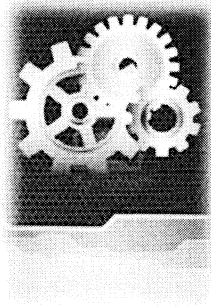
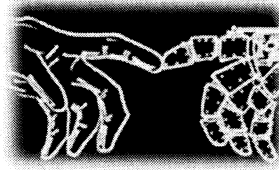


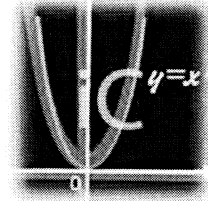
**S**



**T**



**E**



**M**

---

***STEM: The Future is Now!***  
***Improving Student Achievement through***  
***Integration and Innovation***

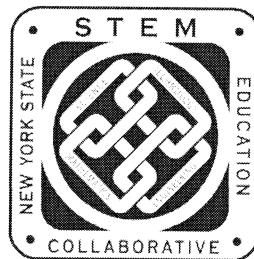
**Summer Institute**

**July 13-15, 2014**

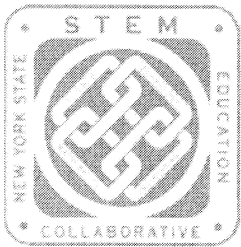
***Alfred State SUNY College of Technology***

**Organized and Supported by**

**The New York State STEM Education Collaborative**



**UPDATED CONFERENCE INFORMATION AND SCHEDULE CHANGES WILL BE FOUND AT THE NYS  
STEM EDUCATION COLLABORATIVE WEBSITE: [WWW.NYSSTEMEDUCATION.ORG](http://WWW.NYSSTEMEDUCATION.ORG)**



## **New York State STEM Education Collaborative 2014 STEM Institute Planning Committee**

<b>Margaret Ashida-</b>	<b>Executive Director of STEMx - Battelle</b>
<b>Charlie Crumb-</b>	<b>Career &amp; Technical Education -Technical Assistance Ctr.</b>
<b>Ellen Falk -</b>	<b>AMTNYS - STEM Collaborative Liaison</b>
<b>Chuck Goodwin, DTE –</b>	<b>NYSTEEA - STEM Institute Chairperson</b>
<b>Dr. Michelle Kavanaugh -</b>	<b>Superintendent of Schools Ret. &amp; Western New York STEM Hub</b>
<b>Gwendolyn Maturo-Grasso-</b>	<b>Technology Alliance of Central New York – Syracuse CSD</b>
<b>Robert Hazen-</b>	<b>AMTNYS – STEM Education Collaborative Webmaster</b>
<b>Fred Pidgeon -</b>	<b>STANYS – Vendors. Registration</b>
<b>Dr. Robert Rogers -</b>	<b>AMTNYS President - SUNY Fredonia– Vendors / Communication</b>
<b>Frank Roma, PE -</b>	<b>NYS Society of Professional Engineers – STEM Collaborative Liaison and Online Registration</b>
<b>Robert Tufte, DTE -</b>	<b>NYSTEEA – President</b>
<b>Dr. Joseph Zawicki</b>	<b>STANYS – Buffalo State – Program / Communication</b>



## **Alfred State – SUNY College of Technology 2014 STEM Institute Support and Planning**

<b>Karen Canne</b>	<b>External Event Planner – Director of Dining Services</b>
<b>Dr. Craig Clark, PE</b>	<b>Interim Vice President for Academic Affairs</b>
<b>Barbara Davis</b>	<b>Secretary to the Dean</b>
<b>Debra Root</b>	<b>Senior Director of Marketing and Communications</b>
<b>Mathew Speed</b>	<b>Cable / TV / IT</b>

Summer 2014  
 NYS STEM Education Collaborative Institute  
 Keynote Speakers

July 14<sup>th</sup>



Johanna Duncan-Poitier  
 SUNY Senior Vice Chancellor

July 14<sup>th</sup> Monday Evening  
 Banquet Speaker



Dr. William Gerberich  
 World Renowned Researcher  
 in Micromechanics, Nano-  
 technology and Materials Science

July 15<sup>th</sup>



Dr. Anthony Fasano  
 Executive Director, NYS Society  
 of Professional Engineers

Plenary Panel Discussion Group



Margaret Ashida  
 Plenary Panel Facilitator  
 Executive Director, STEM<sup>2</sup>  
 Network - BattelleEd



