

Curriculum Vitae

Gregor v. Bochmann

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Personal

Address: 400, Stewart, app. 2111
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Date and place of birth: July 20, 1941, Niebüll, W. Germany

Marital status: Married, two children

Present employer: School of Electrical Engineering and Computer Science
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Hobbies: family life, music, skiing, hiking, swimming, art history

Languages: Speaks and writes fluently, English, French and German.

Nationalities: Canadian, German

Education

March 1971: Ph.D. in theoretical physics from McGill Univ. in Montreal.

Dec. 1968: "Diplom in Physik" degree in experimental physics obtained "with excellence" at the University of Munich in Germany.

1961-1967: Student in physics at the universities of Kiel, Tübingen and Munich in Germany, and at Grenoble (1964-65) in France.

1952-1961: Student at the "Voss-Gymnasium", high school at Eutin, W. Germany.

Professional Experience

<i>Positions held</i>	<i>Dates</i>	<i>Organisations</i>
emeritus professor full professor	since 2016 1998 (Jan) - 2016	University of Ottawa
visiting researcher	2013-2014	University of Oldenburg, Germany
scientific director (part time)	1990- 1997	Computer Research Institute of Montreal (CRIM)
chairholder	1989-1997	Hewlett-Packard-NSERC-CITI Industrial Research Chair on Communication Protocols (at the Université de Montréal)
emeritus professor professor (associate prof.) (assistant prof.)	since 1998 1972-1997 1976-1982 1972-1976	Université de Montréal, Département d' informatique et de recherche opérationnelle
visiting researcher	1986-1987	Siemens AG, Munich, FRG

visiting professor	1979-1980	Stanford University, USA
invited professor	1977-1978	Ecole Polytechnique Fédérale de Lausanne Switzerland
visiting professor	1974-1975	McGill University, Montréal
lecturer	1976 (part time)	Ecole de Technologie Supérieure, Montréal
professor	1970-1971	Collège de Maisonneuve, Montréal
research assistant	1967-1968	g-2 experiment, CERN, Geneva
consultant	1988	NOKIA, Helsinki (Finland)
	1982-1988	Computer Gateways Inc., Ottawa
	1987	Siemens, Munich (FRG)
	1987	Philips, Nuremberg (FRG)
	1985-1986	Protocoles Standards de Communication Inc. Ottawa
	1976-1986	DOC Canada
	1982-1998	CERBO Informatique Inc., Montréal
	1984	World Bank (Washington)
	1983	Burroughs, USA
	1982	ZBK Telecomputers, Montreal
	1981	SRI International, USA
	1979-1981	Hahn-Meitner-Institut, Berlin
	summer 1975	SUCO (Service Univ. Canadien Outremer)
	1972-1973	Computing Center, Université de Montréal
President	1982-1998	CERBO Informatique Inc.
Vice-president	1974-1978	Dendronic Decisions Ltd.

Awards and prizes:

1971	Post-doctoral fellowship	NRC, Canada
1988	Urgel Archambeault prize (for exceptional contributions in the area of physical sciences, mathematics and engineering)	ACFAS (Association canadienne-française pour l'avancement des sciences).
1989	ITAC Award (for academic excellence in research in the field of information technology); this was the first time the award was given	ITAC (Information Technology Association of Canada, an industry association) in collaboration with NSERC (Natural Sciences and Engineering Research Council of Canada)
1995	Fellow of the IEEE, elected with the citation: "For contributions to the formal specification of protocols for data communications."	The Institute of Electrical and Electronics Engineers, Inc. (IEEE)
1995	Doctor honoris causa	Joseph Fourier University of Grenoble, France
1996	Fellow of the ACM	ACM, "The First Society in Computing"
1997	Fellow of the Royal Society of Canada	
2000	Glinski Award for Excellence in Research	Faculty of Engineering, University of Ottawa
2001	Thomas W. Eadie Medal	Royal Society of Canada
2002	Award for Excellence in Research	University of Ottawa
2005	recognized as a "Pioneer of Computing in Canada"	at the CASCON conference organized by IBM and NRC in Toronto
2008	Fellow of the Engineering Institute of Canada	
2011	McNaughton Gold Medal	IEEE Canada.
2012	Doctor honoris causa	Université de Rennes 2 (France)

Membership in professional societies

Professional Engineers Ontario (PEO), member since 12-08-2003.

IEEE member since 1979 (Computer Society of IEEE); elected Fellow in 1995.

ACM (Association for Computing Machinery), since 1972; elected Fellow in 1996.

Working Group 6.1 (International Working Group on Computer Networks of the International Federation for Information Processing (IFIP), since 1975 (member of the Steering Committee of the FORTE conference, 1999 - 2012)

CIPS (Canadian Information Processing Society), 1975-1984

IFIP Working Group 6.5 "International Computer Message Systems", 1981-1986.

ACFAS (Association Canadienne-Francaise pour l'Avancement des Sciences) since 1971 (however, not every year).

Committees (outside the University)

Member of the Steering Committee for the joint international conference on "Formal Description Techniques for Distributed Systems and Communication Protocols" (1999 - 2012) and "Protocol Specification, Testing and Verification" (FORTE/PSTV) sponsored by the IFIP Working Group TC6/WG6.1

External visiting expert for the evaluation of the graduate program of the Département d'informatique at the University of Sherbrooke (2010)

Member of Program Committee of "Agile All-Photonic Networks", an NSERC Research Network involving 5 universities and 5 industrial partners (2003 – 2008)

Member of the NSERC Advisory Committee on University-Industry Grants (2002, 2003, 2004)

Member of the International Visiting Committee (assessment committee) of the Institut National Polytechnique de Grenoble (INPG), France (1999 and 2001)

Member of the External Scientific Committee, Centre de Recherche Informatique de Montreal (CRIM) (2000-2001).

ACM Awards Committee for the Grace Murray Hopper Award (for outstanding young computer professionals), June 1998 - June 2001

Advisory Board of the Hewlett-Packard Protocol Test Centre, Montreal (1992-97)

Program Committee of the Canadian Institute for Telecommunications Research (CITR), a network of centers of excellence (1990-93). Also chairman of the Area Sub-Committee on Telecommunications Software (1990-93). Member of Area Sub-Committee on Broadband Services (1993-97).

Working Group for the Establishment of an Inter-University Professional MSc Program in Software Engineering, Montreal, 1993-94.

Exploitation Committee of IRIS (a canadian network of centers of excellence) (1991-94).

Scientific Committee of the Macroscopic project, DMR, Montreal (1991 - 1996)

Executive Advisory Board of the IBM Toronto Laboratory (1991-93)

Member of the editorial board of the Computer Networks and ISDN Systems journal (1993-97).

Member of the editorial board for the Electronic Journal on Networks and Distributed Processing, published by TASK Laboratory, University of Pau, France (1995-1997).

Member of the editorial board for Revue Réseaux et Informatique Répartie, international journal published by Editions Hermes, Paris (1990-94).

Member of the editorial board for Distributed Computing, an international journal published by Springer Verlag (1986-94).

Member of the NSERC workshop (committee) for determining the mission statement for the strategic grants in the area of "Information Systems" (1992).

Member of the selection committee for the 1993 ITAC/NSERC Award (Information Technology Association of Canada).

Member of the selection committee for 1992 Telecom Canada Telecommunications Research Award.

Member of the selection committee for the ACFAS prize "Urgel Archambeault" (1989).

Member of the evaluation committee for the "Département de linguistique" within the University of Montreal, 1990.

Member of the Task Group on Computer/Communications Protocols for Bibliographic Data Interchange of the National Library of Canada (1981 - 90).

"Conseil Scientifique du Centre National d'Etudes en Telecommunications" (CNET), Lannion, France (1981-1985).

Technical Committee of CRIM (Computer Research Institute of Montreal) 1988-1989.

Member of the ad hoc "implementation committee" of CRIM (Computer Research Institute of Montreal) 1985.

Member of CSA (Canadian Standard Association) Committee on Data Communications (1976-1981) and Open Systems Interworking (OSI), (1979-97). Author of many contributions which led to Canadian papers to the ISO/TC97 Subcommittees 6 (Data Communications) and 16/21 (Open System Interconnection) during the period 1980-85.

Member of the Subgroup B of the ad hoc group on FDT of ISO TC97/SC16/WG1 on Open Systems Interworking (OSI), (1981-1986). Bochmann's contributions to the works on the FDT "Estelle" were recognized by the chairman of the group, R. Tenney, during a meeting in Sidney (1988) when the Estelle language became an international standard.

Member of the National Study Group VII (Canada) for CCITT (since 1979). Author of many contributions which led to Canadian papers to the CCITT Rapporteurs group on Formal Description Techniques (Question 39/VII, 1980-84).

CCITT Interim Rapporteur on Question 39/VII (formal description techniques (FDT)), 1984-85.

CCITT Rapporteur on Question 8A/X (validation of protocol specifications), 1985-86.

Chairman of the Subgroup A on "Architecture" of the ad hoc group on Formal Description Techniques (FDT) of ISO TC97/SC16/WG1 on Open Systems Interworking (OSI), (1981-1984).

Vice-Chairman (1977-78), CIPS Special Interest Group on Data Communications.

Research Collaborations

In 2008 I was contacted by IBM for an industry-university collaboration in the area of security testing for rich internet applications. This led to my current collaboration with my colleague Guy-Vincent Jourdan on projects funded by IBM and NSERC CRD grants.

I participated in the establishment of the NSERC Research Network "Agile All-Photonic Networks" (headed at McGill University), which started its operations in 2003, and was the research coordinator for Theme 1 on "Architectures and Networks". Theme-1 researchers included professors Coates, Mason and Vickers from McGill University and Hall and Yang from the University of Ottawa. My work in the area of optical networks started in 2000, when I initiated a new research project on "Optical Networks and IP Traffic" funded by the National Capital Institute for Telecommunications (NCIT). It included 6 university professors (and students) from Carleton University and the University of Ottawa, and researchers from the governmental Communication Research Centre (CRC) and Nortel Networks.

In 2002, we started a research collaboration with colleagues at SITE on "Requirements-Driven Development of Distributed Applications" which was funded by an NSERC Strategic grant.

Since I moved to the University of Ottawa early 1998, I established a new research group in the area of quality of service management and advanced Internet applications. I led a project on "Quality of service and distributed

systems management" with Profs. Kerhervé from UQAM and Lutfiyya from the University of Western Ontario. This was a project within CITR, the Canadian Institute for Telecommunications Research (a Canadian NCE), and IBM was an important industrial collaborator. This collaboration also resulted in an NSERC CRD grant (2000-2003). During 2000-2003, I was the coordinator of the CITR Major Project on "Enabling Technologies for Electronic Commerce", which included our project and other projects involving the research groups of Georganas (University of Ottawa), Ozsu and Wong (University of Waterloo) and Radakrishnan (Concordia University).

From 1989 to 1997, I held the Hewlett-Packard - NSERC - CITI Industrial Research Chair on Communication Protocols at the University of Montreal, in the following simply called the Chair. The research team included professor Dssouli and several people paid by the Chair, such as visiting professor Petrenko during 4 years, post-doctoral researchers, a project coordinator, a technical assistant and many graduate students. The team included also people paid by other research grants (including students) and international visitors coming with their own funding.

