

## WELCOME ADDRESS

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**A**loha and welcome to the annual 'Education & Technology' and 'Math & Engineering Technology' Conference held in the Ala Moana Hotel in the island of Oahu. We trust that you will gain new experiences and new insights in your field of study while interacting with your peers. This is an exciting opportunity to meet with educators from different universities throughout the nation and throughout the world. They bring with them a wealth of knowledge and experiences in their particular disciplines to share with each and every one.

**W**e hope you enjoy your stay with our host, the Ala Moana Hotel, a prime location in the Ala Moana

area of Honolulu offering a wide variety of shops and attractions. The famous Waikiki Beach and prime restaurants are close by for your convenience. Be sure to check with the hotel's activity desk for all the latest adventures and tours to make your trip to these islands a memorable experience.

**T**he Islands of Hawaii offer a very unique experience for all people who visit to gain a better understanding of the Hawaiian culture and its spirit only found in this islands. Enjoy some of the best weather and beaches found anywhere in the world, and take your experiences home with you to return another day.

## *E' Komo Mai!*

(All are Welcome!)

Please visit our website for more details on the next conference.

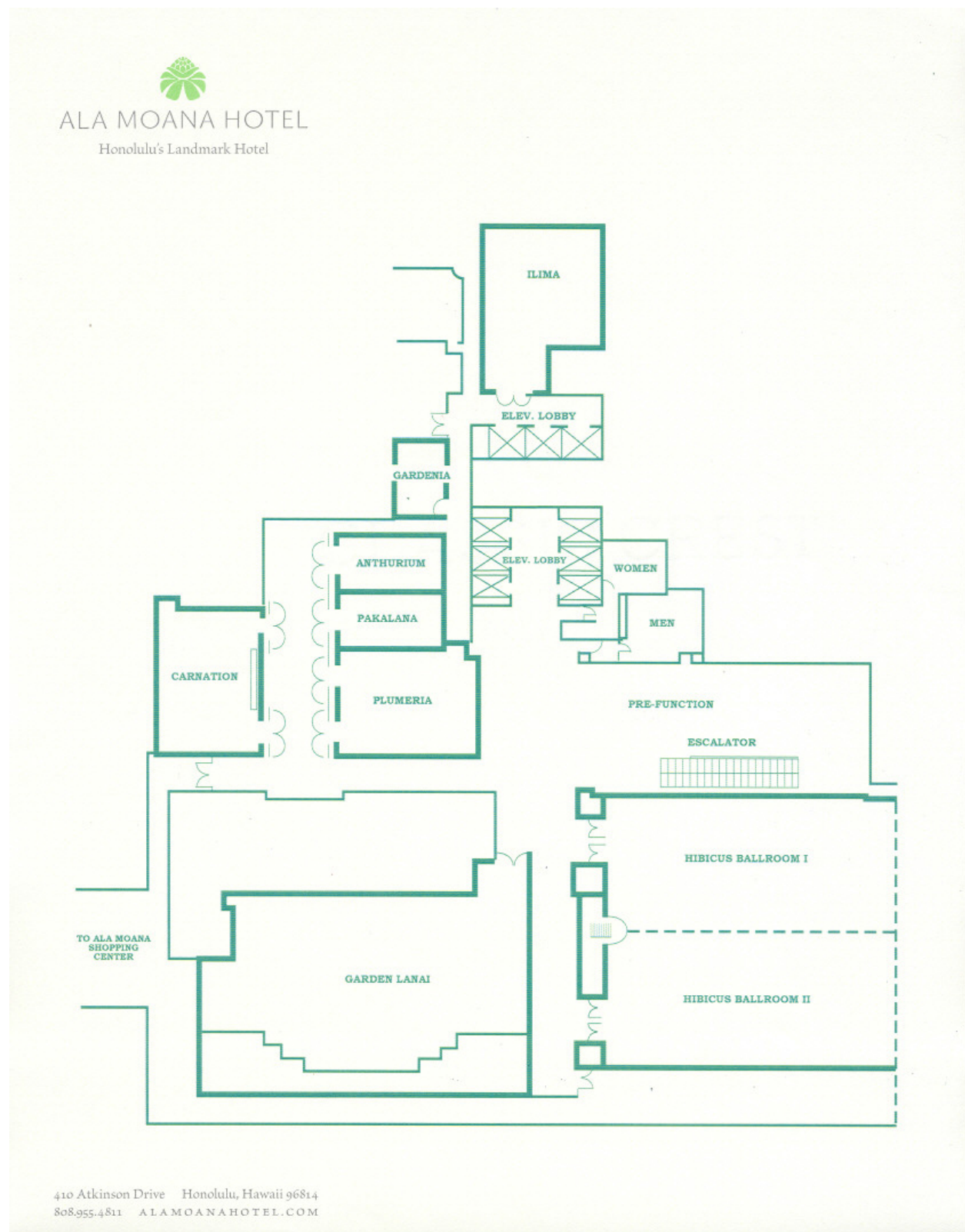
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## ALA MOANA HOTEL: FLOOR PLAN (2<sup>ND</sup> FLOOR)



# CONFERENCE SCHEDULE

## REGISTRATION HOURS – 2ND FLOOR

June 9 - Sunday	1:00 pm – 7:00 pm
June 10 - Monday	6:30 am - 5:45 pm
June 11 - Tuesday	6:30 am - 5:45 pm
June 12 - Wednesday	6:30 am -12:00 pm

## HAWAIIAN STEEL GUITAR OPENING PRESENTATION

Monday June 10 - 7:30 am – 8:00 am (Ballroom)

## HULA PERFORMANCE

Ms. Sunshine Oschner – Solana’s Dance Mix

Tuesday June 11 – 7:00 am – 7:30 am (Ballroom)

## KEYNOTE SPEAKER ADDRESS

Dean Frank Haas– Kapi’olani Community College

Tuesday June 11 – 7:30 am – 8:00 am (Ballroom)

## BREAKFAST - BALLROOM

(Breakfast is complimentary)

June 10 - Monday	6:30 am – 8:30 am
June 11 - Tuesday	6:30 am – 8:30 am
June 12 - Wednesday	6:30 am – 8:30 am

## TEA BREAK

Monday to Wednesday - 10:30 am – 12:30 am/ 2:30 pm – 4:30 pm

## LUNCH BREAK

11:30 am -12:30 pm (Lunch is not provided)

## POSTER SESSION

11:00 am - 12:30 pm (Ballroom)

## SESSION CHAIRS (INSTRUCTIONS)

- Introductions of Participants
- Start and complete sessions on time
- Chair leads the discussions and hold question and answer period at end of session



# DAY 1

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Monday - June 10, 2013

## HAWAIIAN STEEL GUITAR - PERFORMANCE

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Monday, June 10 - Ballroom  
7:00 am – 8:00 am



**Mr. Kamaka Tom**  
**Hawaii, Secretary Treasurer**

*The Hawaiian Steel Guitar Association is a worldwide organization promoting traditional Hawaiian music and the signature sound of Hawaiian steel guitar.*

*Our site contains information for HSGA members and for non-members who wish to learn about and listen to the beautiful music of the Hawaiian steel guitar.*

*We welcome you and encourage you to explore HSGA. If you enjoy your experience here, please let us know. We are always looking for new friends and new members.*



**HSGA President Paul Kim**



## Monday – June 10, 2013

Room: Carnation  
Time: 8:15 am - 9:45 am  
Session: Workshop - Education Technology; Higher Education; Language Education; Secondary Education; Teacher Education

### I. Applying Findings from Brain Research on Learning to the Foreign Language Class

Research findings about how the brain learns should inform what teachers do and what they have their students do in and outside the foreign language classroom. Participants in this interactive workshop will examine approaches and tools for the practical application of these insights and consider variations for their particular circumstances.

Author/Presenter: **Dr. Nina M. Furry**  
Department of Romance Languages  
The University of North Carolina at Chapel Hill



## **Monday – June 10, 2013**

Room: Plumeria  
Time: 8:15 am - 9:45 am  
Session: Business Education; Curriculum, R& D; Educational Administration;  
Educational Measurement & Evaluation; Education Policy & Leadership  
Session Chair: **Prof. Scott H. Baker**

### **I. Faculty Perceptions of Student Teaching Evaluations as a Factor in Formative and Summative Faculty Evaluations.**

Through a literature review and survey results of over 200 full-and part-time faculty, this paper will explore faculty perceptions of student teaching evaluations as formative and summative measurements of teaching effectiveness (see abstract).

Author/Presenter: **Prof. Scott H. Baker**  
Stiller School of Business  
Champlain College

### **II. Best Practices in Teaching Online and Hybrid Courses in the Arts and Media**

The study identifies the characteristics of-and a checklist for developing – superior online course. Success will mean a more satisfying college experience for the global learner.

Author/Presenter: **Dr. Anne Becker**  
Columbia College Chicago  
Art Education  
Author: **Dr. Suzanne McBride**  
Columbia College Chicago  
Journalism

### **III. Failing to Provide Diversity: Shortage of Male Elementary Teachers**

A survey based research study was completed in 2009 to determine which if any specific factors led to male teachers choosing their grade level preference, due to the shortage of male elementary teachers that is present in schools. The study was completed over 3 different states and 6 school districts.

Author/Presenter: **Dr. Constance Pearson**  
Liberty University  
School of Education  
Author: **Dr. Patrick Michael**  
Liberty University  
School of Education

## **Monday – June 10, 2013**

Room: Pakalana  
Time: 8:15 am - 9:45 am  
Session: Education Technology, Physics Education, Number Theory Presentation  
Session Chair: **Prof. Samya Zain**

### **I. Peer-Led Team Learning for CS I**

Through a literature review and survey results of over 200 full-and part-time faculty, this paper will explore faculty perceptions of student teaching evaluations as formative and summative measurements of teaching effectiveness (see abstract).

Author/Presenter: **Ms. Mitsue Nakamura**  
Computer and Mathematical Sciences  
University of Houston-Downtown

Author/Presenter: **Dr. Ongard Sirisaengtaksin**  
Computer and Mathematical Sciences  
University of Houston-Downtown

### **II. Crosswords and Team Quizzes to Facilitate Teaching Physics at Susquehanna University**

The purpose of crosswords and team quizzes is to promote student interest and to engage all students in the class and familiarize them with the materials covered in the class. The crosswords are offered as a part of extra credit towards the student's final grade, and graded "team quizzes" help students collaborate and work together on homework's and problem solving.

Author/Presenter: **Prof. Samya Zain**  
Department of Physics  
Susquehanna University

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### III. On Some Generalizations of Fibonacci Numbers and Lucas Numbers Related to Networks

#### Abstract

A *Continued Fraction* is of the form,  $a + \frac{b}{c + \frac{d}{e + \frac{f}{\ddots}}}$  where  $a, b, c, d, e, f, \dots \in \mathbb{Z}$ . In this paper, we derive formulas for the  $n$ 'th convergent of the C.F.'s  $p + \frac{1}{p + \frac{1}{p + \frac{1}{\ddots}}}$  and  $1 + \frac{1}{p + \frac{1}{1 + \frac{1}{\ddots}}}$  where  $p \in \mathbb{Z}$ . The associated number sequences and electrical networks are indicated.

