

2014 ASEE Zone 1 Conference American Society for Engineering Education Professional Paper Sessions

Friday	4-Apr	8:45-10 am			
	Session F-1-1	Engineering Education Tools and Methods II		Discovery Pavilion - Magnus Wahlstrom Library	
	Chair	Dr. Steven P. Marra		spmarra2@gmail.com	The Johns Hopkins University
8:45	9:00	95	Matthew Baideme, Cristian Robbins, Jeffrey Starke <i>United States Military Academy</i>	A Model to Build, Assess, and Reflect on Students' Metacognition through the Classroom Debate of Controversial Environmental Issues	
9:00	9:15	78	Vazgen Shekoyan <i>Quensborough Community College</i>	Moving towards problems assignments with reduced goal-specificity in introductory STEM courses	
9:15	9:30	62	Girma Tewolde <i>Kettering University</i>	Robots and Smartphones for Attracting Students to Engineering Education	
9:30	9:45	72	Thomas Dodson, Nicholas Mattei <i>University of New South Wales</i> , Joshua T. Guerin <i>University of Tennessee at Martin</i> , Judy Goldsmith <i>University of Kentucky</i> , Joan M. Mazur <i>University of Tennessee at Martin</i>	Lessons Learned from Development of a Software Tool to Support Academic Advising	
9:45	10:00	Closing Remarks - END OF SESSION			
Friday	4-Apr	8:45-10 am			
	Session F-1-2	Innovations in Student Learning		500A - Magnus Wahlstrom Library	
	Chair	Dr. Tomás Estrada		estradat@etown.edu	Elizabethtown College
8:45	9:00	90	Yves Ngabonziza, Hendrick Delcham <i>City University of New York</i>	The Enhancement of Students Learning Through COMSOL Simulation Projects	
9:00	9:15	58	Beverly Woolf, Enid Sichel, Mark Floryan <i>University of Massachusetts</i>	Web-based Personalized Laboratories for Engineering Students	
9:15	9:30	56	Amanda Marie Spiewak <i>University of New Haven</i>	A Life Cycle Approach to Chemistry Laboratories in Higher Education Institutions	
9:30	9:45	82	Tomislav Bujanovic, Prasanta Ghosh <i>Syracuse University</i>	Laboratory Experiments for Enhanced Learning of Electromechanical Devices	
9:45	10:00	Closing Remarks - END OF SESSION			
Friday	4-Apr	8:45-10 am			
	Session F-1-3	Engineering Education Tools and Methods II		500B - Magnus Wahlstrom Library	
	Chair	Dr. Katherine S. Ziemer		k.ziemer@neu.edu	Northeastern University
8:45	9:00	28	Joseph Betthausen, Daniel Benavides, Jeff Schornick, Neal O'Hara, Jimit Patel, Jeremy Cole, Edgar Lobaton <i>North Carolina State University</i>	WolfBot: A Distributed Mobile Sensing Platform for Research and Education	
9:00	9:15	80	Melody Baglione <i>Cooper Union</i>	Building Sustainability into Control Systems: Preliminary Assessment of a New Facilities-Based and Hands-On Teaching Approach	
9:15	9:30	112	Dr. Julie N. Renner, Dr. Kathy E. Ayers <i>Proton OnSite</i>	Exploring Electrochemical Technology: A Perspective on the ASEE/NSF Small Business Postdoctoral Research Diversity Fellowship	
9:30	9:45	38	Kyle Pustola, Can B. Aktas <i>University of New Haven</i>	Quantifying Sustainable Improvements: Interactions of Energy Efficient Construction Techniques and Estimating Their Efficiency	
9:45	10:00	Closing Remarks - END OF SESSION			

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Friday	4-Apr	8:45-10 am			
	Session F-1-4	Engineering Education and Industry I		500C - Magnus Wahlstrom Library	
	Chair	Dr. Gad J. Selig		gadselig@bridgeport.edu	University of Bridgeport
8:45	9:00	81	Keith M Gardiner <i>Lehigh University</i>		Professional Education for the 21st Century Workforce
