

Wednesday, March 15, 2023

WED-PM	Noon to 1pm	Check in and Lunch pick up	K wing Hallway
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WED-PM	12:30 – 1 PM	Michelle Sedberry: The Texas School to University Credentialing Approach	K150
WED-PM	1:00 - 2:30 PM	Pathways to an Engineering Degree Panel Brenda Kihl, Abdal Elkhroubi (University of North Texas), Tripat Baweja (Collin College), Darrell Smith (North Central Texas College), Huseyin Bostanci (University of North Texas)	K150
WED-PM	2:30 - 2:50 PM	Thinking Small: Using Micro-Lectures to Enhance Online Learning in Construction Management Courses Peter Rogers, Clinton Martin, Salar Kumari (University of Southern Mississippi)	K150
WED-PM	2:50 - 3:10 PM	The JUMP into STEM Experience Nelson Fumo (University of Texas at Tyler)	K150
WED-PM	3:10 - 3:30 PM	New Bachelor's Degree for Energy Engineers: Bachelor of Science in Resource and Energy Engineering Kendra L. Wallis (University of Texas at Arlington)	K150
WED-PM	3:30 – 3:50 PM	Wait, Wait, I have an idea! John Steven Aiken (Helix Mechanics Research)	K150
WED-PM	4:00 - 5:00 PM	Academic Integrity: Challenges and Approaches Randall Manteufel (University of Texas at San Antonio), Kenneth W. Van Treuren (Baylor University) with coffee and snacks	K120

Thursday Morning, March 16, 2023

	8:00 AM – 8:30 AM	Brianne Martin, a role model for STEM impact	K150
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Thursday Morning, March 16, 2023

Session 1

THURS-AM-1	8:30 AM - 8:50 AM	Broadening Participation in Engineering: Minorities Share Lived Experiences at Minority Serving Institutions Janne Hall, Steve Efe (Morgan State University)	K150
THURS-AM-1	8:50 AM - 9:10 AM	Professional Attributes Gained as a Result of Research Experiences for Undergraduate Chemical Engineering Students at a Hispanic-serving Institution Matthew Alexander (Texas A&M University Kingsville)	K150
THURS-AM-1	9:10 AM - 9:50 AM	Activities to Promote Discussions about Diversity, Equity, and Inclusion among International Engineering Graduate Students Marsha Phillips, Lacy White, Mia K. Markey (University of Texas)	K150
THURS-AM-1	9:50 AM - 10:10 AM	Communicating Academic Success: Shaping an Inclusive Learning Environment to Promote Student Engagement in Engineering Education Eleazar Marquez (University of Texas Rio Grande Valley), Samuel Garcia Jr. (Texas State University)	K150
THURS-AM-1	10:10 AM - 10:30 AM	Multidisciplinary and Dual University Undergraduate Research Opportunities: A Low Stakes/High Impact Practice that Engages Underrepresented Populations in Engineering Sara Amani, Filza Walters, Sarhan Musa, Mark Clayton, Karan Watson, Kelvin Kirby, Tracy Hammond	K150

10:30 AM - 11:00 AM Break

THURS-AM-1	11:00 AM – noon	Servingness: Authentic and Intentional Institutional Practice for ALL institutions. Lessons from a HSI and HBCU. Nandika Anne D’Soua (University of North Texas) Araceli Martinez Ortiz (University of	K150
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		Texas at San Antonio), Janne Hall (Morgan State University)	
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Thursday Morning, March 16, 2023

Session 2

THURS-AM-2	8:30 AM - 8:50 AM	Hands-on Experiential Learning Modules for Engineering Mechanics (Work-in-progress) Mohammad Shafinul Haque, Anthony Battistini, Soyoon Kum, Azize Akçayoğlu, William Kitch (Angelo State University)	K120
THURS-AM-2	8:50 AM - 9:10 AM	An Interactive Approach to Teaching Moment Equilibrium Using Virtual Surgical Planning (Work in Progress) Anne-Marie Ginn-Hedman (Texas A&M University)	K120
THURS-AM-2	9:10 AM - 9:30 AM	Development of a One-way Silicone Valve for a No-Spill Droplet Generator Joaquin Haces-Garcia, Hua Li (Texas A&M University Kingsville), Yemboado Brayon Yonli, Yuhao Xu (Prairie View A&M University)	K120
THURS-AM-2	9:30 AM – 9:50 AM	Effects of Surface Treatment on Repair Methods for Trumpet Piston Valves Choong Lee, Justin Cooper, Matthew Carl, Marcus L. Young (University of North Texas)	K120
THURS-AM-2	9:50 AM – 10:10 AM	Impact of Team Formation Methodology on Team’s Conflict and Effectiveness Dr. Shadi Balawi, Abdelrahman Youssef (Texas A&M University), Youssef Elmasry (Texas A&M International University)	K120
THURS-AM-2	10:10 AM – 10:30 AM	Critical Thinking in STEM Through Liberal Arts Paradigms: Transference of Skills Nathan K. Mitchell, Aburi Anil Kumar (Prairie View A&M University)	K120