Author/Presenter: **Dr. Suman Balasubramanian**  
 Dept. of Mathematics  
 DePauw University

## **Monday – June 10, 2013**

Room: Anthurium  
Time: 8:15 am - 9:45 am  
Session: Education/Art Education, Distance Education; Inter-disciplinary and other areas of Education, Curriculum, Research and Development  
Session Chair: **Dr. John H. Hughley**

### **I. Responses to Paintings by African American Artists**

Responses by African Americans and others from secondary public schools and universities to paintings by African American artists will be reviewed. Slides of the paintings will be presented.

Author/Presenter: **Dr. John H. Hughley**  
Department of Art  
North Carolina Central University

### **II. Reflection on the “Unified Pedagogy”: an Educational Model for Sub-Saharan Africa**

This paper intends to address educational models in Sub-Saharan Africa by calling attention to the reflection on what roughly may be termed the “unified Pedagogy” in the light of some philosophers’ insight on education, associated with African societies needs in a fast changing and competitive world.

Author/Presenter: **Dr. Zacharie Nzepa Petnkeu**  
Department of French  
Concordia College, Moorhead, Minnesota

## **Monday – June 10, 2013**

Room: Carnation  
Time: 10:00 am – 11:30 am  
Session: Educational Measurement & Evaluation OR Teacher Education, STEM Initiatives, Inter-disciplinary & other areas  
Session Chair: **Dr. Carolyn Ruth A. Williams**

### **I. GSKyTeach at Western Kentucky University, Preparing STEM Teachers for Service in High-Needs High Schools**

GSKyTeach is a program of instruction and clinical experiences that equips alternatively certified STEM teachers with the knowledge and skills to produce high levels of achievement with students in high-needs settings through inquiry based teaching and learning. This paper includes program specifics and evaluation results from years one through four of the project.

Author/Presenter: **Dr. Martha M. Day**  
GSKyTeach  
Western Kentucky University  
Author: **Dr. Kim Cowley**  
Program Evaluation Department  
Edvantia, Inc.

### **II. STEM Initiatives at St. Cloud State University, St. Cloud, Minnesota**

In this session the presenter will discuss St. Cloud State University STEM Initiatives which provide for a variety of functions and services focusing on outreach to improve STEM education and increase the number of students selecting STEM as a career opportunity especially by women and underrepresented minorities.

Author/Presenter: **Dr. Carolyn Ruth A. Williams**  
Science, Technology, Engineering and Math (STEM) Initiatives  
St. Cloud State University

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### III. Fostering a STEM Learning Community to Promote Student Interest in STEM Disciplines

The main goal of the Fayetteville State University's STEM Learning Community (SLC) is to spur the interest of a greater number of freshmen in STEM disciplines through the participation in the learning community. Modified to fit the world of higher education, the concept of a learning organization became that of a learning community that would strive to provide an environment of interaction, connection, encouragement and support for first-year students seeking to enroll in a STEM major or program. Presenters will share how the Fayetteville State University's current SLC model is used to support, enhance and supplement the goal of the Robert E. Noyce Scholarship Program which is to encourage STEM majors to double major in either mathematics and secondary mathematics education or biology and secondary biology education.

Author/Presenter: **Dr. Kimberly Smith-Burton**  
Middle Grades, Secondary & Specialized Subjects  
Fayetteville State University

Author/Presenter: **Dr. Erin White**  
Biological Sciences  
Fayetteville State University

Author: **Dr. Shelton Ford**  
Middle Grades, Secondary & Specialized Subjects  
Fayetteville State University

## Monday – June 10, 2013

Room: Plumeria  
Time: 10:00 am – 11:30 am  
Session: Workshop - Curriculum, R& D; Distance Education; Education Technology; Higher Education; Rural Education; Secondary Education; Student Education; Teacher Education

### **I. Using Google Plus as a Learning Management System/Social Learning Tool in K-12 and Higher Education**

This interactive workshop will introduce Google Plus as a learning management system and social learning tool for K-12 and higher education. Features of Google Plus include video-conferencing and a platform for posting content, announcements, resources, and feedback. Participants are encouraged to bring a laptop or tablet to the session.

Author/Presenter: **Dr. David Wicks**  
School of Education  
Seattle Pacific University  
Author/Presenter: **Prof. Amy Vaughn**  
School of Education  
Seattle Pacific University



**Monday – June 10, 2013**

Room: Pakalana  
 Time: 10:00 am – 11:30 am  
 Session: Education/ Social Science, Social Studies Education, Distance Education, ESL, Indigenous Learning, Writing Style, Stylistic Flaws, Literary Gloss, Partial Exposition  
 Session Chair: **Prof. Nazir Ahmed Mughal**

**I. The Impact of Extremism on Higher Education among the Muslim Countries: A Case Study of Pakistan**

The greatest threat facing the world specially the United States is the Jihad Movement, moderately known as the extremists operating in most of the Muslim countries. The extremists are self-appointed Muslim fanatics who have launched a "holy war or Jihad" against the United States and the West. Ironically the foremost target of the extremists has been the most of the Muslim world itself. Most Muslims around the world reject the Jihadist interpretation of Islam, and few relish of Jihadists rule. The "Jihadists" may be Muslims but few Muslims are extremists willing to commit "Jihad".

Author/Presenter: **Prof. Nazir Ahmed Mughal**  
 Vice-Chancellor  
 University of Sindh

**II. The Best Practices of Human Rights in Education: The Malaysian Schools Perspective**

The paper focuses on the best practices of Human Rights in Malaysian schools. A model is proposed for good practices for the implementation of human rights in education.

Author/Presenter: **Dr. Jane Yan Fang Teng**  
 Department of Management & Leadership  
 Sultan Idris Education University

**III. A Mormon Presence in China**

The Mormon Church has had a limited presence in china. Through the church's university, specifically Brigham Young University Hawaii, online education has created a portal for Chinese students to receive an education while allowing the church to spread its influence. BYU-h online education is the most effective way to introduce the church message to Chinese students as well as create an environment for students to learn and apply religious principles that encourages country loyalty, family stability, and personal progression.

Author/Presenter: **Mr. Robert Clavel**  
 International Cultural Studies Department  
 Brigham Young University



## Monday – June 10, 2013

Room: Anthurium  
Time: 10:00 am – 11:30 am  
Session: Workshop - Engineering Topics

### I. Teaching MEMS at Undergraduate Level

The paper presents the teaching of MEMS to undergraduate mechanical and electrical engineering students. Topics included: the scaling laws, electromechanical principles of sensors and actuators, silicon-based and polymer materials, physical-chemical processes for microfabrication, MEMS systems design, and assembly-packaging-testing techniques. Prominent topics in nanoscale engineering were also included in the end.

Author/Presenter: **Prof. Tai-Ran Hsu**  
Department of Mechanical and Aerospace Engineering  
San Jose State University



## Monday – June 10, 2013

Room: Ballroom  
Time: 11:00 am – 12:30 pm  
Session: Poster

### 1. A New Role of Academic Advising in Residential Education

In 2013, University College of Yonsei University starts the Residential College Educational Program. Academic Advisors provide the individualized student-centric advising services along with its commitment to excellence in the liberal arts education. For further growth, University College may design and implement the advising system to support triple advising framework related among faculty advisor, residential master and academic advisor.

Topic: Academic Advising and Counseling  
Author/Presenter: **Dr. JeongEun Nah**  
Engineering Division, University College  
Yonsei University, Korea

### 2. Fibonacci Sequences and Toeplitz Matrices: Research Opportunities for Undergraduates

Matricial Fibonacci Identities are obtained.

Topic: Algebra; Number Theory  
Author/Presenter: **Dr. Ben Mathes**  
Colby College

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### 3. Perspectives on Current Trends and Issues in Education from Future Educational Leaders in a Graduate-Level Supervision of Instruction Course

The present qualitative study seeks to gain a deeper, richer understanding of the perspectives on current trends and issues in education of prospective educational leaders enrolled in a graduate-level supervision of instruction course. Data triangulation is achieved via participants' online discussion board posts, participants' assignments, and a focus group interview. 14 students contributed discussion board posts and assignments for analysis, 13 participated in the audio recorded focus group interview. Data analysis is via contextual analysis of discussion board posts, assignments, and the transcribed focus group interview through open-coding and application of constant-comparative analysis and bracketing to identify recurrent themes.

Topic:	Education Policy and Leadership
Author/Presenter:	<b>Dr. Russ Yocum</b> Graduate School of Education Liberty University
Author:	<b>Dr. Russ Claxton</b> Graduate School of Education Liberty University
Author:	<b>Dr. Susan James</b> School of Education University of West Florida
Author:	<b>Ms. Elyse Pinkie</b> Graduate School of Education Liberty University

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#### 4. The Role of Cannabis Use Quantity in Predicting Cannabis-Related Problems

This study introduces a new measure of cannabis quantity and examines whether it predicts cannabis-related social problems with and without controlling for frequency of use. Our results suggest that cannabis use quantity, above and beyond frequency, is an important predictor of cannabis problems in youth and adults. We discuss the potential usefulness and validity of this new measure in harm reduction.

Topic:	Health Education; Social Science
Author/Presenter:	<b>Dr. Cornelia Zeisser</b> Centre for Addictions Research of BC, Technology Enterprise Facility University of Victoria
Author:	<b>Dr. K. Thompson</b> Centre for Addictions Research of BC, Technology Enterprise Facility University of Victoria
Author:	<b>Dr. T. Stockwell</b> Centre for Addictions Research of BC, Technology Enterprise Facility University of Victoria
Author:	<b>Dr. C. Duff</b> School of Psychology & Psychiatry Monash University
Author:	<b>Dr. C. Chow</b> Centre for Addictions Research of BC, Technology Enterprise Facility University of Victoria
Author:	<b>Dr. A. Ivsins</b> Centre for Addictions Research of BC, Technology Enterprise Facility University of Victoria
Author:	<b>Dr. W. Michelow</b> British Columbia Centre for Excellence in HIV/AIDS
Author:	<b>Dr. D. Marsh</b> British Columbia Centre for Excellence in HIV/AIDS
Author:	<b>Dr. P. Lucas</b> Vancouver Island Compassion Society

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## 5. What Motivates People from STEM-Related Career Trajectories to Change to Teaching?

This research describes college students' motivations for leaving STEM career trajectories and choosing careers in education. Reasons for leaving original STEM career trajectories include: career mismatch, high cost (i.e., too much time or effort), dislike of STEM content, and stress. Only those who love the STEM content choose STEM education.

Topic: Other Area Related to Mathematics Research and Practices: Career Development and Motivation  
 Author/Presenter: **Dr. Lisa Duffin**  
 Department of Psychology and SKyTeach  
 Western Kentucky University  
 Author: **Ms. Shelby Overstreet**  
 Department of Psychology and SKyTeach  
 Western Kentucky University  
 Author: **Ms. Amanda Cook**  
 Department of Psychology and SKyTeach  
 Western Kentucky University

## 6. The Challenges and Support Required for Special Education Teachers in their First Years

Special education teachers in their first years of teaching provided information on a survey for the Top Ten Most Important Areas of focus for a teacher preparation program. A successful alternative teacher preparation program was developed and revised based on survey results; features of the program will be presented.

