

Autonomous, Connected and Networked Vehicles

Carleton's Excellence, Leadership, and Innovation



Robotics, Controls, Guidance and Navigation

Canada's Capital University

17 professors:

 3 Computer Science, 1 Electronics, 9 Mechanical and Aerospace Engineering, 4 Systems and Computer Engineering



LABS

- UAVs and Micro Aerial Vehicles
- JY Wong Lab for Terrestrial and

Extraterrestrial Mobility, Guidance and Control

- Microelectronics Fabrication Facility
- Spacecraft Robotics and Control Laboratory
- Advanced Biomechatronics and Locomotion Laboratory
- Autonomous Space Robotics and Mechatronics Laboratory



Carleton University Rotorcraft UAV project

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30% More Thrust with a Fraction of the noise





- Machine Learning
- Real-Time Operating Systems
- Adaptive and Learning Systems
- Intelligent Transportation Systems



25 professors

 3 Civil Engineering, 5 Computer Science, 2 Electronics, 1 Arts and Social Sciences, 3 Mechanical and Aerospace Engineering, 12 Systems and Computer Engineering

- The Software Quality Engineering Laboratory (SQUALL)
- The Real Time and Distributed Systems (RADS) Lab
- The Network Management and Artificial Intelligence Lab
- The Integrated Systems Inc (ISI) Laboratory



Sensor Technology

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 11 Systems and Computer Engineering, 7 Electronics, 1 Mechanical and Aerospace Engineering, 2 Computer Science, 2 Information Technology

- Embedded Multi-Sensor Systems (EMS) Lab
- Photonics and Sensor Lab
- Silicon Micro/Nano Photonics Lab
- Carleton University Biomedical Engineering (CUBE) Research Laboratory



Carleton University Crash Dummy (CUCD) team

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Wireless Connectivity

Communications, Networks and Systems

22 professors

- 11 Systems and Computer Engineering
- 7 Electronics
- 2 Computer Science
- 2 Information Technology

- Mobile Computing Laboratory
- Microwave and Electromagnetics Laboratory
- Radio Communications Laboratory



Connecting Autonomous Vehicles in Ottawa

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15 professors

5 Computer Science, 1 Information Technology, 9 Systems and Computer Engineering



- Carleton Computer Security Lab
- Carleton's Human Oriented Research in Usable Security (CHORUS) lab
- Sensor Systems and Internet of Things Lab



VSIM Centre

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Human cognition & visualization, modelling and simulation



carleton.ca/auto

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