

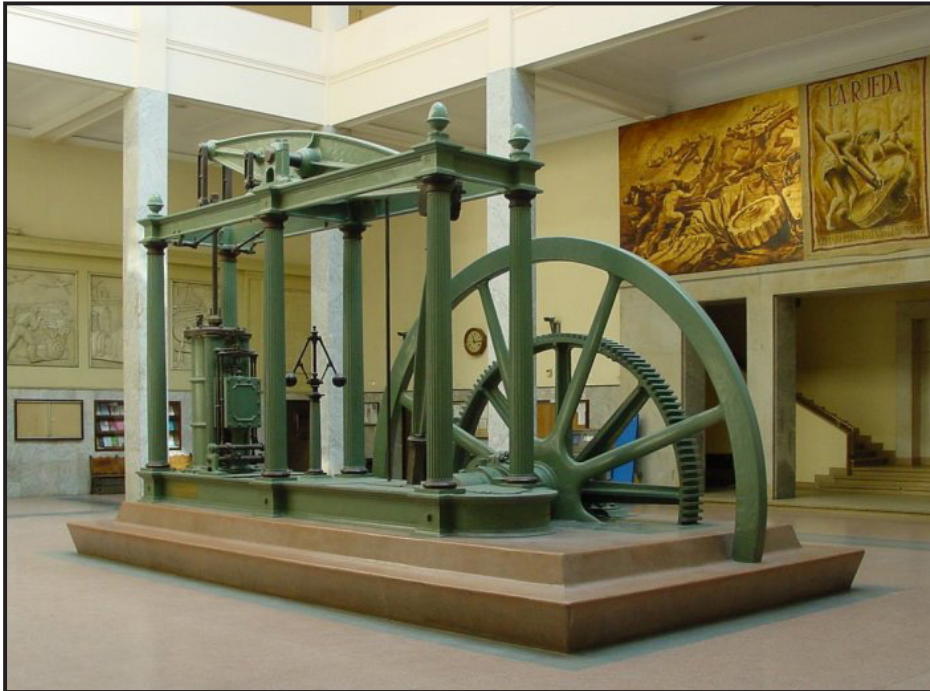
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A late version of a Watt double-acting steam engine, in the lobby of the Superior Technical School of Industrial Engineers of the UPM (Madrid). Steam engines of this kind propelled the Industrial Revolution in Great Britain and the world. *(photo courtesy of Wikipedia.)*

WELCOME



It is with pleasure that we invite you to join us as we explore the exciting world of Science and Technology, and together “dis”cover the many revolutions in these areas that changed the countless paradigms that shaped our lives and transformed our world throughout history.

As we venture together to “un”cover the truth about the facts of life, we believe we are indeed doing a noble thing! In this symposium, we will focus on paradigms’ changes in science & technology that revolutionized our lives and created the world as we know it, including theories, concepts, and applications, besides looking at the lives and achievements of those distinguished game changers—inventors, scientists, technologists, philosophers, political scientists, artists, and many others.

This symposium will bring together our EIU community and beyond around an excellent program and interesting, thought provoking discussions presented by over 45 speakers on a variety of science and technology topics during this 21-day extended symposium.

We hope you will be both informed and entertained by the wide variety of programs being offered, from scholarly presentations to discussions to film screenings!

Please enjoy yourself, bring your friends, and share with others the many wonders of science and technology!

All the best!

Wafeek Samuel Wahby, Ph.D., B.Th.
Professor of Construction Technology
School of Technology

Dr. Steven W. Daniels
Chair, Physics Department

Opening Session-

Take Matter Into Your Own Hands: The Nanotechnology Revolution

Robert K. (Bob) Ehrmann

Wednesday, Oct. 16, 2013

7:30-8:30pm ; Room 2120, Physical Science Building

Nanotechnology has been defined as “the creation of functional materials, devices, and systems through control of matter at the scale of 1 to 100 nanometers.” Put succinctly, nanofabrication is “manipulating and assembling materials atom-by-atom;” and it is used to create materials, devices, and systems with new and unique properties. These are truly small sizes, as can be understood by noting that something one nanometer in length is only about five atoms long. Nanofabrication and nanotechnology are engineering at the atomic length scale - a size range which until recently was only available to nature.

Nanotechnology is playing a key role in this, the next industrial revolution. It is not an industry; it is an enabling technology that is impacting almost every employment sector from electronics, biotechnology, biomedicine, pharmaceuticals, textiles, agriculture, food production, printing and publishing, plastics, metals, information technology, building and construction materials, recreation, and many others. How effectively companies in these industries utilize nanotechnology in the years ahead will be crucial to their competitiveness. The demand for people with nanotechnology related skills is on the rise, and one estimate puts this need for nano-literate workers at approximately 2 million by 2020. In order to fulfill these current and future needs, it is imperative that educational institutions across the country tackle this nano-awareness challenge.

Scheduled Presentations-

The NACK Network: Providing Nano 4 Me and For You

Robert K. (Bob) Ehrmann

Thursday, Oct. 17, 2013

10-11am ; Charleston/Mattoon Room, MLK Union

The National Center Nanotechnology Applications and Career Knowledge (NACK) at Penn State established in September 2008 and renewed in September of 2012 has a mission to provide assistance (curriculum, workshops, webinars, remote access to laboratory tools, etc) to existing or developing micro-nanofabrication education and workforce development programs at post secondary institutions across the United States. The highlight of the material which NACK has to offer are the fully developed and continually evolving six undergraduate level nanotechnology courses which have been offered in Pennsylvania as part of a nanotechnology capstone semester since 1998. The lectures and labs for these courses can be downloaded at www.nano4me.org and utilized at institutions across the US. In addition to providing the many resources above, the “NACK Network” has helped to establish hand-on “gold standard” community/technical college partnerships with universities in seven states as well as Puerto Rico with more partnerships in the planning stages.



Robert K. (Bob) Ehrmann is the Managing Director at the Penn State Center for Nanotechnology Education and Utilization (CNEU). The CNEU is the home to the NSF National Nanotechnology Applications and Career Knowledge (NACK) Center which has a national mission to facilitate the development of nanotechnology education programs community and technical colleges across the nation. The CNEU is also the home of the Pennsylvania Nanofabrication Manufacturing Technology (NMT) Partnership, the nation's leading program in associate and baccalaureate level nanotechnology education. The Partnership offers the NMT Capstone Semester which is an integral part of 52 degree programs at 28 post-secondary institutions across Pennsylvania.

Mr. Ehrmann previously worked for 23 years for Corning, Inc. where he held multiple positions in engineering, product development as well management positions in engineering, production and project management. Mr. Ehrmann earned a BS in Ceramic Engineering from Rutgers University as well as an MBA West Virginia University.

Science & Technology - A Historical Perspective

Dr. Alan Baharlou

Friday, Oct. 18, 2013

10-11am ; Charleston/Mattoon Room, MLK Union

Comprehensive discussions, by means of visual aids of how Scientific Concepts developed through time, particularly by ancient civilizations, philosophers and the challenges and constraints they encountered. Also a discussion of how the applications of these scientific concepts resulted in enormous life changing technologies and by means of examples, their possible side effects.

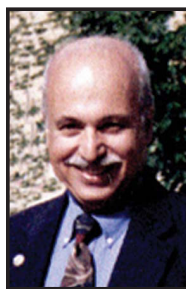
Biometric Technologies: Security and Privacy

Dr. Rigoberto Chinchilla

Friday, Oct. 18, 2013

11am-12pm ; Charleston/Mattoon Room, MLK Union

“Biometric technologies: Security and privacy” will describe the basics of biometric technologies and the philosophy of security behind these technologies. This presentation will also describe the privacy and constitutional issues that these new technologies will or have created in society.