Louise Carosi Doyle, PE  
 Program Administrator  
 Westchester County  
 Dept. of Environment  
 New York State Society of  
 Professional Engineers



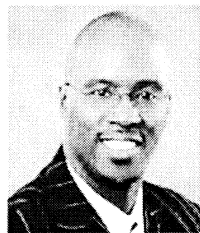
Ellen Falk  
 Math Teacher, North Salem  
 MS/HS, AMT/NYS District  
 Rep & STEM Committee  
 Association of Math  
 Teachers of New York State



Clark Greene  
 Technology Education  
 Professor & Lecturer  
 Buffalo State, N.Y.S.  
 Technology & Engineering  
 Educators Association



Mary Podsiedlik  
 K-12 Art & GT Teacher  
 Director Tully Regional  
 Enrichment Program  
 (TREP) Nasa Endeavor  
 STEM Teacher Certification  
 Scholarship Program



Dr. Mark D. Vaughn  
 Technical Talent Pipelining  
 Manager Lead Technology  
 Community Office of STEM  
 Corning Incorporated



Dr. Joseph Zawicki  
 Associate Professor  
 Buffalo State, Earth Sciences  
 & Science Education  
 Science Teachers Assoc-  
 iation of New York State

Helpful Information

**Conference Housing:** Covers Room & Board (2 night stay Sun. & Mon.)  
 \$150.00/person Double Dorm Occupancy - \$170.00/Person Single Dorm Room -  
 \$190.00/Person Townhouse Room with AC

**Meals covered include:** Monday - Breakfast, Lunch & Banquet / Tuesday - Breakfast & Lunch

**Picnic** and informational announcements/networking planned for Sunday July 13<sup>th</sup>

**Parking and Dorms** are a short walking distance to the Institute Buildings

**Presentation Rooms** are housed in three state-of-the-art interconnected buildings.

**Outstanding Vendor Area.** Strategically placed Electronic Message Boards will be in use.

**Campus Venues** are ideal for networking opportunities with free internet access.

**Registration** opens April 16<sup>th</sup>. For Institute information and Registration GOTO:  
<http://www.nysstemeducation.org/2014Institute.html>

**8B Integrating Math and Science into the Technology Education Curriculum**

**Room #102**

*Joseph Castelli, None Jonas E. Salk Middle School, Levittown School District Levittown, New York 11756*



5-8



S



T



E



M

Session will discuss ways of incorporating concepts of science and math into new and traditional technology education projects. Some science and math concepts include histograms, algebraic equations, line slope, and unit conversions (Dragsters); cross-sectional area and weight distribution (Structures); Earth-Sun relationship, latitude-longitude (Equatorial Sundial); flowcharts and much more.

**8C Speed Racer**

**Room #106**

*Ellen Falk, none North Salem Middle High School*



9-12



S



T



E



M



ELA

Understand, apply and enhance the teaching of constant, linear and quadratic functions through the motion of a car (we will be building). The project integrates concepts of one dimensional kinematics (physics) to what we teach and learn in the mathematics classroom. The kids love this one! Bring a 9 volt battery and a graphing calculator- TI 83 plus or 84.

**8D Wind Power**

**Room #107**

*Fred Pidgeon, STANYS*



9-12



S



T



E



M

The participants will build a wind mill from a kit and through trial and error try to produce enough electrical energy to light a small light bulb.

**8E The Value of Certification**

**Room #218**

*Robert Imhoff, Certiport, Inc., A Pearson VUE Company www.certiport.com*



9-12



S



T



E

This will intergrate science, technology, and engineering

**8F Video Game Design**

**Room #202**

*Matthew Swanson, Brian Vanek- Massapequa High School*



9-12



T



E



M

**Poster Presentations:**

**Interactive Science Notebooking for Elementary Scientists**

*Cheryl Aldrich, Beth Swierski, Sweet Home Central School District Sweet Home Central School District, Instructional Support Specialist for Science*

**Open Source Free Software as an alternative to Proprietary Fee Based Software for Educators**

*Jim Boardman, Right now no other presenter. Assistant Professor and Chair*

The presentation will focus on providing an overview of open source Linux desktop operating systems and open source desktop software such as Libre Office which is free and compatible with Microsoft Office. Many educators may not be familiar with how easy it is to install and use Linux operating systems and associated open source software. Open source software is a viable alternative to both school systems and students who have restricted IT budgets.