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Birth Date: August 7, 1938
Birth Place: San Bernardino, California

Education

1964 Stanford University, Ph.D. in Electrical Engineering.
1961 Stanford University, M.S. in Electrical Engineering.
1960 Massachusetts Institute of Technology, B.S. in Physics.

Employment

1994- Kwoh-Ting Li Prof. of Engineering. Prof. of Electr. Eng. & Statistics, Stanford Univ.
1972- Professor, Electrical Engineering and Statistics Departments, Stanford University.
1967-71 Associate Professor (tenure), Electrical Engineering Department, Stanford University.
1971-72 Associate Professor, Joint appointment Electrical Engineering & Statistics Departments, Stanford.
1964-67 Assistant Professor, Electrical Engineering Department, Stanford University.

Professional Activities

IEEE Information Theory Society Board of Governors, 1969-75, 78-84, 87-94, 00-
IEEE Fellows Committee, 2000-
IEEE Richard W. Hamming Medal Committee 1999, 2000, 2001.
Director, Information Systems Lab, Electrical Engineering Department, Stanford University, 1988-1994, 1995-1996.
Book Review Editor, IEEE Transactions on Information Theory, 1994-1996.
Associate Editor, ESAIM Probability and Statistics, 1995-.
Consultant to SRI, AT&T Bell Labs, IBM, Sylvania, NTN, Bellcore, California State Lottery.
Distinguished Lecturer in IEEE Distinguished Lecturer Program, 1991-94.
President, IEEE Information Theory Society, 1972.
Associate Editor, Management Science, 1988-93.
Associate Editor, Annals of Statistics, 1980-85.
Associate Editor, SIAM, 1980-85.
Associate Editor, PAMI, 1975-80.
Visiting Lecturer, SIAM Visiting Lecturer Program in Statistics, 1971-74.
Visiting Assoc. Professor, Electrical Engineering Dept., Massachusetts Institute of Technology, 1971-72.
Vinton Hayes Research Fellow, Harvard University, 1971-72.
Associate Editor, IEEE Transactions on Information Theory, 1970-71.
Contract Statistician for the California State Lottery, 1986-1994.

Professional Associations

Fellow, IEEE, AAAS, IMS.
Member, NAE, AMS, SIAM, IAPR, URSI, INFORMS, ASA, MAA and Sigma Xi.

Honors

1998 IEEE Information Theory Society Golden Jubilee Paper Award.
1997 IEEE Richard W. Hamming Medal.
1995 Elected National Academy of Engineering.
1994 IEEE Neural Net Council Pioneer Award.
1991 Fellow, American Association for the Advancement of Science.
1990 Claude E. Shannon Award, IEEE Information Theory Society.
1981 Fellow, Institute of Mathematical Statistics.
1974 Fellow, Institute of Electrical and Electronics Engineers.
1972 Recipient, Information Theory Outstanding Paper Award for "Broadcast Channels."

Publications

Author of 120 technical papers.
Books:
- *Open Problems in Communication and Computation*, edited by T. Cover and B. Gopinath, Springer-Verlag, NY, 1987.
- *Elements of Information Theory*, T. Cover and J. Thomas, Wiley & Sons, NY, 1991.

Expertise

Primary areas are information theory, communication, complexity, and investment theory. Examination of implications of information theory for code division multiple access (CDMA) and other implementations of mobile communication technology. Development of universal portfolios. Pattern recognition, neural networks, statistical signal processing and learning algorithms.