Dr. Alan Baharlou, Emeritus Professor and Chair, Department of Geology/Geography, Eastern Illinois University (1980-2005), Ph.D. in Geochemistry, M.S. in Geophysics, B.S. in Geology. Publications-Textbooks includes, Basic Geology of Petroleum, Basic Well Log Interpretation, To Drill or Not to Drill: A Synthesis of Experts' Judgments; Courses Taught: Geochemistry, Well Log Interpretation (developed the course), Science & Technology – A Promise or A Threat? (developed the course)

- Senior Seminar EIU 4101-Spaceship Earth (developed the course-The first Senior Seminar at EIU), Introductory Physical Geology & Geography, Weather and Climate.

Directed Phillips University Geology Field Camp in St. Juan Mountains from 1967-1980, Geologist: Archaeological Excavation, Tel El Hassi, Israel, Summer 1970, Director, Phillips University Campus in Maljo, Sweden, Academic year 1974. Directed field investigation in Europe, Scandinavia, & USSR. and traveled extensively throughout Europe and Middle East.

Following are among the awards he has received; Paul Overton Award-1998

- Lawrence Ringenberg Award- 1999, Eastern Professor Laureate- 1999-2000
- Illinois Board of Higher Education Faculty of the Year- 2003, The Dean's Award for Service-2005, The Daily Eastern News Person of the Year 2005
- Roger Whitlow Award for Service & Teaching to Off-Campus Students 2010
- Outstanding Lifelong Learning Professor- 2011, Outstanding Member of the Eastern Illinois University Foundation for 2012.



Dr. Rigoberto Chinchilla: PhD in Integrated Engineering, (Electrical and Industrial), Ohio University. Is an Associate Professor of Applied Engineering and Technology at Eastern Illinois University (EIU) since 2004. His teaching and research interest include Quality Design, Biometrics and Computer Security and ethics, Automation and Telecommunications. Dr. Chinchilla has been a Fulbright Scholar and a United Nations Scholar, serves at numerous departmental and university committees at EIU and has been awarded several research grants in his career. Dr. Chinchilla is a book author and has published several peer reviewed technical papers during his tenure at EIU. Email: rchinchilla@eiu.edu Tel: 2175818534

Surviving Social Media

Brad Oyer

Friday, Oct. 18, 2013

12-1pm ; Charleston/ Mattoon Room, MLK Union

Surviving Social Media is a course taught to both students and people already in the workplace. Social media has penetrated today's society and culture in every fashion. Young people in colleges and universities as well as more mature people in professional business are all using social media to relieve themselves of employment or attendance at college. Whether it's bullying or making inappropriate comments about their bosses or their customers, too many people believe they are anonymous when it comes to social media.

This presentation outlines the boundaries for social media, as well as best practices for its use. Students will get a firsthand look at cases where social media has caused problems and be given the tools in which to make proper choices in their own life.

Google and the World Brain

David Bell

Friday, Oct. 18, 2013

2-4pm ; Witters Conference Room 4440, Booth Library

The story of the most ambitious project ever conceived on the Internet. In 2002 Google began to scan millions of books in an effort to create a giant global library, containing every book in existence. They had an even greater purpose – to create a higher form of intelligence, something that HG Wells had predicted in his 1937 essay "World Brain". But over half the books Google scanned were in copyright, and authors across the world launched a campaign to stop Google, which climaxed in a New York courtroom in 2011.

A film about the dreams, dilemmas and dangers of the Internet.



Brad Oyer is a Lieutenant with the Charleston Police Department. Brad started his career in law enforcement in 1988 which has spanned from corrections to patrol and patrol commander. Brad has served on the area tactical team and has spent over 3 years as the team commander. He has also enjoyed serving as a firearms instructor for both police officers and civilians alike. Brad has enjoyed teaching at the National Conference Center in Virginia as well as the island of Haiti on the subject of use of force and firearms instruction. Brad has spoken with business leaders around the state on the subject of protecting their assets from fraud.

Brad is a graduate of the Federal Bureau of Investigations, National Academy in Quantico, Virginia (FBINA 245). His undergraduate work was done at Eastern Illinois University and he is currently enrolled at Eastern Illinois University in the School of Technology Masters Degree Program.



David Bell is a reference librarian at Booth Library. He earned an M.S. in library and information science at the University of Illinois at Urbana-Champaign and an M.A. in English literature at Northern Illinois University.

Preparation in Professional Careers Based on Anytime/Anywhere Technologies

Dean Robert M. Augustine

Monday, Oct. 21, 2013

10-11am ; Witters Conference Room 4440, Booth Library

In the mid-1980s Mr. Bill Witsman, who served in a leadership role for Information Technologies at Eastern Illinois University introduced the Department of Communication Disorders & Sciences to the concept of "ubiquitous anytime/anywhere technologies" during a meeting designed to prepare the University for its technology-driven future. Mr. Witsman stated that technologies would liberate information, people, and learning from real-time access to anytime/anywhere access and revolutionize our world. The initial impact of that meeting led to the creation of the first course in the Department of Communication Disorders and Sciences on Technology Applications and Professional Practice and motivated the program to invest in its first computer hardware and software designed for delivery of clinical services. The presentation will offer a summary on how Mr. Witsman's visionary perspective did, in fact, have the impact that he predicted. The presentation will offer a summary of how technology changed the professions of audiology and speech-language pathology and how the department continued to advance its mission through technology investments beginning with an initial investment of 1 computer and 1 course.

The Pen and the Press: Early Technologies in the Evolution of Literature

Dean Bonnie Irwin

Monday, Oct. 21, 2013

11am-12pm ; Witters Conference Room 4440, Booth Library

This presentation explores how early technologies such as the pen and the press have contributed to literature evolution through the ages.



Robert M. Augustine serves as Dean of the Graduate School, Research and International Programs at Eastern Illinois University and currently serves as Chairman of the Board of Directors of the National Council of Graduate Schools in Washington D. C. Dr. Augustine holds tenure as a professor of communication disorders and sciences and is a former Chair of the Department of Communication Disorders & Sciences at Eastern. He is a certified and licensed speech-language pathologist with specialized expertise in language development and disorders. He is a Fellow of the American Speech-Language-Hearing Association (ASHA) and holds Honors of the Illinois Speech-Language Hearing Association (ISHA). Dr. Augustine has held many leadership roles in his discipline including service as the founding Vice President for Finance of the ASHA and as President of the ISHA. He was recently elected to the Board of the Graduate Record Examination and was invited to present on technology applications in graduate education at the Strategic Leaders Global Summit in Budapest, Hungary.



Bonnie Irwin is the dean of the College of Arts and Humanities at Eastern Illinois University. Dr. Irwin continues to research medieval Arabic tale traditions and American popular culture interpretations of the Arabian Nights. She is currently working on a volume of approaches to teaching the Arabian Nights. Her most recent publications have dealt with higher education honors issues and have appeared in the *Journal of the National Collegiate Honors Council*. Dr. Irwin earned an A.B., M.A. and Ph.D. in comparative literature from the University of California at Berkeley.

The Quest to Conquer Polio

Kip McGillard

Tuesday, Oct. 22, 2013

12-1pm ; Charleston/Mattoon Room, MLK Union

Poliomyelitis is an infectious disease affecting motor neurons and leading to muscle weakness and paralysis. Polio was one of the most dreaded childhood diseases in the 20th century. Vaccines developed by Jonas Salk and Albert Sabin were introduced in the 1950's to stem the spread of polio. In 1988 a global effort to eradicate polio through vaccination was initiated, which has reduced the incidence of polio by 99% worldwide. Despite this highly successful program, obstacles remain to completing the task of global eradication of polio.