9:00	9:15	63	Carolyn Jean Sher-DeCusatis, Casimer DeCusatis <i>New York City College of Technology</i>		Developing a Software Defined Networking Curriculum Through Industry Partnerships
9:15	9:30	105	Tara Kulkarni <i>Norwich University</i>		Service learning projects in environmental engineering courses: Models of community engagement activities
9:30	9:45	14	Abdullah Ibrahim Almhaidib <i>King Saud University</i>		Aspects of collaborations of college of engineering at King Saud University with industry
9:45	10:00		Closing Remarks - END OF SESSION		
Friday	4-Apr	8:45-10 am			
	Session F-1-5	Technology and Engineering Education		500D - Magnus Wahlstrom Library	
	Chair	Prof. Dan Tenney		dtenney@mmm.com	3M
8:45	9:00	93	Joseph Chen, Mark Molnar <i>Bradley University</i>		Reintroducing Six Sigma DMAIC Processes using a Hands on Approach
9:00	9:15	103	Dan Tenney, Naif Jalal <i>University of Bridgeport</i>		Use of Smart Table in Educational Institutions to Enhance Student Learning Performance
9:15	9:30	89	Madina Mansurova, Darkhan Akhmed-Zaki, Anna Pyrkova <i>Al- Farabi Kazabi Kazakh National University</i>		Development of courses directed on formation of competences demanded on the market of IT technologies
9:30	9:45	91	Maeda Hanafi, Amal Abdel-Raou <i>Southern Connecticut State University</i>		Software Maintenance from the Change Theory Perspective
9:45	10:00		Closing Remarks - END OF SESSION		
Friday	4-Apr	8:45-10 am			
	Session F-1-6	Engineering Education and Industry II		CELT Room - Magnus Wahlstrom Library	
	Chair	Mark Richards		mrichards@e-richards.com	e-Richards Consulting
8:45	9:00	66	Teresa Piliouras, Pui Lam Raymond Yu, Kristin Villanueva, Holly Robillard, Yingxin Chen, Michael Berson <i>Best We Can Be, Inc.</i> , Jeanne R. Lauer, Garret Sampel, Daniel Lapinski, Maigh Attre <i>AITE High School</i>		A Deeper Understanding of Technology is Needed for Workforce Readiness – Playing Games, Texting, and Tweets Aren't Enough to Make Students Tech-Savvy
9:00	9:15	110	Edwin R. Schmeckpeper, Mike Kelley <i>Norwich University</i> Steve Beyerlein <i>University of Idaho</i>		Using the EPSA Rubric to Evaluate Student Work on Ethics Case Studies in a Professional Issues Course
9:15	9:30	60	Farshid Zabihian <i>West Virginia University Institute of Technology</i>		EDUCATING UNDERGRADUATE MECHANICAL ENGINEERING STUDENTS ABOUT EXERGY ANALYSIS
9:30	9:45	85	Franco Capaldi <i>Merrimack College</i>		Mastery Learning in Statics Using the STEMSI Online Learning Environment
9:45	10:00		Closing Remarks - END OF SESSION		

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Friday	4-Apr	1:30-2:45 pm		
	Session F-2-1	Energy Sustainability in Engineering Education	Discovery Pavilion - Magnus Wahlstrom Library	
	Chair	Dr. Can Aktas	caktas@newhaven.edu	University of New Haven
1:30	1:45	69	Ostap Lisowitch <i>University of New Haven</i>	Quantifying Benefits of Energy Starring an Average New England Home
1:45	2:00	48	Jeng-Nan Juang, Ramachandran Radharamanan <i>Mercer University</i>	Design of a Solar Tracking System for Renewable Energy
2:00	2:15	77	Orla Smyth LoPiccolo <i>Farmingdale State College</i>	Improving Spatial Reasoning Ability While Learning Energy Efficient Construction: Students Who Build Physical Models vs. Students Who Develop 3D Computer Models
2:15	2:30	111	Edwin Schmeckpeper, Matthew P. Lutz, Michael Puddicombe, Jeffrey R. Mountain, Jack Patterson <i>Norwich University</i>	Creating an Economical Solar Decathlon House