The research team of the Chair was internationally well-known and attracted a number of long-term visitors, such as Prof. Higashino (one year sabbatical leave from Osaka University in 1990, and another 6 months during 1994), Prof. Lopez de Souza (from Dep. de Engenharia Eletrica, Campinas Grande, Brazil, twice two months in 1990 and 1992), Dr. Groz ("sabbatical leave" from CNET, Lannion, France, 1991-92), Prof. Schaff (sabbatical leave from Université de Nancy, France, 1991-92), Mr. Kurakawa (visiting researcher from NTT, Japan 1991-92), Dr. A. Petrenko (from Institute of Electronics and Comp. Sc., Riga, Latvia, 1992-96), Prof. H. König (Univ. of Magdeburg, Germany, 1992 - 1993), Prof. N. Yevtushenko (several visits for 2 to 4 months during 1994, 95, 96, and 1997), Prof. G. Ouvradou (sabbatical leave from the engineering school Telecom Bretagne, France, 6 months during 1997), Prof. K. Yasumoto (sabbatical leave from Shiga University, Japan, 1997-98).

The research team of the Chair participated in several joint industry-university research projects organized by Centre de Recherche Informatique de Montreal (CRIM). One project with IBM in 1989-90 involved the study of Prolog for the modelling and testing of the MAP application layer protocol MMS. Another project with BNR (Nortel) in 1988-91 was concerned with object-oriented system modelling and network management. During 1991-93, some members of the group participated in a research project with DMR (MACROSCOPE) concerning the modelling of distributed architectures for information processing and work organization. A project on SONET network management was done during 1994-95 with Positron, and a project on test development for communication software was done with EICON in 1996-97. The group performed also several research contracts directly with industry.

From December 1992 through July 1997, I led a large university-industry collaboration project, called IGLOO, which was coordinated by CRIM and dealt with object-oriented modeling of distributed systems and network management, and was funded from 1992 to 1996 by the Quebec Synergie fund and industrial contributions, and from 1994 to 1997 by an NSERC industry-university collaboration grant. This collaboration involved the companies BNR, Teleglobe, DEC, CAE, Servacom and Machina Sapiens, and the three universities Montreal, Sherbrooke and UQAM.

Between 1993 and 1996, the group participated, together with Prof. Logrippo from University of Ottawa, in a formal collaboration under the ESPRIT program with Prof. Sifakis (Univ. de Grenoble) and Prof. Danthine (Univ. de Liège, Belgium). During 1993-94, the group participated in a formal collaboration with the European RACE project TOPIC (headed by GMD-FOCUS in Berlin) in the area of broadband communications and quality of service verification. Additional international collaboration projects with associated funding are listed under "Research Grants and Contracts" below.

During 1990-93, I was the coordinator of the Major Project on "Telecommunications Software Engineering" of the Canadian Institute for Telecommunications Research (CITR), including the groups of Bochmann (UdeM), Chanson (University of B.C.), Parnas (McMaster University), and Probert (University of Ottawa). I then initiated the new Major Project "Broadband Services" which was headed by Prof. Wong (Waterloo University) until 1997.

Organization of Conferences

Co-chair (with Probert and Ural) of IFIP International Conference on Testing Communicating Systems, August 2000, Ottawa.

Co-chair of the SDL Forum '99 in Montreal.

Co-organizer of Workshop on Formal Methods and their Applications: Telecommunications, VLSI and Real-time Computerized Control Systems (Centre Jacques Cartier), Montreal, Oct. 1996.

Co-chair (scientific) of program committee of VISION 1996, Process Improvement Symposium: Toward an International Vision, Organized by SPIN-Montreal, Canada, Oct. 1996.

Co-chairman of IFIP International Conference on Formal Description Techniques (FORTE), Oct. 1995, Montreal.

Co-organizer of Workshop on Communicating Informatics and Distributed Systems (Centre Jacques Cartier and IMAG), Grenoble, France, Nov. 1994.

Co-organizer (with Jan de Meer, GMD-FOCUS, Berlin) of the Workshop on Distributed Multimedia Applications and Quality of Service Verification, Montreal, June 1994 (collaboration with european RACE project TOPIC).

Co-chairman of Conférence Francophone sur le Génie de Protocoles (a bi-annual, international conference), Sept. 1993, Montreal.

North-American Coordinator for IFIP International Conference on Computer Networks, Architecture and Applications, 26-28 Oct. 1992, Trivandrum (India)

Co-chairman of IFIP International Workshop on Protocol Test Systems, Sept. 1992, Montreal.

General Chairman for International Workshop on Computer-Aided Verification, June 1992, Montreal.

General Chairman for ACM Symposium on Principles of Distributed Systems, Aug. 1990, Quebec City.

Co-organizer for Entretiens du Centre Jacques Cartier "Les systemes paralleles et distribues", Lyon, France, 1989.

Program Co-chairman for International Conference on Intelligent Tutoring Systems, Montreal, June 1988.

Co-chairman of IFIP Workshop on Protocol Specification, Verification and Testing, June 1986, Mont Tremblant, Montreal.

Program Chairman for ACM SIGCOMM Symposium on Communications Architectures and Protocols, June 1984.

Organizer (with J. Gecsei) of the "First Canadian Workshop on Videotex Technology", June 1980, Université de Montréal (with international participation).

Member of Program Committees for

- 4th Intern. Conf. on NETworked sYStems (NETYS), May 2016, Marrakesh, Morocco.
- 28th IFIP Intern. Conference on Testing Software and Systems (ICTSS), Oct. 2016, Graz, Austria.
- 27th IFIP Intern. Conference on Testing Software and Systems (ICTSS), Nov. 2015, Dubai, United Arab Emirates.
- 3rd Intern. Conf. on NETworked sYStems (NETYS), May 2015, Marrakesh, Morocco.
- 26th IFIP Intern. Conference on Testing Software and Systems (ICTSS), Sept. 2014, Madrid, Spain.
- 2nd Intern. Conf. on NETworked sYStems (NETYS), May 2014, Marrakech, Morocco.
- 11th African Conf. on Research in Computer Science and Applied Mathematics, Senegal, 2014.
- The International Conference on NETworked sYStems (NETYS), April 2013, Marrakech, Morocco.
- 2nd Intern. Workshop on Interactions, Games and Protocols (IWIGP), March 2012, Tallinn, Estonia
- 11th African Conf. on Research in Computer Science and Applied Mathematics, Oct. 2012, Algiers
- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE/CFIP), Bayonne (France), Oct. 2012
- 4th International Workshop on Workflow Management in Service and Cloud Computing (WMSC 2012), Nov. 2012, Xiangtan, China
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Sainte-Maxime (France), May 2011.
- 23rd IFIP Int. Conference on Testing Software and Systems (ICTSS'11), Paris, Nov. 2011.
- Intern. Workshop on Interactions, Games and Protocols (IWIGP 2012), April 2012, Tallinn, Estonia.
- 31st IFIP Intern. Conference on Formal Techniques for Distributed Systems (FMOODS/FORTE), Reykjavik (Iceland), June 2011.
- Intern. Workshop on Interactions, Games and Protocols (IWIGP 2011), Saarbrücken (Germany), March 2011.

- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Paris (France), May 2011.
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Sainte-Maxime (France), May 2011.
- 22nd IFIP Intern.l Conf. on Testing Software and Systems (ICTSS'10), Natal (Brazil), Nov. 2010
- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Tozeur (Tunisia), June 2010.
- 30st IFIP Intern. Conference on Formal Techniques for Distributed Systems (FMOODS/FORTE), Amsterdam (Netherlands), June 2010.
- 36th Intern. Conf. on "Current Trends in Theory and Practice of Computer Science", Prague (Czech Republic), Jan. 2010.
- IFIP Intern. Workshop on Testing of Communicating Systems (TestCom) and Int. Workshop on Formal Approaches to Testing of Software (held jointly), Eindhoven (Netherlands), Nov. 2009.
- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Montréal (Canada), June 2009.
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Strassbourg (France), October 2009.
- Workshop on "Spiele, Geschäftsprocesses und Interaktionsmodelle", 39-th Annual Conference of Gesellschaft für Informatik, Lübeck, Germany, Sept. 2009.
- 4-th Workshop on Advances on Model-Based Testing (A-MOST 2008), Lillehammer, Norway.
- 29st IFIP Intern. Conference on Formal Techniques for Distributed Systems (FMOODS/FORTE), Lisbon (Portugal), June 2009.
- 5-th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine 2008), Hong-Kong (China), July 2008.
- IFIP Intern. Workshop on Testing of Communicating Systems (TestCom) and Int. Workshop on Formal Approaches to Testing of Software (held jointly), Tokyo (Japan), June 2008.
- 28st IFIP Intern. Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Tokyo (Japan), June 2008.
- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Lyon (France), June 2008.
- International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), July 2007, Hong Kong (China).
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Les Arcs (France), March 2008.
- Intern. Conferences on Wireless and Optical Communications (organized by IASTED), July 2008, Quebec City.
- Workshop on Advances in Model-Based Testing (AMOST), Lillehammer, Norway, 2008
- IFIP Intern. Workshop on Testing of Communicating Systems (TestCom), Tallinn, Estonia, June 2007.
- 27st IFIP Intern. Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Tallinn, Estonia, June 2007.
- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Marakech, Marocco, June 2007
- International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), August 14 - 17, 2007, Vancouver
- 20th International Teletraffic Congress (ITC-20), Ottawa, June 2007.
- 4th International Workshop on Formal Aspects in Security&Trust (FAST2006), Hamilton, Canada, 2006
- IFIP Intern. Workshop on Testing of Communicating Systems (TestCom), New York, USA, May 2006.
- International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), Waterloo, Canada, August 2006.
- Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Bordeaux, France, May 2006.
- 26st IFIP WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Paris, October 2006.
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Tozeur, Tunisia, Nov. 2006.
- International Conference on Algebraic Methodology And Software Technology (AMAST), Tallinn, Estonia, July 2006.
- 4th International Workshop on Internet Performance, Simulation, Monitoring and Measurement (IPS-MoMe), Salzburg, April 2006.
- for "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Bordeau (France), April 2005.

