

# IEEE MetroCon 2022 Conference Program

34<sup>th</sup> Annual IEEE FW Conference

November 3, 2022, 7:00am to 7:00pm  
Hurst Conference Center, Hurst, TX

NOTE: Registration Desk opens at 7:00am. HCC Opens for exhibits load-in and setup at 6:00am.

Time	Gallery in Front of Salon AB	Meeting Room 1	Meeting Room 3	Meeting Room HIG	Room EIF	Meeting Room 4	Meeting Room Board Rm - 2 <sup>nd</sup> Floor	Meeting Room 2	Meeting Room 5	Meeting Room 6	Salon B	
7:30	Student Posters Chair: Michael Brown Co-Chair: TBD	Internet of Things Chair: David G. Hughes Co-Chair: Prabir Sadhanegara	Software and Systems Engineering Chair: Charles H. Rouseff Co-Chair: James Wiley	Developing and Deploying Secure Systems Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Power and Energy Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Computational Intelligence Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Biotechnologies Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Autonomous and Vehicle Systems Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Photonics Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Engineering and Financial Planning Chair: Charles H. Rouseff Co-Chair: Princy Akharia	Exhibits Schedule Chair: Charles H. Rouseff Co-Chair: Princy Akharia	
7:45 - 8:25	Put up Posters	<p>Welcome Address Diane Collier, IEEE MetroCon 2022 General Chair</p> <p>Plenary Address – SALON A: BY Presentation: Solutions with Data Analytics Josh Loyd and Priscilla Dubois IBM Co</p>										Set up Meet at Sun
8:30 - 9:25	Put up Posters	3D Printing in Robotics – IEEE: Changing the Way Robots are Manufactured Peter Johannsen Texas Instruments	The Address of Executive IEEE: Black Box Models A Black Box Model Analysis of an Autonomous Control System Amit L. Nayak, Ph.D. Georgia Tech Research Institute	ABC123 of 550150M Corby Harvey LMCO	Innovation in E-C-ESG Jesse Brown Barr & Star	Recent Advances in Energy Based Image Compression Arthur Depaulis II and Ethan Adams University of North Texas	New Generation of Semiconductors for Photodynamic Therapy: Design and Fabrication Wei Chen, Ph.D. University of North Texas	IEEE in IEEE MC Autonomous and Vehicle Systems Chris Elliott LMCO	Integrated Photonics for Analog Defense Applications Michael Hoff LMCO	The 3 Dimes of Culture Planning Mehmet Onur, CFP® CFP® Fidellman Investments, Inc		
9:25 - 9:55	Students Present Posters during Break	Break in Exhibits Area (Salon B)										
10:00 - 10:55	Hardware Assist: Security for Internet of Things Research Priscilla Dubois, Ph.D. Texas Instruments	Industrial Cyber/OT Robin Torres Catalyst Campus	Best Practices for Hardening End Points and Gateways US Secret Service	Why is Cyber Investment in Hydrogen? Tom Ashby LMCO	Robot-Assisted Manufacturing of Carbon Nanotubes When the Past and Future Collide Mehmet Onur, Ph.D. University of North Texas	Engineering Solutions to Drug Delivery Challenges Jeyaraj Kishor, Ph.D. University of North Texas Health Science Center	Tomorrow's Robotics for Urban Air Mobility Supriya LMCO	Sustainability: Decarbonizing Our Energy Energy: The Economy – How Best to Reduce our Carbon Footprint Shannon Caraway Solar Prime	Deployment Planning Bill Swadlow, ANS		Exhibits Program	
11:00 - 11:55	Poster Judging Students Present to Judges	Planning the Migration to Autonomous Vehicles: Impacting Air and Existing Transportation and Logistics Networks Dan Garrison Highway Research	Applying Model Based System Engineering Practices to CAR LiDAR Production Validation LaTasha Star, Otis Johnson LMCO	DevOps: Not just a Buzzword, but a practice Paul Foster LMCO	TCU Energy Management Gail Henry Texas Christian University	Edge AI: Addressing the Efficiency Paradox Colleen Bailey, Ph.D. University of North Texas	Enhancing Gene Therapy with Carbon Nanotechnology Anton V. Naumov, Ph.D. Texas Christian University	The Sky is Not the Limit Yuh-Jong Lee LMCO	Brown Combined High Energy Fiber Laser Wang Systems	Managing Risk in AI Environments Brad Walker Merrill Lynch Wealth Management		
12:00 - 1:15	Poster Awards	<p>Lunch Program – SALON A: Keynote Address: Microgrids Mike Dempsey Barr &amp; McInerney</p> <p>Student Poster Competition Awards – Salon B</p>										Lunch Break with Conference
1:25 - 2:00	Students Display/Poster Judging Take down Posters	Networking in Exhibits Area (Salon B)										Exhibits Program Resumes
2:00 - 2:10	Student Display/Poster Judging Take down Posters	IoT and AI/ML Heriberto Rodriguez LMCO	Manufacturing Value Steven Lincoln LMCO	Cybersecurity in Quantum Era – IEEE Post-Quantum Crypto Lily Wang, Ph.D. NCS	New Developments in the Utilization of Wide-Area Electric Grid Information with Application to Grid Interconnection Tariq Alshaykh Texas A&M University	Cybersecurity in Quantum Era – IEEE Post-Quantum Crypto Lily Wang, Ph.D. NCS	Development of Cancer Trap for Cancer Diagnosis Lijiang Tang, Ph.D. University of Texas at Arlington	An Overview of a New Practical Parameter Identification Methodology Based on Adaptive Standard Theory James A. Reaney LMCO	A Novel Free-photon method for rapidly removing COVID-19 emissions in indoor and outdoor environments Dale W. Winters, Winters Research Services Incorporated	Market Update Harris Frame Watershed Advisors	Exhibit Program ends All exhibitors invited to Reception.	
3:30 - 3:40		Break in Exhibits Area (Salon B)										
3:45 - 4:40		Efficient and Effective IoT Security for the Smart Industry Sujan Kulkarni, Ph.D. Texas A&M University	How the US Improves System Engineering Standards Updates to the International Standards Organization (ISO) Floyd Felt, Jesse Weaver LMCO	Cyber Endgame: Eliminating the Safety Problem Aaron Egan, Ph.D. Microsoft Cyber	Battery Energy Storage Systems (BESS): Today, Tomorrow, and the Future in Smart Grid Solutions Christopher Sanderson Oxans	Quantum Software Engineering: New Software Design Guidelines and Development of Quantum Applications Victory Omeke Catalyst	Interfacial Tension of Target Tissue as a Practical Screening Tool for Candidate Drug Products Michael Katselopoulos, Ph.D. University of North Texas Health Science Center	High Reliability Electronics for Demanding Aerial & Hypermotion Applications Ralph Brewer LMCO	Light extraction from OLED Yuanbin Liu, Ph.D. University of North Texas	Exxon Mining/Processing Jared McNeill Galaxy	Exhibits Tear Down begins right after break – Exhibitors invited to Reception	
4:45 - 7:30		Reception Program – SALON A										