

**Safieddin Safavi-Naeini, Professor, P. Eng., FIEEE**  
**NSERC-BlackBerry Industrial Research Chair in Intelligent Radio Systems**  
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## Curriculum Vitae

### 1. Degrees Received

<u>Degree</u>	<u>Institution</u>	<u>Department</u>	<u>Year</u>
Ph.D. (hons.)	University of Illinois at Urbana-Champaign, Illinois, USA	Department of Electrical and Computer Engineering	1979
M.Sc. (hons.)	University of Illinois at Urbana-Champaign, Illinois, USA	Department of Electrical and Computer Engineering	1976
B.Sc. (first rank)	University of Tehran, Tehran, Iran	Department of Electrical and Computer Engineering	1975

### 2. Employment History

<u>Dates</u>	<u>Position</u>	<u>Department</u>	<u>Institution</u>
2003-	Professor	Electrical and Computer Engineering	University of Waterloo, Waterloo, Canada
2004-	NSERC-Blackberry Industrial Research Chair in Intelligent Radio-Antenna Technologies	Electrical and Computer Engineering	University of Waterloo, Waterloo, Canada

2007-	Director of the Center for Intelligent Antenna and Radio Systems (CIARS)	Electrical and Computer Engineering	University of Waterloo, Waterloo, Canada
1997-2003	Associate Professor	Electrical and Computer Engineering	University of Waterloo, Waterloo, Canada
1995-1996	Visiting Associate Professor	Electrical and Computer Engineering	University of Waterloo Waterloo, Canada
1990-1997	Associate Professor	Electrical and Computer Engineering	University of Tehran, Tehran, Iran
1990-1992, 1993 (May-October), 1994 (May-October)	Visiting Research Associate Professor	Electrical and Computer Engineering	University of Waterloo Waterloo, Canada
1980-1990	Assistant Professor	Electrical and Computer Engineering	University of Tehran, Tehran, Iran

### 3. Professional Activities

2007-2010	Technical and Scientific Advisor to Verisante Inc. (former T-Ray Science Inc.)
2004-	Co- founder of Intelwaves Inc. (Waterloo, ON)
2001-	Technical and Scientific Advisor to Farsightech Inc. (Waterloo, ON)
2001-	Technical and Scientific Advisor to RFTune Inc. (Ottawa, ON)
1991-	Provided scientific consulting services to a number of Canadian and USA companies such as Nortel Networks, Ericsson (Canada, USA, Sweden), BlackBerry (former RIM), ComDev, Kapsch (former Mark IV), AEL (USA), Ashtec (USA), HP (Canada, USA), Nokia (Finland), BVERI (China), ...
1980-1995	Consultant Scientist and Principal Investigator in several government-sponsored projects in the areas of optical and microwave communication systems/subsystems, analysis, implementation and performance evaluation for Iran Electronic Industries (IEI) and R&D Group (a government research and development organization).
1986-1994	Project Planner, Director, and Supervisor of a long term development plan for modernization and expansion of present facilities and establishment of two new research laboratories in the University of Tehran in the following areas: Automated Microwave/Millimeter Wave and Optical Measurement and Modeling Center, Computerized Complex Antenna Measurement Center, and Thin Film Technology Laboratory.
1985-	Principle Scientist, participated in design and development of optical, RF and microwave communication systems and subsystems for Iran Communication Industries (ICI), Tehran, IRAN.

## 4. Publications

Books:	1
Book chapters:	2
Papers in refereed journals:	153
Papers in refereed conference proceedings:	330
Patents	14
Technical Reports	65
Invited talks:	40

## 5. Center for Intelligent Antenna and Radio Systems

To respond to the critical need of a growing number of active researchers in millimeter-wave-THz field, nominee directed an extensive (\$14M) infrastructure project, funded through a successful CFI/ORF (Canada Foundation for Innovation and Ontario Research Fund) grant application, which led to the establishment of the Center for Intelligent Antennas and Radio System (CIARS), which will soon become a national center in this field. Nominee proposed the idea of CIARS and led all stages of proposal development, intensive competition for funding, infrastructure planning, and construction until its completion in Dec.2012. CIARS is a world-class facility composed of 6 laboratories housing state-of-the-art circuit and electromagnetic field measurement. The millimeter-wave/THz circuit characterization lab (up to 1.1THz), THz-photonics lab (up to infrared), and near-field measurement laboratories (up to 1.1THz) provide national/international researchers with a measurement capability (MHz-THz), which is unique in Canada and among the best in the world.

CIARS is now composed of six laboratories:

1. Main Electromagnetic Radiation Lab (ERL), which includes 4 near-field setups and one conventional range setup, which can support a wide range of electromagnetic field measurements over the broad range of frequencies (200 MHz to 110 GHz) as well as an advanced EMC lab
2. Millimeter-wave/THz planar near-field lab (10 GHz to 500 GHz, soon extended to 1.1 THz)
3. THz-Photonics lab which can support CW/Pulse THz measurement up to few THz using both photo-mixing and microwave multiplier (harmonic up-conversion) methods
4. Sub-THz/Millimeter-wave lab which can support network analysis (4-port PNAX-based), spectrum analysis, and signal generation, and noise figure measurements up to 500 GHz (soon extended to 1.1 THz)
5. Rapid prototyping lab, which can support high-precision multi-layer microwave/millimeter-wave planar circuit/antenna fabrication
6. Outdoor road-track for car-to-car/car-to-roadside communication for intelligent transportation system (ITS).