



**IEEE Italy Section Special Event**  
**Centro Congressi Le Benedettine, Piazza San Paolo in Ripa D'Arno, PISA**  
**26 September 2018**

16:00-17:00

**2018 IEEE Italy Section Honorary Award to Federico Faggin**

Introduced by: T. Tambosso (IEEE Italy Section Chair), B. Tellini (IEEE Italy Section Vice-Chair), S. Saponara (University of Pisa)

**Keynote Talk of Federico Faggin**

“From silicon gate to microprocessors to AI to consciousness”

17:00-18:00

**Round Table “Perspectives in Embedded and High Performance Computing”**

Moderator: S. Saponara (University of Pisa)

Speakers: F. Faggin (FagginFoundation), M. Ceccarelli (EU Commission), F. Magugliani (E4 and European Processor Initiative), E. Guidetti (STMicroelectronics), M. Olivieri (BSC)

20:30 Social Dinner (Ristorante L'Artifafo, via San Martino 33, Pisa)

<http://www.fagginfoundation.org/biography-of-federico-faggin/>

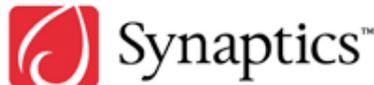
Born in Vicenza, Italy, Federico Faggin received a Laurea degree in Physics, summa cum laude, from the University of Padua (1965), and in 1968 he moved to Silicon Valley, California, where he now lives. Directly, or through several startup companies he founded and directed, Federico Faggin gave life to a large number of state-of-the-art products and technologies since he was 19 years old.

At Olivetti in 1961 he co-designed and built an experimental transistorized electronic computer; at Fairchild Semiconductors, he developed several process technologies for the fabrication of integrated circuits, among them was the MOS Silicon Gate Technology (1968) which was adopted worldwide and is still in use today; and the Fairchild 3708, the world's first integrated circuit with SGT.

Faggin designed the world's first microprocessor, the Intel 4004 (1971), developed the design methodology and directed the design of all early Intel's microprocessors. Distinguished among them are the Intel's 8008 (1972) and 8080 (1974). In 1974 Faggin started and directed his first company, Zilog, Inc., entirely dedicated to the emergent microprocessor and microcontroller market. The Zilog Z80 microprocessor (1976), and the Z8 microcontroller (1978) are still in volume production in 2014. He also developed dozens of memory chips and other integrated circuits at several companies.

Faggin founded and directed Cygnet Technologies, Inc. (1982); company that in 1984 introduced a pioneering personal communication product for voice, data, and electronic mail. He founded and directed Synaptics Inc. (1986); company that developed artificial neural network chips to perform pattern recognition. Today Synaptics is the leader in human interface solutions, having pioneered the Touchpad (1994), and the Touchscreen (1999) that have revolutionized the way we interface with mobile devices. During the period 2003-2008, Faggin was Chairman of Synaptics and CEO of Foveon, Inc., the developer of advanced image sensors and digital cameras for mobile devices.

Faggin is currently president of Federico and Elvia Faggin Foundation, a non-profit organization dedicated to the scientific study of consciousness, a long-standing interest that now has become a passionate full-time activity. Faggin received many prizes and awards in the United States, Europe, and Japan. Distinguished among them are the Marconi Prize (1988), the Kyoto Prize for Advanced Technology (1997), the Lifetime Achievement Award from the European Patent Organization (2006), and the 2009 National Medal of Technology and Innovation, from President Barack Obama. In 1996, Faggin was inducted in the National Inventor's Hall of Fame for the co-invention of the microprocessor, and he also received many honorary degrees in Computer Science and Electronic Engineering, including a PhD in Electronic Engineering from the Polytechnic University of Armenia, and a PhD in Science from Chapman University.



Federico Faggin receives the  
2009 National Medal of  
Technology and Innovation