Topic: Special Education  
 Author/Presenter: **Dr. Chris Hagie**  
 Department of Special Education; Lurie College of Education  
 San Jose State University

## 7. The Dallas STEM Gateways Collaborative: Initial Analysis of Course Grade Data vs. External Test Scores

The University of Texas at Dallas, Collin College, and Richland College of the Dallas County Community College District have established a joint effort, the NSF-sponsored Dallas STEM Gateways Collaborative, to significantly increase the number of undergraduate students completing degrees in Science, Technology, Engineering, and Mathematics (STEM) in the North Texas region.

Topic: Mathematics Education  
 Author/Presenter: **Prof. Matthew Goeckner**  
 Science and Mathematics Education  
 University of Texas at Dallas

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## 8. Can Smartphones and Tablets be used as Meaningful Tools to Enrich Dental Education?

The purpose of this study was to show that students already owned smart phones and had a desire to use them in clinical care. This fact is useful for educational institutions to provide ongoing professional development support in technology related skills.

Topic: Education Technology  
Author/Presenter: **Dr. Fatima M. Barnes**  
Library Department  
Meharry Medical College  
Author: **Mr. Anthony Adkins**  
Library Department  
Meharry Medical College  
Author: **Dr. Robert Block**  
Library Department  
Meharry Medical College  
Author: **Mr. Stephan Daphnis**  
Library Department  
Meharry Medical College  
Author: **Ms. Amelia Whitehead**  
Library Department  
Meharry Medical College

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## 9. MaxEnt- $\mu$ SR Study of MgO; Detection of Earthquake-like Precursors

Earthquake-like patterns can be detected by studying positive holes in MgO. These holes could serve as early indications of earthquake signals. For 3N-MgO above room temperature, less than 1% of oxygen is expected to be O-1. MaxEnt analysis of  $\mu$ SR data can identify differences from Lorentzian signals for hole detection.

Topic: Material Science & Engineering

Author/Presenter: **Prof. Carolus Boekema**  
Department of Physics and Astronomy  
San Jose State University

Author/Presenter: **Ms. Sarah Lee**  
Department of Physics and Astronomy  
San Jose State University

Author/Presenter: **Ms. Beth Johnson**  
Department of Physics and Astronomy  
San Jose State University

Author: **Prof. F. Freund**  
Department of Physics and Astronomy  
San Jose State University

Author: **Ms. Ashley Love**  
Department of Physics and Astronomy  
San Jose State University

Author/Presenter: **Mr. Grant Welch**  
Department of Physics and Astronomy  
San Jose State University

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## 10. Cultural Learning Weblogs for 21st Century Language Learners

This session focuses on cultural learning weblogs used in college level language courses to enhance students' cultural knowledge, cultural sensitivity and critical thinking skills. The presenter will introduce procedures, grading methods, student responses, and learning outcomes of weblogs with a variety of examples.

Topic: Education Technology  
 Author/Presenter: **Dr. Chinatsu Sazawa**  
 World Languages and Cultures  
 Drake University

## 11. The Dallas STEM Gateways Collaborative: Initial Analysis of Course Grade Data vs. External Test Scores

The University of Texas at Dallas, Collin College, and Richland College of the Dallas County Community College District have established a joint effort, the NSF-sponsored Dallas STEM Gateways Collaborative, to significantly increase the number of undergraduate students completing degrees in Science, Technology, Engineering, and Mathematics (STEM) in the North Texas region.

Topic: Mathematics Education  
 Author/Presenter: **Prof. Matthew Goeckner**  
 Science and Mathematics Education  
 University of Texas at Dallas  
 Author: **Dr. John Sibert**  
 Mathematical Sciences  
 University of Texas at Dallas  
 Author: **Dr. Dave Galley**  
 Mathematical Sciences  
 University of Texas at Dallas  
 Author: **Dr. Kory Goldammer**  
 Mathematical Sciences  
 University of Texas at Dallas

## 12. Learning Environment Design Factors for Online Course Shell Development

Seventy-five teacher education and special education online courses were analyzed and rated on seven factors of learning environment design. Findings reveal that most online course shell development would benefit from better application of learning environment design theory.

Topic: Social Sciences, Inter - Disciplinary & other Areas  
 Author/Presenter: **Dr. Thomas H. Reynolds**  
 Department of Teacher Education  
 National University

## Monday – June 10, 2013

Room: Carnation  
 Time: 12:45 pm – 2:15 pm  
 Session: Adult Education; Curriculum, R& D; Distance Education; Elementary Education; Education Technology; Education Policy & Leadership; Rural Education; Secondary Education; Special Education; Student Education; Teacher Education; Mathematics Education  
 Session Chair: **Dr. Elizabeth Whalley**

### I. Classroom Management Tips for Optimal Student Learning

Why should negative comments precede positive ones in giving students feedback? Should you erase a blackboard vertically or horizontally and why does it matter? How long should you wait for students to answer a question? How can you make certain every student speaks in every class? In this presentation these questions are answered and additional insights about classroom management for optimal student learning are presented.

Author/Presenter: **Dr. Elizabeth Whalley**  
 English Department  
 San Francisco State University

### II. Determining Study-Abroad Effectiveness among Nontraditional Learners

This study investigated the effects of 18 months of doctoral studies, including an international experience, on the intercultural competence levels of doctoral students majoring in organizational leadership.

Author/Presenter: **Dr. Michael A. Moodian**  
 Chapman University

### III. Learning at my PACE, I Finish the RACE

Students were exposed to Livescribe smartpens as a treatment to help improve mathematics understanding in the classroom. Students self-reported on pre-and post-test survey instruments and the data were analyzed to reveal trends in student attitudes, self-efficacy and achievement. Findings suggest that students grasp concepts at a faster rate and with more confidence than they did before. Data reveals several statistically significant differences in pre-test and post-test measures of students.

Author/Presenter: **Dr. Peter M. Eley**  
 MGSS  
 Fayetteville State University  
 Author/Presenter: **Dr. Kimberly Smith-Burton**  
 MGSS  
 Fayetteville State University

## Monday – June 10, 2013

Room: Plumeria  
Time: 12:45 pm – 2:15 pm  
Session: Workshop - Science Education, Higher Education, Education Technology

### I. Engaging Students with Stories: Using Case Methodology in a Large Biology Lecture

Results of a study using case methodology (stories) to engage undergraduate students in a large introductory science course also demonstrated the potential of current technologies (iPads, clickers) to facilitate such active learning pedagogies. The workshop will provide hands-on demonstration for using iPads and clickers to teach using case methodology.

Author/Presenter: **Dr. Allison Hunter**  
Department of Biology and Biotechnology  
Worcester Polytechnic Institute



## Monday – June 10, 2013

Room: Pakalana  
 Time: 12:45 pm – 2:15 pm  
 Session: Algebra; Calculus; Mathematics Education; Pre-Calculus, Education, Educational Measurement and Evaluation  
 Session Chair: **Dr. Lila F. Roberts**

### I. Interactive Math Demos for Mobile Platforms

Mobile devices, increasingly common in universities and schools, have excellent potential for increasing student engagement during study. This presentation focuses on interactive math demonstrations that are available as web apps and electronic books.

Author/Presenter: **Dr. Lila F. Roberts**  
 College of Information and Mathematical Sciences  
 Clayton State University  
 Author: **Dr. David R. Hill**  
 Department of Mathematics  
 Temple University

### II. Using PISA Data to Investigate East Asian Academic Success

A two-level hierarchical linear model was used to explore the success in reading, mathematics, and science of six top-performing East-Asian countries. Highly successful students were skillful users of control strategies and meta-cognitive skills in the process of their learning. School disciplinary climate was the most important school climatic attribute.

Author/Presenter: **Dr. Xin Ma**  
 Department of Educational, School, and Counseling Psychology  
 University of Kentucky  
 Author: **Dr. Cindy Jong**  
 Department of Educational, School, and Counseling Psychology  
 University of Kentucky  
 Author: **Dr. Jing Yuan**  
 Department of Educational, School, and Counseling Psychology  
 University of Kentucky

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### **III. Improved Performance of Students in College Algebra and Pre-Calculus Courses Using a Modified Emporium Model Approach**

A modified Emporium Model was introduced to redesign College Algebra and Pre-Calculus in fall 2008 at Georgia State University. A significant improvement is observed in student performance.

Author/Presenter: **Mrs. Sutandra Sarkar**  
Department of Mathematics and statistics  
Georgia State University



## Monday – June 10, 2013

Room: Anthurium  
Time: 12:45 pm – 2:15 pm  
Session: Art Education; Business Education; Early Childhood; Elementary Education; Educational Administration; Health Education; Higher Education; Language Education; Reading Education; Science Education; Secondary Education; Social Studies Education; Special Education; Student Education; Teacher Education  
Session Chair: **Dr. Maaïke Davidson**

### I. Technology and Teacher Candidates: Setting the Bar Higher

This paper reports the findings of a research study designed to assess teacher candidate use of technology in the teacher education program at a large comprehensive university. The study examined data related to technology integration in the teacher candidate capstone project, The Teacher Work Sample.

Author/Presenter: **Dr. Pamela Jukes**  
School of Teacher Education  
Western Kentucky University  
Author: **Dr. Rebecca Stobaugh**  
School of Teacher Education  
Western Kentucky University  
Author: **Dr. Lisa Murley**  
School of Teacher Education  
Western Kentucky University

### II. Imbedding Student Voice in the Classroom: The Upcoming Teacher Performance Assessment Mandate and Instruments that Facilitate Implementation

Requiring teacher candidates to pass The Teacher Performance Assessment is being considered in 20 states and is already in the process of being mandated in Washington and Illinois. Two instruments, that this researcher designed to assist teaching candidates with implementing student voice effectively in order to better-meet pupils' needs and address the student voice criteria of The Teacher Performance Assessment, will be presented.

Author/Presenter: **Dr. Kim Jones McGarraugh**  
Dept. of Education Foundations and Curriculum  
Central Washington University

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### **III. Use of Elements of Theatre as Teaching Strategies to Increase Preservice Teachers' Self-Efficacy and Proficiency in the Art, Science, and Business of Teaching**

Preservice teachers can increase their teaching skills by using role-play to simulate many situations they may encounter. An assessment was created to determine the growth of preservice teachers in the Art, Science, and Business of teaching.

Author/Presenter: **Dr. Maaïke Davidson**  
Curriculum & Instruction  
University of Idaho

Author: **Dr. Linda Taylor**  
Curriculum & Instruction  
University of Idaho

## Monday – June 10, 2013

Room: Carnation  
Time: 2:30 pm – 4:00 pm  
Session: Workshop - Curriculum, Research, and Development

### I. 5E Instruction Model Workshop: The Underpinning of Extraordinary

How did early mathematicians measure the Earth's circumference? Participants will experience a 5E inquiry model lesson in mathematics that incorporates historical perspectives on STEM content.