10:30 AM - 11:00 AM Break

THURS-AM-2	11:00 AM - 11:20 AM	An Engineering/Computer Science Project with Community Service Focus Kiran Katira, Akila Ravichandran, Tariq Khraishi (University of New Mexico)	K120
THURS-AM-2	11:20 AM – 11:40 AM	NSF Research Experience of Teachers (RET) Site at UT Arlington: A summer STEM teacher project on concrete structures evaluation for sustainability Nur Yazdani (University of Texas at Arlington)	K120

THURS-AM-2	11:40 AM – noon	<p>Student Performance in an Undergraduate Thermodynamics Course Offered at two Different Times of the Day</p> <p>Amir Karimi and Randall Manteufel (University of Texas at San Antonio)</p>	K120
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Thursday Morning, March 16, 2023

Session 3

THURS-AM-3	8:30 AM - 8:50 AM	<p>Training Teachers to Integrate a Sustainability Assessment for Green Building and Retrofitting Project into a K-12 Classroom</p> <p>Erick Jones Jr., Victoria C.P. Chen, Vishnu Sharma, Suman Gudikandula (University of Texas at Arlington), Jocelyn Sigler (Lamar High School), Rajsirearl Smalls (Charles Baxter Jr. High School)</p>	K110
THURS-AM-3	8:50 AM - 9:10 AM	<p>Brillantes: Exploring Students Changing Perceptions of Mathematics and Engineering through an Integrated Engineering Design and Algebraic Program for Students in Honduras</p> <p>Araceli Martinez Ortiz, M. Alejandra Sorto, Patricia Perea, Cindy D. Rojas Annichiarico</p>	K110
THURS-AM-3	9:10 AM - 9:30 AM	<p>Development and Implementation of Learning Assessment Template in Engineering Courses</p> <p>Dr. Abburi Anil Kumar (Prairie View A&M University)</p>	K110
THURS-AM-3	9:30 AM - 9:50 AM	<p>Improving Programming Skills of Engineering Students at HBCUs Using AI-enhanced Online Personalized Adaptive Learning Tools</p> <p>Xishuang Dong, Lijun Qian, Xiangfang Li, Pamela Obiomon (Prairie View A&M University), Yujian Fu, Zhigang Xiao, Shujun Yang, Nelson Barnes (Alabama A&M University)</p>	K110
THURS-AM-3	9:50 AM - 10:10 AM	<p>Relationship between Instructional Activities and Students Distraction</p> <p>Daniel Bang, Saira Anwar, Syeda Fizza Ali (Texas A&M University), Alejandra Magana (Purdue University)</p>	K110
THURS-AM-3	10:10 AM - 10:30 AM	<p>Illustrating Engineering Concepts by Employing an Inclusive Pedagogy in Mechanical Engineering</p>	K110

		Eleazar Marquez (University of Texas Rio Grande Valley), Samuel Garcia (Texas State University)	
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10:30 AM - 11:00 AM Break

THURS-AM-3	11:00- 11:20 PM	Planning versus Reality: Launching a New Multi-disciplinary Engineering Program. Paul Componation, Kendra Wallis (University of Texas at Arlington)	K150
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Noon to 1pm	Lunch pick up	K wing Hallway
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Thursday Afternoon