- IASTED International Conference on Communication Systems and Applications (CSA 2005), Banff, Canada, July 2005.
- 25st IFIP WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Taiwan, October 2005.
- for Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Gatineau, Québec, August 2005.
- Second International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), August 22 - 24, 2005, Orlando Florida, USA
- IFIP Intern. Workshop on Testing of Communicating Systems (TestCom), Montreal, Canada, May 2005
- IFIP Intern. Workshop on Testing of Communicating Systems (TestCom), Oxford, UK, March 2004
- for Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE), Marocco, 2004.
- 24st IFIP WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Madrid, Spain, September 2004.
- 10th International Conference on Algebraic Methodology And Software Technology (AMAST), Stirling, Scotland, UK, July 2004.
- First International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), Oct. 2004, Dallas, Texas, USA
- IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOT), 12 - 15 October 2003, Orlando, Florida, USA.
- for 23st IFIP WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Berlin, Germany, September 2003.
- for IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Sophia Antipolis, France, May 2003
- for IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Berlin, Germany, March 2002
- for "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Montreal (Canada), Mai 2002.
- IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOT), 12-16 October 2002, Fort Worth, Texas
- for 22st IFIP WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems (FORTE), Texas, USA, October 2002.
- 8th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services (IDMS-PROMS'2002), Portugal, Sept. 2002.
- for IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Berlin, Spring 2002.
- IFIP/ACM International Conference on Distributed Systems Platforms and Open Distributed Processing, Heidelberg, Germany, Nov. 2001.
- 7th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services (IDMS), Lancaster, England, Sept. 2001.
- for 21st IFIP WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems (FORTE), August 2001.
- for ECOOP Workshop on Objects and Patterns in Telecom, June 2000, Sophia Antipolis, France.
- for Intern. Conf. on Algebraic Methodology and Software Technology (AMAST), Iowa City, USA, May 2000.
- IFIP/ACM International Conference on Distributed Systems Platforms and Open Distributed Processing, April 2000, New York.
- for Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE'2000), Paris, Nov. 2000.
- for "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Toulouse (France), Oct. 2000.
- IFIP International Conference on Distributed Systems Platforms and Open Distributed Processing ("Middleware"), April 2000, New York, USA.
- 6th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services, Enschede, Netherlands, Oct. 2000.
- for IFIP Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE/PSTV), Oct. 2000, Pisa, Italy.
- for "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Nancy (France), April 1999.
- for IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Budapest, Hungary, Sept. 1999.
- IFIP Sixth International Workshop on Protocols For High-Speed Networks (PfHSN '99), Aug. 1999, Salem, Mass., USA.

- for IFIP Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE/PSTV), Oct. 1999, Beijing, China.
- 6th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services, Toulouse, France, Oct. 1999.
- Second International Conference on the Unified Modeling Language, Oct. 1999, Fort Collins, Colorado, USA.
- for Colloque International sur les Nouvelles Technologies de la Répartition (NOTERE'99), Montreal, Oct. 1998.
- 5th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services, Oslo, Norway, Sept. 1998.
- IFIP International Conference on Distributed Systems Platforms and Open Distributed Processing ("Middleware"), Sept. 1998, England.
- IFIP Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE/PSTV), Nov. 1998, Paris, France.
- IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Tomsk, Russia, Sept. 1998.
- Third IEEE International Workshop on Systems Management, Rode Island, NY, April 1998.
- Colloque International sur les Nouvelles Technologies de la Répartition, Montreal (Canada), Oct. 1998.
- Colloque International sur les Nouvelles Technologies de la Répartition, Pau (France), Nov. 1997
- IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Cheju Island, Korea, Sept. 1997.
- Joint Intern. Conf. on Open Distributed Processing (ICODP) and Distributed Platforms (ICDP), Toronto, Canada, May 1997.
- Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE/PSTV), Nov. 1997, Tokyo, Japan.
- Second IFIP International conference on Formal Methods for Open Object-based Distributed Systems (FMOODS), Canterbury (UK), July 1997.
- Fourth Workshop on Feature Interactions in Telecommunication Networks and Distributed Systems, Montreal, June 1997.
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Liège (Belgium), Oct. 1997.
- Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE/PSTV), Oct. 1996, Kaiserslautern, Germany.
- "Colloque Francophone sur l'Ingenierie des Protocoles" (CFIP), Rabat (Marokko), Oct. 1996.
- IFIP Intern. Workshop on Testing of Communicating Systems (IWTCS), Darmstadt (Germany), Sept. 1996.
- Intern. Conf. on Algebraic Methodology and Software Technology (AMAST), Munich, July 1996.
- IFIP Workshop on Formal Methods for Open Object-based Distributed Systems (FMOODS), Paris, March 1996.
- IEEE Intern. Conf. on Distributed Computing Systems, Hong Kong, May 1996.
- Intern. Conference on Network Protocols (ICNP-95), Tokyo, Nov. 1995.
- IFIP Intern. Workshop on Protocol Test Systems (IWPTS), Paris, Sept. 1995.
- Intern. Conf. on Algebraic Methodology and Software Technology (AMAST), Montreal, July 1995.
- IEEE INFOCOM'95, Boston, 1995.
- IFIP International Workshop on Upper Layer Protocols, Architectures and Applications, 1994, Barcelona, Spain.
- 2nd African Conference on Research in Computer Science, CARI'94, Ouagadougou, Bourkina Faso, Oct. 1994.
- Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE/PSTV), Oct. 1994, Bern, Switzerland.
- IEEE INFOCOM'94, Toronto, 1994.
- 2nd African Conference on Research in Computer Science, Rabat, Marocco, 1994.
- IEEE Intern. Conf. on Distributed Computing Systems, Poland, June 1994.
- IFIP Symposium on Protocol Specification, Testing and Verification, Vancouver, June 1994.
- IFIP Intern. Workshop on Protocol Test Systems (IWPTS), Tokyo, Nov. 1994.
- Workshop on Computer-Aided Verification, June 1993, Creete, Greece.
- Int. Conference on Open Distributed Processing (ICODP '93), Berlin, Sept. 1993.
- Intern. Conf. on Formal Description Techniques for Distributed Systems and Communications Protocols (FORTE), Oct. 1992, Lannion, France.

- IFIP International Workshop on Upper Layer Protocols, Architectures and Applications, May 1992, Vancouver, Canada.
- Canadian Conference on Electrical and Computer Engineering, Toronto, Sept. 1992
- IFIP Symposium on Protocol Specification, Testing and Verification, Liège, Belgium, June 1993.
- IFIP Symposium on Protocol Specification, Testing and Verification, Orlando, Florida, USA, June 1992.
- Intern. Zurich Seminar on Digital Communications, Switzerland, March 1992.
- IFIP Intern. Workshop on Protocol Test Systems, Netherlands, Oct. 1991.
- IFIP Symposium on Protocol Specification, Testing and Verification, Stockholm, Sweden, June 1991.
- "Colloque Francophone sur l'Ingenierie des Protocoles", Pau (France), Sept. 1991.
- Workshop on Computer-Aided Verification, July 1991, Aalborg, Denmark.
- International Workshop on Protocol Test Systems (IFIP), Den Hague, Netherlands, Oct. 1991.
- IFIP Symposium on Protocol Specification, Testing and Verification, Ottawa, June 1990.
- IFIP International Conference on Computer Networks (COMNET'90), Budapest, May 1990 (stream organizer).
- IFIP Symposium on Protocol Specification, Testing and Verification, Enschede, Netherlands, June 1989.
- FORTE '89, Vancouver, Dec. 1989.
- International Conference on Computer Communication (ICCC'88), TelAviv, Israel, Oct.1988.
- First International Workshop on Protocol Test Systems, Vancouver, Oct. 1988.
- INTAP Second International Symposium on Interoperable Information Systems (ISIIS), Tokyo, Nov. 1988.
- "Colloque Francophone sur l'Ingenierie des Protocoles", Bordeaux (France), Sept. 1988.
- IFIP Symposium on Protocol Specification, Testing and Verification, Atlantic City, June 1988.
- IFIP Symposium on Protocol Specification, Testing and Verification, Zurich, May 1987.
- ACM SIGCOMM Symposium on Communications Architectures and Protocols, Stowe, Vermont, USA, Aug. 1986.
- IEEE MONTECH '86, Conf. on Antennas and Communications, Montreal, Sept. 1986.
- COMNET'85 (IFIP), Sept. 1985, Budapest.
- COMPINT'85 (IEEE Intern. Computer Conf. and Exhibition), Sept. 1985, Montreal.
- IEEE Infocom '84, San Francisco, April 1984.
- ACM Symposium on Communications Architectures and Protocols, Austin, Texas, April 1983.
- the 4th IFAC Workshop on Distributed Computer Control Systems (DCCS-82), Tallinn, USSR, May 1982.
- ACM Conference on Principles of Distributed Computing, 1982, and 1983.
- Second Int. Workshop on Protocol Specification, Testing and Verification (IFIP WG 6.1), Mai 1982.
- Berkeley Conference on Distributed Systems, 1979.
- ACM/IEEE Very Large Data Base Conference (VLDB), 1980.
- ACM Conference on Data, Salt Lake City, 1976.

Teaching Experience (since 1976)

Graduate courses:

- “Validation methods for distributed systems” (2015)
- “Model-Based Design and Verification of Distributed Real-Time Systems” (2013)
- "Requirements-driven development of distributed applications" (2007-2012)
- "Electronic commerce technologies" (2001)
- "Quality of service management for multimedia applications" (1999 - 2006)
- "Formal methods for the development of real-time system applications" (1998 – 2000, 2002, 2003)
- "Formal methods in software and protocol engineering"
- "Tele-informatique" (comp. communications, networks, and distributed processing).
- "Parallelism in distributed systems".
- "Projets appliqués sur la programmation de systèmes" (Applied projects in computer systems).
- "Programming languages and compilers".
- "Theoretical aspects of compiler construction".
- "Méthodes de conception de logiciel" (Software engineering).
- "Banques de données" (Data base systems).

Undergraduate courses:

- "Software construction" (since 1999, in english and french)
- "Software requirements analysis" (2010)
- "Higher layer network protocols" (2005, in french)
- "Concepts in programming languages" (1998)
- "Tele-informatique" (computer communications).
- "Ordinateurs contemporains" (general description of today's computers and telecommunications equipment, applications, 1976).
- "Structure des ordinateurs" (internal structure of computers and machine language programming).
- "Initiation a la programmation de gestion" (introduction to Cobol programming).
- "Banques de donnees" (data base systems).
- "Informatique de gestion" (data processing and systems analysis).
- "Conception et implantation de langages" (language design and implementation, 1981)

Other courses:

- Introduction to programming (Fortran).

Graduate student supervision

Number of students having completed their degree under my direction (total number): 33 PhD; 83 MSc

Current student supervision: 1 PhD, 1 Master

People currently supervised

Mohammad Hammouri (PhD, since 2016, co-supervisor P. Flocchini), topic: derivation of communication protocols for distributed applications

Amid Zakariapour (Master, since 2015, co-supervisor T. Lethbridge), topic: Distributed state machines in Umple

Past visiting researchers and post-doctoral fellows:

Post-doctoral fellows (before 1998, this list is incomplete):

Yiming Zhang (post-doctoral researcher, 2006-08 full time, until 2013 part time), topic in the area of optical networks, and AAPN prototype development

Shah Asaduzzaman (Oct. 2007 – April 2010), topic in the area peer-to-peer systems and video multicasting, now works at Carleton University

Jun Zheng (2005-2006), in the area of optical networks, took a job in Dr. Mouftah's research group

Bin Zhou (2004) working in the area of optical network management, took a job with Nortel Networks

Ling Zou (2002-2004) working in the area of optical network management

J. Chen (2000-2002), took a job in the USA.

R. Song (2000-2001), took a job with the National Research Council (NRC) in Ottawa

Z. HE (1999-2000), took a job with Nortel Networks in Ottawa

A. Elqortobi, post-doctoral researcher (Nov. 1996 - Dec. 1997)

S. Fischer (Sept. 1996- Aug. 1997), PhD from Mannheim, Germany; research on quality of service negotiation, returned to University of Mannheim.

Y. Benkhellat (April 1995 - April 1996), PhD from Nancy, France; research on protocol testing, took a job with Positron Fiber Systems, Inc.