Author/Presenter: **Ms. Mollie E Robertson**  
GSKyTeach  
Western Kentucky University

Author/Presenter: **Dr. Martha M. Day**  
GSKyTeach  
Western Kentucky University



## **Monday – June 10, 2013**

Room: Plumeria  
Time: 2:30 pm – 4:00 pm  
Session: Speech/Communication and Translation, Language Education, ESL/TESL,  
Instructional Design  
Session Chair: **Dr. Lee C. Payton**

### **I. Magic Moment on Magic Island**

Sally from Beijing, Magic Island on Oahu, a hit song by John Denver, an original LCP song, a life affirming celestial experience in Graceland Cemetery Chicago, and Elvis, unite in a journey of cross-cultural discovery. This presentation features live performance of the original song translated from English into Hawaiian and Chinese.

Author/Presenter: **Dr. Lee C. Payton**  
Film & Video Department  
Columbia College Chicago

### **II. Creative Drama, an Effective Medium in Teaching Korean Language and Culture**

This paper is a case study of using creative drama as a teaching tool in the intermediate level Korean language classroom. The class model suggests effective ways to incorporate dramatic activities to improve oral proficiency as well as reading and writing skills. Specific teaching methods include: using pictures on the projection screen as prompts for improvised role-plays, helping students with short script writing, and utilizing animated movies with or without sound and with or without Korean subtitles.

Author/Presenter: **Dr. Mi Hye Lee**  
Department of Languages and Cultures  
William Paterson University

### **III. Factors Influencing Motivation of ESL Students**

This paper is to examine of correlation between factors influencing students' motivation and their social environment, nationality, and individual perspective.

Author/Presenter: **Ms. Sueyon Seo**  
Foreign Languages and Literature  
University of Wisconsin-Milwaukee

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#### **IV. Parrot Portal Program: Increasing Motivation in English Classes for Undergraduate Second Language Learners**

This proposal project was submitted by three graduate students of The University of Texas at San Antonio. The proposal focuses on the design of the Parrot Portal Program based on ADDIE model. The program will be utilized in the classrooms of undergraduate second language learners in order to resolve the issue of lack of motivation.

Author/Presenter: **Ms. Dalal Andijani**  
Department of Interdisciplinary Learning  
& Teaching Instructional Technology  
The University of Texas at San Antonio

Author: **Ms. Alaa Nyazi**  
Department of Interdisciplinary Learning  
& Teaching Instructional Technology  
The University of Texas at San Antonio

Author: **Ms. Jo Anne Noble**  
Department of Interdisciplinary Learning  
& Teaching Instructional Technology  
The University of Texas at San Antonio

## Monday – June 10, 2013

Room: Pakalana  
Time: 2:30 pm – 4:00 pm  
Session: Applied Mathematics; Computational Mathematics - non-Newtonian viscoelastic fluids  
Session Chair: **Prof. Michael Olinick**

### **I. Modeling the Depletion of Nonrenewable Resources: From Arithmetic to Optimal Control Theory**

Our civilization heavily depends on nonrenewable resources. How long will such resources last? Are there optimal ways to manage a dwindling supply? We approach such questions with models using concepts from arithmetic, algebra, calculus of one and several variables, differential equations, discrete dynamical systems, computer simulation, and optimal control theory.

Author/Presenter: **Prof. Michael Olinick**  
Department of Mathematics  
Middlebury College

### **II. A Note about Dynamical Systems in Different Frames of Reference**

This paper integrates the formulation of  $dx/dt = f(x)$  in dynamical systems with Special Relativity, to model 4-dimensional spacetime dynamics realistically, among other things, to observe the limit of the speed of light  $c$ .

Author/Presenter: **Dr. Gregory L. Light**  
Department of Management  
Providence College

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### III. Steady-State Viscoelastic Rimming Flow

Solution for Oldroyd-B fluid flow is found.

- Author/Presenter: **Dr. Sergei Fomin**  
Department of Mathematics and Statistics  
California State University
- Author: **Dr. R. Shankar**  
Department of Chemistry  
Butte College
- Author: **Dr. N. Danes**  
Department of Mathematics  
California State University
- Author: **Dr. A. Yasuda**  
Department of Mathematics  
University of California
- Author: **Dr. D. Costo**  
Department of Mathematics  
California State University

**Monday – June 10, 2013**

Room: Anthurium  
 Time: 2:30 pm – 4:00 pm  
 Session: Interdisciplinary Areas of Mathematics, Mathematics Education,  
 Education and Children  
 Session Chair: **Dr. Mary Jo De Garcia Parker**

**I. Innovative Seminar Course Model for Underrepresented Freshman/New Transfer Undergraduates in Math and Science**

The UHD Scholars Academy is an academically competitive scholarship and mentoring program which supports gifted minority and female students, first-time-in-college (FTIC) students, first generation students and transfer students pursuing bachelor's degrees in science, engineering, technology, mathematics, and computer science (STEM) fields. In part, some of the Scholars Academy student success arises from two seminar courses offered for freshmen (CSP FTIC) and new transfers (CSP Transfers).

Author/Presenter: **Dr. Mary Jo De Garcia Parker**  
 Natural Science Department Biology Faculty  
 Scholars Academy and University of Houston-Downtown  
 Author/Presenter: **Mr. Rene Garcia**  
 Scholars Academy and University of Houston-Downtown  
 Author/Presenter: **Ms. Mitsue Nakamura**  
 Computer and Mathematical Sciences Faculty  
 Scholars Academy and University of Houston-Downtown

**II. The Effectiveness of WebAssign in an Online Freshman Level Algebra Course**

The purpose of this study is to investigate whether WebAssign grades and student performance on traditional exams are correlated as well as whether online homework improves student success rates in online Intermediate Algebra.

Author/Presenter: **Dr. Amy Franklin**  
 Dept. of Mathematical, Computing & Information Sciences  
 Jacksonville State University

**III. Impact of Technology on Children and Education**

How the Influence of New Technologies Affect Children's learning in the Classroom. Discussion of Both Positive and Negative Effects will be addressed.

Author/Presenter: **Prof. Cheryl Pawlowski**  
 School of Communication  
 University of Northern Colorado

## Monday – June 10, 2013

Room: Carnation  
Time: 4:15 pm – 5:45 pm  
Session: Workshop - Interdisciplinary Areas of Mathematics, Mathematics Education, Education and Children

### I. GradeCam: Making Grading as Easy as Snapping a Picture

Grading has never been easier with GradeCam, a web-based grading tool that allows users to grade by snapping a picture of students' bubble sheets using their computers' webcam. The GradeCam app also allows users to use the camera on their iPad. Grades can then be uploaded to any grade book, guaranteed by GradeCam. In this session, we will model how GradeCam can be used and show you how to get started with GradeCam.

Author/Presenter: **Dr. Lori Froedge**  
GSKyTeach  
Western Kentucky University

Author/Presenter: **Dr. Martha M. Day**  
GSKyTeach  
Western Kentucky University



**Monday – June 10, 2013**

Room: Pakalana  
 Time: 4:15 pm – 5:45 pm  
 Session: Semiconductor Devices, Material Science & Engineering  
 Session Chair: **Dr. Md. Abdus Sattar**

**I. A New Pedagogical Approach for Solid State Electronic Device Education: The Variational Thermodynamic Technique for Modeling the Variational Thermodynamic Technique for Modeling**

A new pedagogical approach for solid state electronic device education is presented. We developed and applied a modeling technique to Trench Insulated-Gate Bipolar Transistor (TIGBT). We compare our model results with measured capacitance-voltage characteristics which confirm that our technique is effective in modeling solid state devices.

Author/Presenter: **Dr. Md. Abdus Sattar**  
 Electrical Engineering Dept.  
 Santa Clara University  
 Author/Presenter: **Dr. Norman G. Gunther**  
 Electrical Engineering Dept.  
 Santa Clara University  
 Author/Presenter: **Dr. Mahmudur Rahman**  
 Electrical Engineering Dept.  
 Santa Clara University

**II. Wannier Functions and 3d Electron Localization of Magnetite**

Magnetite ( $\text{Fe}_3\text{O}_4$ ) shows a metal-to-insulator transition at  $T_v$  (~123 K) due to the properties of the "extra 3d" ( $3d^*$ ) conduction electrons. Magnetic anomalies observed above  $T_v$  suggest that  $\text{Fe}_3\text{O}_4$  can be considered a Wigner electron glass. The Wannier states in  $\text{Fe}_3\text{O}_4$  indicate a mixture of localized and delocalized electron states.

Author/Presenter: **Mr. Anthony Carpentier**  
 Physics and Astronomy  
 San José State University  
 Author/Presenter: **Prof. Carolus Boekema**  
 Physics and Astronomy  
 San José State University

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### III. Maximally Localized Wannier Function of Fe<sub>3</sub>O<sub>4</sub>; an Ab Initio Study

Magnetite has many remarkable physics properties are not well understood. Among these are the metal-insulator transition at the Verwey Temperature (123K) and a spin-glass-like transition at 247K. To better understand these properties, we calculate a set of maximally localized Wannier functions. We start from a first principles DFT+U band structure calculation and then perform a transformation of the Bloch orbitals to obtain maximally localized Wannier functions. We then perform a disentanglement procedure for the t<sub>2g</sub> orbitals located on the B sublattice which contain the "extra" spin-polarized 3d electrons that are mainly responsible for the conducting state of magnetite above T<sub>V</sub>.

