Graduate Studies in the Department of Electrical and Computer Engineering

Dr. T.A. Gulliver, Graduate Advisor

Meeting with term 4A students - class of 2009

July 18, 2008 9:30 AM ECS 116

The Department

- Thirty-three regular and emeritus faculty
- Twelve full-time and part-time staff
- Over five hundred undergraduate and graduate students
- ECE faculty members are engaged in a wide variety of innovative research projects
- One Fellow of the Royal Society of Canada, nine Fellows of the IEEE, five Fellows of the EIC, one Lansdowne Chair, four Canada Research Chairs
- Research funding in 2006 over $2.1M
  - NSERC over $1.5M

ECE Graduate Programs

Master of Engineering (M.Eng.)

- 12 units of course work
- 3 units ELEC 598 M.Eng. Project
- 1 unit ELEC 509 Seminar

Master of Applied Science (M.A.Sc.)

- 9 units of course work
- 12 units ELEC 599 M.A.Sc. Thesis
- 1 unit ELEC 509 Seminar

Doctor of Philosophy (Ph.D.)

- 6 or 15 units of course work
- 30 units ELEC 699 Ph.D. Dissertation
- 1 unit ELEC 609 Seminar

'Fast Track' Master's Option

Outstanding undergraduate students have the opportunity for a head start in a Master's program.

Qualified students will be permitted to enroll in graduate level courses during their fourth year. These courses will be in addition to any undergraduate requirements and thus can be transferred to the M.Eng. or M.A.Sc. degree programs.

All of the admission and transfer credit regulations of the Faculty of Graduate Studies must be met.

M.Eng. Options

Mechatronics and Embedded Systems Option

Students in the M.Eng. program who want to focus in Mechatronics and Embedded Systems are encouraged to select a course pattern from a given number of 400- and 500-level courses. Undergraduate students in the Mechatronics option may transfer directly to the M.Eng. (Mechatronics option) upon completion of their undergraduate degree.

Software Engineering Option

Students in the M.Eng. program who want to upgrade their skills to include the design, development, implementation, maintenance and management of large software systems for a variety of applications are advised to select a certain course pattern for Systems, Software, or Management of Software.

Admission to a Master's Program

- A bachelor's degree (B.Eng.) from an accredited and recognized institution (such as UVic)
- A grade point average of 5.0 (B) in the work of the last two years (30 units) leading to this degree
- A student, whose GPA is below 5.0 (B) can be admitted as a *Mature Student* (Master's program only) four years after completion of the bachelor's degree.
- Note: The minimum GPA of 5.0 (B) also applies to Fast-Track Master's students

Funding

- NSERC Scholarships (CGS M – $17,500, PGS M – $17,300)

- UVic Fellowships

-Pacific Century Graduate Scholarships

-President's Research Scholarships

-David F. Strong and Howard E. Petch Research Scholarships

+ additional awards

- Research Assistantships (RAs) from research grants / contracts

- Departmental Teaching Assistantships (TAs)

NSERC

- NSERC Scholarships are awarded by the Natural Sciences and Engineering Research Council
  - http://www.nserc.gc.ca/
- NSERC supports approximately 23,000 students
- Funds over 11,000 Professors
- Helps about 1,300 Canadian companies to invest in university research and training
- Over the last ten years, NSERC has invested more than $6 billion in basic research, university-industry projects, and training

Research Areas

- http://www.ece.uvic.ca/researchareas.shtml

- Communications, Signal Processing and Control
- Computers, Software and Networking
- Electronics and Energy
- Electromagnetics and Photonics
- Materials and Devices

- Faculty research interests:

  http://www.ece.uvic.ca/fac-research.shtml

Research Groups

- Applied Computer Vision Algorithms – **ACVA**
- Applied Electromagnetics Group – **BIOELEC**
- Centre for Advanced Materials and Related Technologies – **CAMTEC**
- Communications Networks Laboratory – **CN**
- Computer-Aided Design of Microwave Integrated Circuits – **CADMIC**
- Computational Electromagnetics Research Laboratory – **CERL**
- Digital Signal Processing Group – **DSPG**
- Information Security and Object Technology – **ISOT**
- Information Security and Privacy Research – **InSPiRe**
- Integrated Microsystems Research Group – **IMS**
- Laboratory for Advanced Wireless Communications Research – **LAWCR**
- Laboratory for Parallel and Intelligent Systems – **LAPIS**
- Ocean Engineering Research Group – **OER**
- Optical Systems and Technology Laboratory – **OSTL**
- Signal Processing in Communications – **SPROCOM**

