

## UNIVERSITY OF VICTORIA

## FACULTY CURRICULUM VITAE

**Name:** GEBALI, Fayez**Department:** Elec. & Comp. Eng.**Faculty or School:** Engineering**Citizenship:** Canadian**Employment Date:** 1 September 1984**Last Revised:** 2 March 2018

## 1 Degrees and Diplomas

Degree	Field	Institution
PhD	Elec. Eng.	University of British Columbia
B.Sc. (Hon.)	Applied Mathematics	Ain Shams University
B.Sc. (Hon.)	Elec. Eng.	Cairo University

**Title of Thesis or Dissertation**

The Photo-refractive Effect in Lithium Niobate and its Applications

## 2 Major Fields of Scholarly, Professional, and Research Interests

- Dataflow computing
- Parallel algorithms and parallel computing
- Computer security
- Hardware implementations of crypto-processors
- Hardware implementations of DSP algorithms

## 3 Scholarships, Fellowships, Honors, and Awards

Inclusive Years	Title/Position	Institution/Organization
Sep 2007– Aug 2008	Visiting Professor	Kuwait University
1996	Visiting Professor	King Fahd University of Petroleum & Minerals
1983–1984	Research Associate	University of Waterloo
1979–1982	Research Associate	Simon Fraser University
1975–1979	Research Assistant	University of British Columbia
1972–1986	Instructor	Cairo University

## 4 Appointments at University of Victoria

<b>Inclusive Years</b>	<b>Rank</b>	<b>Department</b>
Jul. 1991–	Professor	Elec. and Comp. Eng.
May 1987–Jun. 1991	Associate Professor	Elec. and Comp. Eng.
Jul. 1986–Apr. 1987	Associate Professor	Elec. Eng.
Sep. 1984–Jun. 1986	Assistant Professor	Elec. Eng.

### 4.1 Administrative-Formally Designated positions carrying a stipend and/or release time

<b>Inclusive Years</b>	<b>Title</b>	<b>Academic Unit</b>
Jul. 2011–June 2016	Chair	Faculty of Engineering
Jan. 2011–June 2011	Acting Chair	Faculty of Engineering
Jul. 2002–June 2007	Associate Dean	Faculty of Engineering

## 5 Membership and Offices Held in Learned and Professional Societies

Institute of Elec. and Electronics Engineers (IEEE)	Technical Committee on Parallel Processing	2011-present
	Technical Committee on Security and Privacy	2011-present
	Technical Committee on VLSI	2011-present
Canadian Society of Information Theorists (CSIT)	Member	1999
Association of Professional Engineers and Geoscientists of British Columbia (APEGBC)	Member	June 1985–
Association of Professional Engineers of Egypt	Member	June 1972–
Institute of Elec. and Electronics Engineers (IEEE)	Member	1976–82
	Senior Member	1983–present.

## 6 Scholarships, Fellowships, Honors, and Awards

Year(s)	Source	Title
Oct. 2010	Faculty of Eng.	Commendation from the Chair on course evaluations
Dec. 2006	ICICT'06	Certificate of Appreciation from the 4 <sup>th</sup> IEEE Int. Conf. on Information & Comm. Technology (ICICT'06)
Dec. 2005	ICICT'06	Certificate of Appreciation from the 3 <sup>rd</sup> IEEE Int. Conf. on Information & Comm. Technology (ICICT'05)
2004	Faculty of Eng.	Faculty of Eng. Award for Teaching Excellence ( <a href="http://www.engr.uvic.ca/teaching-award.php">http://www.engr.uvic.ca/teaching-award.php</a> )
2003	Faculty of Eng.	Nominated for Faculty of Eng. Award for Teaching Excellence
Feb. 2003	Faculty of Eng.	Invited by Eng. Graduating Class to give a speech at their Graduation Banquet
Aug. 2002	Faculty of Eng.	Commendation from the Chair on my course evaluations
Dec. 2001	ISSPIT'01	Certificate of Appreciation from the 1 <sup>st</sup> IEEE Sym. on Signal Processing and Information Technology (ISSPIT'01)
Oct. 2001	Faculty of Eng.	Commendation from the Dean on course evaluations
June 2001	Faculty of Eng.	Commendation from the Chair on course evaluations
Sep. 1999	Faculty of Eng.	Commendation from the Dean on course evaluations
June 1999	Faculty of Eng.	Commendation from the Dean on course evaluations
Sep. 1998	Faculty of Eng.	Commendation from the Chair on course evaluations
Sep. 1986	Faculty of Eng.	Elected Best Teacher by undergraduate students
Apr. 1986	Faculty of Eng.	Commendation from President of Faculty Association for Best Teacher Award
Oct. 1985	Faculty of Eng.	Commendation from the Chair on course evaluations
Mar. 1985	Faculty of Eng.	Commendation from the Chair on my course evaluations
1976–1979	NSERC	Post Graduate Scholarship \$7000 (p.a.)
1975–1979	University of British Columbia	Research Assistantship \$3,000 (p.a.)
1974–1976	University of British Columbia	President's Award \$3,500 (p.a.)
1967–1974	Egyptian Government	Outstanding Student Academic Award L.E. 120 (p.a.)

## 7 Publications

Publications Career Number:

Books	6
Chapters in Books	12
Refereed Journals	104
Refereed Conferences	200
Technical Reports	19

### 7.1 Books

1. F. Gebali, "Analysis of Computer Networks, second edition", Springer-Verlag, New York, 2015
2. F. Gebali, "Algorithms and Parallel Computers", John Wiley, Chinese Translation by Tsinghua University, 2012.

3. F. Gebali, “Algorithms and Parallel Computers”, John Wiley, New York, 2011.
4. F. Gebali, “Analysis of Computer and Communication Networks”, Springer-Verlag, New York, 2008.
5. F. Gebali, H. Elmiligi and M.W. El-Kharashi, “Networks-On-Chips: Theory and Practice”, CRC Press/ Taylor and Francis Group LLC, Boca Raton, Florida, 2008.
6. F. Gebali, “Comp. Comm. Networks: Analysis and Design, Third Edition”, Northstar Digital Design Inc., Victoria, 2005.

## 7.2 Chapters in Books

1. Aaron Gulliver, Nicholas Houghton, Samer Moein, Fayez Gebali and Abdulrahman Alkandari, “Automated Hardware Trojan Detection in FPGAs”, in Recent Advances in Cryptography and Network Security, Pinaki Mitra, editor, Intech, Rijeka, Croatia, 2018.
2. **Sherif Saad**, Fayez Gebali and Watheq El-Kharashi, “Architecting for Biometric Authentication as a Service (BaaS)”, Isaac Woungang (Editor),
3. **Nick Houghton**, Samer Moein and Fayez Gebali, “The Hardware Trojan System: An Online Suite of Tools for Hardware Trojan Analysis”, in “Information Security Practices”, Issa Traoré, Ahmed Awad and Isaac Woungang, ed., Springer, pp. 39–53, January 2017 [http://link.springer.com/chapter/10.1007/978-3-319-48947-6\\_4](http://link.springer.com/chapter/10.1007/978-3-319-48947-6_4)
4. **S. Moein** and F. Gebali, “Quantifying Overt Hardware Attacks: Using ART Schema”, in Lecture Notes in Computer Science, Ed. James J. (Jong Hyuk) Park, Ivan Stojmenovic, Hwa Young Jeong, and Gangman Yi, vol. 330, Springer, 2015, pp. 511–516.
5. **A. Morgan**, **H. Elmiligi**, M. El-Kharashi, and F. Gebali, “Bio-inspired NoC Architecture Optimization”, in *Autonomic Networking-on-Chip: Bio-inspired Specification, Development, and Verification*, Ed. P. Cong-Vinh, CRC Press, 2010.
6. **Y. Abdel-Hamid**, F. Gebali and T.A. Gulliver, “Random Access and Contention Strategies in WiMAX”, in *WiMAX Network Planning and Optimization*, Ed. Y. Zhang, CRC Press, 2009, pp. 73–91.
7. **M.W. El-Kharashi**, F. Gebali and K.F. Li, “Stack dependency resolution for Java processors based on hardware folding and translation: A byte code processor analysis”, in *Java Microprocessors*, Ed. M. Wolczko and N. Vijaykrishnan, Kluwer, 2002.
8. **H. Fattah** and F. Gebali, “Analysis of frame-based fair queuing under self-similar traffic”, in High Performance Computing Sys. and Applications, Eds. N.J. Dimopoulos and K.F. Li, Chap. 17, pp. 161–174, Kluwer, 2002.
9. **M.W. El-Kharashi**, F. Gebali and K.F. Li, “A new methodology for stack operation for Java microprocessors”, in *High Performance Computing Sys. and Applications*, Eds. N.J. Dimopoulos and K.F. Li, Chapter 17, pp. 235–251, Kluwer, 2002.
10. **H. Fattah**, **M.W. El-Kharashi** and F. Gebali, “Frame-based fair queuing: A hardware design for ATM networks”, in *High Performance Computing Sys. and Applications*, Eds. N.J. Dimopoulos and K.F. Li, Chap. 17, pp. 149–160, Kluwer, 2002.
11. F. Elguibaly, **S. Sunder** and A. Antoniou, “Systolic implementation of FIR filters”, in Signal Processing V: Theories and Applications, (L. Torres, E. Masgrau, and M.A. Lagunas, Eds.). Amsterdam: Elsevier Science Publishers B.V., pp. 1423–1426, 1990.
12. K. Colbow and F. Elguibaly, “Theory and practice of CdSe semiconductor-electrolyte junction solar cells”, in *Alternate Energy Sources*, Ed. T. N. Veziroglu, Amsterdam: Elsevier Science Publishers B.V., pp. 353–365, 1983.

### 7.3 Refereed Journal Publications

1. **Ahmed Youssef**, Peter F. Driessen, Fayez Gebali, and Moa Belaid, “On Time Compression Overlap-Add Technique in Linear Frequency Modulation Pulse Compression Radar Systems: Design and Performance Evaluation”, *IEEE Access*, vol 5, no. 1, pp. 27526–27537, December 2017.
2. Atef Ibrahim, Turki Alsomani, and Fayez Gebali, “New Systolic Array Architecture for Finite Field Inversion”, *Canadian Journal of Electrical and Computer Engineering*, vol. 40, no. 1, pp 23–30, 2017.
3. A. Ibrahim, T. Alsomani and F. Gebali, “Scalable and Unified Digit-Serial Processor Array Architecture for Multiplication and Inversion Over  $GF(2^m)$ ”, *IEEE Transactions on Circuits and Systems I: Regular Papers*, vol. 64, no. 11, pp. 2894–2906, 2017.
4. **Tamer Rakia**, Hong-Chuan Yang, Fayez Gebali and Mohamed-Slim Alouini, “Cross Layer Analysis of P2MP Hybrid FSO/RF Network”, *Journal of Optical Communications Networks*, Optical Society of America, vol. 9, no. 3, pp. 234–243, 2017.
5. **Awos Kanan**, Fayez Gebali and Atef Ibrahim, “Design Space Exploration of 2-D Processor Array Architectures for Similarity Distance Computation”, *IEEE Transactions on Parallel and Distributed Systems*, Final Acceptance Jan 2017.
6. **Nick Houghton**, Samer Moein and Fayez Gebali, “Automated Hardware Trojan Detection in FPGAs”, *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, Accepted Jan 2017.
7. A. Ibrahim, T. Alsomani and F. Gebali, “Efficient Scalable Digit-Serial Inverter over  $GF(2^m)$  for Ultra-Low Power Devices”, *IEEE Access*, December 2016, Digital Object Identifier: 10.1109/ACCESS.2016.2639039.
8. Atef Ibrahim and Fayez Gebali, “New Systolic Array Architecture for Finite Field Inversion”, *Canadian Journal of Electrical and Computer Engineering*, vol. 40, no. 1, pp. 23–30, 2017.
9. Atef Ibrahim, Hamed Elsimary, Abdullah Aljumah and Fayez Gebali, “Reconfigurable Hardware Accelerator for Profile Hidden Markov Models”, *Springer’s Arabian Journal of Science and Engineering*, vol. 41, pp. 3267–3277, 2016.
10. Atef Ibrahim and Fayez Gebali, “Low Power Semi-Systolic Architectures for Polynomial-Basis Multiplication over  $GF(2^m)$  Using Progressive Multiplier Reduction”, *Springer Journal of Signal Processing Systems*, vol. 82, no. 3, pp. 331–343, 2016.
11. Fayez Gebali and Atef Ibrahim, “Multiplier Architecture over  $GF(2^m)$  Progressive Product Reduction”, *IEEE Transactions on VLSI Systems*, Accepted with revisions, 2016.
12. Samer Moein; Thomas Aaron Gulliver; Fayez Gebali; Abdulrahman Alkandari, “A New Characterization of Hardware Trojans”, *IEEE Access*, vol. 4, pp. 2721–2731, 2016
13. H. Elmiligi, F. Gebali and M. W. El-Kharashi, “Multi-dimensional Analysis of Embedded Systems Security”, *Springer Microprocessors and Microsystems*, vol. 41, pp. 29–36, Mar, 2016.
14. Fayez Gebali and Atef Ibrahim, “Low Space-Complexity and Low Power Semi-Systolic Multiplier over  $GF(2^m)$  Based on Irreducible Trinomial”, *Springer Microprocessors and Microsystems*, vol. 40, pp. 45–52, Feb 2016.
15. Samer Moein , Fayez Gebali and T. Aaron Gulliver, “Hardware attacks: an algebraic approach”, *Springer Journal of Cryptographic Engineering* vol. 6, no. 4, pp 325–337, Nov, 2016.
16. Atef Ibrahim and Fayez Gebali, “Low Power Semi-Systolic Architectures for Polynomial-Basis Multiplication over  $GF(2^m)$  Using Progressive Multiplier Reduction”, *Springer Journal of Signal Processing Systems*, vol. 82, no. 3, pp. 331–343, April 2016.