Author/Presenter: **Mr. Perry Sakkaris**  
 Physics and Astronomy  
 San José State University

Author/Presenter: **Mr. Jake Wainwright**  
 Physics and Astronomy  
 San José State University

Author/Presenter: **Ms. Ahram Kim**  
 Physics and Astronomy  
 San José State University

Author/Presenter: **Prof. Carolus Boekema**  
 Physics and Astronomy  
 San José State University



# DAY 2

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Tuesday – June 11, 2013

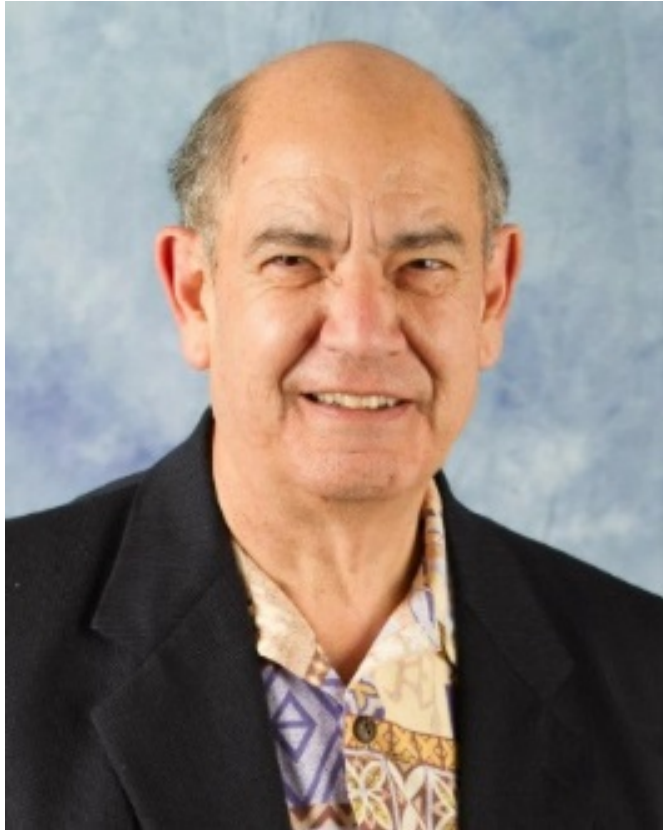


## KEYNOTE SPEAKER – DEAN FRANK HAAS

Tuesday June 11

Garden Lanai Ballroom

7:30 am – 8:00 am



***Frank Haas** is currently the Dean of Hospitality, Business and Legal Education programs at Kapi‘olani Community College and has taught undergraduate and graduate level courses in marketing management and tourism development. In addition to his educational duties, he has undertaken planning and training projects for tourism, government, and non-profit organizations in the U.S., Asia/Pacific and most recently for the Kingdom of Morocco, India and Sri Lanka. Prior to joining the university, Frank served as Vice President and Director of Marketing for the Hawai‘i Tourism Authority, where he managed the state’s marketing programs for leisure, business travel, conventions, and sports.*



UNIVERSITY of HAWAII\*  
**KAPĪOLANI**  
COMMUNITY COLLEGE

His marketing career in Hawai‘i includes marketing positions in tourism, fast food, and high tech. In 1999-2000, he was national chair American Marketing Association and he has been a speaker at national and international marketing conferences. His work has been recognized with national and local awards and he serves on a variety of community organizations. Frank earned a Masters in Business Administration and a Bachelor of Science Degree in Journalism, both from Northwestern University. He and his wife, Susan, live in Kailua.

KEYNOTE SPEECH

**“UPENDING TRADITION:  
EDUCATION MEETS THE  
TWENTY-FIRST  
CENTURY”**



**Tuesday - June 11, 2013**

Room: Carnation  
 Time: 8:15 am – 9:45 am  
 Session: Curriculum, R& D; Distance Education; Educational Measurement & Evaluation; Teacher Education, Higher Education  
 Session Chair: **Prof. Matthew J. Goeckner**

**I. Increasing and Improving K-12 Computer Science Education through Partnerships**

The Partnership for Early Engagement in CS High School (PEECS-HS) program is designed to address the lack of US students entering computer science prior to high-school graduation. Through the development and implementation of a year-long, introductory course, titled Exploring CS, all students in Washington, DC Public Schools will complete a computer science course prior to graduation.

Author/Presenter: **Dr. A. Nicki Washington**  
 Department of Systems and Computer Science  
 Howard University  
 Author/Presenter: **Dr. Legand L. Burge**  
 Department of Systems and Computer Science  
 Howard University

**II. A Matrix Map Method for Coordinated Undergraduate Curriculum Improvement in Electrical Engineering and Other Programs**

Traditionally curriculum improvements are often based on comparisons with similar programs at other universities. In this paper we describe an alternative, generalizable method for coordinating curricula that does not require such comparisons and furthermore allows one to tailor the program to fit the specific needs of the students.

Author/Presenter: **Prof. Matthew J. Goeckner**  
 Department of Electrical Engineering  
 Department of Science/Mathematics Education  
 University of Texas at Dallas  
 Author: **Dr. Gerald Burnham**  
 Department of Electrical Engineering  
 University of Texas at Dallas  
 Author: **Dr. C. Ledbetter**  
 Department of Science/Mathematics Education  
 University of Texas at Dallas  
 Author: **Dr. Robert C. Hilborn**  
 Department of Science/Mathematics Education  
 University of Texas at Dallas

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### **III. Review of Literature on Chickering and Gamson's Seven Principles of Good Practice in Undergraduate Education: Has Teaching Improved Since 1987?**

Since their publication in 1987, Chickering and Gamson's Seven Principles of Good Practice in Education have served as guidelines for faculty members, students, and administrators to improve education. While the effectiveness of online learning is difficult to measure, research findings suggest that the quality of online education increases as the technology improves. Sixteen publications on the seven principles were reviewed to determine the extent in which best practices were integrated to measure teaching effectiveness.

Author/Presenter: **Dr. Fatima M. Barnes**  
Library Department  
Meharry Medical College

## **Tuesday - June 11, 2013**

Room: Plumeria  
Time: 8:15 am – 9:45 am  
Session: Social Sciences, Early Childhood Education/Elementary Education,  
Teacher Education  
Session Chair: **Dr. Amy Freshwater**

### **I. Child Directed Activity among Preschool Children**

The purpose of this qualitative, exploratory study was to investigate what child directed activity may look like in early childhood, what educators think about child directed activity, including why it is important in early childhood settings, and how early childhood educators can promote child directed activity among young children.

Author/Presenter: **Ms. Kathleen Tran**  
Educational Psychology  
University of Hawaii at Manoa

### **II. A Motivational Program for Elementary School Learners of English**

I developed a program to motivate grade five learners of English in Singapore to study English by applying Zoltán Dörnyei's Second Language Motivational Self System. 90% of the participants in the experimental group became more motivated to learn English, whereas only 50% became more motivated in the control group.

Author/Presenter: **Dr. Michael Magid**  
Academy of Singapore Teachers  
English Language Institute of Singapore

### **III. Ethics and Culture: Inspiring Higher Order Thinking in University Teacher Candidates**

This presentation compares university teacher candidate responses to an open-ended ethical dilemma question involving a parent-teacher issue and cultural knowledge and understanding. When the original dilemma question was slightly changed, candidates' responses became more creative and sensitive to the parents and children in the classroom, indicating higher order thinking.

Author/Presenter: **Dr. Amy Freshwater**  
Department of Elementary, Early & Special Education  
Southeast Missouri State University

**Tuesday - June 11, 2013**

Room: Pakalana  
 Time: 8:15 am – 9:45 am  
 Session: Applied Mathematics, Statistics, Bioinformatics  
 Session Chair: **Prof. Cheri Shakiban**

**I. Cumulative Distance Histograms and their Application to the Identification of Melanoma**

This research focuses on using a computer vision technique called “Invariant distance histograms”, to analyze border irregularity in skin lesions. This technique together with statistical methods enables us to compare the border of malignant melanoma samples to the border of common moles and to detect and quantize their difference.

Author/Presenter: **Prof. Cheri Shakiban**  
 Department of Mathematics  
 University of St. Thomas  
 Author: **Mr. Jack Stangl**  
 Department of Mathematics  
 University of St. Thomas

**II. Methodological Biases in Meta-Analytic Techniques: Investigating the Impact of Different Types of Drinker Misclassification Errors on Risk Estimates in Alcohol-Disease Associations**

Statistical analyses have linked alcohol consumption to various disease outcomes. Our research explored the potential impact of four commonly encountered drinker misclassification errors on the accuracy of risk estimates in the alcohol-breast cancer relationship. These errors often arise from including former or occasional drinkers in an abstainer reference group when estimating risk.

Author/Presenter: **Dr. Cornelia Zeisser**  
 Centre for Addictions Research of British Columbia  
 University of Victoria  
 Author: **Dr. Tim R. Stockwell**  
 Centre for Addictions Research of British Columbia  
 University of Victoria  
 Author: **Dr. Ron Roizen**  
 Dept. of Social and Behavioral Sciences  
 University of California San Francisco  
 Author: **Dr. Kaye Fillmore**  
 Dept. of Social and Behavioral Sciences  
 University of California San Francisco  
 Author: **Dr. Tanya Chikritzhs**  
 National Drug Research Institute  
 Curtin University

*Continued on next page*

### III. An Algorithm for Fuzzy Clustering of Categorical Datasets for Breast Cancer Diagnosis

The early diagnosis of breast cancer is an important step in a fight against the disease. Machine learning techniques have shown promise in improving our understanding of the disease. As medical datasets consist of data points which cannot be precisely assigned to a class, fuzzy methods have been useful for the study of these datasets. Sometimes breast cancer datasets are described by categorical features. Many fuzzy clustering algorithms have been developed for categorical datasets. However, in most of these methods Hamming distance is used to define the distance between the two attribute values. In this paper, we used a probabilistic distance measure to compute the distance between two categorical values. The proposed algorithm is tested on Wisconsin breast cancer dataset. Experiments on Wisconsin breast cancer data demonstrate the effectiveness of the proposed approach.

Author/Presenter: **Dr. Sami Halawani**  
Faculty of Computing and Information Technology  
King Abdulaziz University

Author/Presenter: **Dr. Ahmad Amir**  
Faculty of Computing and Information Technology  
King Abdulaziz University

## Tuesday - June 11, 2013

Room: Anthurium  
 Time: 8:15 am – 9:45 am  
 Session: Academic Advising and Counseling; Business Education; Inter-disciplinary & other areas, Mathematics, Internationalization of HE  
 Session Chair: **Dr. Lance J. Edwards**

### **I. Upper-Division Business Majors and Lower-Division Non-Business Majors: A Comparison of Career Desires, Expectations and Confidence**

In this study, we surveyed upper-division business majors (management and accounting) participating in their senior capstone class and lower-division (freshman and sophomores) non-business majors participating in an introduction to business survey course.

Author/Presenter: **Dr. Lance J. Edwards**  
 Business Administration Division  
 William Penn University  
 Author: **Dr. William C. Kuba**  
 Business Administration Division  
 William Penn University

### **II. Effects of Banks' Capital Level on Return and Credit Risk through Lending Activity under Syndication Loans**

This study uses samples of 34,082 syndication loans of publicity banks in the U.S. during the periods of 1987-2010, to test the theory of informational monopolies advantage and the theory of sacrificing reputational capital, then analyzes the impact of capital level on banking return and credit risk through its lending activity under syndication loans. The implications would be provided with policy implication to regulatory.

Author/Presenter: **Prof. Shu Ling Lin**  
 Department of Business Management  
 National Taipei University of Technology

### **III. The EU Strategy on Knowledge Based Economy and Information Society as a New Challenge Also for Internationalization of the EU Higher Education**

The paper "The EU strategy on knowledge based economy and information society as a new challenge also for internationalization of the EU higher education" is dealing with some issues of the changing role of higher education in the EU in respect of new challenges related to the strategic goals of the EU to become a modern knowledge based economy and information society in accordance with the EU strategies like Lisbon strategy on e-Europe of year 2000, i2010 strategy and the latest one Europe 2020.

Author/Presenter: **Prof. Dusan Soltes**  
 Faculty of Management  
 Comenius University in Bratislava

## Tuesday - June 11, 2013

Room: Carnation  
 Time: 10:00 am – 11:30 am  
 Session: Curriculum Research & Development, Higher Education; Social Studies Education; Sociology; Social Science; Inter-disciplinary & other areas; military studies  
 Session Chair: **Dr. Melissa M. Matthes**

### I. Connecting Students with Cultural Sensitivity

Since it is impossible to recruit enough teachers to match the demographics of our diverse students' population, developing teacher cultural competency is essential to students' achievement.