A New Revolution in Teaching and Learning: Tablets + Cloud = Game Changer

Tom Grissom

Tuesday, Oct. 22, 2013

7-8pm ; Room 1103 Buzzard Hall

New tablet technologies are changing the way we teach and learn. Recent advancements and new operating systems such as Windows 8 are combining hardware, software, and cloud computing in innovative ways to provide unprecedented access to content, storage, and sharing on the Internet. Affordable tablets now offer teachers the ability to “teach on the fly” and adapt lesson plans in real-time to content from a variety of sources based upon learning analytics. These new capabilities have the potential to revolutionize the educational system as we know it, but how quickly will educational institutions change?



Kip McGillard is an associate professor of biological sciences at Eastern Illinois University. He received his B.S. degree in zoology from Michigan State University and his Ph.D. in pharmacology from the University of Minnesota. Dr. McGillard teaches undergraduate courses in physiology and a graduate endocrinology class. His research involves the effects of drugs on the control of breathing in newborn rats. He enjoys reading about medical history and biography.



Tom Grissom, Ph.D. is the Director of the Instructional Technology Center for the College of Education & Professional Studies at Eastern Illinois University. Dr. Grissom has written extensively about how new technologies are changing the way we teach and learn. Dr. Grissom is the creator of the TechTalk4Teachers podcast, ITC Chronicles blog, and the ITC Techshare YouTube channel where he regularly shares his teaching and learning experiences with the world. To learn more please visit the ITC website at <http://eiu.edu/itc>

Rapid Prototyping: Concept, Technology, and Applications

Wutthigrai Boonsuk

Wednesday, Oct. 23, 2013

10-11am ; Witters Conference Room 4440, Booth Library

Rapid prototyping (RP) is a technology that allows manufacturers to rapidly create physical prototypes from computer-aided design (CAD) models in nearly automatic manner. This presentation will introduce the concept and technology of RP as well as investigate its major applications for industry, public, and other communities.

How Do We “See” Things We Don’t See

Svetlana Mitrovski

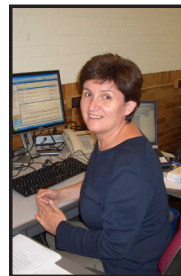
Wednesday, Oct. 23, 2013

10-11am ; Witters Conference Room 4440, Booth Library

This presentation will help audience “see” more in depth the meaning of the word “see” through discussing the intriguing question: How Do We “See” Things We Don’t See?”



Wutthigrai Boonsuk is an assistant professor of applied engineering and technology at Eastern Illinois University. He earned his master and doctorate in Industrial and Manufacturing System Engineering and a master in Human Computer Interaction from Iowa State University. His research interests are in CAD/CAM, rapid prototyping, manufacturing systems, user interface and user experience design, virtual reality, and geographic information system.



Svetlana Mitrovski, is an Assistant Professor of Analytical Chemistry at EIU since 2007. She received her Ph.D. at the University of Illinois in 2006, and her M.Sc. and B.Eng. from the University of Belgrade (Serbia) in 1998 and in 1990, respectively. Her research interests include Electrochemistry, Microfluidics, Microfabrication, and Catalysis.

The New Paradigm of Patrol: Social Media & Law Enforcement

David Closson

Wednesday, Oct. 23, 2013

11am-12pm ; Witters Conference Room 4440, Booth Library

This presentation will show the new approach to community policing that many police departments are embracing across the nation. The new era of social media creates a powerful tool for police departments to improve their community policing efforts. Through social media police departments can build partnerships, engage community members, and quickly address concerns from the community in a proactive manner. Departments can take an entire community on a virtual ride along, answer questions from community members, share safety tips, and even give live activity updates; from traffic jams to emergencies. Public relations' is a continuing and ongoing process departments must make a priority, as it is the community we are serving.

Redefining Personal Computing: Applications of the Raspberry Pi

Gabe Przygoda

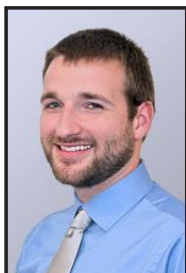
Wednesday, Oct. 23, 2013

5-6pm ; Room 2120 in Physical Science Building

This presentation will explore the various applications of the credit card-sized Linux computer recently developed by Eben Upton and the Raspberry Pi Foundation, while highlighting some of the more robust features of the pint-sized processor.



Officer David Closson is the Crime Prevention Officer with the Eastern Illinois University Police Department. He is an Eastern Illinois University Alumni and also an Iraq War Veteran. Through his variety of life experiences he has taken the role of crime prevention officer to new levels. In just over a year and half, he has had positive interactions through giving educational presentations to over 25 student groups, reaching nearly 7,500 students. Building a team across campus has given rise to the EIU Mayhem Prevention Team which brings several University Departments together to provide entertaining, yet helpful campus safety information. His passion is centered on positive student interactions and helping the students of Eastern have a successful college career.



Gabe Przygoda is a graduate assistant with the Center for Academic Technology Support, in the area of Training Services for Students. Utilizing skills from a background in video production, he is responsible for leading training sessions in Premiere Pro CS6 and Adobe After Effects CS6. A Charleston native and alumni of EIU's Communication Studies program, he is currently pursuing a master's degree in Computer Technology.

The Last of the Universal Geographers: Humboldt and Ritter

Cameron D. Craig

Wednesday, Oct. 23, 2013

6-7pm ; Room 2120 in Physical Science Building

"The Last of the Universal Geographers: Humboldt and Ritter" explores the significant contributions these two geographers set the academic field in motion for future students and researchers.

Clean Energy Research and Education: Looking Forward

Peter Ping Liu

Wednesday, Oct. 23, 2013

7-8pm ; Room 2120, Physical Science Building

In order for us to integrate the opportunities brought by the Renewable Energy Center at EIU, the university established the Center for Clean Energy Research and Education (CENCERE). CENCERE has enabled the cross disciplinary interactions among many faculty, staff and students from many departments across the campus. It has become of an integral part of the overall effort for the university to think forward and act concertedly for a better future.



Cameron D. Craig is currently a Geographer and Climatologist in the Department of Geology/Geography at Eastern Illinois University. He currently oversees students in the broadcast meteorology minor and collaborates with WEIU-TV's Emmy Nominated News Watch as meteorologist and meteorological consultant allowing student forecasters to have an immediate resource for meteorological inquiries and severe weather events. In addition to his duties at EIU, he is working toward receiving his Ph.D. in Physical Geography at Indiana State University with emphasis on Climatology, Physical Geography, and Geographic Education. Mr. Craig was honored as Professor Laureate in 2010-2011.



Peter Ping Liu obtained his B.S. degree in electrical and mechanical engineering from Nanchang University, China in 1982. He earned an M.S. degree in materials science and engineering from Zhejiang University, China in 1984 and completed a Ph.D. degree in mechanical engineering from Iowa State University in 1991. His major research interests rest on renewable energy, advanced web and database technology, biomedical polymers and implants, polymer recycling, polymer rheology, materials tribology, corrosion, and failure analysis. He is a registered professional engineer (PE) in the State of Illinois, an Oracle Certified Professional (OCP) of Oracle Database Administrator, a certified quality engineer (CQE) by American Society for Quality and a certified senior technology manager (CSTM) by Association of Technology, Management and Applied Engineering. He is currently a full professor and the coordinator of Graduate Programs in Technology and Master of Science in Sustainable Energy. He is the co-founder and serves as the director of the Center for Clean Energy Research and Education at Eastern Illinois University.

DNA: Family, Forensics, and FIDO

Dr. Thomas Canam

Thursday, Oct. 24, 2013

10-11am ; University Ballroom, MLK Union

This talk will review the history of DNA from its discovery as the heritable substance in cells to its uses in everyday society. In particular, the role DNA and genetics play in determining human ancestry, apprehending criminals, and developing dog breeds will be explored.



