

**Carlo Capsoni** was born in Lecco (LC) in 1945. He graduated in Electronic Engineering at the Politecnico di Milano in 1970 and in the same year joined the Centro di Studi per le Telecomunicazioni Spaziali (CSTS), research centre of the Italian National Research Council (CNR) at the Politecnico di Milano.

Since 1975 Carlo Capsoni has been teaching a course on Aviation Electronics at the Politecnico di Milano. In 1986 he became full professor of Electromagnetics at the same University where, since then, he teaches also Electromagnetic Fields Theory.

As CSTS researcher, he was in charge of the installation of the meteorological radar of the CNR sited at Spino d'Adda, in operation since 1980, and of the realization of the Digital Signal Processor. In 1994 he promoted and coordinated the up-grading of the radar equipment by adding the Doppler capability and the change of the coaxial magnetron transmitter tube with a much more performing coaxial magnetron. Since 1980 he is the scientific responsible of the radar activity by deciding the goal of each measuring campaign, the most suitable operative procedures according to their scope (study on radiowave propagation, rainfall measurements, bird migration) and by defining the algorithms to work out the data collected.

In 1979 he was actively involved in the satellite Sirio SHF propagation experiment (11-18 GHz) and later in the Olympus (12, 20 and 30 GHz) and Italsat (20,40 and 50 GHz) satellites experiments. During these experiments the radar and some radiometers were used jointly with the satellites receivers.

His scientific activity is mainly concerned with theoretical and experimental aspects of electromagnetic wave propagation at centimeter and millimeter wavelengths in presence of atmospheric precipitation with particular emphasis to attenuation, wave depolarization, incoherent radiation, interference due to hydrometeor scatter, precipitation fade countermeasures and modelling of the radio channel.

The scientific activity in the field of radarmeteorology concerns the rain cell modelling, the microphysics of precipitation, the development of radar simulators and the effects of rain along radio links.

At present, other topics of study are: use of radiometric data for radio propagation related applications both from the experimental (equipments installed at the Spino d'Adda station) and from the theoretical point of view; Free Space Optics applications to TLC.

He is now and has been responsible and/or participant of several research contracts with national companies, ASI, MURST, CSELT, Regione Lombardia, Telespazio, Ericsson, Pirelli, ESTEC, ESOC; INTELSAT, and EEC on various aspects of radar data analysis and electromagnetic wave propagation at frequencies beyond 10 GHz and advanced telecommunication systems.

He is member of the Italian URSI group and, has been delegate in COST projects of the European Economic Community related to propagation aspects of telecommunications (COST 205, 210). Carlo Capsoni is member of the Società Italiana di Elettromagnetismo (SIEm) and of the Consorzio Nazionale Interuniversitario delle Telecomunicazioni (CNIT) council.. He is also member of the Coritel governing body.

He is referee of several international journals such as Radio Science, IEEE Transaction on Antennas and Propagation, IEE Proc. Microwaves, Antennas & Propagation, Journal of Atmospheric and Oceanic Technology.