17. F. Gebali and A. Ibrahim, "Efficient Scalable Serial Multiplier Over  $GF2^m$  Based on Trinomial", IEEE Transactions on Very Large Scale Integration VLSI, vol. 23, no. 10, pp. 2322–2326, October 2015.
  18. **Tamer Rakia**, Hong-Chuan Yang, Mohamed-Slim Alouini and Fayez Gebali, "Outage Analysis of Practical FSO/RF Hybrid System with Adaptive Combining", IEEE Communications Letters, vol. 19, no. 8, pp. 1366-1369, 2015.
  19. **Tamer Rakia**, Hong-Chuan Yang, Fayez Gebali and Mohamed-Slim Alouini, "Power Adaptation Based on Truncated Channel Inversion for Hybrid FSO/RF Transmission With Adaptive Combining", IEEE Photonics Journal, vol. 7, no. 4, pp. , 2015. Open-access.
  20. Atef Ibrahim, Fayez Gebali, and Turki Al-Somani, "Systolic Array Architectures for Sunar-Koc Optimal Normal Basis Type II Multiplier", IEEE Transactions on Very Large Scale Integration, vol. 23, no. 10, pp. 2090-2102, October 2015.
  21. Atef Ibrahim and Fayez Gebali, "Optimized Structures for Hybrid Ripple Carry and Hierarchical Carry Lookahead Adders", Elsevier Microelectronics Journal, vol. 46, no. 9, pp. 783–794, Sep 2015.
  22. Haytham Elmiligi, Fayez Gebali and M. Watheq El-Kharashi, "Power-aware Mapping for 3D-NoC Designs Using Genetic Algorithms", Elsevier Procedia Computer Science, vol. 34, pp. 538–543, 2014.
  23. **Samer Moein**, Fayez Gebali and Issa Traore, "Analysis of Covert Hardware Attacks", Journal of Convergence Information Technology, vol. 5, no. 3, pp. 26–30, Sep. 2014.
  24. Atef Ibrahim, Hamed Elsimary, and Fayez Gebali, "Low-Power, High-Speed Unified and Scalable Word-Based Radix 8 Architecture for Montgomery Modular Multiplication in  $GF(P)$  and  $GF(2^n)$ ", Springer Arabian Journal of Science and Engineering, vol. 39, pp. 7847–7863, 2014.
  25. M. Abd-El-Barr and F. Gebali "Reliability Analysis and Fault Tolerance for Hypercube Multicomputer Networks", Elsevier Journal of Information Sciences (INS), vol 276, pp. 295–318, August, 2014.
  26. A. A. Morgan, H. Elmiligi, M.W. El-Kharashi, and F. Gebali, "A Unified Multi-Objective Mapping and Architecture Customization of Networks-on-Chip", IET Computers & Digital Techniques, vol. 7, no. 6, pp 282–293, Nov 2013.
  27. H. Elmiligi and M. W. El-Kharashi and F. Gebali, "Power Consumption of 3D Networks-on-Chips: Modeling and Optimization", Springer Microprocessors and Microsystems, vol 37, no. 6–7, pages 530–543, Aug / Oct, 2013
  28. *M.F. Yassin*, "Filtering Effect of Wind Flow Turbulence on Atmospheric Pollutant Dispersion", *Environmental Monitoring and Assessment*, vol. 184, no. 6, pp. 3749–3760, June 2012.
- This paper is based on my work but has been published single-author without my knowledge. Dr. Yassin admitted his bad decision.**
29. **A. Abdullah**, L. Cai and F. Gebali, "DSDMAC: Dual Sensing Directional MAC Protocol for Ad Hoc Networks with Directional Antenna", IEEE Transactions on Vehicular Technology, vol. 61, no. 3, pp. 1266-1275, March 2012.
  30. **Haytham Elmiligi**, **Ahmed A. Morgan**, M. Watheq El-Kharashi and Fayez Gebali, "Improving Networks-on-Chip performability: A topology-based approach", Wiley International Journal of Circuit Theory and Applications, vol. 39, pp. 557–572, 2011.
  31. **A. Ibrahim**, F. Gebali, H. Elsimary, and A. Nassar, "Processor Array Architectures for Scalable Radix 4 Montgomery Modular Multiplication Algorithm", IEEE Transactions on Parallel and Distributed Systems, vol. 22 , no. 7, pp. 1142–1149, 2011.
  32. **A. Ibrahim**, F. Gebali, H. Elsimary, and A. Nassar, "New Processor Array Architecture for Scalable Radix 2 Montgomery Modular Multiplication Algorithm", Canadian J. of Elec. and Comp. Eng., vol. 34, no. 4, pp. 152–157, 2010.

33. **A. Amer** and F. Gebali, "General Model for Infrastructure Multi-Channel Wireless LANs", *Int. J. of Comp. Networks and Comm. (IJCNC)*, vol. 2, no. 3, pp. 1-11, May 2010.
34. **A. Amer** and F. Gebali, "General Model for Single and Multiple Channels WLANs with Quality of Service Support", *Int. J. of Wireless & Mobile Networks (IJWMN)*, vol. 1, no. 2, November, pp. 1-19, 2009.
35. **H. Elmiligi, A.A. Morgan**, M.W. El-Kharahsi and F. Gebali, "Power Optimization for Application-Specific Networks-on-Chip: A Topology-Based Approach", *Microprocessors and MicroSys.*, vol. 33, no. 5-6, pp. 343-355, August, 2009
36. A. Ibrahim, F. Gebali, H. El-Simary, and A. Nassar, "High-performance, low-power architecture for scalable radix 2 montgomery modular multiplication algorithm", *Canadian Journal of Electrical and Computer Engineering*, vol. 34 , no. 4, pp. 152-157, 2009.
37. **M. N. Marsono**, M. W. El-Kharashi, and F. Gebali, "Spam rejection scheme during SMTP sessions based on layer-3 e-mail classification," *Elsevier J. of Network and Comp. Applications*, vol. 32, no. 1, pp. 236-257, January 2009.
38. **M. N. Marsono**, M. W. El-Kharashi, and F. Gebali, "Targeting Spam Control on Middleboxes: Spam Detection Based on Layer-3 E-mail Content Classification," *Elsevier Comp. Net.*, vol. 53, no. 6, pp. 835-848, 2009.
39. **M N. Marsono**, M. Watheq El-Kharashi, and Fayeze Gebali, "Prioritized E-mail Servicing to Reduce Non-Spam Delay and Loss: A Performance Analysis", *Int. J. of Network Management*, volume 18, pp. 325-344, 2008
40. **E. Khan** and M. W. El-Kharashi and F. Gebali and M. Abd-El-Barr, "Design Space Exploration of a Reconfigurable HMAC-Hash Unit", *J. of Research and Practice in Information Technology (JRPIT)*, vol. 40, no. 2, pp. 109-127, May, 2008.
41. **E. Khan**, M. W. El-Kharashi, F. Gebali, and M. Abd-El-Barr, "Design and Performance Analysis of a Reconfigurable, Unified HMAC-Hash Unit", *IEEE Trans. on Circuits and Sys. I*, vol. 54, no. 12, December, pp. 2683-2695, 2007. Corrections in vol. 55, no. 2, p. 708, Mar. 2008.
42. **H. Elmiligi**, M. W. El-Kharashi and F. Gebali, "Queue Modeling and Implementation for Networks-on-Chip Routers", *J. of Circuits, Sys., and Comp.s*, vol. 16, no. 6, pp. 981-996, Dec, 2007.
43. **M. Marsono**, F. Gebali, M.W. El-Kharashi, "Binary LNS-based naive Bays inference engine for spam control", *IET Proc. Comp. and Digital Techniques*, vol. 2, no. 1, pp. 56-62, 2008
44. **A. Kaheel**, H. Alnuweirie and F. Gebali, "A New Analytical Model for Computing Blocking Probability in Optical Burst Switching Networks", *IEEE J. of Selected Areas in Comm. (JSAC)*, vol. 24, no. 12, December 2006, pp. 120-128.
45. F. Gebali, **M. Rehan** and M.W. El-Kharashi, "A Hierarchical Design Methodology for Full-Search Block Matching Motion Estimation", *Multidimensional Sys. and Signal Processing*, vol. 17, pp. 327-341, 2006.
46. **E. Khan**, M. W. El-Kharashi, F. Gebali, and M. Abd-El-Barr, "Applying handel-C design flow in designing an HMAC-has unit on FPGAs" *IEE Proc. Comp. and Digital Techniques*, vol. 153, no. 5, September 2006, pp. 323-334.
47. F. Gebali and A. Al-Sammak, "Performance of Collaborative Codes in CSMA/CD Environment", *European Trans. on TeleComm.*, vol. 17, no. 5, September/October 2006, pp. 525-531.
48. F. Gebali and A. Al-Sammak, "Modeling CSMA/CA Protocol for Wireless Channels that use Collaborative Codes Modulation", *IEE Proc.: Comm.*, vol. 153, no. 3, pp. 405-409, June 2006