C. Valot, PhD from France (April 1995 - Dec. 1995)

A. Khoumsi (Jan. 1993 - June 1996), PhD from Toulouse, France; research on protocol derivation, feature interactions and real-time issues, became professor at the University of Sherbrooke.

Dr. A. Vogel, PhD from Berlin, Germany (April 1993 - June 1994).

Dr. G. Luo, PhD from Beijing University, P.R. China (Nov. 1990 - 1993)
Dr. I. A. Hamid, PhD from Sendai, Japan (Dec. 1990 - Jan. 1992)
Dr. P. de Saqui-Sannes, PhD from LAAS, Toulouse, France (Dec. 1990 - Dec. 1991)
Dr. L. Kovacs, PhD from Budapest (during half a year in the late 80-ies)
Dr. R. Gotzhein, PhD from Erlangen, Germany (1987-88)

Visiting researchers coming with their own funding (this list is incomplete before 1998):

Jiang Feng, visiting professor from Xi'an University of Science and Technology, P.R. China (Jan 2016 – Dec. 2016)
Marcel Karam, visiting professor from Computer Science Department at the American University of Beirut, Libanon, (June-July 2013)
Jing Zhou, visiting professor from Communication University of China, Beijing (Sept. 2011 – Oct. 2012)
Jianxun Liu, visiting professor from Hunan University of Science and Technology, Xiangtan City, China (Jan. 2008 – Jan. 2009)
Cheng Li, visiting professor from Beijing University of Posts and Telecommunications, China (2004-2005)
Anna Agusti-Torra, visiting PhD student from Escola Politècnica Superior de Castelldefels, Universitat Politècnica de Catalunya, Barcelona, Spain (2004-2005)
Danjiang Li, visiting researcher, chief engineer and director of the information network department at the Design Institute of Radio, Film & TV (DIRFT), Beijing, China (2004)
Zhengling Xiao, visiting researcher, from the Computer Center, Sichuan University (West Campus), Chengdu, Sichuan, China (2002 – 2003)
Prof. W. Lopez de Souza from the University of San Carlos, Brazil (2001-02, sabbatical year)
W. Wang, visiting researcher from Beijing University for Post and Telecommunications, China (2000 - 2001)
A. Misaka, visiting PhD student from S. Paulo, Brazil (2000 - 2001)
Chen, Baofu (1999-2000) from the Academy of Sciences, Beijing, China
H. Li, visiting professor from the University of Inner Mongolia, China (2000 – 2001)
Dr. H. Yamaguchi (six months in 1998) from the University of Osaka (Japan)
Prof. K. Yasumoto (sabbatical leave from Shiga University, Japan, 1997-98)
Prof. G. Ouvradou (sabbatical leave from the engineering school Telecom Bretagne, France, 6 months during 1997)
Mr. A. Kurakawa from NTT, Japan (March 1991 - March 1992) visiting young researcher from NTT, Tokyo, Japan (financed by NTT)
Prof. T. Higashino from Osaka University (Japan) spend a sabbatical year in 1990.
Mr. S. Fujiwara (March 1989 - March 1990) visiting young researcher from NTT, Tokyo, Japan (financed by NTT)

Students having completed their PhD under my direction, since 1990 (if not indicated otherwise, I was the principal supervisor)

Khaled Ben Hafaiedh (PhD, 2011-2016, co-supervisor: G.V. Jourdan), topic: Distributed crawling of Web applications and fault tolerance, took a job in Tunisia.
Seyed M. Mirtaheri (PhD, 2011-2015, co-supervisor: I.V. Onut, IBM), topic: distributed crawling of Rich Internet Applications, took a job with Akamai (Ottawa)
Toqeer Israr (PhD, 2008-2014), topic: performance modeling of multi-party collaborations
Ying Qiao (PhD, 2006-2012), topic: load balancing in peer-to-peer systems, took a job as research associate
Hassan Zeineddine (PhD, 2003-2009, part time), topic: Time slot allocation in optical networks, took a professor position in the Emirats.
Fida Dankar (PhD, 2002-2008), topic: Performance modeling for non-Markovian systems, took a researcher position at the University of Ottawa
Peng He (PhD, 2004-2008), topic: Protection and Routing over Agile All-Photonic Networks (AAPN), took a job with a company near Boston
Cheng Peng (PhD, 2002-2006, co-supervisor: T. Hall), topic: bandwidth allocation in agile all-photonic networks (AAPN), took a job with Nortel Networks in Ottawa.
K. El-Khatib (PhD, 1999-2005), topic: QoS management for IP-telephony and teleconferencing
A. Maach (PhD, 2002-2005, co-supervisor: Mouftah), topic: Routing and reconfiguration in optical networks
N. Chefai (PhD, 2004), co-supervisor: Georganas, topic: Multicast routing with QoS management and preemption

- H. Ye (PhD at the University of Montreal, 2003, principal supervisor: B.Kerhervé from UQAM), “Integrating quality of service in a distributed query processing environment”, continued as a post-doctoral researcher at UQAM.
- Y. Iraqi (PhD, Univ. of Montreal, 2003), principal supervisor : Prof. Boutaba from Waterloo, topic: Quality of service management in wireless networks, works as a researcher at the University of Waterloo
- K. El-Fakih (PhD, 2002), topic: Testing and re-testing of communicating systems, took a job at the American University in the UAE.
- Mohamed-Vall M. Salem (PhD at the University of Montreal, 2002, co-supervisor J. Wong from University of Waterloo), topic: Quality of service management for Web server pools, now professor at the University of Wollongong (Australia) in their campus in Dubai (UAE).
- J. Drissi (PhD at the University of Montreal, 2000), topic: On the construction of submodule specifications for real-time systems, took a job with the Southwest Texas State University, USA.
- D. Ramazani (PhD at the University of Montreal, 1999) topic: On composition in object-oriented analysis and design, took a job with Discrete Logic Inc., Montreal
- Q. Tan (PhD at the University of Montreal, 1998), principal supervisor: A. Petrenko, topic: On conformance testing of systems communicating by rendezvous, took a job with Claremont Technology Group, Montreal.
- P. Dini (PhD 1997), co-supervisor: R. Boutaba, topic: Towards automation of reconfiguration management in distributed systems, took a job with CRIM, Montreal
- A. Hafid (PhD 1996), co-supervisor: R. Dssouli, topic: Quality of service management for distributed multimedia applications, took a job with CRIM, Montreal
- Z.P. Tao (PhD 1996), co-supervisor: R. Dssouli, topic: Formal Method for the Design of Real-Time Communicating Subsystems and Controllers, took a job with Nortel, Ottawa
- M. Yao (PhD 1996), principal supervisor: A.Petrenko, topic: Test suite development and fault coverage analysis for finite state models, took a job with Nortel (BNR), Ottawa
- Q. Gao (PhD 1995), topic: On the design, validation and implementation of distributed rendezvous algorithms, took a job with BNR, now self-employed
- F. Khendek (PhD 1995), topic: Construction incrémentielle de spécifications pour systèmes distribués, now professor at Concordia University, Montreal
- C. Wu (PhD 1993), topic: Distributed implementation of Lotos specifications and fairness in Lotos, took a job with EICON, Montreal.
- C. Antonescu (PhD 1993), topic: Deriving Protocol Specifications from Service Specifications, now Professor at the University of Moncton
- A. Ghedamsi (PhD 1993), co-supervisor: R. Dssouli, topic: Diagnostic tests for protocol implementations modeled by finite state machine, took a teaching position at Concordia University, Montreal
- M. Erradi (PhD 1993), co-supervisor: R. Dssouli, topic: Modification dynamique des spécifications et implantations, took a job as a professor with ENSIAS, Marocco
- M. Barbeau (PhD 1991), topic: Specification verification in high-level language with Petri-Net approach, became professor at the University of Sherbrooke

Students having completed their MSc under my direction, since 1990 (*if not indicated otherwise, I was the principal supervisor*)

- Di Zou (Master, 2012-2015, co-supervisor: V. Onut), topic: concurrent data flow analysis for Web application security, took a job with IBM (Ottawa)
- Aliaa Alghamdi (Master, 2012-2014, co-supervisor: T. Lethbridge), topic: queued state machine modeling in Uml, returned to Saudi Arabia
- Xinghao Xu (Master, 2012-2014, co-supervisor: G.V. Jourdan), topic: concurrent compilation, continues his studies for a PhD in the USA.
- Bo Wan (Master, 2010-2012, co-supervision with G.V. Jourdan), topic: Improved Usage Model for Web Application Reliability Testing
- Suryakant.Choudhary (Master, 2010-2012, co-supervisor: G.V. Jourdan), topic: Crawling Rich Internet Applications using the Menu model, got a job with Microsoft.
- Khaled Ben Hafaiedh (Master, 2009-2011), topic: search in peer-to-peer systems with weak consistency, continues studies for PhD
- Mustafa Nasser (Master, 2009-2011), topic: translating Activity Diagrams into BPEL Web Services, continues studies for PhD

Shen Yu (Master, 2008-2010; Dr. Ying Wu (CRC) co-supervisor), topic: intelligent routing in optical networks, took a job with industry in Waterloo (Canada)

Kamara Benjamin (Master, 2008-2010; co-supervisor G.V. Jourdan), topic: Crawling Rich Internet Applications, took a job with Microsoft (USA)

Fedwa Laamarti (Master, 2006-2010, part time and full time), topic: Deriving distributed software designs from global requirement specifications, continues for PhD

Jun Jian (Master, 2005-2010, part time), topic: in the area of user-controlled lightpath provisioning, has a job with Canarie, Canada.

Eric Zhang (Master, 2002-2008, part time), topic: Security issues for mobile users and ad-hoc networks

Hui Li (Master, 2006-2007, co-supervision with M. Benyoucef, Faculty of Management), topic: A configurable on-line reputation aggregation system, took a job in local industry.

Yong Deng (Master, 2006-2007, co-supervisor: O. Yang), topic: optical network (AAPN) control platform, took a job with an Ottawa company

Qi Wang (Master, 2004-2006, NSERC summer student 2004), topic: user-controlled lightpath provisioning and inter-domain routing, took a job with industry in Ottawa

Shahbaz Maqbool (MSc, 2003-2005), topic: Formal semantics of scenario languages in terms of Petri nets, took a job with local industry

Jianqiang Shi (Master, 2004-2005, principal supervisor: C. Adams), topic: trust management, took a job with a company in Ottawa

J. Chen (Master, 2002-2005), topic: Web-Service for subscriber-based lightpath allocation in optical networks, took a job with a company in Ottawa

Y. Yang (Master, 2002-2005), topic: Derivation of XML-based protocols for Web services, took a job with a company in Toronto

M. Alassaf (MSc, 2003-2004), topic: IP traffic management over optical networks, took a job in the Middle East.

M. Khair (MSc, 2003-2004), topic: Routing protocols for wavelength and path allocation in optical networks, continued studies for a PhD.

K. Chan (MSc, 2001-2003), topic: Run-time feature interaction detection for Internet services, created his own start-up company in Ottawa

Zhengdao Xu (MSc, 2002-2003), topic: Dynamic behavior analysis of load sharing algorithm for replicated Web servers, continues PhD studies at the University of Toronto

Yu Zhong (MSc in System Sc., part time, 2000 - 2003), topic: Global quality of service management for multicasting applications, has a job with Nortel Networks in Ottawa

Ziyang Chen (MSc, 2001-2002) topic: Network fault recovery control with GMPLS, took a job with industry in China.

