

Personal data**Cyril Mangenot**

Date of Birth: 20 August 1962

Nationality: French

- **30-year cumulated Space antennas experience in Industry and at the European Space Agency.**
- **Self-employed Space antenna consultant.**
- **Chairperson of the European Association on Antennas and Propagation "EurAAP" organizing the European Conference on Antennas and propagation EuCAP.**

Working Experience**Api-SpacE Consulting****December 2017**

Space antennas consultancy, support to roadmap elaboration/review.

See <https://api-space.com/>**ESA European Space Research and Technology Center (ESTEC)**
Technology, Engineering and Quality Directorate, Electrical Department.**November 2017 – June 2002****January 2017** Head of RF Payloads and Technology Division.

- In charge of an experts team in the fields of *Antennas, sub-millimetre wave instruments, RF equipment's and Payloads as well as Propagation & wave interactions*. Support to all ESA projects for technical monitoring of products developments and reviews.
- Responsible for initiation, justification and implementation of all ESA antenna R&D in the division field for all space applications including user terminals.
- Manager of a team of more than 60 engineers and of associated laboratories.

June 2013 Head of the *Electromagnetics and Space Environments Division*.**June 2002** Head of *Antenna and sub-millimetre wave section*.**ALCATEL SPACE (now Thales Alenia Space)****June 2002 – September 1986****July 1997** Head of the *Antenna studies section in the Antenna Department*.

- Direct responsibility for 20 engineers, 4 technicians and 1 PhD Thesis working in the field of multimedia, C/Ku telecommunication, Earth Observation, TM/TC and data transmission for Science missions.

- In charge of the antenna research & development plan elaboration and justification for internal and external studies.

February 1993 *Head of Earth Observation antenna studies group.*

- In charge of the radar antenna R&D and development performed by 3 engineers.
- Project manager of OSIRIS active antenna qualification model for SAR military application. 8 subpanels manufactured with one subpanel comprising 32 active T/R chains built and tested at qualification level. Duration 4 years.
- Contribution to several ESA and CNES projects

March 1989 *Study engineer in charge of the design and development of radiating panels for:*

- X-band CNES agency Spot-Radar project.
- C-Band SAR 2000/ASAR (support to EADS-CASA development)

September 1986 *Ph. D. Thesis preparation.*

- Development of a new pattern synthesis method for Radar mission optimising simultaneously transmit and receive excitations under the constraints of an uniform transmit amplitude, a swath ripple and slope, and a dynamic range for receive excitations.

September 1986 - February 1986 *Matra Marconi (now EADS- Astrium SAS)*

Stage included in the courses of the Extensive Study Diploma performed that year.

- Modelling of printed patch antenna on cylindrical launcher structure.

Education

Graduated from Paul Sabatier University (Toulouse, France)

Ph.D. Thesis (1986-1989) on Power synthesis of shaped beam antenna patterns.

Master in Electrical Engineering at Paul Sabatier University.

Teaching experience

Lectures & courses for dissemination and awareness. Non-exhaustive list of courses prepared and given when working at Alcatel Space

- Radar a antennes synthétiques (SAR). Course given during 5 years at Sup Aero.
- Les amplificateurs microondes de forte puissance . Course given during 5 years at Sup Aero.
- Antennes Plaquées Teacher during 5 years at ENSEEIHT.
- Antennes pour telecommunications spatiales . Teacher during 4 years at SUPELEC (continuous training).

*When at ESTEC, in charge of the 2 first editions of a one week **European School of Antennas** course on space antennas for students and engineers from industry from all around the world.*

Technical training

Non-exhaustive list of technical training attended highlighting topics of interest and additional competences.

- Space System engineering. 5 day course. November 2011.
- Satellite communication systems . 4 day course. June 2009.
- Nanomaterials Processing, Characterisation and Applications. 1day course. November 2006.
- L'argumentation scientifique et technique. April 1997.
- Formation a l'Audit Qualit .One week course. May 1995.
- Conception et technologies des satellites. One week course at SupAero. 1993.
- Radar a antennes synthétiques (SAR). One week course. December 1991.
- Matériaux composites pour structures spatiales . One week internal course at Alcatel space. October 1991.
- Space environment. One week course at ONERA. December 1989.

Communication and Dissemination

- Chairperson of the EurAAP www.euraap.org association since 2016.
- Very active member (since 2007) of the European Conference on Antenna and Propagation (EuCAP) Steering committee. This International conference attracts every year more than 1200 delegates.
- Technical Program Chair for the EuCAP edition of 2014 in Den Haag.
- Member of the several organising and technical committees of the ESA antenna workshops.
- Invited speaker in the plenary session of major conference (ASMTA, JNM, EuCAP,...), Universities (UPM in Madrid, QuB in Belfast, ...) and industries (Thales Alenia Space,...).
- Convener and Chairman of several international conference sessions.
- Co-Author of the Wiley book "Space antenna handbook". In charge of the last chapter on the future trends together with William A Imbriale from JPL. The book was edited in 2012 and a snapshot can be seen at <http://www.wiley-vch.de/publish/en/books/ISBN978-1-119-99319-3>
- Author and Co-author of 7 international patents.