

ECE Faculty Research Areas as of November 24, 2011

Professor	Office	Ext.	Email	Research Areas
Faculty Emeriti				
Professor Phil Alexander	107B, EH	5033	alexand@uwindsor.ca	Electromagnetic Fields and Effects; Electromagnetic Theory; Microwave Systems; Electromagnetic Compatibility; Electromagnetic Systems Modelling.
Dr. Graham Jullien			jullien@atips.ca	Microelectronic Circuits; Architectures and Systems; Digital Signal Processing; Computer Arithmetic.
Dr. Reuben Hackam	107B, EH	2573	hackam@uwindsor.ca	Power Engineering; High Voltage Engineering; Power Systems.
Dr. William Miller	107B, EH	2512	wmiller@uwindsor.ca	MEMS, Microelectronics; Neural Networks; Digital Signal Processing.
Dr. G.R.G. Raju	107B, EH	3885	raju@uwindsor.ca	Electrical Power; High Voltage Engineering; Insulating Materials.
Professor and Head				
Dr. Maher Sid-Ahmed	222, EH	x2570	ahmed@uwindsor.ca	Machine Vision; Digital Signal Processing; Image Processing.
University Professor				
Dr. Majid Ahmadi	142 EH	2576	ahmadi@uwindsor.ca	Computer Vision and Image Processing; Pattern Recognition; Computer Arithmetic; Encryption; Neural Networks.
Professors				
Dr. Chunhong Chen	256 EH	2574	cchen@uwindsor.ca	Synthesis and Optimization of Digital Integrated Circuits; VLSI Computer-Aided Design; High-Performance Low-Power Systems Design; Nanoelectronic Circuits and Nanoarchitectures.

Professor	Office	Ext.	Email	Research Areas
Professors continued				
Dr. Xiang Chen	238 EH	2571	xchen@uwindsor.ca	Network Based Control System; Robust and Nonlinear Control; Vision Based Motion Control; Control Applications in Automotive and Manufacturing Systems.
Dr. Shervin Erfani	315 EH	4797	erfani@uwindsor.ca	Computer and Network Security; Data Networking; Communication Network Management; Multidimensional Digital Filter Realization.
Dr. H. K. Kwan	323 EH	2569	kwan1@uwindsor.ca	Advanced techniques in fuzzy neural networks and digital filters for intelligent genomic sequence and medical image processing.
Dr. Mehrdad Saif Dean, Faculty of Engineering	242, EH	2566	msaif@uwindsor.ca	Systems and control theory; Model based fault detection and diagnostics; Linear and nonlinear controller/observer design; Large scale systems; Optimal and intelligent control.
Dr. Jonathan Wu Tier I CRC "Automotive Sensors and Sensing Systems"	136A EH	2580	jwu@uwindsor.ca	Computer vision, active vision, embedded vision; Machine learning, statistical pattern recognition; Biomedical image analysis; Wireless sensor systems, micro fuel cells and sensors, sensor fusion.
Associate Professors				
Dr. Esam Abdel-Raheem	25 Drama	4795	eraheem@uwindsor.ca	Signal Processing for Communications; Digital Signal Processing; VLSI Signal Processing Systems.
Dr. Sazzadur Chowdhury	24 Drama	4794	sazzadur@uwindsor.ca	Microelectromechanical Systems (MEMS)-based Sensors and Actuators; MEMS-based Acoustical Microsensor Arrays with Beamforming and Beamsteering Capability; 3-D Acoustical Sensing using MEMS.
Dr. Narayan Kar Tier II CRC "Hybrid Drivetrain Systems" Cross Appointed with MAME	23 Drama	4796	nkar@uwindsor.ca	Design and development of new motor and control technologies for electric and hybrid electric vehicles; Electric vehicle battery simulation, testing and charging; Simulation and testing of electric and hybrid electric vehicles; Design and control of self-excited and doubly-fed induction generators in wind power application.