T. Tang (MSc, 1999-2002, part time) topic: Adaptive quality of service management for a multimedia tele-teaching system, took a job with Nortel Networks in Ottawa

N. Hadibi (MSc, 2000-2002), co-supervisor: D. Makaroff, topic: Device selection for multimedia applications in a personal area network, pursues PhD studies in France.

D. Dutt (MSc, 2001), principal supervisor: D. Makaroff, topic: Performance study for video traffic over Bluetooth wireless networks using simulation, works in a company in Ottawa

I. Dupré la Tour (MSc, 2001), co-director: J.Y. Chouinard, topic: A Secure Authentication Infrastructure for Mobile Communication Services over the Internet, returned to France, he was an exchange student from ENST, Paris.

Z. Yang (MSc, 2000), topic: Quality of service management for multicast applications using MPEG-4/DIMIF, took a job with Nokia, Ottawa

R. Subrahmanyam (MEng, 2000), topic: Performance monitoring of the Apache Web server

A. Mekouar (MSc, 1999), topic: Cooperative quality of service management, now PhD student at University of Waterloo

M. Saoudatou (MSc, 1998), topic: Test development for the ATM PNNI signalling protocol using an SDL specification

A. Soukeur (MSc 1998), topic: Développement d'un éditeur graphique pour les suites de test de protocoles de communication, took a job with CGI (Consultation en Gestion et en Informatique)

K. Chaker (MSc 1998), principal director : Gregoire (INRS), topic : Modélisation orientée objet d'éléments de réseaux Sonet et application à la gestion de réseau, took a job with Nortel, Ottawa.

R. Marcoci (MSc 1997) Implantation du protocole de signalisation ATM en utilisant une spécification SDL (took a job with Cognicase, Montreal)

- R.R. Somalingam (MSc McGill University, 1996), co-director: Ratzer, topic: Network Performance Monitoring for Multimedia Applications, took a job with a small Montreal firm
- M. Vall Ould Salem (MSc 1996) Tests de conformité pour le protocole de signalisation du réseau "Frame Relay" (continues studies towards PhD)
- J. Tessier (MSc 1996), principal supervisor : Keller, topic : Eléments de gestion pour des réseaux ATM (took job with AT&T, USA)
- I. Khriss (MSc 1995), co-supervisor : R. Dssouli, topic: Des tests de conformité du protocole AAL de type 5 pour les réseaux à haut débit (continued studies towards PhD)
- C. Agbaw (MSc 1995, McGill, co-supervisor: Ratzer) Management data collection and gateways (took a job with BNR).
- A. Ezust (MSc McGill University 1995) TANGO, a trace analysis generator for Estelle specifications (took a job with Learnix Inc., Ottawa)
- R. Zamoum (MSc 1995), co-supervisor: Dssouli, topic: Formal specification and test of an X.25 application interface (took a job with IBM).
- J. Drissi (MSc 1994) Développement d'un environnement pour le langage Mondel en utilisant l'outil CENTAUR (now PhD student at Univ. of Montreal)
- M. Zerghouni (MSc 1994), co-supervisor: Dssouli, topic: ASN.1 use on remote procedure call for inter-object communication in o-o systems (took a job with IBM).
- A. Thiboutôt (MSc 1994) Traduction d'un sous-ensemble de SDL en Estelle (took a job with CRIM).
- C. Caouette (MSc 1994), co-supervisor: Dssouli, topic: Evaluation du flux de données couvert par une suite de tests (took a job with BNR)
- F. Liu (MSc 1994), principal supervisor: Petrenko, topic: Test Generation Based on an FSM Model with Timers and Counters (took a job with industry)
- C. Amoussou (MSc 1994), co-supervisor: Dssouli, topic: Etude de traduction entre les langages de spécification SDL et VHDL.
- J. Dargham (MSc 1993), co-supervisor: Das, topic: Interconnexion des réseaux assurant le service de communication personnalisé (now PhD student at Univ. of Montreal)
- D. Desbiens (MSc 1993) Modeling specification of the personal communication service (took a job with BNR)
- M. Lévy (MSc 1993), co-supervisor: Gecsei, topic: Synthèse d'algorithmes de contrôles pour un environnement réparti (took a job at CRIM, Montreal)
- P. Salvaïl (MSc 1993), co-supervisor: Dssouli, topic: Développement d'un environnement de test et de diagnostique (took a job with EICON, Montreal).
- Y. Djerbib (MSc 1993) Evaluation de la couverture de tests écrits en TTCN et expérience avec le protocole LAP-D (took a job with BNR, Ottawa).
- R. Nadeau (MSc 1992) Implementation problems of OSI layers with oriented-object language (took a job with BNR).
- E. H. Htite (MSc 1993), co-supervisor: Dssouli, topic: Sélection des tests pour PCS (took a job with HP-Protocols Test Center).
- M. Dubuc (MSc 1992) Sélection de test pour les protocoles de communication (took a job with BNR)
- S. Poirier (MSc 1992), co-supervisor: Mondain-Monval, topic: Object-oriented modelling of the OSI Directory in Mondel (took job with Développement Purkinje Inc., now with CANTEL)
- J. Boucher (MSc 1991) Test suite development for ISDN link layer (took job with HP-Protocols Test Center)
- N. Williams (MSc 1991) Interpreter for the specification language MONDEL
- O. Bellal (MSc 1990) Automatic Test Result applied to communication protocols (now working in Bochmann's research group)
- F. Saba (MSc 1991) Trace validation of Transport Protocol (took a job at CRIM)
- L. Lecomte (MSc 1990) Compilation of an Object-Oriented language (has been working at CRIM)
- M. Amalou (MSc 1990) Test suite development for the ISDN packet layer (took job with BNR)

MSc and PhD completed under my direction before 1990 (x Master, 5 PhD)

M. ElIraki	PhD 1989	Description and realization of interactive systems (principal director: G. Lapalme)
P. Girard	PhD 1989	Animation d'une parole synthétisée par vidéodisque (co-director:

		J. Gecsei)
R. Dssouli	PhD 1986	Tests de protocoles de communication
M. Barbeau	Msc 1986	Tool for test case selection (co-director)
C. Kawa	MSc 1986	Interconnection de réseaux
A. Jacques	MSc 1986	Relai entre les protocoles de Transport TCP et ISO TP
S. Bessette	MSc 1986	Implantation d'un protocole d'accès aux fichiers
Y. Menard	MSc 1985	Testeur interactif de protocoles d'application
M. Deslaurier	MSc 1985	Testeur interactif de protocoles d'application
D. Ouimet	MSc 1985	Développement d'une implantation d'une station Teletex
A. Léveillé	MSc 1985	Implementation of Transport protocol
B. Sarikaya	PhD 1984	(student at McGill University) Test sequence selection methods for protocol testing
D. Berger	MSc 1984	Videotex database under CP/M for computer aided instruction
S. Kyprianou	projet BSc 1984	Banque de données pour l'identification des plantes printanières
M. Morin	projet BSc 1984	Système HELP avec mots clés
F. Rainville and Y. Salvail	projet BSc 1984	Adaptation française du logiciel de messagerie EAN
L. Verschelden	projet BSc	Etude de tests pour protocoles de
R. Lupien	projet BSc 1984	Module pour l'enseignement de la comptabilité agricole
G. Gerber	MSc. 1983	"Une méthode d'impl. automatisée de syst. spécifiés formellement"
J. Malenfant	projet BSc.	Programme interactif pour test de protocoles
G. Dagenais et J. Belanger	projet BSc.	Banque de données videotex sur Apple
D. Couture et I. Dauphinais	projet BSc.	Banque de données videotex sur Cyber
M. Sarkis	MSc. 1982	Classified adds database for videotex
W. Probst	PhD. 1982	Conception et étude d'un système d'exploitation réparti
J.L.Landry	MSc 1980	Ecriture de systèmes réparties..."
R. Chung	MSc 1978	"Etudes de méthodes efficaces assurant l'accès fiable ." (stage à Bell Northern Research, Ottawa)
P. Mairesse	MSc 1977	(stage au INRS Télécommunications, Univ. du Québec)
J. Tankoano	MSc 1977	"Implantation du protocole X.25.."
R. Mahjoub	MSc 1977	(student at McGill University) "Implementation of an ... "
P. Boulay	MSc 1976	"Utilisation d'un langage intermédiaire"
P. Godbout	MSc 1975	
G. Steward	MSc 1975	
P. Ward	MSc 1975	Système d'écriture de compilateurs

Research grants and contracts

Several research grants from NSERC (Canada) and FCAC (Quebec) were obtained between 1972 and 1980 (not listed here)

1978-79	DOC Canada	\$ 10 000	Contract on data network protocols
1978-81	NSERC	\$ 99 000	Infrastructure (group, 3 years)
1979-82	NSERC	\$ 72 100	operating grant
1980-82	FCAC	\$ 59 190	group grant (2 years)
1980-81	DOC Canada	\$ 24 880	Contract on data- bases and videotex
1979-80	NSERC	\$ 49 000	Strategic grant (with Gecsei)
1980-81	DOC Canada	\$ 10 148	Contract on virtual terminals
1981-82	DOC Canada	\$ 35 000	Contract on data- bases for videotex applications
1981-82	DOC Canada	\$ 24 998	Contract on formal description tech- niques (FDT) for protocols
1981-82	Dendronics Decisions	\$ 18 073	Contract on protocol implementation

	Ltd.		
1981-82	NSERC	\$ 40 635	infrastructure (group) grant
1982-83	NSERC	\$ 58 240	infrastructure (group) grant
1982-85	NSERC	\$ 148 000	operating grant (three years)
1982-85	NSERC	\$ 294 000	Strategic grant (with Gecsei) on videotex and office automation (3 years)
1982-85	FCAR (Quebec)	\$ 98 100	group grant (3 years)
1982-83	DOC Canada	\$ 29 816	Contract on formal description
1982-83	CERBO Informatique Inc.	\$ 11 856	Contract on protocol testing
1983-86	NSERC	\$ 254 400	infrastructure (group) grant
1983-84	CERBO Informatique Inc.	\$ 11 136	Contract on protocol testing
1983-84	DOC Canada	\$ 17 612	Contract on formal description
1983-85	Digital Equipment Inc.	approx.	Contract on videotex database
		\$ 300 000	access protocols (with J. Gecsei)
1984-87	NSERC	\$ 225 000	Strategic grant (3 years)
1984-85	DOC Canada	\$ 22 000	Contract on FDT
1984-85	CERBO Informatique Inc.	\$ 14 915	Contract on protocol testing
1984-85	U de Mtl.	\$ 5 000	internal research fond (CAFIR)
1985-88	NSERC	\$ 219 000	Operating grant (3 years)
1985-90	MEQ (Québec) ("actions structurantes")	\$1 338 000	"Groupe Telematique" (group grant) with 15 professors from the universities Concordia, McGill, Montreal, Polytechnique, and UQAM (administered by CRIM)
		\$ 150 000	equipment for above
1985-88	FCAR (Quebec)	\$ 100 500	group grant (3 years)
1985-86	DOC Canada	\$ 20 265	Contract on FDT
1985-86	CERBO Informatique Inc.	\$ 24 846	Contract on protocol testing
1985-86	CERBO Inf. Inc.	\$ 42 831	Contract on prot. evaluation
1986	NSERC	\$ 3 500	Conference grant for IFIP workshop
1986	CCRIT (Doc)	\$ 2 400	Software licence
1987	Philips	\$ 5 000	Software licence
1986-89	NSERC	\$ 315 000	infrastructure (group) grant (3 years)
1987-90	NSERC	\$ 425 400	Strategic grant (3 years) in collaboration with 2 professors of Concordia and Ottawa Universities
		\$ 70 928	Equipment for above
1988-89	NSERC	\$ 124 000	Operating grant (1.5 years)
1989-91	ACTI	\$ 25 000	ACTI prize (2 years)
1989-91	Mitsubishi	\$ 19 000	Consulting contract (2 years)
1988-91	FCAR	\$ 148 089	La validation de résultats de tests (3yrs)
1988-91	BNR and CRIM (administered by CRIM)	\$ 400 000 (approxim.)	Bases de données orientées-objets: modélisation et spécification d'applications du domaine de la gestion des réseaux de télécommunications (3 yrs.)
1989-90	IBM	\$ 169 700 \$ 199 900	Contrat CRIM-IBM, with Vaucher and Lefebvre: MMS (Phase I and Phase II)
1989-94	IDACOM NSERC (incl. operating grant) DOC Univ. de Montreal	\$ 500 000 \$ 1428 844 \$ 500 000 \$ 96 000	Industrial research chair (5 years) on communication protocols