2:30	2:45	Closing Remarks - END OF SESSION		
Friday	4-Apr	1:30-2:45 pm		
	Session F-2-2	Data and Algorithms in Engineering I	500A - Magnus Wahlstrom Library	
	Chair	Dr. Keith Gardiner	kg03@Lehigh.EDU	Lehigh University
1:30	1:45	84	David W Kraft <i>University of Bridgeport</i>	Implications of unchecked exponential growth
1:45	2:00	47	Marwah Almasri, Khaled Elleithy <i>University of Bridgeport</i>	Data Fusion Models in WSNs: Comparison and Analysis
2:00	2:15	49	Shailaja Basavesh Shastri, PDA College of Engineering Krishnamurthy G N <i>BNM Institute of Technology</i>	Comparison of Blowfish and Cast-128 Algorithms Using Encryption Quality, Key Sensitivity and Correlation Coefficient Analysis
2:15	2:30	113	M. Ali-ud-din Khan, Muhammad Fahim Uddin, Navarun Gupta <i>University of Bridgeport</i>	Seven V's of Big Data Understanding Big Data to Extract Value
2:30	2:45	Closing Remarks - END OF SESSION		
Friday	4-Apr	1:30-2:45 pm		
	Session F-2-3	Data and Algorithms in Engineering II	500B - Magnus Wahlstrom Library	
	Chair	Dr. Verica Radisavljevic-Gajic	verica.gajic@villanova.edu	Villanova University
1:30	1:45	106	Sarosh Patel, Tarek Sobh <i>University of Bridgeport</i>	Goal Directed Design of Serial Robotic Manipulators
1:45	2:00	86	Hui Zhang, Joseph Chen, <i>Bradley University</i> , Kai Zhang <i>Caterpillar Inc.</i>	RFID-based Localization System for Mobile robot with Markov Chain Monte Carlo
2:00	2:15	98	Charles J. Lesko <i>East Carolina University</i>	Implementation of a Remote Mobile Thin-Client Lab Solution Incorporating Virtual Machine-based Technologies
2:15	2:30	36	Verica Radisavljevic-Gajic <i>Villanova University</i>	Linear Observers Design and Implementation
2:30	2:45	Closing Remarks - END OF SESSION		

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Friday	4-Apr	1:30-2:45 pm			
	Session F-2-4	Engineering Education III		500C - Magnus Wahlstrom Library	
	Chair	Dr. Gad J. Selig		gadseliq@bridgeport.edu	University of Bridgeport
1:30	1:45	79	Richard Millham Durban <i>University of Technology</i>	Does Self-Regulating E-Learning Assist in Secondary School Preparation for Engineering Education?	
1:45	2:00	75	Abdul Razaque <i>University of Bridgeport</i>	Pheromone Termite (PT) Model to provide Robust Routing over WSNs	
2:00	2:15	20	Gad J. Selig <i>University of Bridgeport</i>	Critical Success Factors for Winning Entrepreneurs and the Role of an Incubator - A Case Study	
2:15	2:30	108	Gary P. Halada, Nancy McCoy Wozniak <i>Stony Brook University</i>	Enhancing Assessment of Experiential Learning in Engineering Education through Electronic Portfolios	
2:30	2:45	Closing Remarks - END OF SESSION			
Friday	4-Apr	1:30-2:45 pm			
	Session F-2-5	Quantitative Methods in Engineering and Engineering Education I		500D - Magnus Wahlstrom Library	
	Chair	Dr. Nelson Ngoh		ngoh@bridgeport.edu	University of Bridgeport
1:30	1:45	34	Wafa Mohamed Elmannai, Khaled Elleithy <i>University of Bridgeport</i>	A new Algorithm Based on Discrete Fourier Transform to Improve the Lifetime of Underwater Wireless Sensor Networks Communications	
1:45	2:00	96	Wei Lu <i>Keene State College</i>	Phylogenetic Analysis Using Bayesian Model	
2:00	2:15	22	Sunil Dehipawala, Vazgen Shekoyan, Haishen Yao <i>Queensborough Community College</i>	Using Mathematics Review to Enhance Problem Solving Skills in General Physics Classes	
