CURRICULUM VITAE

Jeremiah F. Hayes

DEGREES: B.E.E. Manhattan College, Electrical Engineering, 1956 (with honor)
M.Sc. New York University, Mathematics, 1961
Ph.D. University of California, Berkeley, Electrical Engineering, 1966
(Qualified with distinction)

PROFESSIONAL TRAINING Bell Telephone Laboratories Communications Development Training Program - 1956-1959

ACADEMIC EXPERIENCE

University of Victoria, Adjuct Professor, 2005-
Concordia University, Montreal, Canada
Professor, 1984 - present, Department Chair,1984-1989, Retired 01/01/01 as Distinguished Professor Emeritus
University of Canterbury, Christchurch, NZ, Erkine Fellow, 1996
McGill University, Montreal, Canada, , Department of Electrical Engineering
Professor, 1978-1984
Adjunct Professor, 1984 - present
Polytechnic Institute of New York, Department of Electrical Engineering
Part-time Lecturer, 1974-1978
Purdue University, Lafayette, Indiana, U.S.A., Department of Electronic Engineering
Assistant Professor, 1966-1969
University of California, Berkeley, Department of Electronic Engineering
Acting Instructor, 1962-1964, Acting Assistant Professor, 1966

INDUSTRIAL EXPERIENCE:

Bell Labs, Holmdel, New Jersey
Member of Technical Staff, 1969-1978,1956-1960
Columbia University, Electronic Research Laboratories,
Research Engineer, 1960-1962
Bell Northern Research, Ottawa
Senior Industrial Fellow (Sabbatical), Oct. 1989 - May 1990
Bell Communications Research, Morristown, New Jersey
Visiting Scientist, Summer 1987
IBM Research Lab, Zurich, Switzerland
Visiting Scientist, Summer 1983
Jet Propulsion Laboratory, Pasadena, California
Visiting Scientist, Summer 1967

HONORS AND AWARDS:

IEEE Communications Society Magazine Prize Paper, 1982 for paper entitled "Local Distribution in Computer Communications", Vol.. 19, No.2, March 1981

IEEE Information Theory Group Special Acknowledgment in 1982 for paper entitled "An Adaptive Technique for Local Distribution", IEEE Transactions on Communications, Vol. Com-26, 1978

Fellow - Institute of Electrical and Electronics Engineers(IEEE), January 1983 for contributions to local distribution

NSERC Senior Industrial Fellow 1989-1990

Fourth Recipient-Canadian Award in Telecommunications Research, June 3, 1996 for contributions to computer communications and communication networks

Erskine Fellow, University of Canterbury, 1997

As one of the events in the celebration of the fiftieth anniversary of the IEEE Communication Society, ten of the best papers that appeared in the Communication Society were selected for a commemorative issue. The paper J.F. Hayes, "The Viterbi Algorithm Applied to Digital Data Transmission," Communications Society, Vol. 13, No. 2, March 1975, pp. 15-20 was selected as one of these.

SALIENT SCHOLARLY AND PROFESSIONAL ACTIVITIES

Editor for Computer Communications IEEE Transactions on Communications, 1981-1984
Member, Board of Governors IEEE Communication Society,1982- 1985
Member, IEEE Fellow Committee, 1986-1989
Member Natural Sciences and Engineering Research Council Grant Selection Committee for Electrical Engineering, 1985-1989
Member, Editorial Board, IEEE Press, 1987 - 1990
Concordia Team Leader, FCAR Action Structurante Team in Telecommunications, 1984-1990
1990 Founding Member, Canadian Institute for Telecommunications Research, (Federal Centre of Excellence in Telecommunications)
Member, IEEE Scholarship Committee 1991 - present
Member Natural Sciences and Engineering Research Council International Relations Committee, 1992-1995
Member Board of Governors, Concordia University, 1993-1996
Reviewer-University Grants Council-Hong Kong-1998
Senior Editor, IEEE Journal of Selected Areas in Communications 1992-2001
Chair NSERC Site Visit Committee, McMaster University, 2002

IEEE Milestone Committees for TAT-1, the first transatlantic telephone cable, Clarenville Newfoundland, 2006 and Sidney Mines, Nova Scotia, 2007
Member University of Victoria Engineering Associates, 2007-
Member IEEE Communications Society History Committee, 2007-
Member IEEE Communications Society Awards Committee, 2008

Recent Journal Papers

J.F. Hayes, "Paths Beneath the Seas: Transatlantic Telephone Cable Systems", IEEE Canadian Review, pp. 18-22 Spring/Printemps 2006.

J. Gong, J.F. Hayes and M.R. Soleymani, "The Effect of Antenna Physics on Fading Correlation and the Capacity of Multi-element Antenna Systems," IEEE Transactions on Vehicular Technology, Vol. 58, No. 4, pp. 1591-1599, July 2007.

J.F. Hayes, "A History of Transatlantic Cables" IEEE Communications Society Magazine, Vol. 46, no 10, October 2008

J. Gong, J.F. Hayes and M.R. Soleymani, "A Rigorous Proof of MIMO Channel Capacity's Increase with Antenna Number" Wireless Personal Communications: Volume 49, No.1, Page 81, 2009.

Recent Conference Presentations

J.Gong, M.R. Soleymani and J.F. Hayes, "Effect of Antenna Pattern on the Capacity of the MIMO System in A Micro-Cell Environment," 2006 IEEE Canadian Conference on Electrical and Computer Engineering – IEEE CCECE2006, Ottawa, Ontario, Canada, May 7-10, 2006.

J.F. Hayes, "Reminiscences of TAT-1", IEEE History Conference, St. John's Newfoundland, 2001

J.F Hayes, "TAT-1 and Deregulation", IEEE Globecom 2008, New Orleans, LA, March 2008

J.F. Hayes, "1956-The Beginning of Modern Telecom", CNSR 2011, Ottawa, ON, May 2011

M. Alvandi, M. Mehemet-Ali, J.F. Hayes, "Delay Optimizatio of Wireless Networks with Network Coding", IEEE Canadian Conference on Electrical and Computer Engineering 2011, Niagara Falls, ON, May 2011