49. **A.N.M. Rafiq** and F. Gebali, "Processor Array Architecture for Deep Packet Classification", IEEE Trans. on Parallel and Distributed Sys., vol. 17, no. 3, pp. 241–252, March 2006.
50. F. Gebali and A. Al-Sammak, "Markov chain analysis of collaborative codes in random multi access Comm. Sys.", Comp. Comm., vol. 28, no. 4, pp. 441–448, 2005.
51. **A.N.M. Rafiq**, M.W. El-Kharashi and F. Gebali, "A fast string search algorithm for deep packet classification", Comp. Comm., vol. 27, no. 11, pp. 1524–1538, 2004.
52. **M.W. El-Kharashi**, F. Gebali, K.F. Li and F. Zhang, "The JAFARDD Processor: A Java architecture based on a folding algorithm, with reservation stations, dynamic translation, and dual processing", IEEE Trans. on Consumer Electronics, vol. 48, no. 4, November, pp. 1004–1015, 2002.
53. **M.W. El-Kharashi** and F. Gebali, "A robust stack folding approach for Java processors: An operand extraction-based algorithm", J. of Sys. Architecture, vol. 47, no. 8, pp. 697–726, 2001.
54. F. Elguibaly, "HCORDIC: A high-radix adaptive CORDIC algorithm", Canadian J. on Elec. and Comp. Eng., vol. 25, no. 4, pp. 149–154, 2000.
55. F. Elguibaly, "Overflow handling in inner-product processors", IEEE Trans. on Circuits and Sys. II: Analog and Digital Signal Processing, vol. 47, no. 10, pp. 1086–1090, 2000. **Recommended by the Associate Editor**
56. F. Elguibaly, "A fast parallel multiplier-accumulator using the modified Booth algorithm", IEEE Trans. on Circuits and Sys. II: Analog and Digital Signal Processing, vol. 47, no. 9, pp. 902–908, 2000. **Recommended by the Associate Editor**
57. F. Elguibaly, "Merged inner-product processor using the modified Booth algorithm", Canadian J. on Elec. and Comp. Eng., vol. 25, no. 4, 2000.
58. **M.W. El-Kharashi**, F. Elguibaly and K.F. Li, "Quantitative study of Java microprocessor architectural requirements. Part I: Instruction set design", Microprocessors and MicroSys., vol. 24, no. 5, pp. 225–236, 2000.
59. **M.W. El-Kharashi**, F. Elguibaly and K.F. Li, "Quantitative study of Java microprocessor architectural requirements. Part II: High-level language support", Microprocessors and MicroSys., vol. 24, no. 5, pp. 237–250, 2000.
60. **A. Rayhan**, F. Elguibaly and **A. Almulhem**, "Fault-tolerant ATM switch using logical neighborhood network", Informatica, vol. 23, pp. 325–334, 1999.
61. F. Elguibaly, " $\alpha$ -CORDIC: An adaptive CORDIC algorithm", Can. J. Elec. and Comp. Eng., "vol. 23, pp. 133–138, 1998.
62. **A. Sabaa**, F. Elguibaly and D. Shpak, "Performance analysis of an improved selective repeat protocol for high-speed networks", Can. J. Elec. & Comp. Eng., vol. 22, no. 1, pp. 29–36, 1997.
63. **A. Sabaa**, F. Elguibaly and D. Shpak, "Design and modeling of a non-blocking input-buffer ATM switch", Can. J. Elec. & Comp. Eng., vol. 22, no. 3, pp. 87–93, 1997.
64. **A. Tawfik**, F. Elguibaly and P. Agathoklis, "New realization and implementation of fixed-point IIR digital filters", J. of Circuits, Sys. and Comp.s, vol. 7, no. 3, pp. 191–209, 1997.
65. **E. Abdel-Raheem**, F. Elguibaly and T. Yeap, "Design of 1-D and 2-D FIR digital filters and complex coefficients using a least-squares approach", Comp.s and Elec. Eng., vol. 23, no. 4, pp. 273–281, 1997.
66. **E. Abdel-Raheem**, E., F. Elguibaly and A. Antoniou, "Design of low-delay two-channel FIR filter banks using constrained optimization approaches", Signal Processing, vol. 48, pp. 183–192, 1996.
67. F. Elguibaly and **A. Tawfik**, "Mapping 3-D IIR digital filters onto systolic arrays", Multidimensional Signal Processing, vol. 7, pp. 7–26, 1996.



68. **S. Kidambi**, S., F. Elguibaly and A. Antoniou, "Area-efficient multipliers for digital signal processing applications", *IEEE Trans. Circuits and Sys.*, vol. 43, pp. 90–95, 1996.
69. **E. Abdel-Raheem**, F. Elguibaly and T. Yeap, "A simple approach for the design of pseudo-QMF banks", *Can. J. Elec. & Comp. Eng.*, vol. 21, no. 4, pp. 153–157, 1996.
70. **E. Abdel-Raheem**, F. Elguibaly and A. Antoniou, "Weighted minimax design of FIR QMF banks: Results and comparisons", *Can. J. Elec. & Comp. Eng.*, vol. 21, no. 2, pp. 61–66, 1996.
71. **S. Sunder**, F. Elguibaly and A. Antoniou, "Two's complement fast serial-parallel multiplier", *IEE Pt. G.*, vol. 142, no. 1, pp. 41–44, 1995.
72. **E. Abdel-Raheem**, E., F. Elguibaly and A. Antoniou, "VLSI array processors for linear phase FIR filters", *Can. J. Elec. & Comp. Eng.*, vol. 20, no. 2, pp. 73–77, 1995.
73. **A. Tawfik**, F. Elguibaly and P. Agathoklis, "New low round-off noise realizations of second-order digital filter sections", *IEEE Trans. Signal Processing*, vol. 43, no. 5, pp. 1255–1258, 1995.
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75. **A. Tawfik**, F. Elguibaly and P. Agathoklis, "Systolic implementation of fixed-point state-space digital filter", *IEE Proc.- Circuits, Devices and Sys.*, vol. 142, no. 3, pp. 193–199, 1995.
76. **E. Abdel-Raheem**, F. Elguibaly and A. Antoniou, "Design of low-delay FIR QMF banks using the Lagrange-multiplier Approach", *Electronics Letters*, vol. 30, no. 12, pp. 924–926, 1994.
77. **S. Sunder**, F. Elguibaly and A. Antoniou, "VLSI implementation of a second-order digital filter", *Can. J. Elec. & Comp. Eng.*, vol. 19, pp. 143–147, 1994.
78. **A. Tawfik**, F. Elguibaly, **M. Fahmi**, E. Abdel-Raheem and P. Agathoklis, "High-speed area-efficient inner-product processor", *Can. J. Elec. & Comp. Eng.*, vol. 19, pp. 187–191, 1994.
79. **E. Abdel-Raheem**, F. Elguibaly and A. Antoniou, "Systolic implementation of FIR decimators and interpolators", *IEE Proc., Circuits, Devices, and Sys.*, vol. 141, no. 6, pp. 489–492, 1994.
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## 7.4 Refereed Conference Publications

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2. **Ibrahim Hazmi** and Dr. Fayez Gebali, "Systolic Design Space Exploration of Polynomial Division over  $\text{GF}(2^m)$ ", 2017 IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE), Windsor, Ontario, May 2017.
3. **Tamer Rakia**, Hong-Chuan Yang, Fayez Gebali and Mohamed-Slim Alouini, "Throughput Analysis of Point-to-Multi-Point Hybrid FSO/RF Network", IEEE ICC, Paris, France, 21-25 May 2017.

4. **Uthman Alsaïari**, Fayez Gebali and Mostafa Abd-El-Barr, “Programmable Assertion Checkers for Hardware Trojan Detection”, IEEE Latin American Symposium on Circuits and Systems, 20-23 February 2017.
5. **Nick Houghton**, Samer Moein and Fayez Gebali,, and T. A. Gulliver, “The Hardware Trojan System: An On-line Suite of Tools for Hardware Trojan Analysis”, International Workshop on Information Security, Assurance, and Trust (I-SAT 2016) <http://i-sat.ca/>
6. **Nick Houghton**, Samer Moein and Fayez Gebali, “An Automated Tool for Evaluating Hardware Trojans and Detection Methods”, The 2016 International Conference on Security and Management (SAM’16) <http://sam.udmercy.edu/sam16/>.
7. **Nick Houghton**, Samer Moein and Fayez Gebali, and T. A. Gulliver, “An Automated Web Tool for Hardware Trojan Classification”, ESCS’16 - The 14th International Conference on Embedded Systems, Cyber-physical Systems, and Applications <http://worldcomp.org/events/2016/conferences/escs2016>
8. Atef Ibrahim, Turki Al-Somani and Fayez Gebali, “Unified Hardware Architecture for Field Multiplication and Inversion in  $GF(2^m)$ ”, World Symposium on Computer Applications and Research, Istanbul, Turkey, 2–4 April 2017.
9. Atef Ibrahim, Turki Al-Somani and Fayez Gebali, “New Scalable Digit-Serial Inverter Over  $GF(2^m)$  for Embedded Applications”, 2016 International Conference on Advances in Electrical, Electronic and Systems Engineering, Putrajaya, Malaysia, 14–16 November 2016.
10. Atef Ibrahim, Turki Al-Somani and Fayez Gebali, “Novel Processor Array Structure for Finite Field Inversion”, The Fourth Intl. Conf. on Tech. Adv. in Elec., Electron. and Comp. Engineering, Kuala Lumpur, Malaysia, 6–8 September, 2016.
11. **T. Rakia**, H.C. Yang and F. Gebali, “Outage Analysis and Optimal Design of Dual-Hop VLC/RF Communication System with Energy Harvesting” IEEE International Conference on Communications (ICC2016): Second Workshop on Optical Wireless Communications, Kuala Lumpur, Malaysia, 23–27 May 2016.
12. H. Elmiligi, M. W. El-Kharashi and F. Gebali, “Design and Implementation of BPSK MODEM for IEEE 802.15.4/ZigBee Devices”, 2016 IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), Vancouver, Canada, 15–18 May, 2016.
13. Moein, Samer ; Gebali, Fayez ; Gulliver, T.Aaron ; El-Kharashi, M.Watheq, “Hardware attack risk assessment”, Tenth International Conference on Computer Engineering & Systems (ICCES), Cairo, Egypt, 23-24 Dec., pp. 346–350, 2015. Included in Your Digital Subscription
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4. F. Elguibaly and M.I. Elmasry, "Stick layout notation for MESFETs and refractory metal FETs", University of Waterloo Elec. Eng. Technical Report P8118-7, 19 pages, 1985.
5. F. Elguibaly, "Si-MESFETs for low-voltage ICs" University of Waterloo Elec. Eng. Technical Report P8118-8, 6 pages, 1985.
6. F. Elguibaly, "Potential of silicon MESFET technology for VLSI", University of Waterloo Elec. Eng. Technical Report P8118-9, 4 pages, 1985.

7. B.C. McKinney and F. Elguibaly., "VLSI design of an FFT processing node", UVic Elec. Eng. Report 86-1, 243 pages, 1986.
8. F. Elguibaly, "A model for surface junction solar cells", UVic Elec. Eng. Report 86-3, 48 pages, 1986.
9. B.C. McKinney and F. Elguibaly, "VLSI design of an FFT processor network", UVic Elec. Eng. Report 86-4, 39 pages, 1986.
10. F. Elguibaly, "Design and analysis of arbitration protocols", UVic Elec. Eng. Report 86-5, 53 pages, 1986.
11. F. Elguibaly, "A high-speed, area-efficient parallel multiplier", Invited talk at Canadian Microelectronics Corporation, Annual Meeting June 15-19, 1987, Kingston, Ontario.
12. F. Elguibaly, "Systolic processing element: 1", for Pacific Microelectronic Centre, Vancouver, B.C., 18 pp., 1990.
13. F. Elguibaly, "Systolic processing element: 1.1", for Pacific Microelectronic Centre, Vancouver, B.C., 15 pp., 1990.
14. F. Elguibaly, "Systolic processing element: 1.2", for Pacific Microelectronic Centre, Vancouver, B.C., 15 pp., 1990.
15. F. Elguibaly, "Systolic processing element: 1.3", for Pacific Microelectronic Centre, Vancouver, B.C., 19 pp., 1990.
16. F. Elguibaly, "Systolic processing element: 1.4", for Pacific Microelectronic Centre, Vancouver, B.C., 13 pp., 1990.
17. F. Elguibaly, "Systolic processing element: 1.5", for Pacific Microelectronic Centre, Vancouver, B.C., 16 pp., 1990.
18. F. Elguibaly, "First progress report", for Pacific Microelectronics Centre, Vancouver, B.C., 4 pp., 1990.
19. F. Elguibaly, "Second progress report", for Pacific Microelectronics Centre, Vancouver, B.C., 4 pp., 1990.

## 8 Post Doctoral, GADUATE, & Undergraduate Student Supervision

Career Number:

	Post Doc.	PhD	MASc	MEng	Undergrad
Completed	6	21	28	17	27
Current	0	10	7	1	0
<b>Total</b>	6	31	35	18	27

### 8.1 Post Doctoral Fellow and Research Associates Supervised

1. Samer Moein, 2016
2. Haytham El Miligi, 2011– 2013
3. Abdel Salam Amer, 2010-2011
4. Dalia El-Dib, 2008– 2009



5. Newaz Rafiq, 2006–2007
6. M. Watheq El-Kharashi, 2006

## 8.2 PhD Students Graduated

1. Tamer Rakia, (Co-supervised with Dr. H.-C. Yang) “Performance Analysis of Hybrid Optical Wireless and Radio Frequency Communication Systems”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 129 pages, July 2016.
2. Samer Moein, (Co-supervised with Dr. T.A. Gulliver) “Systematic Analysis and Methodologies for Hardware Security”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 107 pages, December 2015.
3. Yousry Abdelhamid, (Co-supervised with Dr. T.A. Gulliver) “On Markov Modeling of Random Access in Communication Systems”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 142 pages, April 2012.
4. Ahmed Abdullah, (Co-supervised with Dr. Lin Cai) “Performance Enhancements in Wireless Multihop Ad-Hoc Networks”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 107 pages, November 2011.
5. Khalid Khayyat, “Performance Modelling and QoS Support for Wireless Ad Hoc Networks”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 106 pages, June 2011.
6. Haytham El Miligi, “Networks-on-Chip: Modeling, Analysis, and Design Methodologies”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 106 pages, March 2011.
7. Ahmed Morgan, “Networks-on-Chip: Modeling, System-Level Abstraction, and Application-Specific Architecture Customization”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 106 pages, March 2011.
8. Abdelsalam Amer, “Quality of Service Support with Error Control Protocol in Wireless Local Area Networks”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 130 pages, June 2010.
9. Atef Ibrahim, “Design and VLSI Implementation of a Fast Modular Multiplier Architecture for Cryptosystems”, PhD thesis, Department of Electronics, Cairo University, 180 pages, May 2010.
10. Muhammad Marsono, “Towards Improving E-Mail Content Classification for Spam Control: Architecture, Abstractions, and Strategies”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 162 pages, August 2007.
11. Mohamed Fayed , “A Security Coprocessor for Next Generation IP Telephony: Architecture, Abstraction, and Strategies”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 201 pages, August 2007.
12. Newaz Rafiq, “Sequential and Parallel Algorithms for Network Packet Classification”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 209 pages, August 2006.
13. Esam Khan, “Design and Performance Analysis of a Reconfigurable, Unified Hash Unit for IPsec Authentication”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 120 pages, November 2005.
14. Tarek Nasser, “The Virtual Frame Algorithm: A New Scheduling Technique for Integrated Services in Packet Switching Networks”, PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 120 pages, January 2003.