2:15	2:30	61	Farshid Zabihian <i>West Virginia University Institute of Technology</i>	ALTERNATIVE APPROACH TO TEACH GAS TURBINE BASED POWER CYCLES	
2:30	2:45	Closing Remarks - END OF SESSION			
Friday	4-Apr	1:30-2:45 pm			
	Session F-2-6	Data and Algorithms in Engineering III		CELT Room - Magnus Wahlstrom Library	
	Chair	Dr. Tooran Emami		Tooran.Emami@uscga.edu	U.S. Coast Guard Academy
1:30	1:45	65	Richard Steven Colon, Prabir Patra, Khaled Elleithy <i>University of Bridgeport</i>	Random Word Retrieval for Automatic Story Generation	
1:45	2:00	73	Andrew Grossfield <i>Vaughn College</i>	Visual Differential Calculus	
2:00	2:15	35	Ammar Odeh, Khaled Elleithy, Miad Faezipour <i>University of Bridgeport</i>	Steganography in Text by Using MS Word Symbols	
2:15	2:30	102	Isaac George Macwan, Zihe Zhao <i>University of Bridgeport</i> Omar Sobh <i>University of Pennsylvania</i> Prabir Patra <i>University of Bridgeport</i>	Magnetotaxis for Nanofabrication	
2:30	2:45	Closing Remarks - END OF SESSION			

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Saturday	5-Apr	9:45-11 am		
	Session S-1-1	Innovations in College and Career Readiness	Discovery Pavilion - Magnus Wahlstrom Library	
	Chair	Dr. Ahmed El-Abbasy	aaelabbasy@yahoo.com	Jazan University
9:45	10:00	79	Richard Millham Durban <i>University of Technology</i>	Does Self-Regulating E-Learning Assist in Secondary School Preparation for Engineering Education?
10:00	10:15	76	Ashwin Satyanarayana, Hong Li, Josephine Braneky <i>New York City College of Technology</i>	Improving Retention by Mentoring and Tutoring Freshmen Students
10:15	10:30	21	Mohammed-Noor Naher Al-Maghrabi, Ahmed A. Abdou El-Abbasy <i>Jazan University</i>	Educational Computer Program for Simulating Behavior of Structures under Dynamic Loads
10:30	10:45	50	Leslie Chandrakantha <i>John Jay College of CUNY</i>	Learning ANOVA Concepts Using Simulation
10:45	11:00	43	Frank Caserta, James McCusker, Gloria Ma, <i>Wentworth Institute of Technology</i>	Can We Use A Matlab Application to Improve Student Performance on Trigonometry of Vector Problem Solving?
Saturday	5-Apr	9:45-11 am		
	Session S-1-2	Hands-on Learning in Engineering Education	500A - Magnus Wahlstrom Library	
	Chair	Dr. Paul B. Crilly	crillypb@gmail.com	U.S. Coast Guard Academy
9:45	10:00	74	Joseph A. Levert <i>SUNY Maritime College</i> Andy Grosso <i>New York State Industries for the Disabled, Inc.</i>	NYSID's Project CREATE: An Organizational Model for Service Learning through Assistive Technology Development
10:00	10:15	18	Paul B. Crilly <i>United States Coast Guard Academy</i>	An Innovative Approach to Teaching An Undergraduate Electromagnetics, Antennas and Propagation Course
10:15	10:30	13	Thair Jamal Khmour, Shaima Salem <i>Albalqa Applied University</i>	The effects of integrating knowledge management with E- Learning systems
10:30	10:45	97	Shanon Reckinger, Blanca Aca, Katherine Pitz <i>Fairfield University</i>	Ocean Circulation in a Rotating Tank: An Outreach Project in Fluid Dynamics
10:45	11:00	Closing Remarks - END OF SESSION		
Saturday	5-Apr	9:45-11 am		
	Session S-1-3	Wireless Systems	500B - Magnus Wahlstrom Library	
	Chair	Dr. Shankar Krishnan	krishnans@wit.edu	Wentworth Institute of Technology
9:45	10:00	53	Abdelrahman Elleithy, Gonhsin Liu, Varun Pande <i>University of Bridgeport</i>	Theoretical versus Practical Results of an Advanced Power Model used in Communications of Wireless Sensor Networks