Dr. Canam received a B.S. (Honors) in Biochemistry from Mount Allison University (Sackville, New Brunswick) and a Ph.D. in forest biotechnology from the University of British Columbia (Vancouver, British Columbia). He then accepted a post-doctoral fellowship in bioenergy at the University of Toronto (Toronto, Ontario, Canada) as a joint appointment with the departments of Cell & Systems Biology and Chemical Engineering & Applied Chemistry. This was followed by a post-doctoral position with the Cellulosic Biofuels Network at Agriculture and Agri-Food Canada (Saskatoon, Saskatchewan). Dr. Canam joined the Department of Biological Sciences at Eastern Illinois University in the fall of 2011, where he teaches Molecular and Cellular Biology (BIO3120) and Bioenergy and Bioresources (BIO5333). His research team of undergraduate and graduate students investigates white-rot fungi as biomass pretreatment agents, and utilizes genetic engineering to optimize biomass traits desirable for bioenergy applications.

Technology & Etiquette

Lisa Brooks

Thursday, Oct. 24, 2013

11am-12pm ; University Ballroom, MLK Union

Social technology may be contributing to an increasingly rude culture. This entertaining and informative session will focus on common breaches of technology etiquette and how these breaches impact society. Generational differences in the use of technology and media will be discussed. In addition, this session examines whether multitasking using individual technologies is an art or a myth. Attendees who are interested in becoming self-aware and/or who are concerned about the degradation of society will benefit.

Forty Years and Counting

John G. Henderson

Thursday, Oct. 24, 2013

11am-12pm ; University Ballroom, MLK Union

A brief snapshot of Instructional Technology from 1973 to 2013, my career in higher education.



Lisa Brooks, PhD, RD is an Assistant Professor in the School of Family Consumer and Sciences and the FCS Internship Coordinator at Eastern Illinois University. Her training as a Corporate Etiquette and International Protocol Consultant from the Protocol School of Washington has helped her to empower hundreds of college students to dine well, dress well, and apply professional excellence in the workplace. She is also the Faculty Director for Study Abroad Italy accompanying students to Florence for specialized FCS programs like "Fashion, Food, and Wine" and "Mediterranean Cuisine." Her mission in life is to help others to reach their maximum potential through education, a positive attitude, and polite behavior.



John G. Henderson is the Assistant Vice President for Academic Affairs for Technology at EIU. He has assigned responsibilities in the Center for Academic Technology Support (CATS) related to the proper functioning of the center in planning, organizing, managing and delivering instructional technology support to faculty and students in the Division of Academic Affairs. Additionally, he will facilitate and promote the use of computing and instructional technologies in instruction; supervise and manage the work of the center's consultants and staff; serve as the principle liaison with faculty in matters relating to the use of technology for instruction; and provide effective leadership to improve the center's capacity to carry out its mission and accomplish its goals as it relates to the academic mission of Eastern Illinois University.

Regional Development of Sustainable Bioenergy Crops: The Changing Face of Agriculture in Illinois and Its Impacts on Wildlife

Dr. Jill Deppe

Thursday, Oct. 24, 2013

12-1pm ; University Ballroom, MLK Union

As worldwide fossil fuel supplies dwindle, our nation strives to identify solutions for securing our energy future. Sustainable bioenergy is one way to expand our nation's energy portfolio, reduce carbon emissions and, if done properly, maintain biodiversity. As new bioenergy markets develop, the Midwest landscape may soon be dotted with new crops dedicated to bioenergy production. One such bioenergy crop is *Miscanthus giganteus*, commonly known as Mxg or simply miscanthus. *Miscanthus* has several characteristics that make it a good candidate as a bioenergy feedstock; however, *Miscanthus* differs from traditional row crops and native cover types in its structure, growth pattern and harvesting regime, leading to uncertainty about how it will impact regional wildlife. Our research group, consisting of faculty and graduate students from the Biological Sciences Department, is working on local farms in east-central Illinois to understand how dedicated bioenergy crops will impact regional wildlife and how the preservation of natural or semi-natural cover types in the landscape may help mitigate those impacts. We will discuss preliminary results regarding mammal and bird responses to small scale miscanthus production. As the bioenergy footprint grows in the Midwest, we will need to understand and account for relationships between these new crop types and the diversity, distribution and fitness of wildlife.

Changes in National Dietary Guidelines & Current Practical Applications of MyPlate

James Roche

Thursday, Oct. 24, 2013

12-1pm ; University Ballroom, MLK Union

The first set of national dietary recommendations was created in 1894 by the United States Department of Agriculture to provide a guide for positive dietary behavior. Over the last century, the USDA has continued to develop these guidelines as well as images that promote key messages. Although models such as the Food Pyramid (1992) and MyPyramid (2005) provided concrete recommendations for each of the food groups, there was a disconnect regarding practical applications for US consumers. To clarify dietary guidelines and provide simple applications, the USDA developed MyPlate in 2011. MyPlate is a simple guide with user friendly and interactive features that provide health professionals with an educational tool that can be easily used among different cultural, socioeconomic and social groups. If used effectively, MyPlate may play a role in reducing rates of obesity-related complications in the United States—complications that account for 7 of the nation's 10 leading causes of death.



Jill Deppe is an Assistant Professor in the Biological Sciences Department at Eastern Illinois University. Her research focuses on wildlife-habitat relationships and animal movement at multiple spatial scales as well as wildlife responses to anthropogenic and natural changes in the environment. Dr. Deppe and her students study how the production and management of bioenergy crops on farms in east-central Illinois affect regional wildlife, specifically small mammals and birds. Dr. Deppe earned her Bachelor of Science degree in Biological Sciences at Indiana University of Pennsylvania in Indiana, Pennsylvania. She earned her Doctorate in Biology with a concentration in Evolutionary Ecology from the University of California Riverside. Afterwards Dr. Deppe completed a postdoctoral research fellowship at NASA Goddard Space Flight Center in Greenbelt, MD where she used remote sensing data to model the distribution of suitable habitat for migratory birds and continental bird movements. She then moved to Illinois where she took a position as an Avian Ecologist at the Illinois Natural History Survey at the University of Illinois at Urbana-Champaign; there she continued to study bird migration movements as well as changes in bird distributions and land cover changes in Illinois over the past century. Dr. Deppe joined Eastern Illinois University in fall 2011.



James Roche graduated from Illinois State University in 2010 with a Bachelor's of Science in Family & Consumer Sciences, dietetics concentration with a Spanish Minor. From there, he was accepted into Eastern Illinois University's dietetic internship through which he worked at the VA Illiana Health Care System as a dietetic intern. His thesis examined the acceptability of vegetarian burgers among college students. He graduated with a Master's of Science in June of 2012. Mr. Roche started work at a small public health company in Rock County, WI where he worked with the WIC program, performed dietetic services for 3 long-term care facilities, conducted sanitation inspections and provided dietary information for 2 Council on Aging programs. He was then hired to his current position as an instructor for the School of Family & Consumer Sciences with Eastern Illinois University.

A Future of Radical Abundance: Transforming the Material Basis of Civilization

Dr. James N. McKirahan, Jr.

Thursday, Oct. 24, 2013

3-4pm ; University Ballroom, MLK Union

The wealth and abundance of the developed world is linked to materials and tools usage. Dr. K. Eric Drexler, Ph.D. in Molecular Nanotechnology from the Massachusetts Institute of Technology and currently a visiting Academic at Oxford University in the UK and described as "the founding father of nanotechnology" discusses how nanotechnology materials usage will influence the future world toward radical abundance. Participants to this presentation will view Dr. Drexler's June 2013, TEDx presentation entitled, "Radical Abundance: How a Revolution in Nanotechnology Will Change Civilization" to participate in a question-guided colloquy.

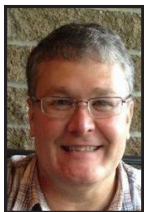
Military Advancements using GPS Technology

LTC Eric Savickas

Thursday, Oct. 24, 2013

3-4pm ; University Ballroom, MLK Union

The presentation will discuss the history of Global Positioning System (GPS) technology from early military and intelligence applications during the Cold War through present day military uses in the Global War on Terrorism. Specific focus will be given to GPS as a navigational aid in current military operations, as well as GPS technology in precision guided munitions. The presentation will conclude with a brief discussion of GPS technology in the ROTC training environment here on campus.