15. Mohamed W. El-Kharashi "The JAFARDD Processor: A Java Architecture Based on a Folding Algorithm, with Reservation Stations, Dynamic Translation and Dual Processing" PhD thesis, Department of Elec. and Comp. Eng., University of Victoria, 160 pages, November 2002.
16. M. Wedlake, "The Newtonian architecture for virtual landscapes: An architecture, model and implementation", PhD Thesis, Department of Elec. and Comp. Eng., University of Victoria, 159 pages, Aug. 1999.
17. A. Sabaa, "Switching and error recovery in terabit ATM networks", PhD Thesis, Department of Elec. and Comp. Eng., University of Victoria, 133 pages, November 1998.
18. A. Almulhem, "Error correction techniques for ATM Comm.", PhD Thesis, Department of Elec. and Comp. Eng., University of Victoria, 112 pages, Sep. 1998.
19. A. Tawfik, "Realization and implementation of state-space IIR digital filters", PhD Thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 166 pages, September 1995.
20. E. Abdel-Raheem, "Design and VLSI implementation of multirate filter banks", PhD Thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 169 pages, September 1995.
21. S. Kidambi, "VLSI implementation of digital filters," PhD Thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 120 pages, April 1992.

### 8.3 MASC Students Graduated

1. Ansari, Yaseen, "Performance Analysis of P2MP Hybrid FSO/RF Network", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 53 pages, December 2017.
2. Stanley Okeke, "Thermal-Aware and Uniform Priority with Scaled Routing For High-Performance Network-on-Chip", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 68 pages, August 2017.
3. Wilson, Preethy "Inter-Device Authentication Protocol for the Internet-of-Things", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 69 pages, May 2017.
4. Muralidhar, Shubha "Systolic Integer Divider for Sunar-Koç Type 2 Multiplier", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 65 pages, March 2017.
5. Adnan Ahmed, "Investigating The Effect of Virtual Channel on The Performance of Network-on-Chip", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 51 pages, December 2016.
6. Kareem Moeen, "Progressive Product Reduction for Polynomial Basis Multiplication over  $GF(3^m)$ ", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 51 pages, December 2016.
7. Nick Houghton, "Automated Trojan Detection and Analysis in Field Programmable Gate Arrays", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 76 pages, December 2016.
8. Mnar Alnaghesh, "An Approach to Defend Against Black hole Attacks in Ad Hoc Networks: Node Clustering AODV Protocol (CAODV)", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 77 pages, October 2015.
9. Koray Kilingç, "Ship Detection and Property Extraction in Radar Images on Hardware", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 54 pages, July 2015.
10. Salman Khan, "VHDL Implementation and Performance Analysis of two Division Algorithms", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 75 pages, July 2015.
11. Ali Alzahrani, "CRT-Based Somewhat Homomorphic Encryption Over the Integers", MASc Thesis, Department of Elec. and Comp. Eng., University of Victoria, 75 pages, May 2015.

12. Ali Nia, "VHDL Implementation of Systolic Array Architecture for Polynomial  $GF(2^m)$  Multiplication", MASC Thesis, Department of Elec. and Comp. Eng., University of Victoria, 43 pages, April 2013.
13. Abdul-Elah Al-Sanad, "Phi-MAC: An Energy-Aware Multi-Phase MAC Protocol for Wireless Sensor Networks" MASC Thesis, Department of Elec. and Comp. Eng., University of Victoria, 78 pages, June 2005.
14. Mohamed Fayed, "Evaluating the Performance of the Hierarchical Parallel Scheduler (HPS) Using OPNET Simulation" MASC Thesis, Department of Elec. and Comp. Eng., University of Victoria, 120 pages, December 2002.
15. Anjum Shaikh, "VLSI Design of Improved Logical Neighborhood Network" MASC thesis, Department of Elec. and Comp. Eng., University of Victoria, 90 pages, May 2002.
16. D. Arora, "Performance analysis of virtual routing and queuing (VRQ) switch", MASC thesis, Department of Elec. and Comp. Eng., University of Victoria, 120 pages, December 2001.
17. H. Fattah, "Frame-based fair queuing: Analysis and design", MASC thesis, Department of Elec. and Comp. Eng., University of Victoria, 111 pages, July 2000.
18. O. Mohamed, "ILN switching element design and performance measure", MASC thesis, Department of Elec. and Comp. Eng., University of Victoria, 82 pages, January 2000.
19. S. Agarwal, "Design and performance evaluation of a new ATM switch", MASC thesis, Department of Elec. and Comp. Eng., University of Victoria, 118 pages, December 1998.
20. M. El-Nour, "Media access and error control protocols for wireless ATM", MASC Thesis, Department of Elec. and Comp. Eng., University of Victoria, 67 pages, Dec. 1997.
21. A. Al-Sawi, "HCORDIC: A high-performance CORDIC algorithm", MSc Thesis, Comp. Eng. Department, King Fahd University & Petroleum and Minerals, 129 pages, Dec. 1996.
22. J. Gilderson, "VHDL design of an ATM switch", MASC thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 150 pages, December 1995.
23. M. Fahmi, "Inner-product processor design for DSP", M.A. Sc. Thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 80 pages, September 1994.
24. G. Mund, "Switching element design for BISDN," expected MASC thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 100 pages, September 1992.
25. A. El-Maleh, "Image compression using one-dimensional vector quantization", MASC Thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 104 pages, Sept. 1991.
26. M.S. Tariq, "Systolic Array design and VLSI implementation for a matrix algebra engine", MASC thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 150 pages, Sept. 1990.
27. P. Aubry, "VLSI design of a testable processor array for feature extraction", MASC Thesis, Dept. of Elec. & Comp. Eng., University of Victoria, 103 pages, May 1988.
28. B.C. McKinney, "The VLSI design of a general purpose FFT processing node", MASC Thesis, Dept. of Elec. Eng., University of Victoria, 243 pages, January 1986.

## 8.4 MEng Students Graduated

1. Fan Zhou, “Study of Extended Euclidean and Itoh-Tsujii Algorithms in  $GF(2^m)$  Using Polynomial Basis”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, January 2019.
2. Noman Lashari, “Performance Analysis of Hybrid FSO/RF Communication System”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, December 2017.
3. Tahir Khan, “Performance Analysis of XY Routing Algorithm Using 2-D Mesh ( $M \times N$ ) Topology”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, August 2017.
4. Khamis Elnawaa, “Performance Evaluation for Adaptive Modulation Wireless System over Rayleigh Fading Channel Using Finite State Markov Chain (FSMC) Technique” MEng report, Department of Elec. and Comp. Eng., University of Victoria, August 2017.
5. Khatri, Ajay “Popularity Based Product Rationing System Using Bayesian Model”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, August 2017.
6. Sidhu, Shivraj, “Evaluating CO<sub>2</sub> Emissions of Klitsa B.C. Ferry Using Different Propulsion Architectures”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, April 2017.
7. Alamri, Mohamed, “Securing the Constrained Application Protocol (CoAP) for the Internet of Things (IoT)”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, April 2017.
8. Khan, Ahsan “Simulating NoC Mesh and Torus Topologies”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, February 2017.
9. Usama Khan, “Achieving Quality of Service in Medium Scale Network Design Using Differentiated Services”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, September 2016.
10. Rana Tufail, “Review of Routing Protocols in VANETs”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, August 2016.
11. Jahnabi Phukan, “The UARx (Universal asynchronous receiver-Serial to Parallel Converter)”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, December 2015.
12. Abdulmajeed Alghamdi, “Speed Comparison of Binary Adders Techniques”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, December 2015.
13. Abdullah Alqhtani, “Interference Mitigation in Multi-Tier Heterogeneous Network using Reinforcement Learning”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, May 2015.
14. Rami Sulimani, “Domino MAC: A wireless Sensor Networks Medium Access Control Protocol with low-latency enhancement”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, April 2013.
15. Abdullah Taha, “Comparative Implementation of Baugh-Wooley and Modified Booth Multiplication Algorithms”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, August 2009.
16. Lamia Hanosh, “The Bluetooth Wireless Technology Architecture and Operation”, MEng report, Department of Elec. and Comp. Eng., University of Victoria, September 2005.
17. Saleh Arhim, “Linear Programming Applications in Networking” MEng report, Department of Elec. and Comp. Eng., University of Victoria, 90 pages, July 2002.

## 8.5 Undergraduate Project Supervision

1. Brandon Tapp, Erik Kalf, Raymond Zhi Zeng and Vincent Stupka, "Parking Lot Capacity Meter", ELEC 499 Design Project 2, May-Aug 2014.
2. K. Loftis, G. Soles, R. Carr, B. Mahlman and M. Alghamdi, "eyeController: AutoCAD Camera Manipulation Tool", ELEC 499 Design Project 2, Jan-Apr 2014.
3. Kirstie Lehman, Said Ali Hossaini, and Justin McRae, "QuSAR Quadcopter Urban Search and Rescue", ELEC 499 Design Project 2, Jan-Apr 2014.
4. Z. Erasmus, K. Lehman, M. Klimishyn, T. Rollerson, and S. A. Hossaini, "Quadcopter Urban Search and Rescue", ELEC 399 Design Project 1, Sep-Dec 2013.
5. J. Chow, B. Tapp, R. Zeng, V. Zhai, "Parking Capacity Counter", ELEC 399 Design Project 1, Sep-Dec 2013.
6. M. Alghamdi, D. Unuigboje, A. Saleh, H. Li and Y. Lu, "iSense: Emotion Detection for the Quadreplegics", ELEC 399 Design Project 1, Sep-Dec 2013.
7. M. Azam, K. Matzanke, E. Schastlivenko, A. David, "IdealGrow: Smart Greenhouse System", ELEC 499 Design Project 2, May-Aug 2013
8. G. Allegretto, G. Davidson, J. Small, P. Bjornert and M. McLean, "Car-Link", ELEC 499 Design Project 2, May-Aug 2013
9. Graham Allegretto, D. Findlay, P. Bjornert and M. Mclean, "Car-Link Enhanced Adaptive Cruise Control", ELEC 399 Design Project 1, Sep-Dec 2012
10. Jarrod Ferguson, Taylor Coulthard, and Evgeny Schastlivenk, "Autonomous Quadcopter", ELEC 399 Design Project 1, Sep-Dec 2012
11. Carissa Ouelette, Sean Cunningham, Ben Mahlman, and Matt Holland, "A Customizable, Headphone-Based Spatial Audio Core for Generalized Use Within Third-party Programs" ELEC 399 Design Project 1, Sep-Dec 2012
12. Sean McCullagh, Hallan Currie, and Ian Flanagan, "Smart Bus" ELEC 399 Design Project 1, Sep-Dec 2012
13. Kevin Klein and Linxuan Yang, "Communication System for Extremen Environments", ELEC 399 Design Project 1, May-Aug 2012
14. Xianya Guo, Emily Huang, Benson Hung and Lara Juras, "Design a Smart Bus System", ELEC 399 Design Project 1, May-Aug 2012
15. Dana Leslie, Doug MacLean and Harland Sims, "Smart Bus Systems", ELEC 399 Design Project 1, May-Aug 2012
16. Austin Warren, "Design and Fabrication of a Digital Medical Vaporizer", co-op work term, 2011.
17. Adrian MacRae, "Drawings in the Design Process", co-op work term, 2011
18. M. Oweis, D. Yoshida, F. Phamphang, "The design and the implementation of HCORDIC on FPGA board", CENG 499 Design Project 2, 2011.
19. James van Oort, Farzad Khosrow-Khaver, and Boubacar Diallo, "Automatic Temperature Control", CENG 499 Design Project, 2002.
20. William Wu, Tony Lin, David Hsu, and Jeremy Chang, "Digital Capacitance Meter", CENG 499 Design Project, 2002.