1990-93	CITR (federal network of centers of excellence)	\$ 241 250 \$ 232 500	A-3.3: "Telecommunications software engineering" A-3.4: "Lifecycle software validation"
1990-93	DMR-Macroscopic (administered by CRIM)	\$ 360 000	Architectural modelling of distributed systems (3 years)
1992-95	FCAR	\$ 116 300	"Groupe de recherche en protocoles de communication et génie logiciel", in collaboration with Dssouli, Das (UdeM), Atwood (Concordia)
1993-94	FCAR-BNR-NSERC	\$ 36 100	Concerted Action "Etude sur la synthèse de contrôle réparti en télématique", in collaboration with Dssouli
1992-94	IBM	\$ 50 000	research grant (CORDS)
1992-95	France-Quebec	\$ 21 300	International collaboration
1992-96	MESS "Synergie" (Quebec) and 6 companies	\$ 740 000 \$1 112 676 (excl. overhead)	IGLOO: "Méthodologie de spécification et de conception par objects" (3 years, admin. by CRIM), in collaboration with Dssouli, Das (UdeM), Mili, Godin (UQAM) and Barbeau (U Sherbrooke)
1994 -97	NSERC CRD grant	\$ 520 000	Extension of IGLOO project above (including in addition Keller, Vaucher (UdeM), Missaoui (UQAM) and Kadoch (ETS))
1993-94	Teleglobe, contract	\$ 97 869	"Managed object definitions"
1993-95	NATO	\$ 11 200	International coll. with Lithuania
1993-98	CITR	\$ 677 000	Quality of service negotiation and adaptation" and "Electronic commerce ..." with Gecsei, Dssouli (UdeM) and Kerhervé (UQAM)
1994-98	NSERC research grant	\$ 262 000	basic research in protocol engineering (4 years)
1994-97	Hewlett-Packard - cash - in kind NSERC CRD funds CITI research grant	\$ 175 000 \$ 172 000 \$ 225 000 \$ 278 296	Industrial research chair, continuation of the 1989-94 period, in collaboration with Dssouli
1998	Hewlett Packard	\$ 18 000	research grant, phase-out of chair (with Dssouli), Univ. of Montreal
1994-95	EICON Technologies	\$ 200 000	Research contract on Testing communications software and ATM systems
1994-97	NSERC strategic grant	\$ 289 500	"Methods for the systematic testing of distributed software systems" in collaboration with Dssouli, Das
1998-2002	NSERC Research grant	\$272 000 (\$68K per year)	"Design and validation of reactive software systems"
1998-99	CITR	\$90 000	"Quality of service and distributed systems management" (with Kerhervé, UQAM)
1998-2000	CITO	\$85 000 per year	"Quality of service monitoring and control in multicast environments" (with Hafid, Makrakis at UWO)
1998-99	Nortel	\$30 000	for project above, possibly renewable
1998-2000	CITO	\$27 000 per year	"Use-case based design and validation" (with Logrippo)
1999-2000	Nortel Networks	48 446	"Advanced Enabling Techn.& Building Blocks for Enhanced Communication Services (ECS) Architecture", Nortel Networks research grant

1999-2002	CITR (NCE)	\$45 000 per year	"Quality of service and distributed systems management" (budget at UofOttawa)
2000-2003	NSERC, CRD with IBM	\$85 000 per year	"Quality of service and distributed systems management" with Kerhervé (UQAM) and Lutfiyya (UofWO)
2000-2002	CITR (NCE)	\$46 400 in 2000 and \$56 000 in 2001	Project Integration for CITR Major Project "Enabling Technologies for Electronic Commerce"
2000-2002	CITO	\$90 000 per year	"Designing an architecture and protocols for telecom. Services over the Internet" with Drs. Chouinard and Logrippo
2000-2003	NCIT	52 000 (2000) 90 000 (2001) 60 000 (2002) 22 500 (2003)	"Optical networks and IP traffic" with Drs. Makaroff, Makrakis, Orozco, Ionescu (UofO) and Lambadaris, Huang (Carleton U)
1999-2003	CFI (Canada) and OIT (Ontario), with contributions from industrial partners	\$6,269,215	"SAVANT: Software engineering and visualization for applications in the next-generation Internet", infrastructure support for two collaborative research labs (with many collaborators and contributions from the industrial partners CGI, SUN, Nortel Networks, CISCO)
2002-2005	NSERC Strategic Grant	180 000 per year	"Requirements-driven development of distributed applications" with Drs. Amyot, Felty, Logrippo, Probert and Somé
2003, 2004, 2005	NSERC Research Network (AAPN)	\$115 per year	"Agile All-Photonic Networks" (AAPN). Note: I am coordinator for Theme 1 on "Network Architectures"; the reported funding does not include the funding for the co-investigators
2006	As above	\$97 750	AAPN Theme 1
2007-2008	As above	\$79 000	AAPN Theme 1
2004	NSERC Research Network (AAPN)	\$12 500	Partnered Research Project with Telus Inc.
2005-2007	NSERC Research Network (AAPN)	\$25 000 per year	Partnered Research Project with Telus Inc.
2005-2008	NSERC Research Network (AAPN)	\$30 000 per year	For Theme 3: prototype development
2002-2006	NSERC Discovery Grant	\$86 600 per year	"Design methods for modular systems and distributed multimedia applications"
2003	Canarie shared-cost research contract	\$192 000	"User-controlled lightpath provisioning over CA*net 4" in collaboration with CRC, partially funded by Canarie, total budget 354 000\$
2004	ORNEC	\$40 000	"A secure e-commerce framework for mobile users" with Adams and Chandler (Faculty of Law)
2005-2006	Canarie research contract	\$500 000	"Advanced UCLP Services – A Graphical Resource Management Tool for Creating & Managing Articulated Private Networks" in collaboration with CRC (Ottawa), i2CAT (Barcelona, Spain) and Inocybe Technologies (Montreal)
2006-2011	NSERC Discovery Grant	\$82 700 per year	"Requirements engineering and design methods for distributed applications"
2011-2016	NSERC Discovery Grant	\$29 000 per year	"Software development for distributed applications and scalable execution platforms"

2011-2014 (exp. 3 years)	IBM-CAS research grant	\$28 000 per year	"Distributed crawling and security assessment of rich internet applications", with J.G Jourdan
2012-2015 (three years)	NSERC CRD grant in collaboration with IBM	\$86 000 per year	"Distributed crawling and security assessment of rich internet applications", with J.G Jourdan
2016-2021 (five years)	NSERC Discovery Grant	\$29 000 per year	"Deriving correct distributed system designs from global requirements"

Note: Only those group grants are mentioned above for which Bochmann was the principal investigator.

Note: During 1985-89, the received NSERC operating grant was the highest in Canada in the area of computer and information sciences.

Research grants obtained in collaboration with other principal investigators

2005-2007	Canarie shared-cost research project (Advanced Applications Program)	\$1 000 000	"Hapto-Audio-Visual Environments for Collaborative Tele-Surgery Training over Photonic Networking", principal investigator: T. Hall (SITE, UofO)
2005-2006	University of Ottawa internal funding	\$20 000	"Portable Reputation Systems for Online Trust", principal investigator: Morad Benyoucef, School of Management (UofO)
2008-2011 (three years)	IBM-CAS research grant	\$28 000 per year	"Modeling Rich Internet Applications for Security", principal investigator: J.G Jourdan
2009-2012 (three years)	NSERC CRD grant in collaboration with IBM	\$75 000 per year	"Modeling Rich Internet Applications for Security", principal investigator: J.G Jourdan
2012-2015 (exp. 3 years)	IBM-CAS research grant	\$28 000 per year	principal investigator: J.G Jourdan
2013-2016 (three years)	NSERC CRD grant in collaboration with IBM	\$68 000 per year	"Efficient and scalable mapping of native mobile applications and of complex rich internet applications for automated security testing", principal investigator: J.G Jourdan
2015-2018 (exp. 3 years)	IBM-CAS research grant	\$34 000 per year	"Recovering information from RIA user access logs for automatic generation of configuration files", principal investigator: J.G Jourdan
2016-2019 (three years)	NSERC CRD grant in collaboration with IBM	\$68 000 per year	"Recovering information from RIA user access logs", principal investigator: J.G Jourdan

Refereeing Activities

Editor for scientific journals

Member of the editorial board of the ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP), 2003-2005.

Member of the editorial board for Electronic Journal on Networks and Distributed Processing, published by TASK Laboratory, University of Pau, France (1995 - 2000).

Member of the editorial board of the Computer Networks and ISDN Systems journal (1993-97).

Member of the editorial board for Revue Réseaux et Informatique Répartie, international journal published by Editions Hermes, Paris (1990-94).

Member of the editorial board for Distributed Computing, an international journal published by Springer Verlag (1986-94).

Guest editor for scientific journals

Guest Editor (with R. Dssouli and O. Rafiq) for the Computer Networks and ISDN Systems, special section on FORTE '95, Vol. 29, Issue 7 (August 1997).

Guest Editor (with D.K. Probst) for the Journal on Formal Methods in Systems Design, special issue on Computer-Aided Verification, Vol. 6, No. 1 (Jan. 1995).