Dr. James N. McKirahan, Jr. is a 2013 graduate of Indiana State University with a Ph.D. in Technology Management, Manufacturing Systems. His dissertation entitled, "Processing Research and Development of 'Green' Polymer Nanoclay Composites Containing Polyhydroxybutyrate, Vinyl Acetates, and Modified Montmorillonite Clay" involved researching various processing, mechanical, and flow properties techniques to develop polymer clay nanocomposites (PCN) toward commercial use. He is an Assistant Professor in the Lumpkin College of Business and Applied Sciences' School of Technology teaching Applied Engineering Technology courses with core teaching responsibilities includes automation and robotics, statistical quality assurance, and polymers and composites, plastics manufacturing. Outside of his professional interests, he has a passion for the philosophy and theory of technology as well as the history of technology.



LTC Eric Savickas is originally from Newton, Massachusetts, and was commissioned through the United States Army Reserve Officer Training Program (ROTC) as a Field Artillery officer upon graduation from Norwich University, the Military College of Vermont, in 1993.

LTC Savickas has served in a variety of leadership and staff positions at the tactical, operational, and strategic levels. His initial assignment was as a Platoon Leader in the Republic of Korea, followed by assignments as a Fire Support Officer and Battery Executive Officer, Fort Carson, Colorado. He served as a Battery Commander in 5-3 Field Artillery (MLRS) and as Battery Commander of the Headquarters Battery in the 212th Field Artillery Brigade, Fort Sill, Oklahoma. He was assigned as the Regimental Fire Support Officer of the 11th Armored Cavalry Regiment and as an artillery Observer Controller, both at the National Training Center, Fort Irwin, California. LTC Savickas served in Germany as G3 Training Officer on the V Corps Staff followed by assignment as 4-27 Field Artillery, Battalion Executive Officer. He has had two operational tours in Iraq in support of Operation Iraqi Freedom. Most recently, LTC Savickas served on the Joint Staff in the Pentagon as an Operations Officer in the J3 Operations Directorate.

His military and civilian education includes the Field Artillery Officer Basic and Advanced Courses; Combined Arms and Services Staff School; and the United States Army Command and General Staff College. He holds a Bachelor of Science in Business Administration from Norwich University and a Master of Science in Administration from Central Michigan University.

LTC Savickas' awards and decorations include the Bronze Star with Oak Leaf Cluster; Defense Meritorious Service Medal; Army Meritorious Service Medal with two Oak Leaf Clusters; Army Commendation Medal with Oak Leaf Cluster; National Defense Service Medal with Bronze Star; Southwest Asia Service Medal with Bronze Star; Iraq Campaign Medal with three campaign stars; Global War on Terrorism Service Medal; Korea Defense Service Medal; Army Service Ribbon, Overseas Service Ribbon with numeral "4"; and Joint Chiefs of Staff Identification Badge.

Plate Tectonics: A Major Paradigm Shift

Dr. Katie Lewandowski

Friday, Oct. 25, 2013

10-11am ; Charleston/Mattoon Room, MLK Union

The Theory of Plate Tectonics, proposed in the 1960s, caused a dramatic paradigm shift in geology. This talk will focus on the origins of the theory, the evidence for the theory, and how it has impacted geology as a whole. I will argue that without the technologies developed during WWI and WWII to image the sea-floor, the theory of plate tectonics would not have been realized. Plate Tectonics helped to explain phenomena that was unexplainable up to that point. As a result of the proposal and acceptance of the theory, more technologies were developed to gather more evidence in support of the theory from ocean basins. Geology would be a very different science today without this paradigm shift.

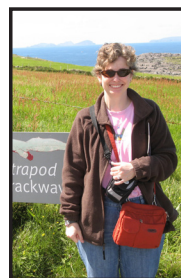
It's All about Concentration Gradients

Dr. Gopal Periyannan

Friday, Oct. 25, 2013

10-11am ; Charleston/Mattoon Room, MLK Union

Interconversion between different forms of energy is observed in physical and biological entities. It is an essential phenomenon for the functions of many biological systems and survival of all organisms. For example, conversion of solar energy into chemical energy by photosynthesis is the source of energy that is passed through the food chain. One important form of biological energy is the chemical concentration gradients found across biological membranes. ATP - 'the universal energy currency'- synthesis is a well-known example of a biological process that utilizes proton concentration gradient across the inner mitochondrial membrane. Many bacterial species generate chemical concentration gradients across biological membranes and utilize it to perform life-supporting functions such as material transport across membranes, movement and energy storage. Deeper understanding of the generation and utilization of chemical concentration gradients and membrane-based technologies in bacteria may lead to novel applications.



Katie Lewandowski is an assistant professor at Eastern Illinois University. She received her B.S. in Biology and M.Ed. in Secondary Science Education from Vanderbilt University. She has taught a variety of age levels and of sciences at private schools in Alabama and New Jersey. She received her M.S. and Ph.D in Geology from The Ohio State University. For her research, Dr. Lewandowski studies ancient oceans using fossils and sediments.



Dr. Gopal Periyannan is an Associate Professor of Chemistry at Eastern Illinois University. He received his BSc (Hons) in Chemistry from the University of Peradeniya, Sri Lanka and his PhD from Miami University, Ohio under the supervision of Dr. Michael W Crowder on antibiotic resistance of bacteria. After nearly two years of postdoctoral fellowship research at the Medical College of Wisconsin on bacterial aminopeptidase, he joined Eastern faculty in 2006. Dr. Periyannan's current research interests are microbial degradation and conversion of organic molecules of special interest such as plant polysaccharides and organic pollutants and the role of Zn metalloproteases in disease development, specifically Zn metalloprotein Glutamate Carboxypeptidase II (GCPII) in the development of stroke and prostate cancer. He currently resides in Charleston with his family.

Albert Einstein's Revolution

Dr. Donald D. Pakey

Friday, Oct. 25, 2013

1-2pm ; Charleston/Mattoon Room, MLK Union

Does time run at different rates for different people? Can a parent be younger than the child? And what does $E = mc^2$ really mean? These are just a few of the questions addressed by Albert Einstein's Special (1905) and General (1916) Theories of Relativity. These theories created a revolution in physics by forcing us to abandon our old ideas of absolute space and time, as well as predicting mass-energy conversion and black holes. More broadly, Einstein's revolution can be seen as a continuation of the Copernican revolution, which moved the human race away from the center of the universe.

Downloaded

David Bell

Friday, Oct. 25, 2013

2-4pm ; Witters Conference Room 4440, Booth Library

In 1999, teenagers Shawn Fanning and Sean Parker launched the file-sharing service Napster. What had begun as a largely unknown underground distribution medium erupted into a global revolution.

A fascinating documentary about the advent of the "downloading generation," the impact of file sharing on the Internet, and possible future developments in this still-new frontier.



Dr. Donald D. Pakey is an associate professor of physics at Eastern Illinois University. He grew up on a farm in central Illinois, and earned bachelor's degrees in Physics and Mathematics at EIU. He received his M.S. and Ph.D. degrees from the University of Illinois at Urbana-Champaign in high-energy astrophysics, specializing in theoretical and numerical studies of neutron stars. Dr. Pakey also maintains an active interest in the foundations of quantum mechanics.



David Bell is a reference librarian at Booth Library. He earned an M.S. in library and information science at the University of Illinois at Urbana-Champaign and an M.A. in English literature at Northern Illinois University.

A Concrete Advantage: Production of Portland Cement

Dr. Austin Cheney

Monday, Oct. 28, 2013

10-11am ; Witters Conference Room 4440, Booth Library

This presentation explains how developing the ability to produce hydraulic cement changed the world's landscape –literally and figuratively.

