



WELCOME TO THE
ANALOG &

MIXED SIGNAL RESEARCH LAB



The Analog and Mixed Signal (AMS) Research Lab at the University of Windsor:

- State-of-the-art workstations and measurement instruments for Analog and Mixed Signal Research
- Focuses on Analog and Mixed Signal Circuit Designs in bulk CMOS and SOI technologies, Semiconductor Devices for neural networks, high-frequency data converters and communication circuits
- Is dedicated to the development of complex electronics systems where incoming inputs (temperature, image, voice and pressure) from a sensor can be used to act on or make a decision
- Is involved in hardware design of adaptive, trainable neural networks to be used in non-invasive fault detection programs in production lines or detection of various tumour shapes in the human body, for example
- Expertise in designing and safeguarding hardware chips in automobiles and cell phones against information-stealing
- Facilitates testing and characterization, specifically, full speed time / frequency domain testing and device characterization and modeling
- Creates designs with full CAD support which includes schematic capture, simulation, layout, verification, and process simulation when necessary
- Access to Cadences and Synopsys tools for research and teaching activities

To learn more about how you can get involved with the AMS Research Lab, contact Dr. Mitra Mirhassani of the Department of Electrical and Computer Engineering by email at mitramir@uwindsor.ca or call 519.253.3000 ext. 2585.