10:00	10:15	51	Abrar Mohammed Alajlan <i>University of Bridgeport</i>	High-Level Abstractions in Wireless Sensor Networks: Status, Taxonomy, Challenges, and Future Directions
10:15	10:30	32	William Alpert <i>University of Connecticut</i> Alexander Vaninsky <i>Hostos Community College</i>	Efficiency of College Education in the Labor Market of the United States
10:30	10:45	40	Ali M Elrashidi <i>University of Business and Technology</i>	Performance Analysis of WDM-PON FTTH Using Different Pulse Shapes at 10 Gbps and 20 Gbps
10:45	11:00	Closing Remarks - END OF SESSION		

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Saturday	5-Apr	9:45-11 am		
	Session S-1-4	Quantitative Methods in Engineering and Engineering Education II	500C - Magnus Wahlstrom Library	
	Chair	Dr. John I. Finnie	jfinnie@umassd.edu	University of Massachusetts
9:45	10:00	101 Syed S Rizvi, Khaled Elleithy, Mustafa Khan <i>University of Bridgeport</i>	An Opportunistic Frequency Channels Selection Scheme for Interference Minimization	
10:00	10:15	64 Arafat Abu Malluh, Khaled M Elleithy, Zakariya Qawaqneh, Ramadhan J Mstafa, Adwan Alanazi <i>University of Bridgeport</i>	EM-SEP: An Efficient Modified Stable Election Protocol	
10:15	10:30	41 Islam A Ashry <i>University of Business and Technology</i>	Investigating the Performance of Apodized Fiber Bragg Gratings for Sensing Applications	
10:30	10:45	52 John Finnie <i>University of Massachusetts Dartmouth</i>	Does the Birkbeck type bedload sediment trap effect local flow velocity?	
10:45	11:00	Closing Remarks - END OF SESSION		
Saturday	5-Apr	9:45-11 am		
	Session S-1-5	Engineering Education Tools and Methods II	500D - Magnus Wahlstrom Library	
	Chair	Prof. Francis Hopcroft	hopcroft@wit.edu	Wentworth Institute of Technology
9:45	10:00	54 Omar Yahya, Miad Faezipour <i>University of Bridgeport</i>	Automatic Detection and Classification of Acoustic Breathing Cycles	
10:00	10:15	17 Anatoliy Gordonov – <i>The College of the Staten Island/ CUNY</i>	The Cost of Preventing a Buffer Overflow	
10:15	10:30	67 Arafat Abu Mallouh, Khaled M Elleithy, Ramadhan Mstafa, Adwan Alanazi <i>University of Bridgeport</i>	A Highly Secure Quantum Communication Scheme for Blind Signature using Qubits and Qutrits	
10:30	10:45	57 Muhammad Wasimuddin, Navarun Gupta <i>University of Bridgeport</i>	Design and Implementation of Least Mean Square Adaptive Filter on Fetal Electrocardiography	
10:45	11:00	Closing Remarks - END OF SESSION		
Saturday	5-Apr	9:45-10:45 am		
	Session S-1-6	Quantitative Methods in Engineering and Engineering Education III	CELT Room - Magnus Wahlstrom Library	
	Chair	Dr. Abdullah Al-Mhaidib	muhaidib@KSU.EDU.SA	King Saud University
9:45	10:00	55 Mohammad Daneshzand, Reza Zoroofi, Miad Faezipour <i>University of Bridgeport</i>	MR Image Assisted Drug Delivery in Respiratory Tract and Trachea Tissues Based on an Enhanced Level Set Method	
10:00	10:15	68 Lile Yu, Jingyun Xiao, Xingguo Xiong, Prabir Patram <i>University of Bridgeport</i>	A Magnetic Micropump with Tri-membrane Fully Differential Structure	
10:15	10:30	37 Muneer Alshowkan, Khaled Elleithy <i>University of Bridgeport</i>	Authenticated Multiparty Secret Key Sharing Using Quantum Entanglement Swapping	
10:30	10:45	99 Xingguo Xiong, Hanyu Xie <i>University of Bridgeport</i>	MEMS Dual-mode Electrostatically Actuated Micromirror	
10:45	11:00	Closing Remarks - END OF SESSION		