

58TH ANNUAL TEEAP CONFERENCE

Preliminary Conference Schedule

Thursday, November 4th, 2010

9:00 AM

Keystone A

Teaching STEM Concepts through the Design, Construction, Assembly and Analysis of Electric Guitars.

Mike Aikens, *Professor, Butler County Community College*

Tom Singer, *Professor, Sinclair Community College*

Mike Robinson, *Professor, Butler County Community College*

Presentation will focus on the successes of an NSF grant team that uses the electric guitar to teach STEM concepts. We will demonstrate how schools can engage their students with this project.

Keystone B

Photovoltaic Electricity in PA from A-Z

Len Litowitz, *Professor, Millersville University*

Program discusses the economics, methods of system sizing and technical aspects of a typical 10kW photovoltaic (PV) installation that is tied into the power grid. A classroom activity about PV will also be provided.

Keystone C

Superhero Technology & Engineering

Jocelyn Long, *Technology Education Teacher, Neff 6 - Manheim Township*

What seemed impossible during the Golden Age of Comics becomes possible through engaging STEM activities. Join the battle to reveal the superhero in your students.

Keystone D

Incorporating STEM Concepts through Digital Communications

Laura Hummell, *Assistant Professor, California University of PA*

Using animation, podcasts, graphic design, web design, and digital photography design briefs, students apply real world problem solving techniques to master science, technology, engineering, and mathematics concepts.

Keystone E

Rapid Prototyping and Digital Fabrication in Your Classroom!

Richard Amarosa, *President, Tech Ed Concepts, Inc.*

Don't miss this! Join the ranks of Educators Nationwide who've witnessed the Nation's only STEM-defined 3D-Printer (only \$1,495!), the RapManUSA - as well as its industrial-brother, the BFB 3000 - in-action! The RapManUSA is a complete color 3D rapid- prototyping kit that integrates and instructs on STEM skills like Manufacturing, Engineering, Electronics, Applied Math, Robotics, System Integration, Mechanical Assembly, G-Code Programming, and more! Be sure to check out the exclusive student 3D interactive build-manual. Plus, get introduced to the fully-assembled BFB 3000: the multi-head capable, steel and aluminum, industrial-output 3D-printer that's perfect for larger classes. Perfect for middle school and beyond. *ALL* presentation attendees receive \$100 Grant towards a RapManUSA purchase, Toolkit or Build Material!

Commonwealth

Technology Education Master's Degree: 100% Online

Glenn Hider, *Professor, California University of Pennsylvania*

Earn your Master's degree while teaching; 100% online program provides flexibility, enhancing your teaching and program. Five term program provides professional experiences in: program development, grants, STEM, sustainability, special populations, creativity, assessment, research and more

Senate Board

Co-Teaching a High School Engineering Course

Jeff Yeagle, *Technology Education Teacher, Colonial School District*

Jim Muscarella, *Science Teacher, Colonial School District*

Teachers from the Colonial School District have developed a unique method of delivering science and technology content through a Co-taught Engineering course(s). These course(s) are offered as a science, as well as, technology education electives. The presenters will share thoughts ideas successes and concerns of a co taught engineering course and provide perspectives on this alternative to 'purchased curriculum'.

Susquehanna

Encouraging Females in STEM: Resources & Money

Katherine Weber, *Lead Contact, PA STEM Girls Collaborative Project*

Dr. Lisa Kovalchick, *PA STEM Girls Collaborative Project*

PA STEM Girls Collaborative Project offers mini-grants to teachers to inspire girls in STEM. In this session find out more about grants, resources, and strategies to encourage females in your program.

10:30 AM

Keystone C-D-E

First General Session

Brillion School District: Creating a Vision for the Future of STEM

Mr. Steve Meyer is currently a high school and middle school Technology and Engineering instructor in Brillion, Wisconsin. He teaches a variety of courses in STEM, Engineering, Design, and Manufacturing. Steve previously earned a Bachelor's degree in Physics from Luther College in Decorah, Iowa and received his master's degree in Technology Education at the University of Wisconsin Stout. He is currently working on a degree in Applied Engineering Technology. Steve has a broad-based education in mathematics, the sciences, and technology and believes strongly in



the need for technological literacy for everyone. In his career so far, he has been very involved in education initiatives at the local, state, and national levels such as a Wisconsin Technology Education Association District Representative, a CATTs author, curriculum writer for project Probase, research assistant for the National Academy of Engineering, and has served on the board of directors for the International Technology & Engineering Education Association. Along with teaching, Steve owns an educational consulting company called Technological Literacy Curriculum (TLC) Solutions in which he does school assessments, industry consulting, curriculum development, public speaking, product testing, and new teacher training.