21. Shane Robinson, Trevor Stoker, Andy Green, and Rohin Naveena-Chandran, “Ultrasonic Fuel Sender”, CENG 499 Design Project, 2002.
22. Demos Roussinos, Alexis Eller, and Shane Doran, “PPP/SDH Framer”, CENG 499 Design Project, 2001.
23. Raj Atwal, Agatha Mutooni, and Mike MacGillis, “Design of a High-Speed Multiport Memory for a Network Switch” Multiport Memory”, CENG 499 Design Project, 2001.
24. James van Oort and Gerald Davyduke, “Programmable Ignition Control”, CENG 499 Design Project, 2001.
25. Jennifer Marston and Victoria Read, “Design and Synthesis of a Switch Routing Table”, CENG 499 Design Project, 2000.
26. Shaun Watkins, “ATM Theory and Architectural Review”, CENG 499 Design Project, 1999.
27. Steven Pridie and Patrick Bailey, “Content Addressable Memory Design”, CENG 499 Design Project, 1999.

## 8.6 Post Docs/Research Associates Currently Supervised

## 8.7 PhD Students Currently Supervised

1. Alakari, Alaa (co-supervised with Dr. K. F. Li)
2. Alhazmi, Bader
3. Alsaiari Uthman (co-supervised with Dr. Mostafa Abd-El-Barr)
4. Alzahrani, Ali
5. Ellaithy, Dina
6. Hazmi, Ibrahim
7. Kadhum, Sohad
8. Kanan, Aws (co-supervised with Dr. A. Ibrahim)
9. Sharma, Meridula (co-supervised with Dr. H. El Miligi)
10. Youssef, Ahmed Fouad (co-supervised with Dr. P. F. Driessen)

## 8.8 Master’s Students Currently Supervised

### MASC Students

1. Alharbi, Fawaz
2. Alzahrani, Thuraya (co-supervised with Dr. Y. Coady)
3. Boharba, Alwa
4. Boudani, Maher
5. Rizwana, Rahman

6. Sharma, Hetishi

7. Shwiegi, Kasem

**MEng Students**

1. Patel, Jaynish

### 8.9 Other Related Activities (Member of supervisory committee, chairman of examination committee, external examiner)

Year(s)	Student	Degree Program	
2013	Paul Vu	Chair of Examination Committee	MSc
2012	James Tai	Supervisory Committee	MEng
2012	Colin James Patch	Supervisory Committee	MEng
2012	Zhuang Tian	Chair of Examination Committee	MEng
2011	Hani Balkhair	External Examiner	MASc
2011	Audrey LePioufle	Chair of Examination Committee	MSc
2011	Hanyu Zhang	Chair of Examination Committee	MSc
2010	S. Carruthers	Chair of Examination Committee	MSc
2010	A. Esty	Chair of Examination Committee	MSc
2010	D. Sengupta	External Examiner	PhD
2010	Ng Cheng Kuan	External Examiner	PhD
2009	C. Dawson	Chair, Supervisory Committee	MA
2007	C. Budakoglu	Supervisory Committee	PhD
2007	C.M. Da Silva	Chair, Examining Committee	MSc
2006	E. Sorouch	Supervisory Committee	MSc
2006	S. Sasankan	Supervisory Committee	MSc
2006	A. Abubakr	Supervisory Committee	PhD
2005	B. Sayed	Supervisory Committee	MSc
2005	K. Al-Muzaini	Supervisory Committee	PhD
2004	H. Chen	Chair, Examining Committee	
2004	M. H. Jayeh	External Examiner	MSc
2003	B. Moa	Supervisory Committee	PhD
2003	P. Sharma	Supervisory Committee	MSc
2003	S. Y. Shi	Supervisory Committee	MSc
2003	S. Khan	Supervisory Committee	PhD
2003	J. X. Zhu	Chair, Examining Committee	MSc
2003	A. Ahmed	Supervisory Committee	PhD
2003	O. Keskin	Chair, Examining Committee	MSc
2003	S. Shelford	Chair, Examining Committee	MSc
2003	A. Almulhem	Supervisory Committee	PhD
2002	J. Wang	Chair, Examining Committee	MSc
2002	H. B. Fan	Supervisory Committee	PhD
2002	N. Carson	Supervisory Committee	MSc
2001	J. Park	Supervisory Committee	MSc
2001	R. Mikhael	Supervisory Committee	MSc
2000	J. Pu	Supervisory Committee	PhD
2000	W.-S. Cheung	Chair, Examining Committee	MSc
2000	M. S. Abdallah	External Examiner	MSc
1999	H.-H. Jeon	Supervisory Committee	PhD
1999	A. Bergen	Chair, Examining Committee	MSc
1999	C. Heo	Supervisory Committee	MSc
1999	J. Clem	Supervisory Committee	MSc
1999	L. Monterubbio	Supervisory Committee	PhD
1999	T. Berning	Supervisory Committee	PhD
1998	R. Moar	External Examiner	MSc
1998	J. M. Roberts	Chair, Examining Committee	MSc
1998	R. Gurunathan	Supervisory Committee	PhD
1998	M. White	Supervisory Committee	PhD
1995	M. Milroy	Supervisory Committee	MSc
1995	M. Rehan	Supervisory Committee	PhD



<b>Year(s)</b>	<b>Student</b>	<b>Degree Program</b>	
1994	R. MacDonald	External Examiner	MSc
1993	R. Byrne	Chair, Examining Committee	PhD
1993	A. Bhunia	Supervisory Committee	MSc
1993	M. Lister	Chair, Examining Committee	MSc
1993	S. Subramanian	Supervisory Committee	PhD
1993	S. Neville	Supervisory Committee	PhD
1993	S. A. Jazayeri	Chair, Examining Committee	PhD
1992	B. Prescott	Supervisory Committee	MSc
1992	D. Pifko	Supervisory Committee	MSc
1992	J. Chana	Supervisory Committee	MSc
1992	J. Vincent	Supervisory Committee	MSc
1992	H. Ibrahim	Chair, Examining Committee	MSc
1992	L. Chen	Supervisory Committee	PhD
1992	E. Kontopidi	External Examiner	PhD
1992	J. Smith	Supervisory Committee	MSc
1992	A. Srinivasan	Supervisory Committee	PhD
1992	S. Radhakrishnan	Supervisory Committee	PhD
1992	M. Escalante	Supervisory Committee	PhD
1992	R. Howell	Supervisory Committee	PhD
1992	V. Belaguli	Supervisory Committee	PhD
1992	David Peterson	Supervisory Committee	PhD
1997	D. Lyder	Chair, Examining Committee	PhD
1997	A. Hafez	Supervisory Committee	MSc
1997	G. Kaimani	Supervisory Committee	PhD
1991	Fayaz Kadri	Supervisory Committee	MSc
1991	Rex Andrew	Supervisory Committee	PhD
1991	Shinhou Liu	Supervisory Committee	PhD
1991	Ying Cui	Supervisory Committee	PhD
1991	Jialin Zou	Supervisory Committee	PhD
1991	Grant Marven	Supervisory Committee	MSc
1990	Anand Srinivasan	Supervisory Committee	MSc
1990	Xiaoling Sun	Supervisory Committee	PhD
1990	Anwarul Hasan	Supervisory Committee	PhD
1989	Joel McGregor	Supervisory Committee	PhD
1989	Jing Yuan	Supervisory Committee	PhD
1989	C.-L. Shi	Supervisory Committee	PhD
1989	Peter Walsh	Supervisory Committee	PhD
1989	Colin Woytowich	Supervisory Committee	MSc
1988	Olaf Dravnieks	Supervisory Committee	MSc
1987	Manique Mata	Supervisory Committee	PhD
1987	Darren L. Henning	Supervisory Committee	MS.
1987	Xinghua Pu	Supervisory Committee	PhD
1987	A Mohamed Ibrahim	Supervisory Committee	PhD
1986	Robert Aitken	External Examiner	MS.
1986	Yude Gao	External Examiner	MSc
1986	Mahesh Swamy	Supervisory Committee	PhD
1986	Qing Zhao	Supervisory Committee	MSc
1986	Rodrigue Bryne	Supervisory Committee	MSc
1985	Mohamed Faci	External Examiner	MSc

## 9 Grants and Funding

### 9.1 Grants (e.g. NSERC, SHRC, etc.)

Year(s)	Amount	Source	Title
2010-2015	\$33,000 PA	NSERC Discovery	Encryption Processors
2013	\$30,000	Kuwait University	“Design and Analysis of Novel Arithmetic Structures/Algorithms for Cryptographic Applications-I” (3 researchers)
2013	\$2,000	Wighton Product Development	Enhanced Adaptive Cruise Control (EACC)
	\$5,000	MITACS Global Links	Task Scheduling in Multicore Systems
	\$5,000	LTC UVic	New Course on Embedded Robotics
2012-2013	\$217,333	MITAX Accelerate	CanGo: An empowering way finding tool for persons with disabilities (with 3 others)
2012	\$64,000	MITACS ELEVATE	Assistive Technologies (with Y. Coady & S. Ganti)
	\$5,000	MITACS Global Links	Human Face Emotion Recognition
	\$5,000	LTC UVic	New Course on Hardware Security
2011-2015	\$33,000/pa	NSERC	Parallel Algorithms
2011	\$16,000	Nokia	Assistive Technology for the Blind
	\$1,250	Wighton	Assistive Technology for the Blind
	\$250	Wighton	Medical Vaporizer
2011	\$896,573	CFI	Embedded Systems Canada (Dr. Dimopolous PI)
2010	\$1,050	UVic	Travel Grant
2009	\$514,000	Qatar National Research Program (QNRP)	WMBSN: Wireless Multicore Body Sensor Networks (applied for)
2008	\$375,800	Government of Qatar National Priorities Research Program (NPRP)	Energy-Efficient Wireless Sensor Networks: A Co-operative Design Perspective (Dr. Tamer Khattab principal investigator)
2007	\$5,000	Canadian Microelectronics Corporation	Celoxica (Handel-C) software
	\$134,395	Canadian Microelectronics Corporation	Equipment Grant (FPGA development boards and IBM host/design PC’s)
	\$3,000	NSERC Design Chair	Curriculum Development Grant
	\$1,050	UVic	Travel Grant
2006	\$10,000	Canadian Microelectronics Corporation	Equipment Grant (FPGA development board and IBM host/design PC)
2005–2010	\$22,000	NSERC	Discovery grant
	\$1,050	UVic	Travel Grant
2004	\$100,000	Canadian Microelectronics Corporation	Equipment grant (Dr. D.M. Miller principal applicant)
	\$1,258	University of Victoria	Personal Comp. Acquisition
	\$750	University of Victoria	UVic IRG Top-Up Award
	\$1,050	UVic	Travel Grant

