McGill

DEPARTMENT OF
ELECTRICAL AND COMPUTER ENGINEERING

Area of Research and Applicant Profile Form

Name:				
Email address:			Tel No.:	
Degree sought:	☐	Masters	☐	Ph.D.

FUNDING

Would you like to be considered for financial support?	☐	Yes
	☐	No
If financial support is not available, would you like to be considered for admission without financial support?	☐	Yes
	☐	No

AREA OF RESEARCH

Listed below are the ten areas of research in the Department of Electrical and Computer Engineering. In accordance with your on-line application form, again indicate your 1st and 2nd choice of research group. If you wish, you may indicate which sub-areas of your two choices interest you most. If you check none of the sub-areas, we will assume that you are equally interested in all sub-areas. For details and lists of professors associated with each research area, visit www.mcgill.ca/ece/research.

	BIO-ELECTRICAL ENGINEERING		
☐	CMOS sensor microsystems	☐	Brain/Body machine interfaces
☐	MEMS and microfluidics	☐	Systems neurosciences
Preferred supervisor(s):			

	COMPUTATIONAL ELECTROMAGNETICS
☐	Computational methods in microwave
☐	Computational methods in power-frequency electromagnetic
☐	Intelligent design methods
Preferred supervisor(s):	

	INTEGRATED CIRCUITS AND SYSTEMS
☐	Analog, digital, mixed-signal, microwave/RF integrated circuits; integrated microsystems and MEMS
☐	Computer Aided Design for analog and digital microsystems
☐	Embedded systems, reconfigurable computing and FPGAs/signal processing hardware
☐	Mixed signal testing and design for testability/manufacturability (DFT/DFM)
☐	Signal integrity, electromagnetic compatibility packaging and antennas in integrated systems
Preferred supervisor(s):	

INTELLIGENT SYSTEMS

☐	Computer vision	☐	Medical image processing
☐	Human computer interaction	☐	Robotics

Preferred supervisor(s):

NANO-ELECTRONIC DEVICES AND MATERIALS

☐	Nanoscale optoelectronics	☐	Carbon electronics
☐	Semiconductors and devices	☐	Organic nano material and devices
☐	Integrated and flexible piezoelectric/ultrasonic devices		

Preferred supervisor(s):

PHOTONIC SYSTEMS

☐	Nonlinear optics	☐	Photonic sensing and monitoring
☐	Photonic integrated circuits, nano-photonics, opto-electronics and fiber components		
☐	Fiber optics communications, transmission systems and networks		
☐	Optical data/computer devices and communications		

Preferred supervisor(s):

POWER ENGINEERING

☐	High power electronics	☐	Distributed generation
☐	Power system operations and planning		

Preferred supervisor(s):

SOFTWARE ENGINEERING

☐	Cyber-physical systems	☐	Internet-scale software
☐	Mining software repositories	☐	Model-driven engineering
☐	Release engineering	☐	Requirements engineering

Preferred supervisor(s):

SYSTEMS AND CONTROL

☐	Robust control systems	☐	Stochastic and adaptive systems
☐	Discrete-event, hybrid and hierarchical control		
☐	Industrial, manufacturing, aerospace and robotic control		
☐	Nonlinear systems, nonholonomic control and optimal control		

Preferred supervisor(s):

TELECOMMUNICATIONS AND SIGNAL PROCESSING

☐	Communication systems	☐	Digital signal processing
☐	Network engineering		

Preferred supervisor(s):

APPLICANT PROFILE

In the following, describe your personal profile in the space allocated. This information will be used to assess your application for admission and to consider recommendations for funding and awards. Provide enough information to help the committee appreciate your achievements.

Research Experience and Interests: *Comment on why you would like to pursue graduate studies, with a clear identified objective. Further clarify if you have a particular research interest, possibly in the context of past experience and accomplishments. List publications: authors, title, journal, number, year, pages & URL.*

Research Area and Preferred Supervisor: *For the specified research area(s) of interest, briefly but clearly comment on your choice. Further, if you have specified a supervisor(s), state why he or she would be your preferred mentor.*

Academic Profile: *Describe your academic profile, highlighting particular achievements and relevant scholarships or awards.*

Additional Information: *Describe any other relevant information, including, for example, teaching experience, leadership positions, special circumstances, etc.*