

# 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 TBD	Meeting Room TBD	Meeting Room TBD	Meeting Room TBD	Room TBD	Meeting Room TBD	Meeting Room TBD	Meeting Room TBD	Meeting Room TBD	Meeting Room TBD	Meeting Room TBD	Salon B
	Student Posters Chair: Daniel Johnson Co-Chair: TBD	Internet of Things Chair: Gopal Hegdekar Co-Chair: Prabhu Sundaresan	Software and Systems Engineering Chair: Krishna Reddy Co-Chair: James Wiley	Developing and Deploying Secure Systems Chair: Pradya Kulkarni Co-Chair: Pradya Kulkarni	Power and Energy Chair: David Walker Co-Chair: TBD	Quantum Computing and Computational Intelligence Chair: Gopal Hegdekar Co-Chair: Prabhu Sundaresan	Biotechnologies Chair: Anupam Co-Chair: Don Oshroff	Autonomous and Vehicle Systems Chair: Chao Zhang Co-Chair: TBD	Photonics Chair: Carlos Gonzalez Co-Chair: TBD	Engineering and Financial Planning Chair: Steve Wines Co-Chair: TBD			Exhibits Schedule Chair: Jim Thompson Co-Chair: TBD
7:30	Put up Posters	Welcome Address Diane Collier, IEEE MetroCon 2022 General Chair											
7:45 - 8:25		Plenary Address – SALON A, EY Presentation Josh Lupt and Frederic Dubois IBM Co											
8:30 - 9:25	Put up Posters	3D Printing in Robotics: How Changing the Way Industries are Manufactured Peter Johnsson Amplicomm	The History of Executive MSEC: Black Box Models A Black Box Model Analysis of an Intermediate Configuration Aircraft Austin I. Ayoubian, Ph.D. North Carolina A&T State University	Teresa Meritis LMCO	Innovation in E-C-ESG Jesse Brink Bain & Star	Recent Advances in Energy Based Image Compression Arthur Depaulis II and Ethan Adams University of North Texas	New Generation of Sensitizers for Photodynamic Therapy: Design and Better Wei Chen, Ph.D. University of North Carolina	Info in IEEE MC: Autonomous and Vehicle Systems Chris Elliott LMCO	Integrated Photonics for Analog Defense Applications Michael Hoff LMCO				Set up Meet at Sun
9:25 - 9:55	Students Present Posters during Break	Break in Exhibits Area (Salon B)											
10:00 - 10:55	Hardware Assisted Security for Internet of Things Pradya Kulkarni, Ph.D. Texas Instruments University	Industrial Cyber/OT Robin Terence Calsity Campus		Cortney Harvey LMCO	Why is Chlorine in Hydrogen? Tom Anthony LMCO	Advancements and Applications Najim Abbarbadi, Ph.D. University of North Carolina	A Multi-Modal Small Molecule that Can Target Oxidative Stress in Multiple Diseases Karthikeyan, Ph.D. Texas Christian University	Towards the Development of Autonomous Systems Brendyn Schutt Supernatal	Sustainability: Decarbonizing Our Energy Future: The Economy – How Does the Business of Energy Change? Shannon Caraway Solar Prime				Exhibits Program
11:00 - 11:55	Poster Judging Students Present to Judges	IoT Dan Garretson	Applying Model Based System Engineering Pathways to CAR LiDAR Production Readiness LaTasha Star, Otis Johnson LMCO		TCU Energy Management Curt 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 LMCO	Brown Combined High Energy Fiber Laser Wavelength Systems Habelle Smith & A Ochiara Raytheon Technology				
12:00 - 1:15	Poster Awards	Lunch Program – SALON A: Keynote Address: Microgrids Mike Dempsey Boris & McCornell											
		Student Poster Competition Awards –											
1:25 - 2:00		Networking in Exhibits Area (Salon B)											
2:00 - 2:10	Students display/poster winning posters Take down Posters	IoT and AI/ML Toby Botagoud	Manufacturing Value Steven Lincoln LMCO		New Developments in The Virtualization of WSA-Area Electric Information with Application to Grid Interconnection Tad Oshroff Texas A&M University	Post-Quantum Cryptography Liy Chen, Ph.D. LMCO	Development of Cancer Therapies for Cancer Diagnosis and Treatment Lijiang Tang, Ph.D. University of Texas at Arlington	Autonomous Vehicle and Safety Ahead John Soto LMCO	A Novel low-physics method for rapidly screening COVID-19 antibodies in blood and plasma Dale Walters Weisense Raytheon Sensors Incorporated				Exhibits Program Resumes
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 Empires System Engineering Standards Updates to the International Standards Organization (ISO) Floyd Fay, Jesse Weaver LMCO		Battery Energy Storage Systems (BESS) Today, Tomorrow, and the Future's Smart Grid Solutions Christopher Swadlow Oxenset		Interfacial Tension of Target Tissue as a Practical Screening Tool for Cancer Drug Products Michael Kastellorakis, Ph.D. University of North Texas Health Science Center	High Reliability Electronics for Demanding Aerial & Hypersonic Applications Rupa Brewer LMCO	Light extraction from OLED Yunshun Liu, Ph.D. University of North Texas				Exhibits Tear Down begins right after break – Exhibitors invited for Reception
4:45 - 7:30		Reception Program – SALON A											