Year(s)	Amount	Source	Title
2003	\$15,000	Faculty of Eng.	Wighton Award for Sys. on chip lab development
	\$23,000	NSERC	Discovery
	\$1,200	UVic	Faculty research
	\$1,048	UVic	Travel Grant
2002	\$23,000	NSERC	Discovery
	\$1,200	UVic	Faculty research
	\$300	UVic	Travel Grant
2001	\$10,000	ASI	CRD: Design of traffic scheduler for ATM switches
	\$23,000	NSERC	Discovery
	\$20,000	PMC-Sierra	Industrial support
	\$1,200	UVic	Faculty research
	\$1,750	UVic	Comp. acquisition
2000	\$20,000	ASI	CRD: Design of traffic scheduler for ATM switches
	\$20,000	PMC-Sierra	Industrial support
	\$1,200	UVic	Faculty research
1999	\$1,107,604	CFI	SuperComp. (Dr. Dimopoulos)
	\$89,330	CMC	Equipment (Group)
	\$22,464	NSERC	Operating
	\$1,100	UVic	Faculty research
1998	\$51,664	CMC	Equipment (Group)
	\$38,000	Micronet	Digital Comm. hardware design
	\$20,000	NRC	IRAP/MART: Inner product processor
	\$15,000	NRC	IRAP/MART: HCORDIC algorithm
	\$22,500	NSERC	operating
	\$20,000	PMC-Sierra	Industrial support
	\$1,200	UVic	Faculty research
1997	\$17,400	ASI	High-power DC-to-DC converter (Dr. A.K.S. Bhat)
	\$29,200	Micronet	ATM design
	\$25,000	Micronet	Digital signal processing
	\$22,500	NSERC	operating
	\$15,000	PMC-Sierra	Industrial support
	\$1,200	UVic	Faculty research
	\$7,000	Xantrex	High-power DC-to-DC converter (Dr. A.K.S. Bhat)
1996	\$22,160	ASI	High-power DC-to-DC converter (Dr. A.K.S. Bhat)
	\$25,500	Micronet	ATM design
	\$22,500	NSERC	operating
	\$15,000	PMC-Sierra	Industrial support
	\$1,100	UVic	Faculty research
	\$950	UVic	Travel
	\$8,000	Xantrex	High-power DC-to-DC converter (Dr. A.K.S. Bhat)
1995	\$85,101	CMC	Equipment (Group)
	\$25,500	Micronet	ATM design
	\$16,700	Micronet	Digital signal processing
	\$22,500	NSERC	operating
	\$15,000	PMC-Sierra	Industrial support
	\$1,100	UVic	Faculty research
\$950	UVic	Travel	

Year(s)	Amount	Source	Title
1994	\$47,000	CMC	Equipment
	\$20,000	Micronet	Digital signal processing hardware
	\$25,500	Micronet	ATM design
	\$130,090	NSERC	Equipment (Dr. Antoniou)
	\$22,464	NSERC	Operating
	\$10,000	PMC-Sierra	Industrial support
1993	\$69,248	CMC	Equipment (Group)
	\$30,000	Micronet	Multirate digital signal processing
	\$17,500	Micronet	Mapping parallel algorithms
	\$18,700	NSERC	Operating
	\$20,916	NSERC	Equipment (Dr. Dimopoulos)
	\$10,000	PMC-Sierra	Industrial support
	\$1,200	UVic	Faculty research
1992	\$85,270	CMC	Equipment (Group)
	\$18,225	Micronet	Multirate digital signal processing
	\$18,000	Micronet	Mapping parallel algorithms
	\$18,700	NSERC	Operating
	\$140,807	NSERC	Equipment (Dr. Antoniou)
	\$10,000	PMC-Sierra	Industrial support
	\$1,200	UVic	Faculty research
1991	\$290,324	CMC	Workstations (Group)
	\$18,700	NSERC	Operating
	\$10,000	PMC-Sierra	Industrial support
	\$1,100	UVic	Faculty research
	\$1,575	UVic	Travel
	\$1,500	UVic	Travel
	\$4,500	UVic	Allocation from contract overhead
1990	\$200,000	CMC	Workstations (Group)
	\$17,099	Micronet	Multirate digital signal processing
	\$18,700	NSERC	Operating
	\$10,000	PMC-Sierra	Industrial support
	\$19,379	UVic	Allocation from contract overhead
	\$1,400	UVic	Faculty research
	\$1,500	UVic	Travel
1990–1996	\$1,465,777	Canadian Space Agency	The radio-astron project (Dr. P. Dewdney)
1989	\$215,000	CMC	Chip tester (Group)
	\$50,000	IBM	Workstation donation
	\$18,700	NSERC	Operating
	\$1,460	UVic	Faculty research
1989	\$150,000	PMC/Canadian Space Agency	32-bit floating point systolic processor development
1988	\$7,400	ASI	Visiting fellow
	\$220,000	CMC	Equipment
	\$62,270	NSERC	Equipment (Group)
	\$22,041	NSERC	Equipment (Group)
	\$18,700	NSERC	Operating
	\$1,500	UVic	Faculty research
	\$554	UVic	Travel
	\$4,498	EDT Mfg. Ltd.	Feasibility of integrating SonoLite using digital design
1987	\$200,000	CMC	Equipment
	\$930	CMC	Travel
	\$17,472	NSERC	Operating

## 10 Teaching Duties at University of Victoria

### 10.1 Courses Taught

Bold-type courses are ones that were developed by Dr. Gebali and their year of first offering.

Year	Course	Hours/Week	Term	Students
2017	ELEC 310	3	Jan-Apr	146
2016	ELEC 543	3	May-Aug	3
	ELEC 365	3	Sep-Dec	130
2015	CENG 441	3	May-Aug	40
	ELEC 543	3	May-Aug	13
2014	CENG 441	3	May-Aug	40
	ELEC 543	3	May-Aug	13
2013	CENG 441	3	May-Aug	51
	ELEC 543	3	May-Aug	3
2012	ELEC 250	3	<b>May-Aug</b>	176
	CENG 441	3	May-Aug	25
	ELEC 543	3	May-Aug	3
2011	CENG 241	3	<b>May-Aug</b>	76
	CENG 441	3	May-Aug	33
	ELEC 543	3	May-Aug	7
2010	CENG 241	3	<b>May-Aug</b>	53
	CENG 441	3	May-Aug	37
2009	<b>CENG 241</b>	<b>3</b>	<b>May-Aug</b>	<b>54</b>
	CENG 441	3	May-Aug	35
	ELEC 543	3	May-Aug	4
2008	<b>CENG 460</b>	<b>3</b>	<b>Sep-Dec</b>	<b>26</b>
	CENG 460 (Section A02)	3	Sep-Dec	2

Courses Taught at Kuwait University, Information Science Department - Kuwait during Administrative Leave.

Year	Course	Hours/Week	Term	Students
2008	<b>ETM 450</b>	<b>3</b>	<b>Feb-June</b>	<b>17</b>
	ISC 100	3	Feb-June	25
	ISC 101	3	Feb-June	25
	<b>ISC 340</b>	<b>3</b>	<b>Feb-June</b>	<b>25</b>
2007	ISC 101	3	Sep-Jan	27
	ISC 101	3	Sep-Jan	25
	<b>ISC 357</b>	<b>3</b>	<b>Sep-Jan</b>	<b>25</b>

Courses Taught at University of Victoria, Elec. & Comp. Eng. Department.

Year	Course	Hours/Week	Term	Students	
2007	ELEC 360	3	Jan-Apr	22	
	CENG 441	3	May-Aug	32	
	ELEC 543	3	May-Aug	3	
2006	CENG 441	3	May-Aug	52	
2005	CENG 461	3	Jan-Apr	15	
	ELEC 514	3	Jan-Apr	6	
	CENG 465	3	May-Aug	35	
2004	ELEC 514	3	May-Aug	5	
	CENG 461	3	Jan-Apr	20	
	ELEC 514	3	Jan-Apr	6	
2002	CENG 465	3	Jan-Apr	55	
	ELEC 543	3	Jan-Apr	5	
	CENG 461	3	Jan-Apr	22	
2003	CENG 461	3	Jan-Apr	22	
	CENG 465	3	Jan-Apr	46	
	ELEC 514	3	Jan-Apr	14	
	ELEC 543	3	Jan-Apr	6	
	CENG 465	3	Jan-Apr	46	
	ELEC 514	3	Jan-Apr	5	
	ELEC 543	3	Jan-Apr	8	
	ELEC 250	3	May-Aug	142	
	2001	CENG 461	3	Jan-Apr	21
		CENG 465	3	Jan-Apr	39
ELEC 514		3	Jan-Apr	5	
ELEC 543		3	Jan-Apr	4	
ELEC 250		3	May-Aug	145	
2000	<b>CENG 461</b>	<b>3</b>	<b>Jan-Apr</b>	<b>43</b>	
	CENG 465	3	Jan-Apr	51	
	ELEC 543	3	Jan-Apr	9	
	ELEC 250	3	May-Apr	120	
1999	CENG 465	3	Jan-Apr	30	
	ELEC 543	3	Jan-Apr	6	
	ELEC 250	3	May-Aug	140	
	ELEC 642	3	May-Aug	5	
1998	CENG 465	3	Jan-Apr	15	
	ELEC 543	3	Jan-Apr	5	
	<b>ELEC 642</b>	<b>3</b>	<b>Jan-Apr</b>	<b>3</b>	
1997	ELEC 250	3	May-Aug	100	
	CENG 465	3	Jan-Apr	13	
	ELEC 543	3	Jan-Apr	6	
	ELEC 250 (Section K01)	3	May-Aug	60	
	ELEC 250 (Section K02)	3	May-Aug	100	

Courses Taught at King Fahd University of Petroleum & Minerals, & Comp. Eng. Department - Saudi Arabia during Sabbatical Leave.

Year	Course	Hours/Week	Term	Students
1996	COE 201	3	Feb-June	20
	COE 303	3	Feb-June	19
	COE 303	3	Sep-Dec	20
	<b>COE 590</b>	<b>3</b>	<b>Sep-Dec</b>	<b>6</b>

Courses Taught at University of Victoria, Elec. & Comp. Eng. Department.

1995	CENG 465	3	Jan-Apr	9
	ELEC 543	3	Jan-Apr	4
	CENG 440	3	May-Aug	58
1994	<b>CENG 465</b>	<b>3</b>	<b>Jan-Apr</b>	<b>10</b>
	ELEC 543	3	Jan-Apr	2
	ELEC 415	3	May-Aug	9
1993	ELEC 465	3	Jan-Apr	13
	ELEC 543	3	Jan-Apr	7
	ELEC 415	3	May-Aug	3
	ELEC 541	3	May-Aug	3
1992	ELEC 465	3	Jan-Apr	6
	ELEC 543	3	Jan-Apr	1
	ELEC 649B	3	Jan-Apr	1
	ELEC 415	3	May-Aug	6
	ELEC 541	3	May-Aug	3
1991	ELEC 465	3	Jan-Apr	9
	ELEC 543	3	Jan-Apr	4
	ELEC 649B	3	Jan-Apr	4
	ELEC 250	3	May-Aug	41
	ELEC 415	3	May-Aug	2
	ELEC 541	3	May-Aug	1
1990	ELEC 465	3	Jan-Apr	11
	ELEC 543	3	Jan-Apr	4
	ELEC 649B	3	Jan-Apr	4
	ELEC 250	3	May-Aug	27
	ELEC 415	3	May-Aug	7
	ELEC 541	3	May-Aug	4
1989	ELEC 465	3	Jan-Apr	13
	<b>ELEC 543</b>	<b>3</b>	<b>Jan-Apr</b>	<b>4</b>
	ELEC 649B	3	Jan-Apr	6
	ELEC 415	3	May-Aug	3
	ELEC 541	3	May-Aug	1
	<b>ELEC 564</b>	<b>3</b>	<b>Sep-Dec</b>	<b>11</b>
1988	ELEC 320	3	Jan-Apr	61
	<b>ELEC 465</b>	<b>3</b>	<b>Jan-Apr</b>	<b>7</b>
	ELEC 415	3	May-Aug	10
	ELEC 541	3	May-Aug	2
	<b>ELEC 649B</b>	<b>3</b>	<b>May-Aug</b>	<b>4</b>
1987	ELEC 320	3	Jan-Apr	36
	<b>ELEC 649</b>	<b>3</b>	<b>Jan-Apr</b>	<b>1</b>
	<b>ELEC 415</b>	<b>3</b>	<b>May-Aug</b>	<b>6</b>
	<b>ELEC 541</b>	<b>3</b>	<b>May-Aug</b>	<b>2</b>
	ELEC 641	3	May-Aug	1
	ELEC 590	3	May-Aug	1
1986	<b>ELEC 320</b>	<b>3</b>	<b>Jan-Apr</b>	<b>27</b>
	<b>ELEC 641</b>	<b>3</b>	<b>Jan-Apr</b>	<b>7</b>
	ELEC 220	3	Sep-Dec	74
1985	<b>ELEC 250</b>	<b>3</b>	<b>May-Aug</b>	<b>30</b>
	ELEC 590	3	May-Aug	1
	ELEC 590	3	May-Aug	1
	<b>ELEC 220</b>	<b>3</b>	<b>Sep-Dec</b>	<b>50</b>
	ELEC 590	3	Sep-Dec	2
1984	<b>ELEC 220</b>	<b>3</b>	<b>Sep-Dec</b>	<b>40</b>
	PHYS 580	3	Sep-Dec	1
	ELEC 590	3	Sep-Dec	1

