



TEXPO 2022 Participants

	Authors/Presenters	Faculty	University	Title	E M F x i a c c b e r r l o i l s c e y a n s t c t i e e o m n i s n	M I W i n o c n m r o e o v n s a y t s i t o e n m s b y	A E M C D M w x i A e e a c c D s t r e r i h d l o T g o l s o n d f e y o o o n s l l r c t s o e e g m a y i s n n d	B M I R I N I C T A R E N O G S R L Y A S T B T I A E O R M N G S E	CMC Requested Equipment	Researcher Provided Equipment	Software in Use/Licensing
1	Mostafa Khalil	Lawrence Chen	McGill University	Electrically Reconfigurable Waveguide Bragg Gratings for Multiple Tunable Wavelength-Division Multiplexing Filters	x						COMSOL Multiphysics
2	Mousa Karimi	Benoit Gosselin	Université Laval	Energy-efficient buck converters leveraging asymmetric deadtimes technique.				x		Power supply with three channels and wires, function generator with wires, oscilloscope with probes.	
6	Karim Elkholy	Joe Salfi	University of British Columbia	On-chip Nonlinear Tunable Inductor for Qubit Readout				x			
7	Essam Berikaa / Md Samiul Alam	David Plant	McGill University	Silicon Photonic Modulators for Next-Generation Optic Transceivers				x			
8	Ahmedreza Motaqi	Fadhel Ghannouchi	University of Calgary	Digital Pre-Distortion for next Generation of Wireless Transmitters			x				
9	Amirhossein Omidvar / Robert Rohling / Anthony Hodgson	Edmund Cretu	University of British Columbia	FlexCMUT, a Flexible Polymer-based Micromachined Ultrasound Array for Conformal Imaging	x						
10	Hanieh Kiani Amiri	Michal Okoniewski	University of Calgary	Active loaded Rotman lens retrodirective antenna		x				Precision's power supply (1mv accuracy) with two independent outputs, minimum two ports PNA or VNA	
11	Maryam Moradpour	Mohammad Zarifi	University of British Columbia	High-Resolution PEDOT:PSS-based Planar Organic Microwave Resonators as a Platform for Gas Sensing		x				VNA, DC power supply.	
12	Yunus Dawji / Zhongpan Wu / Abel Beyene	Sebastian Magierowski	York University	HERACLES: Heterogeneous RISC-V ASIC Chip Modules a framework for shared next-gen ASIC development across independent teams in advanced CMOS nodes			x				
13	Abbas Panahi /Hamed Osouli Tabrizi	Ebrahim Ghafar-Zadeh	York University	Novel OG-JFET Sensing Platform				x		The HW/SW package will be provided by us.	COMSOL
14	Hassan Kianmehr	Raafat Mansour	University of Waterloo	Design and Fabrication of Tunable Microwave devices by Integrating Nematic Liquid Crystal	x						
15	Abbas Panahi	Ebrahim Ghafar-Zadeh	York University	ESP Simulator: A Cloud-based COMSOL Multiphysics Simulation Application for Electronic Sensing Platform (ESP): Open-Gate Junction Field Effect Transistor (OG-JFET)			x				COMSOL
16	William Lemaire	Réjean Fontaine	Université de Sherbrooke	Infrared-Powered Artificial Retina based on a 65-nm CMOS stimulator ASIC				x			
17	Sheida Gohardehi	Manoj Sachdev	University of Waterloo	Dual-Driver Pixel Circuit and Associated Drivers for Low-Power OLEDoS Microdisplays		x					
18	Amir Raeesi	Wael Abdel-Wahab	University of Waterloo	A Ka-Band Active Transmit Phased-Array Antenna-in-Package for SATCOM-on-the-Move User Terminals.				x			
19	Roberto Silva / Rahul Gulve	Roman Genov	University of Toronto	Coded-Exposure-Pixel (CEP) Camera for Scene-Adaptive Single-Shot HDR and 3D Imaging at Standard Video Rate			x				



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20	Jordin McEachern	Jean-Francois Bousquet	Dalhousie University	Passive Localization Algorithm using a Highly Integrated Acoustic Sensor Array				x			
21	Omid Niksan / Aaryaman Shah	Mohammad H. Zarifi	University of British Columbia	Conformal Microwave Resonator Sensor for Aerospace Ice Accretion Detection				x			
22	Anthony Haman / Guillaume Dion	Julien Sylvestre	Université de Sherbrooke	Automotive mechanical anomaly detection with neuromorphic MEMS accelerometers				x			
23	Arnaud Samson	Réjean Fontaine	Université de Sherbrooke	The new generation of LabPET ASIC for depth of interaction measurement and compact integration in magnetic resonance scanners.	x						
24	Ahmed Abuelnasr	Yvon Savaria	Université de Montréal	High Voltage Deadtime Generator Adaptive to Process and Mismatch Variations for Monolithic High-Efficiency Power Amplifiers: Design & Technology Porting				x		A 4-channel oscilloscope RTM3004-Two Agilent E3631A power supplies-a Keysight function generator 33600A	
25	Jose Sales Filho	Roman Genov	University of Toronto	Bidirectional Peripheral Nerve Interface With 64 Second-Order Opamp-Less $\Delta\Sigma$ ADCs	x						
26	Ribwar Ahmadi / Amin Abnavi	Michael Adachi	Simon Fraser University	Self-powered Photodetector Based on Silicon-Water	x					Light source and Keithly 2400	
27	Ehsan Fallahnia	Ammar Kouki	École de technologie supérieure	A monolithic LTCC-MEMS microfabrication process				x		VNA Power supply	
28	Kleber Hugo	Manoj Sachdev	University of Waterloo	Design and Implementation of Secure RISC-V Microprocessor				x			
29	Julien Posso	Guy Bois / Yvon Savaria	Polytechnique Montreal	Real-time CNN-based Spacecraft Pose Estimation on low-cost Xilinx Ultrascale MPSoC board				x			
30	Mostafa Amer	Yvon Savaria	Université de Montréal	Integrated Combined Input-voltage Feedforward and Voltage-Mode Feedback Controllers for Better Load and Line Regulation of Buck Converter				x	Tektronix MSO2024 Mixed Signal Oscilloscope (16 digital channels, 1Gs/s)	Two-channel waveform generator Four-channel power supply Programmable AC source	
31	Mahrokh Namazi	Kartikeya Murari	University of Calgary	Wireless Fiber Photometry System Based on SIPM and the AD5934 Impedance Converter				x	Agilent DSOX 3034 Mixed Signal Oscilloscope (4 Channels, 500 MHz, 16 Digital Channels); Keithley 2400 Source Meter	Power Supply, Function generator	
32	Vahideh Shirmohammadli	Behraad Bahreyni	Simon Fraser University	3D Printed Computers: Reality or a Dream?				x		NI system Power Supply, multimeter	NI Labview
34	Suraj Sharma	Frederic Nabki	École de technologie supérieure	A 1 x 5 MEMS Optical Switch with Integrated SiN Waveguides				x		High power sources and connecting cables required for the MEMS actuator demonstration.	
35	Zahra Mohammadrezaee	Boris Vaisband	McGill University	NFC-Controlled Fingernail-Wearable with Flexible Display for Decorative Purposes				x			