12:00 PM

Keystone E

Technology Festival

This year, our theme once again is "Going Green". Everyone who will have a table set up at the Technology Festival will have an activity or an idea for an activity that has something to do with recycling or going green. Please remember, this is not a formal presentation but rather a wonderful opportunity for all those in attendance to network and discuss activities that go on in their classrooms. Stop by, and get some great materials to take back with you!

1:00 PM

Keystone A

Fostering Innovation Through Robotics Exploration

Robin Shoop, *Director, Carnegie Mellon Robotics Acad., Carnegie Mellon Univ.*

Carnegie Mellon is offering free training for students nationally, access to virtual worlds where students can program their robots, and lots more.

Keystone B

Blowin' in the Wind

Joanne Trombley, *Technology and Engineering Education Dept. Chair,
J.R. Fugett Middle School, West Chester Area School District*

Jeff Conner, *Graduate Student, Millersville University*

Do you teach about renewable energy sources? What are the options? One answer may be 'Blowin' in the Wind.' Learn about a unit to teach students to utilize the design process to build a wind turbine that generates electricity.

Keystone C

I³ Meets Layered Curriculum

Sandy Cavanaugh, *Technology Education Teacher,
North Strabane Intermediate School Canon McMillan School District*

This presentation illustrates how I³ integrated with 'Layered Curriculum' advances these great units to a higher level. A fantastic, fun way to differentiate instruction, allow students to learn at their own level and in their own learning style.

Keystone D

Roadmap to Mechatronics

Amrhein, Michael, *Faculty & Co-Director of NCRETE, Cal. University of PA*

Dr. Tony Rodi, *Faculty & Co-Director of NCRETE, Cal. University of PA*

Dan Blanck, *Regional Manager, FESTO Didactic Learning Systems*

Paul Koontz, *HITech Inc.*

William Sicari, *General Manager, FESTO Didactic Learning Systems*

Attendees will gain an understanding of the mechatronics skills set and how mechatronics engineering technicians and engineers will contribute to a high performance automation and robotics workforce for the 21st century. This presentation is suitable for all secondary education teachers and will include demonstrations of the equipment that Cal U is using in their robotics and mechatronics programs. Discussion will focus on efforts to align mechatronics programs with PDE and workforce initiatives.

Commonwealth

4-D - A Micro Radio Controlled Reality Display

Jon Taylor, *Technology Education Teacher, Central Bucks School District*

Dream. Design. Develop. Display. Check out the pictures, materials, and micro radio controlled vehicles used to implement this exciting activity. It may be useful for you at any grade level.

Senate Board

Middle School Program of Excellence Presentation

Please attend this session to learn more about what sets this High School Technology Education Department apart from the rest and has earned them the honor of Program Excellence this year from the state of Pennsylvania! The announcement of the selected school for this year will be made prior to the conference.

Susquehanna

High School Program of Excellence Presentation

Please attend this session to learn more about what sets this High School Technology Education Department apart from the rest and has earned them the honor of Program Excellence this year from the state of Pennsylvania! The announcement of the selected school for this year will be made prior to the conference.

2:30 PM

Keystone A

Thematic Projects in Technology Education

Darren Dravuschak, *Teacher, Orefield Middle School, Parkland School District*

Brian Iobst, *Teacher, Orefield Middle School, Parkland School District*

Nick Kessler, *Teacher, Orefield Middle School, Parkland School District*

Developing a competitive and skillful middle school technology program can be challenging. Come learn how to utilize all classes in your middle school technology program to produce one final project in grades 7 and 8.