Sir Isaac Newton

Dr. Steven Daniels

Monday, Oct. 28, 2013

11am-12pm ; Room 2153, Physical Science Building

Science and technology took some major turns through the work of Sir Isaac Newton in the late 1600's and early 1700's. His story is one of complex interactions between people, science, and institutions. Newton changed the path of science and technology in several important ways. His legacy extends to the present as many of his theories and discoveries are still considered the basis of current understanding. In this talk we will consider the man, his contributions, and how thinking has been altered by his insights.



Austin Cheney was appointed Chair of the School of Technology at Eastern Illinois University (EIU) effective July 1, 2013.

Prior to joining EIU, Dr. Cheney served as Dean of the School of Management and Engineering Technology at Alfred State College (ASC) where he oversaw six departments, and led budget, strategic and operational planning and assessment for the school. He also served Middle Tennessee State University (MTSU) as Founding Director of the internationally recognized Concrete Industry Management (CIM) program, and annually spoke at numerous concrete industry events throughout the country in that role. In addition, Dr. Cheney has lectured abroad at Tongji University in Shanghai, and led MTSU's participation with concrete industry executives in the expansion of the CIM program to three new institutions: Arizona State University, New Jersey Institute of Technology, and California State University at Chico. Dr. Cheney also spent five years as Coordinator of Mechanical Engineering Technologies at Rhodes State College, in Lima, Ohio, from 1993-1998, where he received the 1995 Distinguished Teaching Award.

Dr. Cheney earned Bachelor's and Master's degrees in mechanical engineering from the University of Dayton, and a PhD in Management of Technology from Vanderbilt University. He is a registered professional engineer in the State of Ohio, a Certified Manufacturing Engineer, and holds numerous concrete industry certifications. He is a past Chair of both Region 7 and Lima Chapter #97 of the Society of Manufacturing Engineers, served on the Marketing/Promotion and Education Committees of the National Ready Mixed Concrete Association, and was a member of the American Society of Engineering Education Engineering Technology Council Board of Directors.



Dr. Steven Daniels is a Physics professor as well as Department Chair at Eastern Illinois University. A sampling of the various activities Dr. Daniels has participated in during his career is that Dr. Daniels has been a rocket scientist for NASA, he has worked on a nuclear energy project for the Department of Energy, he has worked on problems related to ordinance as well as nuclear batteries for the Department of Defense, and has studied solar flares using a Navy satellite. Dr. Daniels came to EIU in 1991. His area of interest now is optics with specific interest in lasers. He received his BA degree from Swarthmore College and his MS and PhD in Physics from the University of Maryland. He also received an MBA from EIU.

Cyber-Ribbons: The Influence of Online Support Groups on Healing and Recovery from Illness

Crystal Duncan Lane, Ph.D., CFLE

Monday, Oct. 28, 2013

12-1pm ; Roberson Auditorium, 2030 Lumpkin Hall

This presentation will discuss the influence and power of Internet support groups on the experience of and healing from illness, with a particular emphasis on women experiencing breast cancer. The discovery of the differential experiences of women in Stage IV breast cancer in terms of the pink ribbon movement, and the mobilization effort of an online community will also be reviewed.

Technological Determinism vs. Social Determinism/Constructivism, the Politics It Brings: A Theory of Technology

Dr. James N. McKirahan, Jr.

Monday, Oct. 28, 2013

12-1pm ; Roberson Auditorium, 2030 Lumpkin Hall

Several theorists of technology and technology historians have noted the influence technology has had upon society. This presentation will discuss the tenets of Technological Determinism vs. Social Constructivism, observations of these respected technology theorists providing examples of technology's use as a politicizing force upon society.



Crystal Duncan Lane is an Assistant Professor in the School of Family and Consumer Sciences at Eastern Illinois University. She began in this position in August 2012. Her current research interests include the exploration of family resilience in terms of family health, and the lived experience and construction of resilience within women in Stage IV breast cancer. It is for this work that Dr. Duncan Lane was honored with the the Ruth E. Hawthorne Research Grant as well as the National Alumni Chapter Award from Kappa Omicron Nu for 2013-2014. Prior to coming to EIU, Dr. Duncan Lane served in a Post Doctorate joint-position as the Program Manager for the Appalachian Information Technology Extension Services (AITES) Project and as the STEM Coordinator for the Institute for Critical Technologies and Applied Sciences, both at Virginia Tech. Dr. Duncan Lane received her doctorate in Human Development from Virginia Tech in 2011 with a graduate certificate in Women's Studies. She is a native of southwest Virginia and loves spending time with her husband James and their cats, Mercury and Gemini.



Dr. James N. McKirahan, Jr. is a 2013 graduate of Indiana State University with a Ph.D. in Technology Management, Manufacturing Systems. His dissertation entitled, "Processing Research and Development of 'Green' Polymer Nanoclay Composites Containing Polyhydroxybutyrate, Vinyl Acetates, and Modified Montmorillonite Clay" involved researching various processing, mechanical, and flow properties techniques to develop polymer clay nanocomposites (PCN) toward commercial use. He is an Assistant Professor in the Lumpkin College of Business and Applied Sciences' School of Technology teaching Applied Engineering Technology courses with core teaching responsibilities includes automation and robotics, statistical quality assurance, and polymers and composites, plastics manufacturing. Outside of his professional interests, he has a passion for the philosophy and theory of technology as well as the history of technology.

Life and Its Origin: Not of This Earth

Dr. John Stimac

Tuesday, Oct. 29, 2013

10-11am ; Roberson Auditorium, 2030 Lumpkin Hall

A question that arises when considering life's formation is where did it originate. Did it originate in some "warm pond" on the surface of the Earth or at the depths of a dark ocean next to a hot spring? An alternative hypothesis is that life did not originate on Earth at all, but merely hitched a ride to Earth from somewhere else.



Dr. John Stimac is an Associate Professor of Geology, Department of Geology/Geography. In 1996, he received his Ph.D. in Geology at the University of Oregon, and his M.S. in Geology from Fort Hays State University in 1988. In 1980, he received his B.S. in Environmental Science from the University of Virginia.

Thomas Malthus & His Legacies

Michael Cornebise

Tuesday, Oct. 29 2013

2-3pm ; Roberson Auditorium, 2030 Lumpkin Hall

Thomas Malthus (1766-1834) was a British clergyman and expert on demography and economics. In 1798, he published An Essay on the Principle of Population, a book that was considered one of the most influential works of its era. Malthus' ideas on human population dynamics continue to spark debate as the World's population of 7.1 billion continues to grow apace. This presentation will discuss Malthus' key ideas and show how they influence modern thought on human population issues.

Our 3D Printing World

Patrice Gurley

Tuesday, Oct. 29 2013

2-3pm ; Roberson Auditorium, 2030 Lumpkin Hall

This presentation will include a brief synopsis of the history and process of 3D printing. Additionally, we will look at some examples of the capabilities of the technology, its impact on society, and its future implications.



Michael Cornebise is Professor of Geography and Chair of the Geology/Geography Department at EIU. He completed his Ph.D. at the University of Tennessee-Knoxville and specializes in cultural and population geography. His regional specialties include North America, Middle America and Europe.



Patrice Gurley is a native of the island of Trinidad and Tobago. She has lived in the United States for over 15 years. Currently, she is a graduate student pursuing a degree in Computer Technology. She recently graduated from EIU with a BSB in Management Information Systems. When she graduates with her Master's degree, she hopes to work for a company known for its innovation and sustainability efforts.

Technology and Nutrition

Jim Painter & Alex Curtis

Tuesday, Oct. 29, 2013

3-4pm ; Roberson Auditorium, 2030 Lumpkin Hall

Jim Painter and Alex Curtis will be discussing the impact of technology on food nutrition and the food service industry. Food and technology surround us everyday, and they work together to influence our lives. From modern food processing techniques to new research methods that pinpoint effective tools that maximize health and weight loss, technology can help us reach our health goals.

