BASILIO CATANIA

Basilio Catania was born in Maletto (CT), Sicily (Italy), on 16 May 1926. At the age of three, he went to Milan, were he was educated, and where, in 1952, he received his doctorate degree in Electrical Engineering from the Polytechnic of Milan.

He started working as a researcher in the Magneti Marelli's Radio Laboratory, near Milan, from 1952 to 1963, being primarily engaged in research on broadband microwave links and on advanced measurement instrumentation for the same. He first got a two-three years training on the field, installing and testing all along Italy the first Microwave Link network for RAI television. His subsequent main achievements were a broadband FM demodulator for 2700 telephone channels, a low-threshold FM demodulator for the Italian satellite earth station, a new theory on FM limiters and on distortions in FM microwave links, and a compact, multifunction microwave link test equipment, that he demonstrated in many countries of the world and was approved by the Bell Laboratories (Western Electric KS No. 20548) for use in their networks. In the above fields of activity, he received US Patents Nos. 3,227,958, 3,195,060, 3,361,986, 3,763,427 and, later, 4,002,982.

In the same period, he also worked, in his spare time, as assistant to Prof. Francesco Vecchiacchi, at the Electrical

Communication Laboratory of the Polytechnic of Milan.

After Magneti Marelli's Radio branch was acquired by USA's General Telephone & Electronics, he engaged, from 1963 to 1971, in the design and development of said product lines, as Assistant Technical Director of GT&E-Telecomunicazioni.

In the same period, as an Adjunct Professor, he lectured in postgraduate courses on microwave technology at the Polytechnics of Milan and Turin and was chairman of the "Satellite Systems" working group of the International Electrotechnical Commission.

In the year 1972, he joined CSELT (Centro Studi e Laboratori Telecomunicazioni), the corporate Research Laboratory of the IRI-STET Group in Turin, where he was responsible for research in the fields of radio links, millimeter waveguides and optical fibers. In the (then new) field of optical fibers, he worked closely with Corning Glass, Pirelli and Sirti to set up an operational optical cable system in the telephone network of Turin. To this end, he developed an original optical fiber system's theory, that, on October 1975, was awarded the "prize for the paper of the highest scientific level" from the International Institute of Communications, in Genoa.

The optical link, in Turin, was designed according to that theory, and was inaugurated on 15 September 1977. It turned out to be the first of the kind in the world, thus rendering CSELT internationally known. Many other "firsts" followed, with improvements in system capacity (140 Mb/s in late 1977, 560 Mb/s in 1978).Following the above achievements, he took a leading role in the founding and management of international conferences, such as the European Conference on Optical Communication (ECOC) and the Integrated Optics and Optical Communication Conference (IOOC). He was invited to lecture and/or chair many conferences around the world and was editor of the 900-page book "Optical Fiber Communication", published by McGraw Hill in the USA, in 1981. Noteworthy was

the invited lecture "Optical Technology and Network Requirements" given at the Royal Society in London, on 29 June 1988.

Soon after his first achievements in the field of optical fibers, in December 1976, he was appointed director general of CSELT, remaining in that position until October 1989, when he retired. During this latter period, he promoted at CSELT activities on new research fields, such as artificial intelligence, computer aided design and solid state technology, acting both as a manager and as a scientific leader, as proved by the more than seventy papers published on various technical magazines or presented at national and international conferences. About twelve papers were concerned with the management of research. From 1983 to 1989, he was chairman of the planning committee of the European Industrial Research Management Association (EIRMA), in Paris.

He also contributed to set up and manage European research projects, particularly the Research on Advanced Communications in Europe (RACE). For this latter, on March 1984, he prepared the first introductory document; then, as chairman of the Telecom Operators Research Group (TORG), he contributed to the preparation of the RACE workplan and, finally, as a member of the "Integrated Broadband Communications' Strategic Audit 1988" he contributed to the evaluation of the results and the recommendations for further actions. In recognition of these contributions, in 1988, he was awarded the first "Eurotelecom Prize", by H.M. the King of Spain, on behalf of the European Union. For his research on optical fiber systems, he also received the Gold Medal of the City of Milan, in 1985, the fellowship of the Institute of Electrical and Electronic Engineers (IEEE), in 1990, and the Marconi Prize of the Italian Electrotechnical Association, in 1991.

In his spare time, during the last five years before his retirement, he performed an investigation on the relationships

between Quantum Physics and Information Theory, presenting his findings to several departments of theoretical physics in European Universities, among them: Stockholm, Warsaw and the International Center for Theoretical Physics, in Trieste, led by the Nobel Prize Abdus Salam, as well as a study of the Bible from the viewpoint of modern science, presenting his findings at the "Angelicum" auditorium and the "Studium Christi", in Rome.

After his retirement, in 1989, he set up a consulting company, named "Telecottage", also with the aim of experimenting teleworking. Since then, he almost entirely devoted his activity to an extensive research on the life and work of Antonio Meucci, a Florentine, who emigrated first to Cuba and then to the United States, and who claimed to have invented the telephone. The first (516-page) volume of Basilio Catania's four-volume work, entitled "Antonio Meucci - l'inventore e il suo tempo" ("Antonio Meucci - The inventor and His Times"), dealing with Meucci's life in Florence and Havana, was presented at the Lincei Academy in Rome on 1 June 1994. The second (768-page) volume, dealing with the first twenty years of Meucci's life in the USA, was presented at the Palazzo Vecchio in Florence on 16 May 1996. The author is actively working to complete the other two volumes and a CD-ROM, this latter to contain all the evidence retrieved.

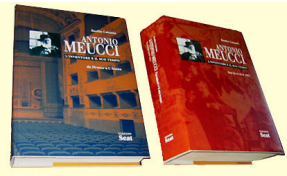
His 15-years research on Antonio Meucci has been also documented by a number of papers, lectures and exhibitions both in Italy and abroad and its results have greatly contributed to the passing of US Congress Resolution No. 269 in favor of Antonio Meucci. Tablets honoring Antonio Meucci as the inventor of the telephone were inaugurated in Florence in 1996 and in Havana in 1997, following the findings of Catania's investigations. Important recognitions of his research have been given to Catania by many national and international bodies, among them the Order Sons of Italy in America (OSIA) and by Hon. Dominic R. Massaro, Justice, New York Supreme Court, New York, NY, who named Basilio Catania as "the Vindicator of

Antonio Meucci's rightful place in the forgotten pages of American history" (NY University, October 10, 2000).

Also worth to be quoted is the recognition by the Italian Government, on the occasion of the "Meucci Day" in Rome, on May 28, 2003.

In March, 2004, the Board of Editors of the scientific magazine "European Transactions on Telecommunications" has appointed Basilio Catania as Editor of the history section (The Historian Corner) of the magazine.

He died in Catania on November 12, 2010.



Chez Basilio Café