Referee for scientific journals (since 1976)

ACM Computing Survey (1985)

ACM Trans. on Programming Languages and Systems (1979, 1982, 1988)

Communications of the ACM (1976, 1977, 3x 1978, 1979)

Computer Communications Journal (2000)

Computer Networks and ISDN Systems (2x 1978, 2x 1979, 4x 1980, 1982, 1985, 1988, 3x 1990, 2003)

IEEE Communications Magazine (1985)

IEEE Proceedings (1995, 2015)

IEEE Transactions on Computers (1985)

IEEE Transactions on Communications (3x 1979, 2x 1980, 2x 1981, 1982, 1983, 1988, 1989)

IEEE Transactions on Control Systems Technology (1999)

IEEE Transactions on Information Theory (1980, 1982)

IEEE Transactions on Software Engineering (2x 1980, 1987, 2010, 2011)

IEEE Transactions on Selected Topics in Comm. (1987, 1988, 2 x 1989)

INFOR, Canadian Journal on OR and Inf. Processing (1983)

Information Processing Letters (1981, 1991)

Journal of Computer and System Science (1978)

Journal of Software and Systems Modeling (2012)

SIAM Journal on Computing (1976, 1978)

Techniques et Science Informatique (1985)

Referee for scientific conferences (since 1976)

ACM SIGMETRICS Conference (1988)

ACM National Conference (1979)

ACM Conf. on Language Design for Reliable Software (Nov. 1976)

ACM Conf. on Data (1976)

Canadian Conference on Electrical and Computer Engineering, 2006

CASCON'92, sponsored by IBM Toronto Laboratory, Center for Advanced Studies.

CIPS Edmonton '88 Conference

COMNET'85 (IFIP) "Services converged by computer networks" (4x)

Computer Network Protocols Symposium (Feb. 1978)

Conference on Flow Control in Computer Networks, IRIA, France 1979

European Conference on Object Oriented Programming (Aug. 1988)

FORTE (Int. Conf. on Formal Desc.Techn.)1988, 1990

IEEE 3rd Int. Conf. on Software Engineering (Jan. 1978)

IEEE INFOCOM '89

IEEE Globecom '99

IFIP conference Networking 2004 (Greece, May 2004)

International Symposium on Distributed Databases, Versailles, France (1979)

Intern. Conf. on Distributed Computing Systems, DCS-7 (1987)

Intern. Conf. on Parallel Processing (1984)

Intern. Distr. Computing Conf. (1982, 1987)

For SDL Forum (2005)

Sixth Data Communication Symposium (ACM/IEEE), (1979)

External examiner

- for PhD thesis of Alireza Nafarih, Dalhousie University, Halifax, 2011
- for PhD thesis of Hélia Pouyllau, Rennes (France), Nov. 2007
- for PhD by Yasser Morgan, Carleton University, April 2005
- for Master by Houjin Li, Carleton University, Sept. 2004
- for MSc by Peng He, McGill University, December 2003.
- for PhD of Wayne Liu at the University of Waterloo, June 2000.
- for PhD of Loay Sabry-Ismail at the University of Grenoble, France, Febr. 1999.
- for MSc thesis of Diwakar Krishnamurthy, Carleton University, 1998.
- for "habilitation" by Dr. C. Jard, University of Rennes, France, 1994.
- for MSc by A.C. Debaque, Univ. de Laval, 1992
- for "Habilitation" by Dr. R. Gotzhein, University of Hamburg, FRG, 1992.
- for PhD thesis by J.Brachman, University of BC, Vancouver, BC, 1989.
- for "Habilitation" by Dr. D.Hogrefe, University of Hamburg, FRG, 1989.
- for "doctorat" by G. T'Hooft, Université Libre, Brussels, 1989.
- for "doctorat d'université" by O. Drissi-Kaitouni, Université de Rennes, France, 1988.
- for PhD thesis by G.Neufeld, University of Waterloo, 1987.
- for "doctorat d'état" by J.P.Courtiat, Université de Toulouse, 1987.
- for Ph.D. thesis by H. Ural, University of Ottawa, 1984.
- for "doctorat d'ingénieur" of C.Jard, Université de Rennes, France, 1984.
- for "doctorat d'état" by Berthelot, Université de Paris VI, France, 1983.
- for Ph.D. thesis by J.K. Pachi, University of Waterloo, 1982.
- for "doctorat d'état" by G.F. Guidacci da Silveira, LAAS, Toulouse, France, 1982.
- for "doctorat d'état" by M.Raynal, Université de Rennes, France, 1981.

Grant selection committees and reviewing activities

Reviewer for the Natural Sciences and Engineering Research Council of Canada : 1982, 3x 1984, 6x 1985,1986, 1988, 4x 1989, 3x 1990, 2x 1991, 2x 1992, 1993, as well as more recently, e.g. 2002, 2005, 2006, 4x 2007, 2010, 2x 2013.

Reviewer for the Fond FCAR and "Fond de recherche sur la nature et les technologies" (Quebec), (2x 1989, 1990, 1991, 1992, 2002, 2003)

Member of "virtual evaluation committee" concerning New Opportunities for the Canada Foundation for Innovation (CFI) (2000 - 2008)

Reviewer for Steacie Fellowships (2011)

Reviewer for the Academy of Finland (2010)

Reviewer for the NSERC CRD program (2007)

Reviewer for Canada Research Chairs, 2005

Reviewer for the Jacquard Programme, Netherlands (2004)

Member of the NSERC Advisory Committee on University-Industry Grants (2002, 2003, 2004)

Member of CITO evaluation panels, Ontario, Canada (1998 - 2004)

Reviewer for the Strategic Programmes of the Norwegian Research Council (2001)

External evaluator for two new software engineering (teaching) programs submitted by Quebec universities to the Conférence des Recteurs et des Principaux des Universités du Québec (CREPUQ) (May 2000)

Chairman of a site visit committee for the Canada Foundation for Innovation (Febr. 1999)

Evaluator for Swiss National Science Foundation (1998)

Reviewer for a Special Collaboration Project of the Natural Sciences and Engineering Research Council of Canada, 1994.

Member of site visit committees for the Natural Sciences and Engineering Research Council of Canada, (1982,1989, 1991).

Member of grant selection panel for the "Communications and Computers" strategic grants of the Natural Sciences and Engineering Research Council (NSERC) of Canada, 1983-86.

Member of operating grant selection panel for Computing and Information Sciences, NSERC of Canada, 1985-1988;

Chairman of the same committee in 1987-88.

Member of comité d'appréciation "Equipes et Seminaires" (engineering), Fond FCAR, Quebec, 1982 and 1983.

Reviewer for the US National Science Foundation (1982, 2x 1988).

Invited lectures and other presentations (since 1977)

<i>Date</i>	<i>Place</i>	<i>(Occasion)</i>
1977/2	Queen's University, Kingston	
1977/5	Technion, Haifa, Israel	
1977/6	Ecole Polytechnique Fédérale de Lausanne, Suisse	
1977/12	Université de Grenoble	
1978/1	Université de Genève	
1978/2	Eindhoven University of Technology	
1978/2	IBM Research, Zurich, Switzerland	(invited speaker during workshop "From Computer Systems to Networks")
1978/2	Leibniz-Rechen-Zentrum, Technical University, Munich	
1978/5	General direction PTT, Berne, Suisse	
1978/5	ETH, Zurich, Suisse	
1978/5-6	Hahn-Meitner-Institut, Berlin	(series of 4 lectures)
1978/5	IIMAS, National University, Mexico	(series of 5 lectures)
1978/10	FIQ, Québec	see report in Info-Québec, Vol. 3, No. 3) (Conférencier invité)
1978/11	University of Waterloo	
1979/3	Univ. of Rochester, USA	
1979/3	INRS Télécommunications, Univ. du Québec, Montréal	
1979/4	Université Laval, Québec	
1979/5	CIPS/DPMA/FIQ	(Two-day seminar on "Systèmes d'informatique répartis")
1979/6	IBM Research, Zurich, Switzerland	
1979/7	Hahn-Meitner-Institut, Berlin, W. Germany	

1980/1	Technische University, Berlin	
1980/3	IRISA, Université de Rennes, France	
1980/3	Hahn-Meitner Institut, Berlin, W. Germany	
1980/8	IBM Research, San Jose, USA	
1980/12	McGill University, Montréal	
1981/1	Carleton Univ., Ottawa	
1981/3	Université Laval, Québec	
1981/5	CNET, Lannion, France	
1981/6	LAAS, CNRS, Toulouse, France	
1981/7	Technical Univ., Munich, W. Germany	
1981/7	University Karlsruhe, W. Germany	
1981/7	Kernforschungszentrum, Karlsruhe, W. Germany	
1981/7	Siemens, Munich, W. Germany	
1981/9	DOC, Ottawa	(Seminar on Formal Description Techniques)
1981/11	Twente Univ., Netherlands	
1981/11	Université Laval, Quebec	
1982/5	Harvard University, USA	
1982/11	Technikum, Uppsala Univ., Sweden	
1983/5	Université Laval, Québec	(Conférencier invité dans le cadre de l'Ecole d'été d'informatique)
1983/6	CNET, Lannion, France	
1983/7	Strathclyde Univerity, Glasgow, UK	(3 hour lecture within a summer course on LAN's)
1983/10	Université d'Ottawa	(Seminar on protocol testing)
1983/12	Hahn-Meitner Institut, Berlin W. Germany	
1984/9	World Bank, Washington	
1984/10	CRIM/McGill University, Montréal	
1984/10	Transport Canada and NSERC	(theme paper at Symposium on Micro-electronics in Transportation)
1985/2	International Military Protocol Testing Workshop, CRC Ottawa	
1985/5	NTT Research Lab., Tokyo	(lecture series (15 hours) on protocol specification, implementation, and testing)
1985/5	KDD Research Lab., Tokyo	
1985/5	Fujitsu Research Lab., Tokyo	
1985/5	Tokyo University	
1985/5	Kyoto University	
1985/6	Osaka University	
1985/6	Tsinghua Univ., Beijing	(lecture series, 8 hours)
1985/6	MTP Research Center, Beijing	
1985/6	MTP Research Center, Sian	
1985/6	Fudan University, Shanghai	
1985/8	DARPA Workshop, CRC, Ottawa	
1986/9	STC, Den Hague, Netherlands	(NATO workshop on interworking between OSI and DARPA protocols)
1986/10	Siemens (K D ST), Munich, FRG	
1986/11	Siemens (K D ST), Munich, FRG	