Keystone B

Leading the Way with Technical Education

Katie Hall, *Marketing Manager, Cengage Learning*

Come learn more about resources that are available for your Technical Education program including Project Lead the Way. We will cover where to find funding sources to what curriculum is often covered. We will cover the changes made to the PLTW courses and the textbooks available for any technical education program.

Keystone C

Design: So Easy Elementary Students Can Do It

Jocelyn Long, *Technology Education Teacher, Neff 6 - Manheim Township*

Interested in implementing design based activities into your elementary classroom? This session will provide the how to basics of creating and using hands-on, design based activities to teach the core elementary subjects.

Keystone D

Exploring A Guidebook and Resources CD for Children's Engineering, Grades K-6

Bob Claymier, *Educational Consultant (Grades K-6), Technology is Elementary*

Attendees will investigate a guidebook and resources CD for incorporating children's engineering in grades K-6. Topics to be discussed will include utilizing the design process, creating integrated lessons, and exploring children's engineering resources.

Commonwealth Regional Vice President's Best Practices

Jared Bitting, *Dept Chair, Fleetwood Area School District & Regional VP 2-E*

Don't let the title fool you! This session, co-sponsored by the TEEAP Council for Leadership, is intended as an informational meeting for current and future TEEAP Regional Vice Presidents. This organization depends on its local leaders to share information with as well as from each of the 18 Regions here in Pennsylvania. Attend this session to learn more about the duties of a Regional Vice-President as well as some effective techniques and suggestions that can help make a difference in our profession on a local and state level.

Senate Board A Timely Research and Restoration Project-Revisited!

Kenneth P . DeLucca, *Professor, Millersville University*

Michael Friedman, *Teacher*

Learn about the partnership between the National Watch & Clock Museum and Millersville University's Department of Industry & Technology. A historic shelf clock needing restoration is matched up with a wood and furniture technologist-the results are outstanding!

Susquehanna Board F1 In Schools in Pennsylvania

Paul Koontz, *President, F1 in Schools, PA*

Brian Haskell, *President/CEO HITech Inc*

F1 in Schools in the USA has had some changes in it's administration and affiliations. F1 in Schools is alive and well under new administration. Attend this session to get the latest information about this very successful international competition.

4:00 PM

Keystone A-B TEEAP-CL Forum

Leadership is Everyone's Business!

The TEEAP Conference is the largest annual gathering of Technology Education professionals in the state, but you don't have to hold a TEEAP title to attend this year's Council for Leadership Forum. This year's Forum is open to students, teachers, administrators, etc., and we encourage YOU to attend! Find out why the Council for Leadership believes that "Leadership is Everyone's Business." We'll be discussing a variety of important issues that include, but are not limited to: new state standards; the direction of our association; past, present, and future initiatives; and leadership training options and materials. Sign up for the Forum when you register for the conference. We look forward to the insight your involvement! Also, keep an eye out for additional C for L sponsored sessions at the conference that you can attend. If you have any questions or comments, contact [Joanne Trombley](#) or [Mark Piotrowski](#).

6:00 PM

**Duke's Riverside Bar & Grille
Millersville University Alumni**

Please join your fellow Alumni as well as faculty from Millersville University for dinner at Duke's Riverside at 6:00pm. Find out about all the changes to the department, programs, and faculty, as well as some great networking with friends and colleagues. The cost will be around \$20.00 per person with a cash bar, with one free drink provided by the Department of Industry and Technology.

Appalchian Brewing Co.

California University of Pennsylvania Alumni

All Technology Education and Industrial Arts Alumni from California University and their guests are invited. Alumni are encouraged to bring prospective students for the Applied Engineering and Technology Department at Cal U. Refreshments and dinner will be served compliments of Cal U. Find out about all the changes to the department, programs, and faculty. Transportation will be provided to the reception between 5:45 and 7:00 PM. Meet in front of the hotel lobby. Return transportation will be provided between 7:30 and 9:30 PM.

8:00 PM

**Keystone C
Teacher Activity**

8:30 PM

**Keystone E
TEEAP Board Meeting**

This session is the Annual Conference Board Meeting of the Technology Education Association of Pennsylvania. All Executive Board members should attend. If you are a member of the Executive Board and are unable to attend, please contact Dan Engstrom and submit a TEAP Report Form for distribution at the meeting.