr. Yuqiu You, Dr. Nilesh Joshi, Morehead State University
Topic: Predicting an Optimal Die Shape Design in Bimetal Extrusion using Finite Element Analysis

Presenters: Dr. S. Krijestorac, Ms. Elaheh Arabmakki, Morehead State University
Topic: An Overview of Ad-Hoc Routing Protocols

Presenters: Mr. Jason Stepp, Dr. Sanjeev Adhikari, Dr. Ahmad Zargari, Morehead State University
Topic: Construction Management Curriculum Alignment with the Practice of Current Construction Industry

Presenters: Dr. Sanjeev Adhikari, Dr. Rajeev Madhavannair, Morehead State University
Topic: Computer Simulation of the Mechanical Properties of Asphalt Highways with Laboratory Measurements

Presenters: Dr. Sanjeev, Dr. Hans Chapman, Morehead State University
Topic: Study of Renewable Energy Toward Green Construction

Presenters: Dr. Hans Chapman, Dr. Sanjeev Adhikari, Morehead State University
Topic: An Energy Systems and Sustainability Course for Manufacturing and Construction Engineering Technology Students

Dr. Chapman Receives Grant for Solar Data Collection Equipment

Solar data collection equipment, including a Solar Pathfinder, Sunny Beam Solar Data Logger and a high-performance camera for field work have been acquired through a grant written by Dr. Hans Chapman. Scotty White, an AET undergraduate student, received an MSU Undergraduate Research Fellowship and has been working with Dr. Chapman in this project. The data collection is being undertaken in collaboration with the Kentucky Mesonet Monitoring Station at the Derrickson Agricultural Complex (MSU Farm).



AET NEWS **spotlight**

BSTM Students Excel While Working Full Time

In response to the CPE's mandate to double the number of college graduates in 2020, AET offers the online 2+2 completer Bachelor of Science degree in Technology Management (BSTM). The BSTM has made higher education accessible to non-traditional distance learners who are employed. BSTM students have earned an associate degree from KCTCS or other community and junior college systems. The purpose of BSTM program is to prepare students for the challenges and opportunities available in advanced technical professions in business and industry. Furthermore, this program intends to improve the quality of life in our service region by increasing the pool of highly qualified technical professionals in the region and in the State of Kentucky. The program specifically targets Kentucky Community and Technical College System (KCTCS) associate-level graduates from technology-related degree, seeks to enhance the academic offerings and opportunities for associate-level graduates, and enhance the capabilities of graduates to answer the call for an advanced workforce in the Commonwealth of Kentucky. Currently, 95% of the enrolled BSTM students are full-time employed, and 100% of them have a technical AS/AAS degree. Considering the large number of KCTCS graduates with technical/engineering related associate degrees in Commonwealth of Kentucky, this program has the potential to serve many more students from across the state and beyond. The table below lists the employment information and location of some of the current BSTM students.

Name	Job Title	Company	City/State
Jerry Noble	System Analyst	Big Sandy Health Care, Inc.,	Prestonsburg, KY
Jimmy Lee Powell, Jr.	Retail Manager	Wal-Mart	Maysville, Ky
Patrick Wood	Group Manager	Kyocera Industrial Ceramics Corp.	Hendersonville, NC
David Clark	Automation Engineer	URS Corp. – Global Security Group	Richmond, KY
Walter S. Pozgay	QA Section Manager	Mitsuba Bardstown	Bardstown, KY
Adam Hawkins	HVAC Technician II	Morehead State University	Morehead, KY
Rebecca Carroll	Customer Service	DirectTV	Huntington, WV
Harry E. Lafferty	Associate Manufacturing Engineer	Itron Inc.	Frankfort, KY
Roy Jimmy Griffey II	Quality Engineer	Tokico USA. Inc.	Berea, KY
Matt Watson	Associate Designer	Link-Belt Construction Equipment Co.	Lexington, KY
Justin Trout	Technician	Big Sandy Heating and Cooling Service Tech	Prestonsburg, KY
Shane Wallingford	Laminations Engineer	Glenro, Inc.	Maysville, Ky
Steve Roberts	Assistant Operator	MWV Corporation, Chemical Division	Barlow, KY
Timothy E. Pendleton	Senior Network Analyst	AT&T	Redmond, WA

Boneal Personnel Visits AET Class

On Monday, October 10, 2011, personnel from Boneal Inc., Means, KY., visited the IET 419-619 Total Quality Management class. Mr. James Johnson, Quality Assurance Engineer, delivered a presentation on Quality Assurance/Control at Boneal. Also in attendance were; Dr. Keith Gannon (CEO, Boneal), Mrs Georgetta Gannon (Chief Financial Officer, Boneal), Tim Wallingford (Production Engineering Manager, Boneal), Dr. Ahmad Zargari (AET Department Chair), and Dr. Hans Chapman (AET Faculty and instructor of the IET 419-619 class).



