



## ○ Prof. Ing. Gaspare Galati

### ● Brief Bio :

Gaspare GALATI received the Dr. Ing. Degree (Laurea) in Nuclear Engineering *cum laude* in 1970. From 1970 till 1986 he was with the company Selenia (Now: Alenia Marconi Systems) where he was involved in radar systems analysis and design. From 1984 to 1986 he headed the System Analysis Group of Selenia, a group of 12 graduate engineers (junior and senior) supporting the whole Company for R & D activities in the field of radar systems, telecommunications, computer science. He conceived and analysed the former Adaptive Moving Target Indicator (MTI) filter ( patented), used in Selenia/Alenia surveillance radars and was involved in the design of the former MTD ( Moving Target Detector) processor. He organised and chaired the two-weeks international Advanced Course on Modern Radar Techniques and Systems (Rome, Accademia Nazionale dei Lincei, May 1989), and was Editor of the resulting book "Advanced Radar Techniques and Systems" (IEE- Peter Peregrinus, 1993, 986 pages, ISBN 0-86341-172 X). In March 1986 he became associate professor of Radar at the Tor Vergata University, Rome.

From November, 1994, winner of a national competition, he is full professor of Radar and Navigation Systems at the Tor Vergata University of Rome, where he also teaches Probability, Statistics and Random Processes. In 1991-99, within the National Transportation Research Project of the National Research Council (Progetto Finalizzato Trasporti Due / CNR) he has been responsible of the Support Systems and Infrastructures Area, which includes the Air Traffic Management.

He has participated to the ICAO panel SICASP (1980-1986) and to Eurocontrol Working Groups, as well as to EURET. In 1990-1998 he has organised the international Advanced Workshops on Radar Meteorology RADME 92, 94, 96 and 98. Presently, he is member of the Programme Committee of the ERAD ( European Weather Radar ) Conferences, held in 2000, 2002 and so on. In spring, 1995 he has been evaluator of the Proposals for the IV Framework Program of the European Union. In 1998 he has been member of the GNSS-2 Forum, Working Group 2 – Technical and Financial Issues, where he participated actively to the definition of the main choices for the Galileo programme.

Within the Associazione Elettrotecnica ed Elettronica Italiana, AEI, he chairs the Remote Sensing, Surveillance and Navigation Group. In June, 1995 he was elected chairman of the Central and South Italy Section of the IEEE and he remained in charge until 2000; for this service the President of the IEEE signed an appreciation diploma in 2000. He is chairman of the Signal Processing & Aerospace and Electronic Systems Chapter of the IEEE, recipient of the "Best Chapter" award.

He has been co-editor, with prof. A. Gilardini, of the two-volumes book on Remote Sensing Systems, Techniques and Instruments "Tecniche e Sistemi per il Telerilevamento Ambientale " ( in Italian, published by the Italian Council of Research – CNR- Vol. 1 : 2000, ISBN 88-8080-019-1, vol. 2 : 2001, ISBN 88-8080-032-9).

He has been member of the Programme Committee of many International Conferences and has chaired the Programme Committee of the European Symposium on Global Navigation Satellite Systems, GNSS 99, Genova, 5-8 October 1999. His most recent activities in the field of Conferencies/Symposia are: (a) membership of the Steering Committee and of the TPC of EuRad04- European Radar Conference 2004, Amsterdam, 14-15 October 2004, (b) general Co-Chair of the ISSPIT 2004 – 4<sup>th</sup> IEEE Intl. Symp. on Signal Processing and Information Technology, Rome , December 20-23, 2004.

In the Nineties he conceived a new architecture for the control of Surface Traffic in Airports, based on a network of millimeter-wave, high resolution small radar *Miniradars* ( patented on 22.01.1996 in Italy and in 1997 in Europe and published in the IEEE Trans. on AES, Vol. 35, No.1, Jan. 1999 as well as in the Annales des Telecommunications, Tome 32, N. 3-4, 1997, pp 224-229) ; the proposal has been appreciated by the Italian Air Traffic Services, ENAV, who approved and founded the related 2.5MEuro worth "Fast Prototyping" experimental plan proposed by G. Galati in cooperation with Oerlikon Contraves and Thales ATM. The related trials are being performed in the Marco Polo Airport (Venice, Italy) in 2003.

In Europe two series of workshops are dedicated to surveillance systems in the domain of air traffic management. These two workshops, ESAVS and ESAV, are coordinated such that they are held each one-and-a-half year in Germany and Italy, alternating. He organizes the Italian edition; in 2011 the workshop was held in Capri, Italy, and in 2014 in Roma.

Presently he teaches, at the Engineering Faculty of Tor Vergata University, Radar Fundamentals and Probability, Statistics and Random Processes.

His main interests are in Radar theory and techniques, Detection and estimation, Navigation and Air Traffic Management .  
He is author/coauthor of about 250 papers, 20 patents , 5 research books and 4 teaching books on those topics.

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