We will discuss how we utilize the beneficial effects of technology, and how we guard against the negative effects. Technology has helped to provide a safe and abundant food supply, but at what cost? While we have created food more affordable than ever, do these innovations also create hazards to our population? Technology can also help us fix this problem going forward. We have a lot of knowledge at our disposal to help us control overconsumption in the midst of abundance. Much of the problem facing society today diet-wise is that we have too much of the wrong things to eat. Our portion sizes have boomed, and so have our waistlines. We will share research technology methods that can help us reduce the problem.



Jim Painter received a Master's degree from Oklahoma State University and a Ph.D. from the University of Illinois. Jim has been a Registered Dietitian since 1980 and is a member of the American Dietetic Association. He worked with Marriott Corporation in the 1980s, taught at the University of Illinois in the 1990s and is presently a professor in the School of Family and Consumer Sciences at Eastern Illinois University. He serves on advisory boards for Paramount Farms Pistachio Health and is the Director of Nutrition Research for the California Raisin Marketing Board. He is associated with Apicius the Culinary Institute in Florence Italy. Jim has been the recipient of numerous grants that have focused on changing our eating environment. He has more than 100 peer reviewed publications and presentations to his credit. He produced the video Portion Size Me and coauthored The Art of Nutritional Cooking 3rd ed., a nutrition text for culinary students. His current studies focus on food psychology and mindless eating.



Alex Curtis is a current Dietetic student at Eastern Illinois University. She is vice-president of the Gluten Freedom club and student assistant for the Quantity Food Productions Class. She is the creator of the website www.spoonfulofsugarfree.com where she creates and publishes sugar-free, dairy-free, gluten-free recipes.

Longitude and Time: How a Simple Pocket Watch Ushered in the Era of Global Positioning

Dr. Barry Kronenfeld

Wednesday, Oct. 30, 2013

6-7pm ; Room 2120 in Physical Science Building

Where on earth are we? People have long known how to determine latitude from the stars, but a practical method of determining longitude eluded the greatest thinkers including Galileo, Huygens and Newton. This talk follows the story of longitude and its surprising solution by a self-educated English clockmaker named John Harrison, whose pioneering work laid the foundation for modern mapping and timekeeping.

The Search for the Truly Elementary Particle

The Search for the Truly Elementary Particle

Britney Rutherford

Wednesday, Oct. 30, 2013

7-8pm ; Room 2120 in Physical Science Building

"Search for the Truly Elementary Particle" will present the evolution of particle physics from the conception of the atom to the present-day Standard Model, highlighting historically important and pivotal discoveries along the way.



Barry Kronenfeld is a geographer and geographic information scientist in the Department of Geology/Geography at Eastern Illinois University. His research examines the ways in which environmental and human patterns and processes are represented on maps and in geographic information systems. He has published 18 peer-reviewed articles in journals and international conferences, on topics ranging from spatial sampling theory and spatial interaction to ecoregion mapping and historical land surveys. Dr. Kronenfeld currently teaches courses in GIS, Cartography, GIS Programming and Human Impacts on the Environment.



Britney Rutherford is new to the EIU Physics Department this Fall. She got her B.S. in Physics as well as a B.S. in Dance from SIU Edwardsville, worked as an Engineering Physicist at Fermilab for 2 years and continued to get an M.S. in Physics from University of California Davis in December 2012.

Genetic Engineering: Challenging Our Perspectives on Reproduction

Dr. Gary Fritz

Monday, Nov. 4, 2013

11am-12pm ; Witters Conference Room 4440, Booth Library

Science and technology are synergistic and often lead to historic explosions of knowledge coincident with the ability to affect our lives. Biotechnology, particularly molecular genetics and its tools (genetic engineering), are presently synergistic components of such an explosion. For example, virgin births, cloning and other “unusual” forms of reproduction could now become possibilities with humans. Molecular genetics has greatly expanded our knowledge of how cells become individuals, and advances in genetic engineering provide the tools to manipulate the fate of cells--- reproduction need no longer be the single purview of fertilized eggs. These technological advances increase our choices, but also challenge our concepts of life and individuality, and our ability to make informed and responsible decisions.

The Copernican Revolution

David Linton

Tuesday, Nov. 5, 2013

2-3pm ; Roberson Auditorium, 2030 Lumpkin Hall

We see the Sun move across our sky, so it was most natural to suspect that the Sun goes around the Earth. Finding the evidence that showed this to be an illusion took many centuries. Mr. Linton looks at the cultural upheaval that ensued when Galileo endorsed the heliocentric view in the face of religious opposition.



Dr. Gary Fritz is a professor in the Department of Biological Sciences and teaches courses in Genetics and Evolution. He has published over 35 papers in his field and currently works on malaria mosquito ecology and taxonomy, and the genetics of social and reproductive behavior in fire ants. He has also produced a documentary on the Chilean “Woodstock”, which has won national and international awards at film festivals.



David Linton is an instructor of physics and astronomy at Eastern Illinois University. He has an M.S. from the University of New Mexico at Albuquerque. He was the recipient of the 1988 Illinois Professor of the Year award, sponsored by the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching.

Mothers of Invention

Donna Dawson

Tuesday, Nov. 5, 2013

3-4pm ; Roberson Auditorium, 2030 Lumpkin Hall

This presentation will pay special attention to our “Mothers of Invention”. We often use the phrase, “Fathers of Invention” when tracing the roots of technological improvements or enhancements. In order to bring a focus on the contributions women have had in advancements in technology, we can look at past inventions and the special roles women have played.

‘Food Deserts’ Beyond the Western Hemisphere: Preliminary Indications from a Transitional Economy

Dr. Marko Grünhagen

Tuesday, Nov. 5, 2013

3-4pm ; Roberson Auditorium, 2030 Lumpkin Hall

While the marketing literature has investigated the availability and affordability of food and food stores from various angles and in many different global contexts, ‘food deserts’ in urban environments have received only scant attention. This phenomenon has been widely observed in Western markets (e.g., in the U.K. and the U.S.), and the literature base originates in the urban planning literature. The impact of emerging food deserts on market segments of vulnerable consumers (e.g., the elderly, or mobility-impaired consumers) and the ensuing public policy implications appear particularly relevant to marketers. This research investigates the encroaching absence of food-sources in a context that may not appear as a likely candidate for this phenomenon, a transitional economy in Southeastern Europe, Croatia



Donna Dawson is the Academic Advisor in the School of Technology. She advises the academic path for Applied Engineering Technology students and serves as a course instructor for the EIU Senior Seminar course, Women in Technology.



Dr. Marko Grünhagen received his Ph.D. from the University of Nebraska, and serves as the Lumpkin Distinguished Professor of Entrepreneurship and Professor of Marketing at Eastern Illinois University.

An internationally recognized expert on franchising, he has been Chairman of the International Society of Franchising (ISoF) twice in 2009 and 2013, Chair of the *Office Depot* Small Business Research Forum, and recipient of the Arthur S. Karp Award for the “Best Applied Research Paper on Franchising” by the Educational Foundation of the International Franchise Association (IFA). He serves as Associate Editor for the “Franchising and Small Business Marketing” area of the *Journal of Small Business Management*, and is a member of the Editorial Review Boards of several academic journals.

Dr. Grünhagen’s research has been published in numerous prestigious academic journals such as the *Journal of Retailing*, *Journal of Business Research*, *Psychology & Marketing*, *Journal of Macromarketing*, *European Journal of Marketing*, and the *Journal of Small Business Management*, to name a few. He has been quoted as an expert on franchising by global news outlets such as The Wall Street Journal, Entrepreneur Magazine, The China Business Journal and National Public Radio (NPR), and he has been invited to present his research at professional venues across five continents, Asia, Australia, Africa, Europe and North America.