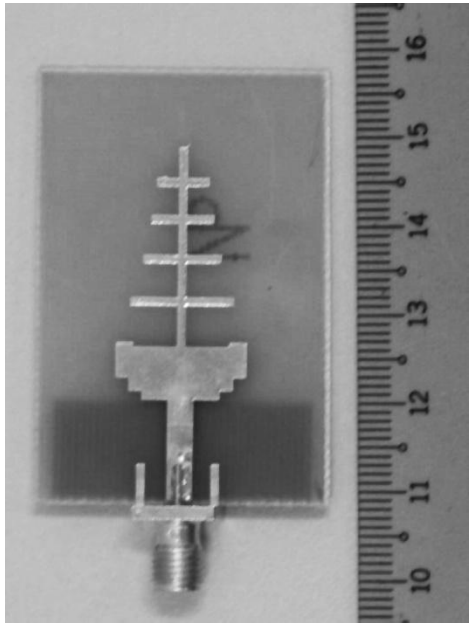
The CADMIC Group

RF/wireless/microwave/millimeter-wave components and systems design

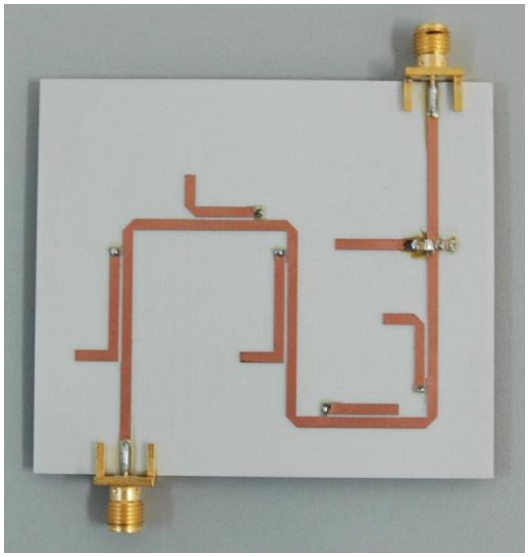
Current Projects: Ultra-wideband (UWB) antennas and filters

Wireless base station and satellite components

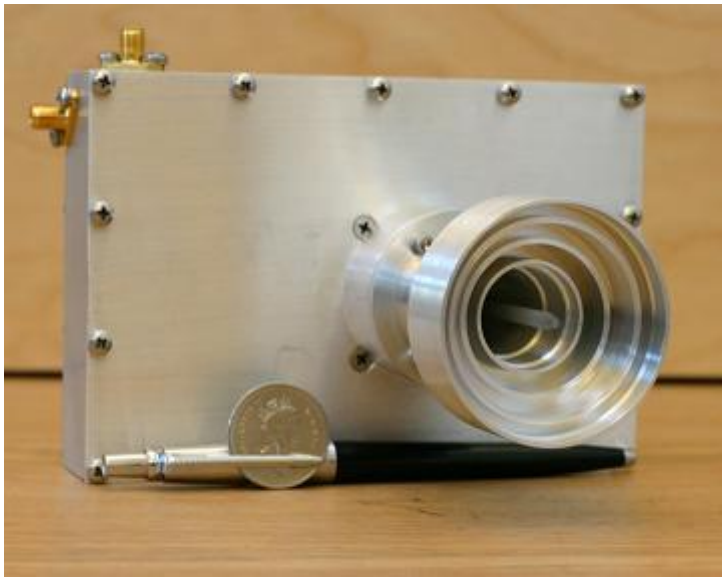
Examples:



UWB Antenna 6-43 GHz



Stopband filter for GSM, WLAN, WIMAX and tunable ISM suppression in UWB systems



Dual-band (12/30 GHz), dual-polarization (HP, VP) feed system for a Very Small Aperture Terminal (VSAT)

Co-Operative Education

- Co-operative education is an option for both the Master's and PhD degrees.
- Co-operative work terms are not for credit towards a degree; however, they will be shown on the transcript.
  - Two work terms are required for the Master's program
  - Three work terms are required for the PhD program

- Procedure: The student registers for Co-Op with the approval of the Supervisor.

Joint MBA/M.Eng. Program

- New program for 2009
- 2+ years to complete both degrees
- Includes a Co-Op component

Interested students contact:

Dr. Aaron Gulliver, EOW 323

250-721-6028

gradadv@ece.uvic.ca

For more information download the

Graduate Students Admissions Handbook