

David C. Garrett

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Current position

Master's of Science Candidate, University of Calgary

Areas of specialization

Radio frequency engineering • Biomedical devices

Education

2011-2016	BSc in Electrical Engineering with Biomedical Specialization, University of Calgary	GPA: 3.9/4.0
2016-Present	MSC in Electrical Engineering, University of Calgary	GPA: 4.0/4.0

Honours & awards

MAJOR SCHOLARSHIPS

2016-2017	NSERC Canada Graduate Scholarship - Master's (CGS-M)	\$17,500
2016-2017	Alberta Innovates Technology Futures (AITF) Master's Scholarship	\$38,500
2011-2016	Seymour Schulich Academic Excellence Award	\$34,200

AWARDS

2016	IEEE Microwave Theory and Techniques Society (MTT-S) Undergraduate Scholarship
2015-2016	Dr. Cy Frank/Tenet Biomedical Engineering Scholarship
2015	Schulich Engineering Award for Poster Presentation, Student's Union Research Symposium
2015	Clearest Message Poster, Alberta Biomedical Engineering Conference
2015	Best Presentation: Biomechanics and Imaging, Biomedical Engineering & NSERC CREATE Undergraduate Summer Research Symposium
2012, 2015	NSERC Undergraduate Student Research Award (USRA)

Publications & talks

JOURNAL ARTICLES

- 2017 David C. Garrett, Jeremie Bourqui, and Elise C. Fear (2017), “[Antenna Calibration Method for Dielectric Property Estimation of Biological Tissues at Microwave Frequencies](#)”, *Progress in Electromagnetics Research* Vol. 158, pp 73-87

MAGAZINE ARTICLES

- 2016 Tushar Sharma, Bruce Rout, David Garrett, and Anis Ben-Arifi (2016), “[Siksika Nation: The future is looking up](#)”, *IEEE Canadian Review*, No. 77, pp 14-19.

CONFERENCE PAPERS

- 2017 David C. Garrett, Jeremie Bourqui, and Elise C. Fear (2017), “Microwave Sensing Approaches to Monitoring Physiological Responses”, *32nd Union of Radio Science General Assembly and Scientific Symposium (URSI GASS)*, Montreal, Canada. [Accepted]
- 2017 Jeremie Bourqui, Sasha M. Zarnke, Jacob R. Budzis, David C. Garrett, Daphne J. Y. Mew, and Elise C. Fear (2017), “Bulk Permittivity Variations in the Human Breast over the Menstrual Cycle”, *11th European Conference on Antennas and Propagation (EuCAP)*, Paris, France. [Accepted]
- 2016 David C. Garrett, Bryce A. Besler, Jeremie Bourqui, Elise C. Fear (2016), “Estimating Bulk Dielectric Properties of Biological Tissues at Microwave Frequencies”, *Antenna Technology and Applied Electromagnetics (ANTEM)*, *17th International Symposium on*, Montreal, Canada.
- 2015 Bryce A. Besler, David C. Garrett, Steven K. Boyd, Elise C. Fear, “A Principle Investigation into the Feasibility of using Microwave Imaging to Monitor Bone Health”, *Journal of Undergraduate Research in Alberta*, Calgary, Canada.
- 2015 David C. Garrett, Bryce A. Besler, Jeremie Bourqui and Elise C. Fear, “Estimating Dielectric Properties of Biological Tissue”, *Journal of Undergraduate Research in Alberta*, Calgary, Canada.
- 2012 Jared Bancroft, David C. Garrett, and Gerard Lachapelle (2012), “Activity and Environment Classification using Foot-mounted Navigation Sensors”, *Indoor Positioning and Indoor Navigation (IPIN)*, *2012 International Conference on*, Sydney, Australia

Employment

- 2014-2015 Engineering Intern, dielectric testing and characterization, *ABB Corporate Research Center*, Baden-Daettwil, Switzerland
- 2012-2014, 2016 Community Advisor, *University of Calgary Residence*, Calgary, Canada

Extracurricular Leadership

- 2016-Present Design engineer, *BClean Technologies*, Calgary, Canada
- 2016-Present Chair, University of Calgary Microwave Theory and Techniques Society (MTT-S) Student Chapter
- 2016-Present President, [University of Calgary Amateur Radio Club](#)
- 2016-Present Technical volunteer, Siksika First Nation