Author/Presenter: **Dr. Jane A. Crossley**  
 Graduate Program of Education Department  
 Chicago State University

### II. The Trending of Bullying in Higher Education

This presentation will combine lecture and discussion from authors, along with solicited participation from the audience. Bullying is often the means for student withdrawal from higher education without completion of the degree which can lead to a life time of consequences for those individuals involved.

Author/Presenter: **Ms. Irasema Padilla**  
 Department of Special Education  
 New Mexico State University  
 Author: **Dr. Loretta Salas**  
 Department of Special Education  
 New Mexico State University  
 Author: **Dr. Blanca Martinez-Rolle**  
 Department of Special Education  
 New Mexico State University

### III. Teaching Gender, Talking Sex during the Repeal of Don't Ask, Don't Tell

What experiences and practices encourage undergraduates to change their minds about deeply held beliefs? This essay is a brief ethnographic snapshot of the US Coast Guard Academy during the transition of the repeal of Don't Ask, Don't Tell (2010-2011). This essay explores the various techniques and pedagogical strategies which various faculty members and institutional leadership employed over the course of 18 months to begin to move a modestly recalcitrant population toward a more inclusive understanding of gay and lesbian service members.

Author/Presenter: **Dr. Melissa M. Matthes**  
 Humanities Department  
 US Coast Guard Academy



#### **IV. How Underrepresented High-Achieving STEM College Students Manage Stereotypes and Policy-Related Threats to their Identities**

The concept of stereotype management, drawing on data collected from more than 80 high-achieving African American, Latino, and Asian undergraduate and graduate students across two qualitative studies. Recognizing that students should not have to bear the burden of battling racialized stereotypes on their own, I will also identify strategies that universities can use to recognize and reduce the intensity of racial stereotyping.

Author/Presenter: **Dr. Ebony O. McGee**  
Peabody College of Education  
Vanderbilt University

**Tuesday - June 11, 2013**

Room: Plumeria  
 Time: 10:00 am – 11:30 am  
 Session: Workshop - Art Education; Education Policy & Leadership; Higher Education; Visual Arts

**I. Better Design Comes from Better Communication**

Traditional academic computer aided graphic design environments offer an immersive experience between student and machine, but fall short when it comes to providing an interactive, communal space in which the student can develop content derived from communication and interaction. The result is work that has a tendency to be insular in nature, and not address the fundamental tenants of empathetic, needs based design. Observing this, I worked with my Dean and the Department of Information Technology to develop an advanced graphic design course that addressed these issues in three distinct but interdependent areas. 1. The course curriculum which implemented design thinking and the use of mobile and fixed technologies into all stages the syllabus. 2. Hardware, software experience: Blog, 10 iPads and apps, Dropbox, iPhoto stream, Apple TV, HD projector, 36 applications etc. 3. The environment both as a restructuring of the lab to include interactive spaces and by using mobile devices to be able to access our surroundings as an extension of the lab. None of these parts were isolated into sequential stages, but instead interacted with and informed one another to serve the purpose of creating a whole course experience.

Author/Presenter: **Dr. Steven Polacco**  
 Department of Art, Art History and Design  
 Dominican University of CA



**Tuesday - June 11, 2013**

Room: Pakalana  
 Time: 10:00 am – 11:30 am  
 Session: Education/ Curriculum, Research and Development; Education Technology; Solar cells, renewable energy, nanotechnology, organic dye sensitization, Higher Education/Rural Education/Extension Education  
 Session Chair: **Prof. Qinghua (Peter) He**

**I. Education on Biofuels Technology in Chemical Engineering**

The gap between advanced biofuels research and undergraduate biofuels education will be discussed. A systematic approach is proposed to create educational materials that integrate biofuels technology into undergraduate chemical engineering curriculum.

Author/Presenter: **Prof. Qinghua (Peter) He**  
 Department of Chemical Engineering  
 Tuskegee University  
 Author: **Dr. Jing Wang**  
 Department of Chemical Engineering  
 Auburn University  
 Author: **Mr. Donald R. Johnson**  
 Department of Chemical Engineering  
 Tuskegee University  
 Author: **Mr. Rong Walburn**  
 Department of Chemical Engineering  
 Auburn University

**II. Efficiency Enhancement of Nanocrystalline Solar Cells**

Dye-sensitized solar cells (DSSC), employ  $\text{TiO}_2$  - a semiconductor for which the bandgap is so wide that energy from sunlight is insufficient to excite electrons enough to make them conduct. However, photons from sunlight can excite electrons in organic dyes such as blackberries and raspberries which contain anthocyanin producing electricity. Although silicon-based solar cells are currently more efficient than DSSCs, they are much more expensive to manufacture.

Author/Presenter: **Dr. Abby Ilumoka**  
 College of Engineering  
 University of Hartford  
 Author: **Mr. P. Srivastava**  
 College of Engineering  
 University of Hartford

| *Continued on next page*

### III. Anatomy of a Contaminated Compost Case Study and a Land Grant University Still Functioning as Intended

Presentation of a case study involving persistent herbicides, compost, home gardens in harm's way and Vermont Agency of Agriculture and University of Vermont Extension teaming up to identify and analyze the issues, address public concerns and misinformation in the media, and look to establish consistent methods to test for and/or prevent future compost contamination.

Author/Presenter: **Dr. Elizabeth Greene**  
Department of Animal Science  
University of Vermont

Author: **Dr. Rebecca C. Bott**  
Department of Animal Science  
South Dakota State University

Author: **Dr. Cary Giguere**  
Agrichemical Management Section Chief  
Vermont Agency of Agriculture

Author: **Dr. Krishona L. Martinson**  
Department of Animal Science  
University of Minnesota

Author: **Dr. Ann M. Swinker**  
Department of Animal Science  
Pennsylvania State University

### IV. Cost-Effective Microalgae Bio-Jet Fuel Technology

Renewable aviation fuel, or bio-jet fuels technology is a promising technology in addressing the rapid rise in petroleum-based jet fuel and its greenhouse gas emission. Yet there are challenges to making the bio-jet fuels sustainable.

Author/Presenter: **Prof. Ihab H. Farag**  
Chemical Engineering Dept  
University of New Hampshire



## **Tuesday - June 11, 2013**

Room: Anthurium  
Time: 10:00 am – 11:30 am  
Session: Workshop - Teacher Education

### **I. Self- Reflection as a Centering Method for Student Teacher Priorities**

All layers of education are increasingly overwhelmed with programmatic and bureaucratic requirements. We have discovered that in order to keep our student teachers from getting bogged down in the considerable details of these matters, they need to be constantly drawn back to the big picture of teaching. Reflective journaling appears to be one method for helping them keep the high priority of actual classroom teaching front and center. This seminar will describe this process.

Author/Presenter: **Dr. Mary Seaborn**  
School of Teacher Education  
Indiana Wesleyan University in Marion



**Tuesday - June 11, 2013**

Room: Carnation  
 Time: 12:45 pm – 2:15 pm  
 Session: Elementary Education; Science Education; Engineering, Applied Mathematics, Engineering, materials, mechanics of materials  
 Session Chair: **Prof. Martin Reisslein**

**I. Evaluating an Engineering Overview Brochure for Educational Outreach to Elementary Schools**

An engineering overview brochure was designed and developed by a multi-disciplinary team. Elementary school students studied the brochure. Student perceptions of engineering before and after studying the brochure were assessed with a survey. Results indicate significantly improved student perceptions of engineering after the brochure study.

Author/Presenter: **Prof. Martin Reisslein**  
 School of Electrical, Computer, and Energy Engineering  
 Arizona State University  
 Author: **Ms. Amy M. Johnson**  
 School of Electrical, Computer, and Energy Engineering  
 Arizona State University  
 Author: **Dr. Gamze Ozogul**  
 School of Electrical, Computer, and Energy Engineering  
 Arizona State University  
 Author: **Dr. Jana Reisslein**  
 School of Electrical, Computer, and Energy Engineering  
 Arizona State University

**II. On Teaching the Undergraduate Statistics**

This paper will contain the author's teaching experiences and views in undergraduate statistics plus that of fellow Conference participants with a concluding summary. The motivation is to make the learning and teaching of this subject more pleasant and effective.

Author/Presenter: **Dr. Gregory L. Light**  
 Department of Management  
 Providence College

**III. Technique of Quantifying Residual Stresses and their Effects on Surface Integrity**

This paper addresses how residual stresses are generated during manufacturing processes. It discusses a stress strain relationship where the strain is measured non-destructively by means of x-ray diffraction. The effect of these stresses is correlated to surface integrity and fatigue failures.

Author/Presenter: **Prof. Daniel J. Magda**  
 MMET Department  
 Weber State University

## **Tuesday - June 11, 2013**

Room: Plumeria  
Time: 12:45 pm – 2:15 pm  
Session: Education, Classics, Philosophy, Rhetorical Theory, Language Education,  
Education Technology  
Session Chair: **Dr. Therese Jones**

### **I. Teaching the Aristotelian Corpus: Some Constraints**

The Aristotelian corpus is of unsurpassed importance in the world of ancient philosophy, but it can be as daunting to present to students as it is to evaluate the writings themselves. This paper offers a set of guidelines for understanding some of the constraints under which Aristotle himself taught and wrote.

Author/Presenter: **Dr. John T. Kirby**  
Department of Classics  
University of Miami

### **II. Increasing Dual Language Learning Children's Vocabulary: Learning from Peers during Shared Book Reading**

Based on Vygotsky's social-cultural theory, the study examined positive and effective English language development for Dual Language Learners (DLLs) of their later school readiness. During shared book-reading using a technique called dialogic reading, DLLs learned English in a small group with English speaking peers through imitating and repeating new word.

Author/Presenter: **Ms. Reiko Kawamura**  
College of Education in Educational Psychology  
University of Hawaii at Manoa

### **III. Teaching Students to Think Before They Write**

What are some of the greatest obstacles that our students face with writing assignments? Are there common writing obstacles faced by students in a variety of their courses, not just composition courses? Many students submit assignments without investing in prewriting or critical thinking. However, the process of writing is just as vital as the product of writing.

Author/Presenter: **Prof. Therese Jones**  
English Department  
Lewis University

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#### **IV. Incomplete Exposition or Propaganda Tools? A Look at Sunday School Textbooks as a Case Study**

This paper argues that three stylistic flaws in writing- liberal generalizations, partial exposition of concepts and literary gloss- create problems in comprehension and accuracy for readers of religious textbooks. These Sunday School textbooks need vigorous editing to enable students to learn pluralism.

Author/Presenter: **Ms. Syeda Sara Abbas**  
Department of English  
Point Park University

## **Tuesday - June 11, 2013**

Room: Pakalana  
Time: 12:45 pm – 2:15 pm  
Session: Science Education, Education Technology, Educational Foundations,  
Education Technology, Industrial Engineering and Management,  
Mathematics Education, Statistics  
Session Chair: **Prof. Tai-Ran Hsu**

### **I. Teaching CNC Machine Programming Using Virtual Machines**

Presentation will focus on the author's successful method of teaching CNC lathe and mill programming using virtual machines. Audience will find the presentation useful because most engineering and technology programs face budget and space constraints to keep updating CNC machines in laboratories. Typical programming assignments in the industrial engineering course on manufacturing system design are presented and discussed.