**10.2 Short Courses Taught**

<b>Date</b>	<b>Course</b>	<b>Hours</b>	<b>Attendees</b>	<b>Location</b>
May 1984	VLSI Design	6	11	University of Waterloo
August 1984	MOS VLSI	6	32	University of Victoria



## 11 Administrative Activities

### 11.1 University and Faculty Committees (includes dates of offices held)

Year(s)	Committee
2014	Search Committee for Engineering Associate Dean Research
2013	Senate Course Scheduling Committee
2013	Senate Percentage Grading Committee
2013	Acting Dean: 10–20 May
2012	Acting Dean: 26–30 Apr, 14–18 May, 2–6 July
2011	Acting Dean: 22–23 Feb, 3–18 May, 9–12 August .
2011	Search Committee for the director of the Intra-Faculty Research Centre in Advanced Security, Privacy and Information Systems (2011)
2011	Faculty of Engineering Strategic Planning Committee (Jan 2011– )
2011	Faculty of Engineering Executive Committee (Jan 2011– )
2011	Steering Committee for Faculty of Engineering Security Centre (Jan 2011–)
2009	Acting Comp. Program Director (May-Sep)
2009	Acting Elec. Program Director (May-Sep)
2008	Chair of Department of Information Technology Curriculum Committee (Kuwait University)
2008	Chair of Department of Information Technology Research Committee (Kuwait University)
2008	Member of College for Women Research Committee (Kuwait University)
2007	First Year Orientation Committee (Chair)
2007	Acting Dean: Feb 22–23, May 3-18.
2006	Acting Dean: May 15–22, May 30–June 2, July 17–30, Sep 19–24.
2006	Chair, BEng/BSENG Common Core Review Committee
2005	Acting Dean: January 15–18, May 18–25, 25 July–14 August, 21–27 Sep., 5, 6 October, 13 and 14 October, Nov. 8, 9.
2004	Member of Associate Dean (Research) of Eng. Search Committee
2004–2007	Member of Senate Committee on Agenda and Procedure
2004–2007	Member of Senate Committee on Committees
2004–2007	Member of University Senate
2004	Acting Dean: May 18–25, July 4–11, July 28–August 8, Nov. 1–11.
2002–2005	Member of Senate Committee on Curriculum
2004	Committee to hire Development Assistant for the Faculty of Eng.
2003	Chair, Faculty of Eng. Admissions/Advising Officer search Committee
2003	Chair, Faculty of Eng. Administrative Officer search Committee
2003	Chair, Associate Dean Part-Time Secretary search Committee
2003	Acting Dean: Apr. 2–May 4, May 14–21, Oct. 22–24, Nov. 1–11.
2002–2005	Chair, Faculty Curriculum Committee
2002–2005	Chair, B.Eng. Program Committee
2002–2005	Chair, Undergraduate Programs Committee
2002–2005	Chair, Software Eng. Program Board
2002–2003	Admissions and Awards Committee
2012	Senate Percentage Grading Advisory Committee
2002	Eng. Co-op Coordinator search Committee
2002	Chair, Senior Instructor Search Committee
1999–2002	B.Eng. Program Committee
1998–2001	Chair of Sciences and Eng. Research and Travel Committee
1998–2000	Faculty Curriculum Committee
1998–2000	Research and Travel Committee
1996–1998	Research and Travel Committee
1996–1998	Sciences and Eng. Research and Travel Committee
1994–1995	Senate Appeals Committee
1994–1995	B.Eng. Program Committee

<b>Year(s)</b>	<b>Committee</b>
1994–1995	University Senate
1993–1995	Faculty Awards Committee
1992–1993	Library Services Committee
1985–1988	Faculty Computing Services Committee
1985–1986	Search Committee for Dean of Eng.
1984–1987	Research Comp. Users' Committee

## **11.2 Department Committees and Responsibilities (includes dates of offices held)**

<b>Year(s)</b>	<b>Committee</b>
2011	Acting Chair of Department of Elec. & Comp. Eng. (Jan-June)
2011	ECE Strategic Planning Committee (member)
2011	ECE Curriculum Committee (member)
2011	ECE Graduate Studies Committee (member)
2009	Elec. Eng. Program Coordinator (January–June)
2002–2005	Reappointments, Tenure and Promotions Committee
2002	Undergraduate Advisor
2001–2003	Advisory Committee on Planning
2001–2002	Standing Committee on Equipment
2000–2002	Chair, Curriculum Committee
1992–2002	Reappointments, Tenure and Promotions Committee
1999–2001	Graduate Advisor
1999	Chair, Graduate Secretary Search Committee
1999	ELEC 499/CENG 499 Project Coordinator
1999	Undergraduate Advisor
1998–2001	Coordinator, Comp. Eng. Program
1998–2000	Graduate Studies Committee
1997–2000	Curriculum Committee
1992–1994	Chair, Graduate Studies Committee
1992–1994	Graduate Advisor
1991–1992	Committee for Promotion to the Rank of Professor
1989–1990	Reappointments, Tenure and Promotions Committee
1987–1989	Curriculum Committee
1984–1988	Secretary, Department council

### 11.3 Professional Committees and Assignments External to the University of Victoria (District, Provincial, National and Int.) (Include dates of offices held)

Year(s)	Committee/Organization
2011	Program Co-Chair, IEEE Pacific Rim Conference on Communications, Computers and Signal Processing
2011	Program Co-Chair, Data Intensive Computing and Data Mining
2011	Symposium Chair, International Conference on Computing, Networking and Communications
2008-2011	NSERC Scholarships and Fellowships Selection Committee for Elec. Eng. and Computing Sciences
2007-2008	Research, Graduate & Awards Committee, College for Women, Kuwait University (Member)
2007-2008	Scientific Affairs Committee, Information Sys. Dept. College for Women, Kuwait University (Chair)
2007-2008	ISC Research Committee, Information Sys. Dept. College for Women, Kuwait University (Member)
2007-2008	Course Scheduling Committee, Information Sys. Dept. College for Women, Kuwait University (Member)
2007-2008	Undergraduate Affairs Committee, Information Sys. Dept. College for Women, Kuwait University (Member)
1987-2007	Advanced Sys. Institute, BC, Canada (Associate Member)

## 12 Professional Contributions and Activities

### 12.1 Professional Activities

1. Reviewer for the promotion case to professor from Yarmouk University, Jordan, 2016.
2. Reviewer for the promotion case to professor from University of Windsor, 2013.
3. **Series Editor** for CRC Press: Embedded Multi-Core Sys., 2008-.
4. Reviewer for PhD program of the Computer Engineering Department at King Fahd University of Petroleum and Minerals (KFUPM), 2010.

## 12.2 Guest Lectures, Invited Talks and Other Presentations

<b>Date</b>	<b>Title</b>	<b>Location</b>
22 November 2013	Design of Digital and VLSI Systems, UVic LTC	
11 October 2013	Engineering at UVic, Langara University	
11 October 2013	Engineering at UVic, Capillano University	
19 September 2013	Engineering at UVic, Langara University	
24 January 2013	$GF(2^m)$ Multiplication: Multithreaded/ Multicore Implementations	Department of Electronic and Electrical Communications Engineering, Cairo Uni- versity
21 January 2013	Power Consumption of 3D Networks-on- Chips (NoC): Modeling and Optimization	Information Technology Institute
25 September 2012	Digital Design Methodlogy	ELEC/CENG 399 Course, ECE Dept., UVic
21 June 2012	Parallel Programming for Multicores	ELEC/CENG 399 Course, ECE Dept., UVic
17 June 2011	Parallel Programming	ECE Dept., UVic
17 May 2008	Designing an Environmental Elective Course for Information Science Depart- ment	College for Women, Kuwait University, Kuwait
2 July 2007	Performance of the IEEE 802.16 WiMax Protocol	IEEE Dayton Section Speaker Wright State University
23 Dec. 2006	Distributed e-Mail Packet Classification	German University in Cairo, Cairo
23 Dec. 2006	Network-on-Chip Design Issues	German University in Cairo, Cairo
21 Dec. 2006	Distributed e-Mail Packet Classification	Faculty of Eng., Menoufiya University, Menoufiya, Egypt
21 Dec. 2006	Network-on-Chip Design Issues faculty of Eng., Menoufiya University, Menoufiya, Egypt	
2 Nov. 2006	Distributed e-Mail Packet Classification	IEEE Southeast Section Michigan Conf., Michigan University, Fairlane Campus, MI
1 Nov. 2006	Network-on-Chip Design Issues	ECE Dept., Oakland University, Rochester, MI
27 Dec. 2005	IEEE 802.11 Protocol Modeling	National TeleComm. Institute Cairo, Egypt.
27 Dec. 2005	Mapping Parallel Algorithms onto Proces- sor Arrays	National TeleComm. Institute Cairo, Egypt.
20 Dec. 2005	IEEE 802.11 Protocol Modeling	Electronic Research Institute Cairo, Egypt.
20 Dec. 2005	Mapping Parallel Algorithms onto Proces- sor Arrays	Electronic Research Institute Cairo, Egypt.

<b>Date</b>	<b>Title</b>	<b>Location</b>
19 Dec. 2005	IEEE 802.11 Protocol Modeling	Egyptian Telephone Company, Helwan, Egypt.
Dec. 18, 2005	IEEE 802.11 Protocol Modeling	Elec. Eng. Dept., Al-Azhar University, Cairo, Egypt.
Oct. 10, 2000	Periodic Markov Chains	Elec. & Comp. Eng. Dept., University of Victoria
Nov. 7, 2000	Periodic Markov Chains	Math Dept., University of Victoria
Mar. 1, 1997	Wireless ATM for Mobile Comm.	Micronet Annual General Meeting, Ottawa
Nov. 15, 1996	Time and Career Management for Professors	Comp. Eng. Dept., King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
Oct. 1, 1996	Fast Adaptive CORDIC Algorithm	Comp. Eng. Dept., King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
Mar. 15, 1996	VLSI Design for DSP & Telecommunications	Comp. Eng. Dept., King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
Mar. 1, 1997	Wireless ATM for Mobile Comm.	Micronet Annual General Meeting, Ottawa
Nov. 15, 1996	Time and Career Management for Professors	Comp. Eng. Dept., King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
Oct. 1, 1996	Fast Adaptive CORDIC Algorithm	Comp. Eng. Dept., King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
Mar. 15, 1996	VLSI Design for DSP & Telecommunications	Comp. Eng. Dept., King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
May 1, 1995	ATM Switch Design Issues	Micronet Workshop on ATM ASICs, Vancouver
Mar. 1, 1995	ATM Switch Design	Micronet Annual General Meeting, Ottawa
May 1, 1993	Multirate Sys.	Micronet Annual General Meeting, Ottawa
Jan. 19, 1993	Synthesizing Systolic Arrays: An Overview	Graduate Seminar, University of Victoria
May 20, 1992	Multirate Sys.	Micronet Annual General Meeting, Ottawa
April 27, 1992	Synthesizing Systolic Arrays	Elec. Eng. Dept., Univ. of Waterloo, Waterloo, Ontario
Nov. 20, 1991	Image Compression Using One-Dimensional Vector Quantization	Elec. Eng. Dept. U.B.C., Vancouver, B.C.