Professor	Office	Ext.	Email	Research Areas
Associate Professors continued				
Dr. Mohammed Khalid	252 EH	2611	mkhalid@uwindsor.ca	Architectures and CAD Tools for Rapid Prototyping; Verification Acceleration and Reconfigurable Computing; Physical Design Automation for VLSI and FPGAs; Embedded System Design using FPGAs; Novel Applications of FPGAs in DSP and Networking.
Dr. Roberto Muscedere	22 Drama	4798	rmusced@uwindsor.ca	VLSI Design; Computer Arithmetic; Implementation of DSP Algorithm; Low Power Design; High Speed Design; Memory Architectures EDA and Custom Tools; Verilog and VHDL; Hardware Synthesis.
Dr. Behnam Shahrava	326 EH	2572	shahrav@uwindsor.ca	Statistical and Adaptive Signal Processing and their applications, primarily in Wireless Communications.
Dr. Kemal Tepe	21, Drama	3426	ktepe@uwindsor.ca	Wireless Communications; Computer Networks; Ad-Hoc (Sensor) Networks; Wireless Communication Protocols.
Dr. Huapeng Wu	230A EH	2568	hwu@uwindsor.ca	Computer and Communication Security; Computer Architecture and Arithmetic; Efficient Algorithm and Implementation for DSP; Computations in Finite Rings and Fields.
Assistant Professor				
Dr. Mitra Mirhassani	230A, EH	2585	mitramir@uwindsor.ca	Analog and mixed-signal integrated circuit design; Implementation of neural networks; Multiple valued logic.
Dr. Ali Tahmasebi (LTA - May 1, 2010 to December 31, 2012)	107B, EH	2510	atam@uwindsor.ca	Power system dynamics: modeling, operation, control and stability; Flexible AC transmission systems (FACTS); Alternative energy sources.
Cross Appointments				
Dr. Boubakeur Boufama	8113, LT	3776	boufama@uwindsor.ca	Computer Vision; 3D reconstruction, camera calibration, video-surveillance and augmented reality.

Professor	Office	Ext.	Email	Research Areas
Cross Appointments continued				
Dr. Roman Maev	292, EH	2649	maev@uwindsor.ca	Use of sound waves to look into materials and to display the results in an easy-to-intrepret image on a computer screen; Will apply similar technology using high frequencies to penetrate metal and other materials; Developing new ways to integrate this technology into portable equipment.
Dr. Bill Zhou	230B, EH	2630	bzhou@uwindsor.ca	Fuel Cell; Diesel, Engine; Nano-materials; Fuel Cell Vehicle (FCV); Hybrid/Electric Vehicle (HEV); Aircraft Engine; Computational Fluid Dynamics (CFD); Clean Coal Combustion Technology; Fluid Mechanics; Heat Transfer; Combustion; Environmental Issues.
Adjunct Professors				
Dr. Khashayar Khorasani (working with Dr. Saif)			kash@ece.concordia.ca	Analysis and Control of Nonlinear Systems; Fault Detection, Isolation and Recovery; Diganosis, Prognosis and Health Management; Cooperative and Autonomous Control System Identification and Adaptive Control; Neural Network Theory and Applications.
Dr. Gholam-Abbas Nazri (working with Dr. Ahmadi)			ganazri1@comcast.net	Material Characterization and Energy Storage Devices and Batteries.
Dr. David Pravica (working with Dr. Shahrrava)			davidpravica@cvrglobal.com	Biomedical Engineering.
Adjunct Associate Professor				
Dr. Rachid Benlamri (working with Dr. Boufama)			rbenlamr@lakeheadu.ca	Multimedia & Sematic Video; Semantic Web, Mobile Learning, Distributed Computing.
Adjunct Assistant Professor				
Dr. Rashid Rashidzadeh (Manager, RCIM Lab)	253, EH	3931	rashidz@uwindsor.ca	Analog/RF Integrated Circuits; Mixed-Signal Testing; Radio Frequency Identification (RFID); RF MicroElectroMechanical Systems (MEMS); Integrated Wireless Communication Systems.