Author/Presenter: **Dr. Swaminathan Balachandran**  
Department of Mechanical and Industrial Engineering  
University of Wisconsin – Platteville

### **II. Mathematics for Engineering Education**

The paper presents the teaching of Engineering Analysis by synergistically integrating the math that students learned in freshman and sophomore years in solving mechanical engineering problems on rigid body dynamics, fluid mechanics, and heat transfer and mechanical vibrations. Statistics is used to handle quality control of products by mass production.

Author/Presenter: **Prof. Tai-Ran Hsu**  
Dept. of Mechanical and Aerospace Engineering  
San Jose State University

### **III. An Algebraic Connection between Ordinary Least-Square Regression and Regression Through the Origin**

Ordinary least-square regression (OLS) or regression through the origin (RTO)? That is the question. This paper tries to establish an algebraic relation of the slopes and R squares between these two models and study the connection between them. One of the results can be used as a pedagogical tool to construct data set with breakdown point.

Author/Presenter: **Dr. Xiaohui Zhong**  
Department of Mathematics  
University of Detroit Mercy

## Tuesday - June 11, 2013

Room: Anthurium  
 Time: 12:45 pm – 2:15 pm  
 Session: Education Technology; Science Education, Science Education, Sociology; Social Science  
 Session Chair: **Dr. Joe Omojola**

### I. Student Initiated Project: Creating a Volumetric Display

The Sophomore Imaging Science class from Rochester Institute of Technology has formed a project creating a 3D volumetric display, comparable to a hologram. They will be talking about the technology behind their system and how it works.

Author/Presenter: **Ms. Rose Rustowicz**  
 Imaging Science, undergraduate  
 Rochester Institute of Technology  
 Author: **Mr. Sean Cooper**  
 I Motion Picture Science, undergraduate  
 Rochester Institute of Technology  
 Author: **Ms. Cicely DiPaulo**  
 Imaging Science, undergraduate  
 Rochester Institute of Technology  
 Author: **Ms. Megan Lafrati**  
 Imaging Science, undergraduate  
 Rochester Institute of Technology  
 Author: **Mr. Douglas Peck**  
 Imaging Science, undergraduate  
 Rochester Institute of Technology  
 Author: **Ms. Brooke Saffren**  
 Biomedical Science, undergraduate  
 Rochester Institute of Technology

*Continued on next page*

## **II. Impact of Research Mentoring in Transformation of STEM Education at Southern University at New Orleans**

Performance of minority and women students in STEM education at Southern University at New Orleans has made significant gains for over a decade. This improvement is due largely to research mentoring of undergraduate STEM majors through NSF funded grants such as LS-LAMP, HBCU-UP and S-STEM.

Author/Presenter: **Dr. Joe Omojola**  
Natural Sciences  
Southern University at New Orleans

Author: **Dr. Murty S. Kambhampati**  
Natural Sciences  
Southern University at New Orleans

Author: **Dr. Carl P. Johnson**  
Natural Sciences  
Southern University at New Orleans

Author/Presenter: **Ms. Phyllis Okwan**  
Natural Sciences  
Southern University at New Orleans

## **III. Importance of Interdisciplinary Program**

Design an Interdisciplinary minor within Social Science. The minor will prepare students to work in a disaster and emergency management field.

Author/Presenter: **Dr. Meherun Laiju**  
Sociology  
Tougaloo College

## **Tuesday - June 11, 2013**

Room: Carnation  
Time: 2:30 pm – 4:00 pm  
Session: Workshop - Early Childhood Education/Elementary Education; Reading Education; Teacher Education

### **I. Belize: Literacy Education and Partnership (LEAP) with the University of Tennessee at Martin (UTM)**

A session detailing an ongoing reading education/literacy partnership between The University of Tennessee at Martin Teacher Education Program and Gales Point Manatee Government Primary School to benefit preservice teachers, university faculty, public school faculty, and enrolled students-Beginnings, Lessons Learned and Aspirations.

Author/Presenter: **Dr. Beth Quick**  
Department of Educational Studies  
University of Tennessee at Martin





**Tuesday - June 11, 2013**

Room: Plumeria  
 Time: 2:30 pm – 4:00 pm  
 Session: Workshop - ESL/TESL; Language Education; Second Language Studies; Theatre

**I. “¡Viva el teatro!” An Interdisciplinary Performance-Based Approach to Increasing Students’ Second-Language and Cultural Proficiencies**

In this workshop, participants will explore the many benefits of dramatic performance as a way to enhance students’ success in the second language acquisition process, with a special focus on higher-level proficiency. Additionally, the workshop will address how and why the needs of heritage speakers are also supported through this work. Cultural competency, a primary goal in any second language degree program, is strengthened when contextualized and performed through theatre-based activities, as are motivation, linguistic- and self-confidence. Participants will learn about an innovative interdisciplinary team-taught course in Theatre Arts and Spanish, and will consider which parts of this model might be successfully replicated in other settings.

Author/Presenter: **Prof. Darci Strother**  
 Department of Modern Language Studies  
 California State University San Marcos

Author/Presenter: **Prof. Marcos Martinez**  
 Department of Visual and Performing Arts  
 California State University San Marcos



## **Tuesday - June 11, 2013**

Room: Pakalana  
Time: 2:30 pm – 4:00 pm  
Session: Elementary Education; Science Education; Secondary Education, STEM Education, Curriculum Research and Development  
Session Chair: **Dr. John H. Hall**

### **I. Using Marine Science Research to Bring Math to the K-12 Classroom**

University research can be converted into K12 activities and published in education journals. These activities were collaborations between a university marine scientist, graduate students, and teachers. We also provide examples of how K12 students can participate in data collection.

Author/Presenter: **Dr. Mary Carla Curran**  
Department of Systems and Computer Science  
Savannah State University

### **II. Using the Birkman Method to Promote Success for Students in the STEM Disciplines**

Our project is centered on using the Birkman personality assessment to study how personality, behaviors, and thinking patterns influence the majors and careers people choose. The purpose of our study is to assist educators in addressing the Nation's needs in Science, Technology, Engineering and Mathematics (STEM).

Author/Presenter: **Dr. John H. Hall**  
Department of Chemistry  
Morehouse College



## Tuesday - June 11, 2013

Room: Anthurium  
 Time: 2:30 pm – 4:00 pm  
 Session: Education Technology Programming and Logic Device Design Digital Design and Testing Tool, Distance Education  
 Session Chair: **Dr. John J. Devore**

### I. VisiBoole: an Equation-Based Interactive Digital Design Tool

A visual-feedback, interactive, rapid digital design and verification tool (Windows-based program) is presented. The visual feedback consists of a color-coded display of a simulation of a design's HDL equations. Design verification consists of clicking independent variables on the active display (toggles their value) or TICK (simulates a clock cycle).

Author/Presenter: **Dr. John J. Devore**  
 Electrical and Computer Engineering  
 Kansas State University

### II. Does Using Moodle for Learning Enhance Students' Online Interactivities and their Learning Achievement- Application of Grey Relational Analysis?

The purpose of this study is to understand how student behave in the online learning environment Moodle. By using Grey relational analysis to understand and to predict students' grades, researchers are interested in understanding if there is any association between students' interactivities and their final grades in Moodle system. The study developed online materials for one semester course of application of multimedia for the freshmen students in St. John's University in Taiwan.

Author/Presenter: **Prof. Shun-Jyh Wu**  
 Department of Digital Literature and Arts  
 St. John's University

Author/Presenter: **Dr. Ai-Lun Wu**  
 Department of Digital Literature and Arts  
 St. John's University

### III. Using Bibliotherapy to Help Students Who are Struggling with Difficult Personal Experiences

This presentation will summarize secondary prevention efforts to review children's literature dealing with themes such as anger management, problem solving and character education for the purpose of creating curriculum kits for local schools that can be used as resources for parents and educators when talking to children about these topics.

Author/Presenter: **Dr. Michael Rozalski**  
 Graduate School of Education  
 Binghamton University

*Continued on next page*

#### **IV. From Sea to Shining Sea: Bringing Federal Cybersecurity Issues into Classrooms Outside the Beltway**

Enabled by technology, a collaboration of UH/UW/GWU vividly brings the thrill, challenges and opportunities offered by cybersecurity careers in Federal service into west coast and island classrooms through televised experiences of on-the-ground Federal leaders in DC.

Author/Presenter: **Dr. Martha E. Crosby**

ICS Department

University of Hawaii

Author: **Dr. Barbara Endicott-Popovsky**

ICS/UHM iSchool

University of Washington

Author: **Dr. Rachelle Heller**

Department of Computer Science

The George Washington University

## **Tuesday - June 11, 2013**

Room: Plumeria  
Time: 4:15 pm – 5:45 pm  
Session: Workshop - Cinema Sound

### **I. Case Studies in Cinema Sound - Excerpts from the forthcoming Book Ears Don't Blink - A Primer on Cinema Sound & Re-Recording Mixing**

Case Studies in Cinema Sound is a dynamic workshop exploring techniques and concepts that achieve maximum emotional effect in the final cinema soundtrack. Film clips to be screened are from the forthcoming book entitled Ears Don't Blink - The Fine Art of Cinema Sound & Re-Recording Mixing © LCP2013.

Author/Presenter: **Dr. Lee C. Payton**  
Film & Video Department  
Columbia College Chicago





# DAY 3

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Wednesday - June 12, 2013

## Tuesday - June 12, 2013

Room: Carnation  
Time: 8:15 am – 9:45 am  
Session: Workshop - "Education Technolog Programming and Logic Device  
Design Digital Design and Testing Tool"

### **I. Supporting Language Acquisition and Content-Specific Science Access: Universal Design for Learning using LEGO™ WeDos to Teach Simple Machines**

Building on the definition of a Learning Community proposed in Professional Learning Communities for Science Teaching: Lessons From Research and Practice by Munday and Stiles, we embrace the following six characteristics: Focus on Learning, Collaborative Culture, Collective Inquiry, Action Orientation and Experimentation, Continuous Improvement, and Result Orientation for elementary children, pre-service and in-service educators.

Author/Presenter: **Dr. Kate Baird**  
Education  
IUPUC

Author/Presenter: **Ms. Stephanie Coy**  
Education  
IUPUC

Author: **Ms. Caroline Arbuckle**  
Education  
IUPUC

Author: **Dr. Allison Howland**  
Education  
IUPUC

Author: **Dr. Aija Pocock**  
Education  
IUPUC





## **Tuesday - June 12, 2013**

Room: Plumeria  
Time: 8:15 am – 9:45 am  
Session: Workshop - "Education Technology Programming and Logic Device Design Digital Design and Testing Tool"

### **I. VisiBoole: an Equation-Based Interactive Digital Design Tool**

A visual-feedback, interactive, rapid digital design and verification tool (Windows-based program) is presented. The visual feedback consists of a color-coded display of a simulation of a design's HDL equations. Design verification consists of clicking independent variables on the active display (toggles their value) or TICK (simulates a clock cycle).

