IEEE Milestone to the Dadda's Multiplier

The IEEE Milestones in Electrical Engineering and Computing program honors significant technical achievements in the field of interest of the IEEE and recognizes the technological innovation and excellence for the benefit of humanity.

IEEE awarded a Milestone to the invention of an innovative high-speed multiplier architecture by Prof. Luigi Dadda in 1965.

Luigi Dadda published the first description of the optimized scheme, subsequently called a Dadda Tree, for a digital circuit to compute the multiplication of unsigned fixed-point numbers in binary arithmetic. This circuit allowed the arithmetic units of microprocessor-based computers to execute complex arithmetic operations with a performance/cost ratio unequaled at that time.
This invention had an extraordinary impact in the area of computer engineering and science and all related applications, which ultimately resulted in unique benefits for improving the quality of daily life and the economy around the world.
Dadda's conceptual design still constitutes the solid foundation for many research works and many industrial applications in the area of computer arithmetic.

It is worth noting that, so far, the IEEE Milestone has been assigned only to three other inventions developed in Italy for works by Alessandro Volta, Guglielmo Marconi, and Enrico Fermi. This very limited number clearly outlines the extreme selectivity of the award and, consequently, the unique value of the Dadda's Multiplier.

On the 29th of September 2016 the bronze plaque of this prestigious recognition will be placed by the IEEE al Dipartimento di Elettronica, Informazione e Bioingegneria of the Politecnico di Milano.

The IEEE is the most important international scientific, technological, and professional association in the areas of electrical and electronic engineering, information and communication technology, industrial automation, robotics, bioengineering, energy, and all related applications. Its 400.000 members are active in over 150 countries.

Politecnico di Milano
De Donato Conference Room
piazza L. da Vinci 32, Milano
September 29, 2016 – 14:30-17:00

Inaugural Ceremony

Opening remarks
Prof. Vincenzo Piuri, 2016 IEEE Past Vice President for Technical Activities,
Università degli Studi di Milano, Italy

Welcome by Politecnico di Milano
Prof. Giovanni Azzone, Rector

Welcome by the IEEE President
Prof. Barry L. Shoop, IEEE President and CEO

Dadda's Multiplier
Prof. Earl E. Swartzlander, Jr., The University of Texas at Austin, TX, USA

Implementation and experiments on Dadda's Multiplier
Prof. Domenico Ferrari, University of Berkeley, CA, USA

Subsequent research and achievements generated by Dadda's Multiplier
Prof. Mariagiovanna Sami, Politecnico di Milano, Italy

Presentation of the IEEE Milestone Plaque
Prof. Barry L. Shoop, IEEE President and CEO

Attendance at the inaugural ceremony is free, but registration will be appreciated to allow for appropriate planning. To register, please fill in the form at
https://calendario.eventi.polimi.it/#dadda