March 16, 2023

Session 1

THURS-PM-1	1:00 - 2:30 PM	Engineering Education Funding Programs in the Division of Engineering Education and Centers of the National Science Foundation: Making Research Proposals Competitive Jumoke 'Kemi' Ladeji-Osias (Program Director, NSF RED Program)	K150
THURS-PM-1	2:30 - 2:50 PM	The Servingness of Hispanic Serving Institutions for Engineering College Students: A Systematic Review Hyun Kyoung, Shirley Anderson, Tricia Rodriguez, Elizabeth Ramon, Damaris Javier (University of North Texas)	K150
THURS-PM-1	2:50 - 3:10 PM	Workforce Development Through Experiential Learning and Collaboration between Industry, Government, and Universities to Solve Environmental Challenges M. Ginger Scarbrough (New Mexico State University)	K150
THURS-PM-1	3:10 - 3:30 PM	Design of An Unmanned Surface Vehicle for Oil Spill Sampling Oscar Garcia (Water Mapping LLC), Juan Zambrano, Hua Li (Texas A&M University Kingsville)	K150
THURS-PM-1	3:30 - 3:50 PM	Effects of Printing Parameters on the Shape Memory Recovery Properties of 3D Printed Parts with Stereolithography Vat Polymerization Process Mehmet Emre Bahadir, Yumi Domangue (Southeastern Louisiana University)	K150

Thursday Afternoon, March 16, 2023

Session 2

THURS-PM-2	1:00 - 1:20 PM	Analyzing Ultrasonic Wire Embedding data and waveform congruency to identify process quality in additive manufacturing. Juan Zambrano (Texas A&M University Kingsville)	K120
THURS-PM-2	1:20 - 1:40 PM	Smart Home Monitoring System for Reduced Power Usage John Attia, Samir Abood, Faisal A. Ahmed (Prairie View A&M University), Alexis Garcia (University of Texas at El Paso), Isaiah Moore (Morgan State University)	K120
THURS-PM-2	1:40 - 2:00 PM	Smart Home Warning System for a Safe Environment John Attia, Samir Abood, Bob Patthammavong (Prairie View A&M University), Eric Martinez (University of Texas Rio Grande Valley)	K120
THURS-PM-2	2:00 - 2:20 PM	New Mid-Semester Camp to Increase the Success of Underprepared Engineering Students David J. Ewing (University of Texas at Arlington)	K120
THURS-PM-2	2:30 - 3:30 PM	Engaging Students with Industry and Research Kamesh Namuduri, Ernest Huffman, Eric Adams (University of North Texas), NTCOG	K120
THURS-PM-2	3:30 – 3:50 PM	The Impact of Accessible Advanced Air Mobility Services on Economy, Education, and Workforce Development Kamesh Namuduri, Clinton Purtell, Terrance Pohlen, Ila Manuj, and Nandika D’Souza University of North Texas And Ernest Huffman, North Central Texas Council of Governments	K120
THURS-PM-2	4:00 - 5:00 PM	ABET Annual Maintenance Checks to Support Low Stress Evaluation Experience Amir Karimi, The University of Texas at San Antonio, John Attia, Prairie View A&M University, Nandika D’Souza, The University of North Texas, Reza Mirshams, The University of North Texas, Lynn Peterson, The University of Texas at Arlington	K120

Thursday Afternoon, March 16, 2023

Session 3

THURS-PM-3	1:00 - 1:20 PM	Analysis of Transfer Credits in Engineering Randall Manteufel, Amir Karimi (University of Texas at San Antonio)	K110
THURS-PM-3	1:20 - 1:40 PM	An Assessment of the Attitude Toward Agile in Professional Organizations Derek T. Gwin, Ozgur Aktunc (St. Mary's University)	K110
THURS-PM-3	1:40 - 2:00 PM	Aerodynamic Analysis and Comparison between Axial Fan of Five and Seven Blades Mehrab Hasan (University of North Texas)	K110
THURS-PM-3	2:00 - 2:20 PM	Wrist-Based Survival Swimming Activity Recognition System Larry Powell (Texas A&M University)	K110
THURS-PM-3	2:20 - 2:40 PM	Assignment Choice Roadmap in Computer Science Service Courses Robert H. Lightfoot, Tracy Hammond (Texas A&M University)	K110
THURS-PM-3	2:40 - 3:00 PM	Design and Construction of a Lighter than Air Robot Blimp Jake Simmons, Andrew Lovelace, Daniel Tucker, Aaron Mendoza, Aaron Coates, Julian Alonzo, Danrui Li, Xinpeng Yi, Steven Potter, Ian Mouritzen, Mac Smith, Caden Banta, Ryan Hodge, Anne Spence, Scott Koziol (Baylor University)	K110
THURS-PM-3	3:00 - 3:20 PM	Contemplating Program Quality: Conceptions of an Engineering Education PhD Program Director (Work-in-Progress) Benjamin Le Shorn (University of Houston)	K110