Author/Presenter: **Dr. John J. Devore**  
Electrical and Computer Engineering  
Kansas State University



**Tuesday - June 12, 2013**

Room: Pakalana  
 Time: 8:15 am – 9:45 am  
 Session: Applied Mathematics, Discrete Mathematics, Mathematics, Engineering Technology  
 Session Chair: **Dr. Sergey Morozov**

**I. Sensitivity Analysis of a Three-Species Non-linear Response Omnivory Model**

We investigate how sensitive population densities are to changes in the parameters of a three-species non-linear response omnivory model. By deriving sensitivity equations and solving for the sensitivities, we determined that the predator mortality rate is the most sensitive and biologist should take extra care in collecting predator mortality data.

Author/Presenter: **Dr. James Vance**  
 Dept. of Mathematics and Computer Science  
 The University of Virginia's College at Wise  
 Author/Presenter: **Mr. Kevin Wilson**  
 The University of Virginia's College at Wise

**II. Two Variations of Manickam-Miklos-Singhi Conjecture**

Manickam-Miklos-Singhi conjecture: Let  $n, d$ , be positive integers with  $2d \leq n$ . Let  $a_1, a_2, \dots, a_n$  be real numbers having nonnegative sum. Then there exists at least  $C(n-1, d-1)$   $d$ -element subsets having nonnegative sums for  $n \geq 4d$ .

Author/Presenter: **Prof. Nachimuthu Manickam**  
 Department of Mathematics  
 Depauw University

**III. The Evaluation of Similarity Metrics in Collaborative Filtering Recommenders**

We evaluate multiple similarity measures in a traditional collaborative filtering process. We also consider combinations of complementary measures, especially in edge cases when one of them falls short, e.g., a user with uniform ratings. We examine prediction accuracy, classification accuracy, confusion statistics, and actual/predicted distribution compatibility to find the best way to quantify vector similarity.

Author/Presenter: **Dr. Sergey Morozov**  
 Dept. of Mathematics, Computer Science, and Software Engineering  
 University of Detroit Mercy  
 Author/Presenter: **Dr. Xiaohui Zhong**  
 Dept. of Mathematics, Computer Science, and Software Engineering  
 University of Detroit Mercy



**Tuesday - June 12, 2013**

Room: Anthurium  
 Time: 8:15 am – 9:45 am  
 Session: Higher Education; Science Education; Teacher Education; STEM Education, Education Technology  
 Session Chair: **Dr. Claude Tameze**

**I. Using a Non-Traditional Pedagogy in STEM Disciplines: Implications for Faculty**

For the past several years educational researchers and national panels have been urging colleges and universities to reform their STEM curricula to make them more relevant and engaging. One approach being used at the Rochester Institute of Technology involves employing an immersive year-long project-based class to introduce new freshmen to the interdisciplinary field of Imaging Science. With only three cohorts having experienced this pedagogy to date there is not yet sufficient evidence to rigorously assess its effectiveness. However the implications of this approach for the faculty who use it are becoming very clear, and are discussed in this paper.

Presenter: **Ms. Rose Rustowicz**  
 Imaging Science, undergraduate  
 Rochester Institute of Technology

Presenter: **Mr. Malachi Schultz**  
 Imaging Science, undergraduate  
 Rochester Institute of Technology

Author: **Prof. Joe Pow**  
 Chester F. Carlson Center for Imaging Science  
 Rochester Institute of Technology

Author: **Prof. Maria Helguera**  
 Chester F. Carlson Center for Imaging Science  
 Rochester Institute of Technology

Author: **Ms. Megan Lafrati**  
 Chester F. Carlson Center for Imaging Science  
 Rochester Institute of Technology

Author: **Ms. Briana Neuberger**  
 Chester F. Carlson Center for Imaging Science  
 Rochester Institute of Technology

Author: **Ms. Elizabeth Pieri**  
 Chester F. Carlson Center for Imaging Science  
 Rochester Institute of Technology

| *Continued on next page*

## **II. Transforming STEM Education through the STEM Supplemental Instruction**

Transforming STEM Education through the STEM Supplemental Instruction Pedagogy. An analysis of the resulting data of this learning strategy shows that the SI group outperformed the non-SI group in most of the STEM courses in which SI was offered.

Author/Presenter: **Dr. Claude Tameze**  
Department of Mathematics & Computer Science  
Lincoln University

## **III. Raising Awareness of Computer-Assisted Class Discussion CACD: Linguistic, Social, and Cross-Cultural Perspectives.**

Computer-Assisted Class Discussion offers unprecedented opportunities to deal with cultural sensitivity issues of ELT classrooms in Saudi Arabia.

Author/Presenter **Mr. Basim Hedaiban Alahmadi**  
Madinah College of Technology

## **Tuesday - June 12, 2013**

Room: Carnation  
Time: 10:00 am – 11:30 am  
Session: Science Education, Education Technology, Educational Foundations,  
Education Technology, Industrial Engineering and Management,  
Mathematics Education  
Session Chair: **Dr. Swaminathan Balachandran**

### **I. Collaborative Learning in General Engineering Courses**

Presentation will focus on the author's teaching experience during past four decades with and without collaborative learning activities in general engineering courses. Author will list and discuss motivation for using collaborative learning activities in introductory level engineering courses. Presentation will conclude with student feedback in two courses.

Author/Presenter: **Dr. Swaminathan Balachandran**  
Department of Mechanical and Industrial Engineering  
University of Wisconsin – Platteville

### **II. Fundamental Mathematics Education via E-Learning for Undergraduate Students**

The author used to work as an assistant professor at the Kogakuin University Academic Support Center for 2 years and the Waseda University Media Network Center for 4 years. At the Kogakuin University Academic Support Center, he and his colleague made some useful teaching materials and e-learning contents about calculus for students major in engineering and poor in mathematics. On the other hand, at the Waseda University Media Network Center, he and his colleague made the mathematics curriculum through the LMS (Learning Management System). In this paper, we shall report these activities and also mention how to make the best use of these experiments for the future.

Author/Presenter: **Dr. Satoru Takagi**  
Division of Liberal Arts  
Kogakuin University

## Tuesday - June 12, 2013

Room: Plumeria  
Time: 10:00 am – 11:30 am  
Session: Workshop - Adult Education and/or Special Education

### **I. Vedic Mathematics in the ABE Fundamental Math Classroom: Helping Students Overcome Learning Obstacles**

Barb will share her research methods and results of her master's project: Vedic Mathematics in the ABE Fundamental Math Classroom. Her 2012 research found that using Vedic techniques to teach ABE fundamental curriculum resulted in improved outcomes compared with current practice.

Waneta will introduce participants to a few Vedic math methods used in the research project: subtracting from left to right, adding and subtracting fractions without having to calculate common denominators, a quick way to check arithmetic questions using digit sum checks, and a method to learn those difficult times tables if memorizing isn't working. Waneta will share her students' reactions to this different method of math and introduce the newly developed workbook for Vedic teaching methods.

Author/Presenter: **Ms. Barb Durban-Wilson**  
College of New Caledonia  
Author/Presenter: **Ms. Waneta Nealis**  
College of New Caledonia



## **Tuesday - June 12, 2013**

Room: Pakalana  
Time: 10:00 am – 11:30 am  
Session: Mathematics Education, Education Technology; Inter-disciplinary & other areas; English Literature & Humanities  
Session Chair: **Dr. Leila Pazargadi**

### **I. Oral Reviews: Improving Retention in STEM Majors**

Ungraded, voluntary oral reviews have shown statistically significant improvement in students' understanding, grades and retention in Calculus I and II, the gatekeepers of STEM majors. Students learn to negotiate meaning, confront misconceptions and make mathematical connections. Oral reviews have been successfully used in Mechanical Engineering, Biology, and several university and high school mathematics.

Author/Presenter: **Dr. Mary Nelson**  
Department of Mathematics  
George Mason University

### **II. A Study on Best Practices for Placing Students in First-Year College Composition without the Cost of Technology**

Writing placement without costly technology.

Author/Presenter: **Dr. Therese Jones**  
English Department  
Lewis University

### **III. The Cross-Cultural Narrative Exchange: Bridging Online Global Learning Communities**

As part of the digital humanities, literary studies programs have been integrating technology into their scholarship and pedagogy, to keep the field engaged, relevant and current. This presentation discusses the use of chat-based programs, like Skype, Gchat, and AIM, to create a Global Learning Community that interlinks classrooms around the world. Through these online programs, students are able to participate in a cross-cultural autobiographical narrative exchange in order to diversify material learned in the classroom.

Author/Presenter: **Dr. Leila Pazargadi**  
English Department  
Nevada State College



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## ACKNOWLEDGEMENT

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Hawaii University International Conferences would like to thank the following people who have made our 2013 Education, Mathematics, Engineering and Technology conference a success!

Map courtesy of Hawaii Visitors & Convention Center

## KEYNOTE SPEAKER

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We would like to thank Dean Frank Haas from the University of Hawai'i Kapi'olani Community College for sharing his knowledge and skills with us.

## HAWAIIAN STEEL GUITAR ASSOCIATION

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We would like to thank Mr. Kamaka Tom for the splendid introduction and music performance at the conference. His dedication to academic endeavors and sharing his knowledge and skills with us is greatly appreciated.

## REVIEWERS

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We thank the dedicated professionals who reviewed the papers submitted by our conferees to be included in our programs for the conference proceedings. Your work is of the utmost importance to make sure those accepted meet the highest academic standards for presentation.

Dr. Ani N. Shabazian  
Dr. Bob Slavin  
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The HUIC Staff would like to cordially invite you to participate in the growth and development of the conference by becoming a peer reviewer for our future conferences. If you are interested in becoming a peer reviewer please complete the form available at the registration desk indicating your topic of interest and specialization.

## THE SESSIONS CHAIR

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Thanks to all of the Session Chairs for your guidance of the participants and presenters in each session to maximize the experiences of all the session attendees to convey the thoughts and new ideas each brings to our conference. All timely presentations are important to expand the overall knowledge offered from many perspectives.

Dr. Amy Freshwater  
Dr. Carolyn Ruth A. Williams  
Dr. Claude Tameze  
Dr. Elizabeth Whalley  
Dr. Joe Omojola  
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Prof. Michael Olinick  
Prof. Nazir Ahmed Mughal  
Prof. Samya Zain  
Prof. Tai-Ran Hsu

## ALL PARTICIPANTS

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We also want to thank each and every one who attended our conference for their contributions to the knowledge bases presented and the interactions of all attendees who generously shared their knowledge and experiences to enhance the conference experience for all who attended. We hope to see all of you back in Hawaii again one day in our continuing effort to bring those together in conferencing here in this magnificent environment as we look to the future of all educational efforts in all parts of the world!

*Mahalo!*

## ALA MOANA HOTEL



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