OPINIONS Dr. Rodney Stanley to Retire

Final Thoughts: By Dr. Rodney Stanley

If you were given a chance to say a few final words after 27 years of service to teaching what would you say? I have been given that chance and now I am not sure what to do with it. I could vent my complaints, but that has done no good up to now and I don't suspect it will do any good at this time. I could talk about the good times, but, I'll save that for a beer and those I shared those times with. I think I will simply let you know why I have decided it is my time to leave.

I have seen many changes in higher education since I started, most of which I view as changes for the worse not the better. The advances in technology have opened up our service region in ways we could not have thought when I started. And that is good. The business models and the micromanaging of the classroom I am not so sure about. I have seen the institution go from one that encouraged diversity, and I mean true diversity of thought and action, to one where everyone must fit into the same mold. I have seen times when we had time for faculty to meet for a cup of coffee in the grill or sit in talk in our "faculty" lounge to a time when we barely have a moment to say "Hi" as we pass in the hall. And, I feel this has been by design. The faculty's time has been taken from them to keep them subdued, too busy to cause trouble. But we as faculty have also done it to ourselves. We have not respected the fact that we all have different roles to play. That we cannot all be judged using one measure. It is probably too late to do anything about the system we have in place now. We missed the opportunity when we had the chance. You AET faculty will just have to live with what was developed. Some of us have already died by it. I decided it was time to leave because I had spent over 20 years getting my degree, I had developed teaching methods that fit my style and situation, and that worked for me only to have agencies tell me I was not doing it right and I had to do things a different way. No, I have served my time and paid my dues. I will plan my classes the way I want to and I will teach the way I want to or I will leave. And, since I am told that I will do things the way someone else wants, I will leave.

I said I was not going to vent and I started to anyway. Let me get back on track. Faculty, you are all different, but you must all support each other as

a group. Stand up for each other and extend a helping hand when you can. Advisory Committee, just be there for us. Tell us what we need to know, but, understand that in spite of what the "experts" tell us the business model can only go so far in fitting a higher education institution. The student/professor relationship is unlike any other "business" you will encounter. We need to know what you need and then you have to help us figure out how to help get our students there. But, how we do that will depend a lot on our classroom style and what we have to work with.

For me, I intend to catch up on hours of home projects, hunting, fishing, gun making, oil painting, blacksmithing, music playing,....



GRADUATE ASSISTANT **spotlight**



Jared May

Jared May is a graduate assistant in the AET Department. He is currently assisting in several classes including manufacturing, robotics, and structural design classes. Jared is currently researching "Performance Evaluation

of Patterns of Metallic and Polymer Stents by Static Implicit and Dynamic Explicit Finite Element Analysis" with Dr. Rajeev Madhavannair. He is also working with Dr. Madhavannair and Scotty White on bimetall extrusion die angle optimization using Abaqus CAE.

Jared was recently awarded the 2011 Kate & Cliff Strandberg Masters Student Scholarship by ATMAE. Mr. May is currently the student representative on the ATMAE Board of Accreditation. He is also working with ATMAE to publish a second article on the student robotics competition. This article will be published in Robot Magazine. May also serves on the AET Department Planning Committee. He is a member of ATMAE, SME, and Epsilon Pi Tau.



Lakmal Molligoda

Lakmal is a graduate assistant in his 3rd semester of the Masters in Engineering Technology program and obtained the Diversity Student Award for Academic Excellence in the Fall of 2010. He is engaged in research to control industrial robots

through wireless mobile devices and will be presenting a paper on the topic at the 2011 ATMAE conference in Cleveland. Lakmal, from Sri Lanka, graduated with a Bachelor of Science in Information Technology from Sri Lanka Institute of Information Technology (SLIIT). He has worked as a Technical Lead for a Software Development Company based in San Jose, USA for the past five years. Lakmal also has experience in the architecture and designing of complex commercial software applications and handheld device applications. This semester, he is instructing the ITEC 141 DC Circuits Lab.



Samantha Boone

Samantha is a graduate student in the Department of Applied Engineering and Technology. She graduated in May 2011, received a BS in Engineering Technology with a concentration in Computer Aided Design from Morehead State

University and is now on the track to receive a Master's of Science degree in Engineering Technology (expected graduation May 2013).

Samantha is a member of ATMAE, SME, and the Gamma Mu chapter of Epsilon Pi Tau; all of which are part of the AET Department. Among her notable work accomplishments is the fact that Samantha worked as an engineering co-op at the SRG Global plant in Morehead during the Fall 2010 and Summer 2011 semesters, earning her intern of the year from Morehead State University.



