



## **STEPHEN J. GARLAND, PhD**

Dr. Garland has more than forty years experience in software design, implementation, and analysis. He uses decomposition and abstraction as the basis for understanding software in a wide variety of settings: in teaching, in writing, in research, in consulting, and in testifying as an expert witness.

He is Principal Research Scientist, Emeritus, at the Massachusetts Institute of Technology's Computer Science and Artificial Intelligence Laboratory (CSAIL), where he co-led research projects on the Larch specification methodology, on IOA, a language and set of tools for the design and analysis of reliable distributed systems, and on active networking. He also participated in MIT Project Oxygen on pervasive human-centered and location-aware computing and in the Haystack Project on personalized information management for the Semantic Web.

Dr. Garland has consulted and testified in numerous legal cases involving computer-related copyrights, patents, trade secrets, and contracts. Through careful analyses and clearly presented reports, he summarizes and explains technical details to nontechnical audiences consisting of attorneys, juries, and judges. He also provides assistance for software development projects to safeguard them from potential claims of patent infringement or copyright misappropriation.

Prior to joining MIT in 1985, Dr. Garland was Professor of Mathematics and Computer Science at Dartmouth College, where he co-led development of its pioneering timesharing system, oversaw enhancements to the Basic programming language (which was invented at Dartmouth), established an undergraduate major in computer science, and founded a master's program on management and computing. Nationally, he was chairman of the College Board committee that developed the Advanced Placement Program in Computer Science and vice-chairman of the ANSI/X3J2 Basic Standards Committee.

Dr. Garland received his PhD in mathematics from the University of California at Berkeley in 1967. He has held visiting appointments at UCLA, Stanford, Berkeley, and the Hebrew University of Jerusalem, where he was a Fulbright Lecturer. He has written four books and over sixty papers in mathematics and computer science. He has also designed and implemented a wide variety of software systems, including compilers (for Algol-60 and enhanced Basic), operating system components (file, database, and word processing systems for the Dartmouth College Timesharing System), specification checkers (for Larch and IOA), an automated proof assistant (LP, the Larch Prover), and tools for the Semantic Web. He is a long-time member of the Association for Computing Machinery, the American Mathematical Society, the Mathematical Association of America, and the Association for Symbolic Logic.