

## José Garcia Santemases

*Born 1907, Spain; died October 23, 1989, Madrid, Spain; Spanish pioneer in informatics and founding member of the International Federation for Information Processing (IFIP).*



*Honors and Awards:* Gran Cruz de Alfonso X El Sabio; Medalla de Física de la Real Sociedad Española de Física y Química; Premio Leonardo Torres Quevedo; Medalla de Oro al Mérito en el Trabajo; fellow, IEEE; Medalla de Oro del Premio Echegaray de la Real Academia de Ciencias Exactas, Físicas y Naturales; Silver Core, IFIP; Presidente de Honor de la AEIA (Spanish Association of Informatics and Automation); Miembro de Honor de la FESI (Spanish Federation of Informatics Societies); Medalla de Honor de la Universidad Complutense.

Professor Santemases devoted his life to cultivating and promoting automation and informatics in Spain. His interest in computers was born after meeting Maurice Wilkes in Cambridge in 1949. In 1951 he worked in the Computation Laboratory at Harvard University with Howard Aiken, who was then directing the construction of the Harvard Mark IV computer.

When he returned to Madrid, he promoted the study of computers from his chair at the Universidad Complutense and from the Departamento de Electricidad del Consejo Superior de Investigaciones Científicas (CSIC) [the Superior Council of Scientific Research]; later he became the director of the Instituto de Electricidad y Automática [the Electricity and Automation Institute]. He studied extensively the work of Leonardo Torres Quevedo, the Spanish pioneer of automata.

In 1952 he delivered the first lectures on computers in Spain at the Universidad Complutense. In 1962 he directed courses on automation for graduates. These courses, transformed into international offerings in 1965 and sponsored by UNESCO, OEA, Instituto de Cultura Hispánica, CSIC, and Universidad Complutense, were repeated until 1970, when specializations in computer sciences were introduced as the last two courses for undergraduates in physics and mathematics at the Universidad Complutense.

In 1958 Santemases was the president of the organizing committee of the International Automation Congress held in Madrid. Present at the congress were Howard Aiken, Sam Alexander, Andrew Booth, Samuel Caldwell, Antonin Svoboda, Maurice Wilkes, Hideo Yamashita, Konrad Zuse, and Heinz Zemanek. This collection of pioneers reveals his preoccupation with the universal dimension of scientific activities.

The following year, a congress sponsored by UNESCO concerning the same subjects was held in Paris, France. During the congress the creation of IFIP was proposed; one of the 13 founding national organizations was Spain, represented by Santemases.<sup>1</sup>

### QUOTATION

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<sup>1</sup>From an obituary provided by Antonio Vaquero.

About Santemases: “Both Professor Santemases and his wife were highly cultured and endearing people. He will be long remembered for his efforts to advance the teaching and development of computer technology in his country.” (Isaac Auerbach, first president, IFIP)

## **BIBLIOGRAPHY**

### **Biographical**

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### **Significant Publications**

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Santemases, José Garcia, “Switching Research in Spain,” *Proc. Int’l Symp. Theory of Switching*, Harvard University, Cambridge, Mass., 1957.

Santemases, José Garcia, “A Few Aspects of the Impact of Automatics on Society,” *Impact of Science on Society*, UNESCO, Vol. 11, No. 2, 1961, pp. 107-126.

## **UPDATES**

Portrait added (MRW, 2013)