Thursday Afternoon, March 16, 2023

Poster Session

THURS-PM-4	4:00 - 5:00 PM	Elastic-Plastic Behavior of Threaded Fasteners Under Multi-Axial Loads Joseph Erwin, Tariq Khraishi, Laith Alqawasmi (University of North Texas)	HALLWAY
THURS-PM-4	4:00 - 5:00 PM	Investigation of Practical Hardness Information through Combined Systematic and Numerical Analyses Luo Li, Tariq Khraishi, Yu-Lin Shen (University of New Mexico)	HALLWAY
THURS-PM-4	4:00 - 5:30 PM	High Energy Absorption from a partially closed BCCZ lattice structure injected with polyurethane foam Mahan Ghosh; Vignesh Pagadalu; Nandika D'Souza (University of North Texas)	HALLWAY
THURS-PM-4	4:00 - 5:30 PM	Investigation of Lattice Structure for Cold Formed Steel (CFS) Shear Walls Vignesh Pagadalu, Mahan Ghosh, Nandika D'Souza and Cheng Yu (University of North Texas)	HALLWAY
THURS-PM-4	4:00 - 5:30 PM	Improving Interactive Strategies in Instructing Engineering Classes Dan T. Nguyen (University of North Texas)	HALLWAY
THURS-PM-4	4:00 - 5:30 PM	Engineering Education Graduate Program's Review Within USA Pouneh Abbasian, Tracy Hammond (Texas A&M University)	HALLWAY
THURS-PM-4	4:00 - 5:30 PM	New Bachelor's Degree for Energy Engineers: Bachelor of Science in Resource and Energy Engineering Kendra L. Wallis (University of Texas at Arlington)	HALLWAY

Networking Dinner 5:30 - 7:30 PM Dean's Area

Friday Morning

March 17, 2023

Session 1

THURS-AM-1	8:00 AM – 8:30 AM	Role models for Engineering Education: Dr. Jacqueline El-Sayed Executive Director and Chief Executive Officer (CEO), ASEE	K120
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FRI-AM-1	8:30 AM - 8:50 AM	Using Smart Devices to Monitor and Control Energy Consumption to Reduce Carbon Emission Wei-Jen Lee, Po En Su (University of Texas at Arlington), Irma De Leon (Everman Independent School District), Jude Soweh (Mansfield Independent School District)	K120
FRI-AM-1	8:50 AM - 9:10 AM	Assymetric Nanoparticle Interaction with Nematic Liquid Crystals Xiao Li, Xiaowei Wang (University of North Texas)	K120
FRI-AM-1	9:10 AM - 9:30 AM	Design of a Novel Mobile Solar-PV Energy System for an Average House in the Texas Panhandle Emad Manla, Roy Issa, Kenneth Leitch (West Texas A&M University)	K120
FRI-AM-1	9:30 AM - 9:50 AM	Physical Applications of Harmonic Functions Siew T. Koay (Prairie View A&M University)	K120
FRI-AM-1	9:50 AM – 10:10	Cross Pollination between Surveying and Cad Henry Foust (University of Houston - Downtown)	K110

Friday Morning, March 17, 2023

Session 2

FRI-AM-2	8:30 AM - 8:50 AM	Preliminary Study on Teaching Engineering through Murder Mysteries Krishna Kumar (University of Texas)	K110
FRI-AM-2	8:50 AM - 9:10 AM	Student Perceptions About Professional Networking: An Initial Exploration B. Michael Aucoin, Michelle F. Salazar (Texas A&M University)	K110
FRI-AM-2	9:10 AM - 9:30 AM	Engineering Academy (EA) Design and Operation Randy Brooks, LaTasha Starr, Shana Shaw (Texas A&M University)	K110
FRI-AM-2	9:30 AM – 9: 50 AM	An Outreach Program for Introducing Nuclear Power through Training STEM Educators Huseyin Bostanci, Maurizio Manzo (University of North Texas)	K110
FRI-AM-2	9:50 AM - 10:10 AM	Composite Measures of Academic Performance: Insights from General Systems Performance Theory George V. Kondraske, Lawrence R. DiSalvi (University of Texas at Arlington)	K110
FRI-AM-2	10:10 AM - 10:30 AM	An Experiential Education Framework to Train Next-Generation Energy Conscious Engineers through UNT Industrial Assessment Center Huseyin Bostanci, Nourredine Boubekri (University of North Texas)	K110

11:00 to 1:00 pm : Lunch and awards ceremony