<b>Date</b>	<b>Title</b>	<b>Location</b>
May 15, 1991	VLSI Teaching in ECE Department at UVic	Workshop on VLSI Education, U.B.C., Vancouver, B.C.
July 6, 1990	VLSI Research Activities	Dominion Radio Astronomy Observatory, Penticton, B.C.
Sept. 20, 1990	Eng. & Innovation	North Saanich Jr. High School at the University of Victoria
Nov. 30, 1988	VLSI Design Software	University of Victoria
Jun. 18, 1987	A High-Speed Area-Efficient Parallel Multiplier	CMC VLSI Workshop, Queen's University, Kingston, Ontario
Jan. 14, 1986	VLSI Overview	IEEE Victoria Section Meeting
Nov. 19, 1985	A Fourier Transform Algorithm and VLSI Implementation	Elec. Eng. Department, University of British Columbia
Dec. 9, 1984	VLSI Comm. Network Design	Sys. on Silicon (SOS) group meeting, University of Waterloo
July 3, 1984	MOS VLSI Technology	VLSI short course, University of Waterloo
Mar. 1983	Microprocessor Interfacing	Visit to New Jersey Institute of Technology
1981	Electrochemical Solar Cells	Physical Dept. Seminar, Simon Fraser University
1980	Hologram Storage in Photo-refractive Crystals	Physical Dept. Seminar, Simon Fraser University

### 12.3 Course and Laboratory Manuals, Lecture Notes, and Other Instructional Materials

Year	Course	Title
2012	CENG 441	Update lecture notes
2012	ELEC 250	Lecture Notes, Lab manual and Web site
2008	ELEC 460	Lecture Notes and Web site
Kuwait University		
2008	ETM 450	Lecture Notes and web site
	ISC 100	Lecture Notes and web site
	ISC 101	
	ISC 340	Lecture Notes and web site
	ISC 340	Laboratory and web site
2007	ISC 101	Lecture Notes and web site
	ISC 357	Lecture Notes and web site
	ISC 357	Laboratory and web site
University of Victoria		
2007	ELEC 360	Lecture notes and web site
2006	CENG 441	Lecture notes, web update, lab projects and manual
2005	CENG 465	Lecture notes, web update, lab projects and manual
	ELEC 250	Lab manual
2004	CENG 465	Lab experiments, CAD tools, and web updates
2003	ELEC 250	Lecture note development for course pack
	CENG 460	Lecture notes and web development
	CENG 460	Experiment design and Lab manual preparation
2002	ELEC 250	Lecture note development for course pack
	CENG 460	Experiment design and Lab manual preparation
2001	ELEC 250	Lecture slides in PDF and publish on web
	CENG 461	Lecture slides in PDF and publish on web
	CENG 465	Lecture slides in PDF and publish on web
1999	ELEC 250	Linear Circuits I, Laboratory Manual
	CENG 461	Lecture Notes
	CENG 461	Course website
	CENG 465	Course website
	ELEC 250	Course website
	CENG 465	Laboratory website
	ELEC 250	Laboratory website
2000	ELEC 250	Linear Circuits I, Laboratory Manual

<b>Year</b>	<b>Course</b>	<b>Title</b>
1998	ELEC 642	VLSI Arrays for Iterative Algorithms, Lecture Notes
	ELEC 250	Linear Circuits I, Lecture Notes
	ELEC 250	Linear Circuits I, Laboratory Manual
1997	CENG 465	Digital VLSI Design, Lecture Notes
King Fahd University of Petroleum & Minerals		
1996	COE 201	Digital Logic I, Lecture Notes
	COE 303	Digital Logic II, Lecture Notes
	COE 590	Recent Techniques for Mapping DSP Algorithms on Processor Arrays, Lecture Notes
University of Victoria		
1995	CENG 440	Digital Logic II, Lecture Notes
	CENG 440	Digital Logic II, Laboratory Manual
	CENG 465	Digital VLSI Sys., Lecture Notes
	CENG 465	Digital VLSI Sys. Laboratory Manual
1994	CENG 465	Digital VLSI Sys., Lecture Notes
	CENG 465	Digital VLSI Sys., Laboratory Manual
	ELEC 415	Microelectronics Technology, Lecture Notes
1993	ELEC 415	Microelectronics Technology, Laboratory Manual
1991	ELEC 250	Linear Circuits I, Lecture Notes
	ELEC 415	Microelectronics Technology, Lecture Notes
	ELEC 465	Design of VLSI Sys., Lecture Notes
	ELEC 649B	VLSI Digital Signal Processing, Lecture Notes
	ELEC 590	Wavelet Transforms, Preparation of Reading Materials
1992	ELEC 415	Microelectronics Technology, Lecture Notes
	ELEC 465	Design of VLSI Sys., Lecture Notes
	ELEC 649B	VLSI Digital Signal Processing, Lecture Notes
1989	ELEC 564	Neural Networks and their Implementation, Lecture Notes
	ELEC 649B	VLSI Digital Signal Processing, Lecture Notes
1990	ELEC 250	Linear Circuits, I, Lecture Notes
	ELEC 415	Microelectronics Technology, Lecture Notes
	ELEC 465	Design of VLSI Sys., Lecture Notes
	ELEC 465	Design of VLSI Sys., Laboratory Manual
1988	ELEC 220	Elec. Properties of Materials, Lecture Notes
	ELEC 320	Electronic Devices: I, Lecture Notes
	ELEC 415	Microelectronics Technology, Laboratory Manual
	ELEC 465	Design of VLSI Sys., Lecture Notes
	ELEC 465	Design of VLSI Sys., Laboratory Manual
	ELEC 649B	Selected Topics in VLSI, Lecture Notes



Year	Course	Title
1987	ELEC 320	Electronic Devices: I
	ELEC 320	Electronic Devices: I, Laboratory Manual
	ELEC 415	Microelectronics Technology
	ELEC 415	Microelectronics Technology, Laboratory Manual
	ELEC 541	VLSI Technology
	ELEC 590	Silicon Compilation
	ELEC 641	VLSI Sys. Design
	ELEC 649	VLSI Silicon Compiler Development, Software Tools
1986	ELEC 220	Elec. Properties of Materials
	ELEC 220	Elec. Properties of Materials, Manual
	ELEC 320	Electronic Devices: I
	ELEC 320	Electronic Devices: I, Laboratory Manual
	ELEC 641	VLSI Sys. Design
1985	ELEC 220	Elec. Properties of Materials
	ELEC 250	Linear Circuits: I
	ELEC 250	Linear Circuits: I, Laboratory Manual
	ELEC 590	VLSI Technology
	ELEC 590	VLSI Sys. Design
1984	ELEC 220	Elec. Properties of Materials
	PHYS 580	Plasma Physics and Measurements
	ELEC 590	Plasma Emission and Mass Spectroscopy

University of Waterloo

1984 ELEC 438 Switching and Digital Circuits

## 13 Other Information

### 13.1 Contributions to Journals & Conferences

1. Editorial Advisory Board for The Open Electrical & Electronic Engineering Journal.
2. Technical Steering Committee of Science and Information Conference 2014.
3. Symposium Chair of Network Algorithms and Performance Evaluation. In International Conference on Computing, Networking and Communications (ICNC'12) 2012.
4. Conference Organizing Committee 6th International Conference on P2P, Parallel, Grid Cloud and Internet Computing (3PGCIC): Data Intensive Computing, Data Mining, 2011.
5. Track Chair of the Data Intensive Computing, Data Mining track of Int. Conf. on Peer-to-Peer. In Parallel, Grid, Cloud and Internet Computing (3PGCIC 2011), 2011.
6. Committee member of the Sensor Networks: Technology, Applications, and Security track of the ITNG 2011 Conf., 2011.
7. Int. Conf. on Comm. (ICT) 2009, Technical Program Committee.
8. Int. Conf. on Microelectronics (ICM), Technical Program Committee.
9. IEEE Pacific Rim Conf. on Comm., Comp.s, and Signal Processing (PACRIM'09), Aug. 22-24, 2009, Victoria, B.C., Canada, Publication Chair.

10. Int. Conf. on Information Science, Technology and Applications (ISTA) 2009, Technical Program Committee Chair. All Tracks Chair.
11. IEEE Int. Conf. on Comp. Sys. and Applications (AICCSA), Technical Program Committee Chair
12. IEEE Int. Conf. on Microelectronics (ICM), Member of Technical Program Committee (1985–2011)
13. IEEE Int. Symp. on Circuits and Systems (ISCAS). member of technical program committee (1989).
14. IEEE Int. Symp. on Signal Processing and Information Technology (ISSPIT). Co-Chair 2004, Member of steering committee (2002), Publication chair and member of steering committee (2001), Member of technical program committee (2009-2011)
15. Int. Symp. on Wireless Sys. and Networks 2002, Member of Technical Committee.
16. IEEE Midwest Sym. on Circuits and Sys. (MWSCAS'07), Aug. 5–8, 2007, Special Session co-chair.
17. IEEE Pacific Rim Conf. on Communications, Computers, and Signal Processing (PACRIM). Chair (2003, 2005), Co-Chair 2007, Program Chair 20011, Member of program committee (1985–2011) Session Chair (1985–2011).
18. Canadian Conf. on Elec. and Comp. Eng. (CCECE), session chair (1933).
19. IEEE Electronicom, Toronto, October 1984, session chair
20. Canadian Conf. on Elec. and Comp. Eng., Vancouver, 1988, session chair
21. Methodes et Outil d'Aide a la Decision (MOAD'07), 18–20 November, 2007, Member of program committee

### 13.2 Reviewer for Journals

Every year I review approximately 50 journal manuscripts. Due to my work in several disparate areas, journals of different foci solicit my reviews. Following is an alphabetical list of the journals:

1. Arabian J. of Science and Eng. (AJSE)
2. Association of Computing Machinery (ACM)
3. Canadian J. of Elec. and Comp. Eng.
4. Canadian J. of Physics
5. Circuits, Systems & Signal Processing (Elsevier)
6. Comp. and Elec. Eng.
7. The Computer Journal,
8. Digital Signal Processing
9. Electronics Letters
10. Applied Mathematics and Computation (Elsevier)
11. Comp.s & Elec. Eng. (Elsevier)
12. IEE Electronics Letters
13. IEE Proc. Circuits, Devices and Sys.

14. IEE Proc. Comm.
15. IEE Proc. Part E
16. IEEE Sensors Journal
17. IEEE Trans. on Circuits and Sys.
18. IEEE Trans. on Circuits and Sys. II
19. IEEE Trans. on Computers
20. IEEE Trans. on Consumer Electronics
21. IEEE Trans. on Networks, 2006
22. IEEE Trans. on Sys., Man, and Cybernetics
23. IEEE Trans. on Very Large Scale Integration
24. IET Circuits, Devices and Sys.
25. IETE Technical Review
26. ETRI Journal
27. Information Security J.: A Global Perspective
28. Integration: The VLSI Journal
29. Int. J. of Comp. Aided VLSI Design
30. J. of Circuits, Sys. and Computers.
31. J. of Comm., Academy Publishers
32. J. of Computers
33. J. of Computers and Elec. Eng.
34. J. of the Franklin Institute
35. J. of Microelectronics Circuits
36. J. of Sys. and Software (Security Technology)
37. The Open Elec. and Electronic Eng. J. (TOEEJ)
38. Performance Evaluation

### **13.3 Reviewer for Conferences:**

1. Canadian Conf. on VLSI (CCVLSI)
2. IEEE Globecom
3. IEEE Pacific Rim Conf. on Comm., Comp. and Signal Processing (PACRIM)
4. Int. Conf. on Information Science, Technology and Applications (ISTA)
5. Int. Conf. on Comm., Circuits and Sys. (ICCCAS )
6. Int. Conf. on Microelectronics (ICM)

7. Int. Sym. on Circuits and Sys. (ISCAS)
8. Int. Sym. on Multiple-valued Logic (ISMVL)
9. Int. Sym. on Wireless Sys. and Networks (ISWSN)
10. IEEE Int. Sym. on Signal Processing and Information Technology (ISSPIT)
11. Midwest Sym. on Circuits and Sys. (MWSCS)

#### **13.4 Reviewer for research grant applications**

1. NSERC Discovery Grants (three applications), 2009
2. NSERC Discovery Grant, 2002
3. NSERC Strategic Research, 2002
4. Natural Sciences and Eng. Research Council operating grants, 1986, 1989, 1993, 1998, 2000
5. NSERC Research Partnership program, 1994
6. Microelectronics Development Fund, 1989

#### **13.5 External Examiner for a PhD Degrees**

1. University of Malaya, December 2009
2. University of British Columbia, December 2009
3. University of British Columbia, July 2002
4. University of British Columbia, January 2000
5. University of British Columbia, March 1998
6. University of Windsor, January, 1994
7. Concordia University, September, 1991

#### **13.6 Peer Reviewer for Promotion and Tenure Applications**

1. Al Hosn University (Abu Dhabi), two cases, 2009
2. University of Windsor, 2006
3. King Saud University, 2004
4. University of British Columbia, Canada, 2003
5. University of British Columbia, Canada, 2002
6. King Saud University, Riyadh, Saudi Arabia, 2002
7. Sultan Qaboos University, Sultanate of Oman, 2000
8. King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, 1998
9. King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, 1997
10. School of Eng. and Comp. Science, Oakland University, 1987

## 14 Professional Development Workshops and Courses

Planning Effective Meetings, Teaching and Learning Centre, University of Victoria, 1985, 1986

Teaching Workshop, University of Victoria, 1986, 1987, 1988

One-to-one consultation on effective teaching with Director of the Learning and Teaching Centre, 2000

Retreat on Int. Development, Dunsmuir Lodge, University of Victoria, April 2003

Management Training Course, CHERD, Dunsmuir Lodge, University of Victoria, May 2003