Cheng Cheng

Cheng Cheng, from Nanjing, China, is a graduate assistant in the Department of Applied Engineering Technology. His background is in Electronics and Control Systems. He obtained his Bachelors Degree in Engineering with a major

in Automation, from Guangxi University, China, in June 2010. Cheng, in his 2nd year of the MSETM program, also teaches the DC Circuits Lab and tutors students in courses including, DC circuits, DSP, and Wireless Networking & System.

Cheng is currently working on a research project in the area of controlling industrial robots using LabVIEW software with Dr. Yuqiu You and Lakmal Molligoda. He also advises the AET Robotics Team that will participate in the 2011 ATMAE Annual Robotics Competition.

STUDENT organizations

AGC and ABC Student Chapters

The student chapter of Associated General Contractors and Associated Building Contractors, (AGC-ABC) has been involved in a number of activities in 2011. The chapter has appointed their officers as follows:
President: Dwayne Stevens
Vice President: Dalton Taylor
Treasurer: David May
Secretary: Kamron Smith

The chapter has also begun making plans for fundraising activities as well as community service projects. They have visited Green Building of Habitat and Humanity and the new road construction project at Second Street in Morehead, KY

The AGC-ABC Student Chapter meets at 5:00 PM in 105 Reed Hall, on the 1st and 3rd Wednesday of each month during the semester. Students who would like to join the chapter may contact one of the officers or advisors, Dr. Sanjeev Adhikari or Jason Stepp, for information. Any companies that may wish to visit a student chapter meeting, give a presentation to its members, or offer a donation to the student chapter may contact the officers or advisors.

Below: AET undergraduate students, Tony Knipp (left) and Russell Bates (right) are caught studying in the Electronics Lab, in room 211 of the Lloyd Cassity Building.



ATMAE Student Chapter

The MSU Student Chapter of ATMAE recently had a meeting on September 21, 2011, to discuss membership and benefits. About fourteen students attended the meeting. The current student officers are as follows:
President: Brandon Muncy
Vice President: Justin Hamilton
Treasurer: Sydnie Cox
Secretary: Samantha Boone

The chapter hopes to make it an active and fun semester. They would like to encourage more students to join and possibly become officers. Plans include a fundraiser later in the semester and other exciting activities.

Below is a list of possible benefits for new members:

1. Students graduating from the AET Department have to take the Certified Technology Manager (CTM) Exam. Membership in ATMAE is required before the official certification is granted.
2. Being involved in an organization looks great on a resume.
3. Fun extracurricular activities.
4. For students wishing to go on to acquire their master's degrees, ATMAE offers scholarships to master and doctoral students.
5. Extra credit in AET classes for leadership participation. *(At instructors discretion)*

The ATMAE Chapter will have another meeting soon and we hope to see more of you there! Just keep your eyes open for announcements that will be posted across Lloyd Cassity. If you have any questions or suggestions for ATMAE please feel free to email our chapter president: Brandon Muncy (blmuncy@moreheadstate.edu).

SME Student Chapter

The MSU Chapter of the Society of Manufacturing Engineers (SME) had a regular chapter meeting on September 27th. The chapter discussed upcoming officer elections as well as the plant tour to Toyota. Several students attended the plant tour at Georgetown's Toyota Plant on October 11. The students will get to experience Flexible Manufacturing Systems while on the tour. The chapter has also been active in the professional chapter as well. Several students have been regularly attending the Lexington chapter meetings. The chapter is currently designing a plastic injection mold to manufacture SME key chains. The fundraising will be used to help sponsor student activities. The Chapter SME officers are as follows:

President: Jared May
Vice President: Amariah Belcher Fultz
Treasurer: Scotty White
Secretary: (To be elected).

The Department of Applied Engineering and Technology has a new program of distinction - Bachelor of Science in Engineering Management.

The Advisory Board scholarship has reached the mandated threshold with an endowment balance of \$25,040

The AET Department has purchased a new Universal Testing machine to upgrade the Materials Science Lab.

The AET faculty have revised and enhanced the Associate of Applied Science in Industrial Technology (AASIT) to the AAS in Engineering Technology.

The Master of Science in Engineering and Technology Management is now available in both On-line and hybrid formats.

2011 ATMAE Conference - Cleveland, Ohio
November 9-12, 2011 - Crowne Plaza City Centre

Dr. Rodney Stanley will be retiring in December after serving the AET Department for 27 years.

The next Advisory Board Meeting will be held on March 16, 2012.

AET Received \$118,800 from Simio for Academic Edition licenses of Simio software to support teaching and research in Simulation Modeling.

Brandon Molton and Justin Hamilton, MSETM Students, are assigned as graduate assistants in the Space Science Center.

Did you know? Of Interest...



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