It Really is a Problem: How Our Worldview of Identity Theft Has Changed over the Past 20 Years

Dr. Axton Betz-Hamilton

Wednesday, Nov. 6, 2013

10-11am ; Charleston/Mattoon Room, MLK Union

Today, the concept of identity theft is well known among Americans, thanks to increased consumer education, legislation, and agencies that offer identity theft protection services. Identity theft occurs when someone steals your personal information and uses it for their (usually financial) gain. This awareness was not present 20 years ago as no laws existed to protect consumers from this crime, and few people were aware that identity theft was possible. This presentation will showcase the dramatic changes that have occurred since 1993 regarding the perceptions of identity theft, the evolution of relevant legislation, and consumer education efforts that have changed, and are changing, the way we think about this crime

Technology & Science Resources on the Library of Congress Website

Dr. Cynthia W. Rich

Wednesday, Nov. 6, 2013

10-11am ; Charleston/Mattoon Room, MLK Union

This presentation will look at information and digitized primary sources that are available at no cost through the Library of Congress website. Resources range from interactive features for upper elementary students to the digitized papers and documents connected to inventions and scientific movements that impacted generations. The Library of Congress has made these resources available for download in document, image, motion picture and audio formats.



Axton Betz-Hamilton, Ph.D. is an Assistant Professor of Consumer Studies at Eastern Illinois University. Her research on the topic of identity theft has been recognized by the American Association of Family and Consumer Sciences as well as the Iowa State University Alumni Association. Her professional expertise, as well as her personal experience as a victim of child identity theft, has been featured on the *Hallmark Channel*, *NBC News*, and in *SmartMoney Magazine*.



Dr. Cynthia W. Rich is Director of the Library of Congress Teaching with Primary Sources program at Eastern Illinois University (<http://www.eiu.edu/~eiu/tps/>). With a background in language arts, her teaching and research interests include classroom integration of primary source material and oral history collection.

Comparison of Effects of the Printing Press and Internet

Dr. Les Hyder

Wednesday, Nov. 6, 18, 2013

11am-12pm ; Charleston/Mattoon Room, MLK Union

Except for the wheel, no technological innovations have had greater impacts than have Gutenberg's printing press and the internet. This presentation will consider and compare the political, religious, social and cultural impacts effects of those two inventions and how they changed the world.

Technology Innovation from a History of Energy Crises

Dr. Isaac Slaven

Wednesday, Nov. 6, 18, 2013

11am-12pm ; Charleston/Mattoon Room, MLK Union

Throughout history, the demand for energy has brought about innovation and invention. Sometimes these are new technologies, and other times they are bygone technologies that are adapted to the new situation. This presentation explores some of the innovations that energy crises have brought about.



Dr. Les Hyder is professor of Journalism. He chaired the Journalism Department from 1994-2005. He previously taught and advised student media at the University of Tennessee, Knoxville and Southern Methodist University. His professional experience includes reporting for newspapers, broadcast and a business journal and technical writing for a research institute.



Dr. Isaac Slaven is an Assistant Professor in the School of Technology where he teaches classes on renewable energy, machine design, and safety. He did his doctorate at Purdue University. His work experience includes wood products manufacturing, industrial wind turbine maintenance, and tower construction.

Among his current research topics are photovoltaics, building efficiency, wind energy, biomass energy, and biomass densification.

Space: The Final Frontier - A Personal Voyage

David Linton

Wednesday, Nov. 6, 2013

7-8pm ; Room 2120 in Physical Science Building

One of the most recent revolutions in human capability began on October 4, 1957, with the launch of Sputnik 1. Mr. Linton recounts the events of the Moon Race that occurred as he was growing up and deciding on a career in science. He also speculates where this is leading us.

Don't Forget to Eat Your Carrots!! Conquering the Myths in Physical Education, Health & Wellness

Scott Ronspies

Thursday, Nov. 7, 2013

6-7:30pm ; University Ballroom, MLK Union

Myths are abundant in the areas of physical education, health and wellness. Most myths are communicated through word of mouth and various media sources. Unfortunately, myths are considered to be true by many people obtaining inaccurate information. This presentation will explore various myths and how science, technology and research have changed our perspectives. In addition, audience members will get the opportunity to examine various instruments and tools used in the Kinesiology field. Furthermore, prominent people in the field of Kinesiology will be examined. The presentation will be interactive so audience participation is encouraged.



David Linton is an instructor of physics and astronomy at Eastern Illinois University. He has an M.S. from the University of New Mexico at Albuquerque. He was the recipient of the 1988 Illinois Professor of the Year award, sponsored by the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching.



Scott Ronspies is an assistant professor in Kinesiology and Sports Studies at Eastern Illinois University. He earned a B.A.E. in physical education at Wayne State College, an M.S. in sport pedagogy from the University of Nebraska at Omaha, and a Ph.D. in sport pedagogy from the University of Northern Colorado. Dr. Ronspies' research interests include physical activity/fitness assessment and promotion for youth, curriculum and instructional models, and physical education pedagogy.

Closing Session-

An Inspiring Look at New Fundamental of Technologies and How to Use Them in Your Future Career

Dave Wilson

Wednesday, Nov. 13, 2013

10am-12pm ; Charleston/Mattoon Room, MLK Union

As the needs of our world community continue to grow and so does the expectation of how science and technology will meet them. So, how do students connect with science and technology to help them prepare to participate in this future? This presentation will walk you through some of the basic technology concepts students should know and some great ways to learn them. We will tour through the fundamental components of electronics, mechanics and programming. And then look at the ways to efficiently combine them into systems that will serve to meet the most challenging demands. Dave Wilson has nearly 30 years of experience in working with both industry and education to demystify many of the useful technologies and approaches that make them accessible. With NI's vast array of research and industry applications, he will also take a close look at some basic and advanced applications in a way that will both explain them and inspire students to learn more about them.



As the Director of Training and Academic Programs for National Instruments, **Dave Wilson** works with the both NI headquarters and more than 45 NI branches around the globe. He ensures the most effective academic product development strategies and messages are implemented worldwide. Before joining NI, Dave worked for the Xerox Corporation and Keithley Instruments as a research engineer and software developer. Upon joining NI in 1991 as a Michigan-area district sales manager, he began driving the adoption of NI measurement and automation solutions throughout the automotive industry. In this role, he presented more than 50 technical seminars, wrote hundreds of applications with customers, and received multiple industry recognition awards.

In 1995, Wilson became the director of data acquisition marketing where he led successful launches for products that have become key parts of the NI product line including motion control, Vision, DAQ boards, and PXI. He also developed product and corporate messages and led initiatives to work with R&D to incorporate customer-recommended features into new products. In 2000, Wilson became the international sales director for NI Japan where he led the branch to record growth.

Wilson took on the role of Director for NI's Academic programs in 2010 and since then has delivered more than 60 keynotes on the application of next-generation technologies in 30 countries in Asia, Europe and the Americas. He has met with the ministers of education in Russia, Kosovo, Mexico, Thailand and many Deans of engineering to discuss ways to adopt new generation technologies for science and engineering in university curricula. He has led the launches of NI's myDAQ and myRIO products as well as authored numerous articles and interviewed with multiple domestic and international publications including *EE Times Asia*, *Nikkei Electronics*, *Bits & Chips*, *Evaluation Engineering*, *Desktop Engineering*, and *Sensors*.

Wilson currently serves on industry boards helping guide educationally oriented companies in their sales, marketing and product development efforts. He also holds patents for data acquisition and I/O technology innovations.

Additionally, Wilson has developed and chairs NI's Graphical System Design Achievement Awards. For over ten years, this event has recognized NI customers around the world for accomplishments in engineering and science and is attended by educational and industry participants like Intel, Xilinx, Popular Science, over 40 international editors.

Wilson holds a bachelor of science degree in applied physics from the State University of New York.



Published by the Center for Academic Technology Support - October 2013