Curriculum Vitae
Glenn H. MacEwen

Department of Computing and Information Science
Queen's University
Kingston, Ontario, K7L 3N6 Canada
Telephone: 613-545-6052 (office); 613-546-5003 (home)
Fax: 613-545-6513
Network: macewen@qucis.queensu.ca

June 20, 1996

Personal Data

- Professor, Department of Computing and Information Science, Queen's University; initially appointed Assistant Professor in 1970.
- Ph.D. (Computer Science), 1971, Supervisor C. C. Gotlieb, University of Toronto.
- M.Sc. (Computer Science), 1967, Supervisor K. C. Smith, University of Toronto.
- Telecommunications Officer, Royal Canadian Air Force, 1962/66.
- B.Eng. (Electrical), 1962, McGill University.
- Registered professional engineer in Ontario.

Current Research Interests

- I am a software engineer, interested in the design and construction of *dependable computer systems* which require, a priori, a high degree of assurance of their correct and appropriate functioning because of the environment in which they are to be placed. My current work concentrates on requirements specification and engineering: more specifically, issues of computer security, incremental engineering and re-engineering of large software systems, and formal specification and verification methods.

  Specific projects include the development of a *Critical System Logic* (CSL) for defining and reasoning about security policies, a logical foundation for modelling and reasoning about post-factum integration of large software systems, the specification of properties of graceful degradation in fault-tolerant systems, and methods for detecting and resolving feature interactions in telecommunication systems.

Teaching

- Most of my teaching has concentrated on systems and software engineering courses, from the second-year level to the graduate level. Most recently I gave courses on requirements specification and analysis, networks, operating systems and introductory computer systems.

Ph.D. Students Recently Completed

- Sam Oh, "Behaviour Monitoring of Real-Time Tasks for Adaptive Real-Time Distributed Systems", 1994.
- Trevor Pearce, "Steady State and Transient Specification of Reactive Systems", 1994.

M.Sc. Students Recently Completed

- Greg Lamarre, "Failures in Integrated Systems: A Case Study", 1995.
- Swee Loke, "Debugging Support for Real-Time Message-Passing Systems", 1995.

Recent Journal Papers

- Sam K. Oh, G. H. MacEwen, "Task-Behavior Monitoring for Adaptive Real-Time Communication", Journal of Real-Time Systems, to appear.
- J. I. Glasgow, G. H. MacEwen, P. Panangaden, "A Logic for Reasoning About Security", ACM Transactions on Computer Systems, Vol. 10, No. 3, August 1992, pp. 226-264.

Recent Conference Proceedings Papers

- A. Isazadeh, D. A. Lamb, G. H. MacEwen, "Viewcharts: A Behavioral Specification Language for Complex Systems", Proceedings of International Workshop on Parallel and Distributed Real-Time Systems (WPDRTS), IEEE Computer Society Press, Honolulu, Hawaii, April 1996.
- A. Isazadeh, D. A. Lamb, G. H. MacEwen, "Behavioral Views for Software Requirements Engineering", Proceedings of IEEE International Symposium and Workshop on Engineering of Computer-Based Systems (ECBS '96), IEEE Computer Society Press, Friedrichshafen, Germany, March 1996.
- A. Isazadeh, A. Malton, G. H. MacEwen, "Behavioral Patterns for Software Requirements Engineering", IBM CASCON '95, Toronto, November, 1995.
- S. K. Oh, G. H. MacEwen, "Compound Service Scheduling with Run-Time Adaptation in Real-Time Multiprocessor Distributed Systems", Second IEEE Workshop on Parallel and Distributed Real-Time Systems, Cancun, Mexico, April 1994, pp. 119-124.
- S. K. Oh, G. H. MacEwen, "The Best-Effort Virtual-Time CSMA/CD Protocols for Real-Time Systems", Proceedings of the IEEE Workshop on Parallel and Distributed Real-Time Systems, Newport Beach, CA, April 1993.

Book

- G.H. MacEwen, "Introduction to Computer Systems: Using the PDP-11 and Pascal", McGraw-Hill, 1980.

Recreational Activities

- Licensed private pilot, running, bicycling, competitive sailing, alpine skiing, nordic skiing, bagpipe playing, celtic music, classical music, beer homebrewing.