1986/12	Siemens (K D ST), Munich, FRG	
1986/11	Siemens, Wien, Austria	
1987/1	Siemens (K D ST), Munich, FRG	(lectures on Estelle, 5 x 2 hours course)
1987/2	Philips, Nuernberg, FRG	(lecture series, 6 hours)
1987/3	Siemens (K D ST), Munich, FRG	(lectures on Lotos, 5 x 2 hours course)
1987/5	Hungarian Academy of Sciences, Budapest	
1987/6	Siemens, Munich, FRG	(K D ST Colloquium)
1987/7	Techn. University of Munich, FRG	
1987/7	University of Hamburg, FRG	
1987/7	University of Stuttgart, FRG	
1987/7	Siemens (OeV ETS), Munich, FRG	
1987/10	Carleton University, Ottawa, Canada	
1987/12	University of Montreal	departmental colloquium
1988/9	NOKIA Inc., Helsinki, Finland	(lecture series, 7 x 2 hours)
1988/9	University of Helsinki, Finland	
1988/10	Acad. of Sciences, Chendu, China	(lecture series, 9 x 3 hours)
1988/10	Tsinghua University, Beijing, China	
1988/10	Beijing University, Beijing, China	
1988/11	NTT, Musashino, Tokyo, Japan	
1988/11	KDD, Tokyo, Japan	
1989/1	Univ. of Pennsylvania, Philadelphia	(distinguished speaker series)
1989/3	Queens University, Kingston, Canada	
1989/4	Bell-Northern-Research, Ottawa	
1989/4	University of Montreal	departmental colloquium
1990/2	IIT, Madras, India	(lecture series)
1990/2	IIS, Bangalore, India	
1990/2	IIT, New Delhi, India	
1990/3	Univ. de Québec à Montreal	
1990/9	Université de Sherbrooke	
1990/10	GMD, Darmstadt, Germany	OSI Roundtable Discussion (see article Online ADI Nachrichten, Dec. 1990, pp. 16)
1990/10	Stuttgart, Germany	Science and Tech. Workshop on Inf. Technologies (organized by Canadian Embassy, for canadian-german cooperation)
1990/11	University of British Columbia, BC	Distinguished lecturers series
1990/11	University of Victoria	
1991/2	Université de Québec à Hull, Canada	
1991/2	Institut africain d'informatique, Libreville, Gabon	International seminar "Téléinformatique et réseaux" (one week, sponsored by ACDI)
1991/3	Institut africain d'informatique, Libreville, Gabon	20 hour course on computer networks
1991/5	Fac. of EE, Univ. of Campinas, Brasil	
1992/1	University of Osaka, Japan	
1992/1	NTT, Musashino, Tokyo, Japan	
1992/1	KDD, Musashino, Tokyo, Japan	
1992/1	Mitsubishi, Tokyo, Japan	
1992/1	NEC, Tokyo, Japan	
1992/2	GMD, FOCUS, Berlin, Germany	

1992/2	University of Braunschweig, Germany	
1992/2	"Heure du CRIM", CRIM, Montreal	
1992/3	McGill University, Montreal	
1992/3	Intern. Zurich Seminar on Digital Communications	Tutorial on Object-Oriented Modelling of OSI and Distr. Processing Appl.
1992/10	University of Munich, Prof. Broy	
1992/10	FORWISS, Munich	
1993/4	United Nations University, Int. Institute for Software Technology, Macao	
1993/4	Hong-Kong University of Science and Technology	
1993/4	China Academy of Electronics Industry Development	invited presentation at Beijing Intern. Advanced Seminar on Computer Technology
1993/12	University of Ottawa	Distinguished lecturers series
1994/3	Institute for International Research	invited presentation at the Conference on Telecommunications, organized in Montreal on March 30-31
1995/4	Ecole de Technologie Supérieure	invited presentation at "Les défis technologiques de l'autoroute de l'information"
1995/7	Tsinghua University, Beijing, China	
1995/7	Beijing University for Post and Telecommunications, China	
1995/5	Xian Jiaotong University, Xian, China	
1995/6	Nara Institute of Science and Technology, Japan	
1995/6	Shizuoka University, Hamamatsu, Japan	
1995/6	Tohoku University, Sendai, Japan	
1995/12	University of Grenoble, France	
1996/2	University of Montreal, Canada	
1996/2	Canadian Broadcasting Corp. (in the context of the television program "Le Point")	Discussion on the evolution of computers
1996/10	University of Kaiserslautern, Germany	
1996/10	Fraunhofer Institut for SE, Kaiserslautern, Germany	
1997/5	San Carlos, Brazil	Tutorial on protocol testing at the 15th Braz. Computer Networks Symposium
1997/6	Tech. Univ. of Munich, Germany	Tutorial on protocol testing
1997/7	Univ. of Munich, Dept. of CSc.	
2000/11	IBM CASCON Conference, Toronto	Presentation at a workshop on e-commerce technologies
2001/4	National University, Taipei, Taiwan	
2001/4	University of Osaka, Japan	
2001/7	Techn. Univ. Harburg, Germany	
2001/7	Medical Univ. Lübeck, Germany	
2001/9	Concordia University, Montreal	Presentation at the Mini-Workshop

		on Testing
2001/11	IBM CASCON Conference, Toronto	Presentation at a workshop on Web server performance
2002/4	Osaka University, Osaka, Japan	
2002/8	Concordia University, Montreal	Tutorial presentation at the Concordia Summer School on Communication Software Engineering
2003/4	OPRA Workshop "Optical Communications - Can we tame the light?" at CRC, Ottawa	Presentation on Agile All-Photonic Networks
2003/8	University of Stirling, Scotland, UK	Presentation on Agile All-Photonic Networks
2003/8	University of Stirling, Scotland, UK	Presentation on quality of service issues for world-wide mobile telephony
2003/8	University of Lancaster, UK	Presentation on quality of service issues for world-wide mobile telephony
2004/4	13th OPRA Workshop, Ottawa Photonics Research Alliance	Presentation on "Customer-Management End-to-End Lightpath Provisioning"
2005/4	Second Workshop on Optimization of Optical Networks, University of Montreal	Presentation on "Sharing bandwidth of a wavelength: Burst switching with and without reservation"
2005/10	Doctoral Seminar, École Polytechnique Fédérale de Lausanne (EPFL), "Applicative & Technical Challenges of the Future Internet"	Presentation on technical challenges
2005/11	Workshop on "A Formal Semantics for UML" in Nuremberg, in association with European Conference on Model Driven Architecture (ECMDA-05)	Invited presentation on "Different notations for describing use case scenarios"
2006/6	Norwegian University of Science and Technology, Trondheim, Norway	Presentation on "From workflow and use case scenarios to protocols for distributed applications"
2006/7	Institute of Cybernetics, Tallinn, Estonia	Presentation on "Requirements-Driven Development of Distributed Applications"
2006/7	University of Oslo, Norway	Presentation on "From workflow and use case scenarios to protocols for distributed applications"
2006/8	University of Göttingen, Germany	Presentation on "From workflow and use case scenarios to protocols for distributed applications"
2006/9	National e-Science Centre of the University of Edinburgh, Scotland, UK	Presentation on Agile All-Photonic Networks
2006/9	UCLP workshop organized by the ESLEA project and UKERNA at the University of Edinburgh	Presentation on an overview of User-Controlled Lightpath Provisioning (UCLP)
2006/9	Strathclyde University, Glasgow, UK	Presentation on Agile All-Photonic Networks

2006/9	St. Andrew's University, St. Andrews, Scotland, UK	Presentation on Agile All-Photonic Networks
2006/9	University of Stirling, Scotland, UK	Presentation on "From workflow and use case scenarios to protocols for distributed applications"
2007/4	University of Montreal	Presentation on "From use case scenarios to protocols for distributed applications"
2007/5	Fourth Workshop on Optimization of Optical Networks, Concordia University, Montreal	Presentation on Agile All-Photonic Networks
2007/7	University of Würzburg, Germany	Presentation on Agile All-Photonic Networks
2008/9	LAAS, Toulouse, France	Presentation on "Deriving Component Behaviors from Global Requirements"
2008/10	Université du Québec à Montréal (UQAM)	Presentation on "Deriving Component Behaviors from Global Requirements"
2009/9	Hunan University of Science and Technology, Xiangtan, China	Four presentations on: "Deriving Component Behaviors", peer-to-peer networks, optical networks, and education and universities in Canada
2009/10	University of Post and Telecommunications, Beijing (China)	Presentation on optical networks
2009/10	Academy of Sciences, Beijing (China)	Presentation on "Deriving Component Behaviors from Global Requirements"
2009/10	Tsinghua University, Beijing (China)	Presentation on "Deriving Component Behaviors from Global Requirements"
2009/10	JiaoTong University, Shanghai (China)	Presentation on optical networks
2009/11	University of Wuhan (China)	Presentation on "Deriving Component Behaviors from Global Requirements"
2009/12	Int. Conf. on Information and Communication Systems, Amman, Jordan	Invited presentation on "Compositional Development of Distributed Applications"
2010/5	Third Edition of the International Spring School on Distributed Systems, Fez (Marocco)	Presentation on "Service composition: Deriving Component Designs from Global Requirements"
2010/6	FMOODS-FORTE conference (IFIP), Amsterdam	"The early times of protocol engineering" – an historical perspective (invited presentation)
2011/4	2011 IEEE Canadian Conf. on Elect. and Comp. Eng. (CCECE)	Luncheon speech on protocol engineering
2012/4	2012 IEEE Canadian Conf. on Elect. and Comp. Eng. (CCECE)	Invited presentation on "Distributed System Design from Global Requirements"
2012/4	Université du Québec en Outaouais, Gatineau	Presentation on "Deriving Component Behaviors from Global Requirements"

2012/5	University of Science and Technology, Xiangtan, China	Presentation on protocol derivation from service specifications
2012/6	Colloquium on the history of computer science, University of Science and Technology, Xiangtan, China	Presentation on history of protocol engineering
2012/6	University of Science and Technology, Xiangtan, China	Presentation on crawling Rich Internet Applications
2012/6	Beijing University of Post and Telecommunications, China	Presentation on crawling Rich Internet Applications
2012/6	Tsinghua University, Beijing, China	Presentation on crawling Rich Internet Applications
2012/6	School of Computer Science and Technology, Dalian University of Technology, China	Presentation on Distributed System Design from Global Requirements
2013/06	SDL Forum conference, Montreal	Invited talk, topic: Some Important Concepts Related to State Machine Modeling
2013/10	University of Oldenburg	Some Important Concepts Related to State Machine Modeling
2013/12	University of Oldenburg	Department Colloquium, title: crawling Rich Internet Applications
2015/121	Intern. Conf. on Testing Software and Systems (ICTSS)	Invited talk on “Testing software systems – a perspective”

List of Publications

Gregor v. Bochmann

November 2016

Summary

- Books authored	3
- Books edited	9
- Chapters in books	21
- Papers in refereed journals	105
- Papers in refereed conference proceedings	289
- Patents	8

Books authored (a total of 3)

Bochmann, G. v., *Concepts for distributed systems design*, Springer Verlag, Berlin, 1983 (259 pages). Note: Two chapters represent original unpublished research work (1986 translated into Japanese by T. Mizuno).

Bochmann, G. v., *The architecture of distributed computer systems*, Lecture Notes in Computer Science, Vol. 77, Springer Verlag, Heidelberg, 1979 (translated into Japanese, 1982). Note: Two chapters represent original unpublished research results.

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Books edited (a total of 9)

H. Ural, R. L. Probert and G. v. B. (Eds.), *Testing of Communicating Systems - Tools and Techniques*, Proc. IFIP 13rd Intern. Conf. on Testing of Communicating Systems (TestCom 2000), Kluwer Academic Publ. 2000 (322 pages).

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K. El-Khatib, G. v. Bochmann and A. El-Saddik, On the use of Web Services in content adaptation, in *Services and Business Computing Solutions with XML; Applications for Quality Management and Best Practices*, P.C.K. Hung (ed.), IGI Global (formerly Idea Group), 2009, pp. 121 - 135.

J. A. Chandler, K. El-Khatib, M. Benyoucef, G. v. Bochmann and C. Adams, Legal challenges of online reputation systems, chapter in *"Trust in E-services: Technologies, Practices and Challenges"*, R. Song et al. (eds), Idea Group Inc., 2006.

G. v. Bochmann and E. Zhang, A secure authentication infrastructure for mobile users, in *Advances in Security and Payment Methods for Mobile Commerce*, edited by Wen-Chen Hu, Chung-wei Lee, Weidong Kou, Idea Group Publishing, 2004.

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