Professor Michael O. Rabin is a world renowned computer scientist, and one of exceptional prominence among Israeli computer scientists, who has helped transform Israel into a world leader in the field.

For over 50 years, Prof. Rabin’s work has focused on mathematical logic, computational complexity theory, probabilistic algorithms, and distributed and parallel calculations, and as such he has laid the theoretical foundation for computer sciences, without which today's technological revolution would not have been possible.

Born in Germany to parents who were among the heads of the religious-Zionist movement, Prof. Rabin began his academic path studying mathematics at the Hebrew University of Jerusalem. It was there that he was exposed to the Church-Turing thesis of computability, which served as the basis for modern computer technology, and decided to dedicate his professional life to the research and development of applied theories in computer science.

After earning his PhD from Princeton University in 1956, he worked at an IBM research center, where he and colleague Dana Scott developed the concept of “Finite Automata,” which explores the way machines accept and process regular languages. This groundbreaking model was the basis for the Automata Theory – a cornerstone of computer science that explores the design of the information and calculation systems, which are at the heart of all electronic devices we know and use today.

Prof. Rabin's fields of research in the field of probabilistic algorithms have paved the way for the development of encryption systems, which are vital at an age when highly sensitive information is stored in digital databases and transactions are performed via the Internet.

In the mid 1970s Prof. Rabin came up with a groundbreaking concept of enabling a computer program to determine the course of a calculation randomly, instead of in a deterministic manner. His applied algorithms, most notably the Miller–Rabin primality test and the Rabin cryptosystem, enabled the design of safe and effective communication protocols, which nearly all information security programs use today.

Prof. Rabin continues to pursue the development of computer programs that can help maintain users’ privacy via applied processes.

Prof. Rabin served as Rector of the Hebrew University in Jerusalem from 1972 to 1975. During that time he founded the university’s computer science research center, which trained world renowned researchers in the field, who in turn positioned Israel at the forefront of the global high-tech and computer industries.

Prof. Rabin currently serves as professor of computer science at both Harvard University and Columbia University. He has taught thousands of students in some of the leading universities worldwide, including Harvard, Columbia, Princeton, the Massachusetts Institute of Technology (MIT), the University of Paris and University College London. In 2009, Prof. Rabin was a visiting fellow of Google Creative Lab in New York.

Prof. Rabin’s achievements have been internationally recognized. He has six honorary degrees and is a member of some of the most important science academies in the world.

Prof. Rabin has won the Turing Award, which is the most prestigious award in the field of computer science, and he was the first ever laureate of the Israel Prize in computer science for his extensive, original and valued contributions to the field. Prof. Rabin is also the recipient of the EMET Prize, the Dan David Prize and the Rothschild Prize.

As the Interdisciplinary Center Herzliya celebrates its 20th anniversary, we wish to acknowledge the individuals who have laid the foundations for scientific research in Israel. In recognition of his groundbreaking work, which has paved the way for Israel to become a world leader in the fields of high-tech and computers, and in appreciation of his vast contribution to the development of reliable information security methods, Professor Michael O. Rabin is hereby named an Honorary Fellow of the Interdisciplinary Center Herzliya.