ESA ESoA Course on ANTENNAS for SPACE APPLICATIONS organised by G. Toso, E. Gandini

10th edition 27-31 May 2024, ESA-ESTEC, The Netherlands

	Day1 **May 18th 2026**		**Day 2** **May 19h 2026**		**Day 3** **May 20th 2026**		**Day 4** **May 21st 2026**		**Day 5** **May 22nd 2026**
9:00	1. Introducing ESA ESTEC and the Course (G. Toso, E. Gandini, ESA-ESTEC)	**9:00**	6. Earth observation instrument antennas (L. Salghetti Drioli, ESA-ESTEC)	**9:00**	11. Navigation Antennas (D. Trenta, ESA-ESTEC)	**9:00**	17. User Segment Antennas (E. Gandini, ESA-ESTEC)	**9:00**	22. Multibeam Antennas Architectures, part II, Overlapped Subarrays and Discrete Lenses (G. Toso, ESA-ESTEC)
9:40	2. Basic of Antennas, frequencies, orbits (E. Gandini, ESA-ESTEC) with Coffee break in the middle	**10:40** **11:00**	Coffee break 7. High Frequency Earth Observation (E. Saenz, ESA-ESTEC)	**10:40** **11:00** **12:00**	Coffee break 12. New Space Antennas (C. Tienda, ESA-ESTEC) 13. RF Antenna Measurements (L. Rolo, ESA-ESTEC)	**10:50** **11:10**	Coffee break 18. Additive Manufacturing (M. van der Vorst, ESA-ESTEC)	**11:00** **11:15**	Coffee break 23. Mechanisms for Antennas in Satellite Applications (A. Blanc, J. Smith, ESA-ESTEC)
		12:00	8. Science Antennas and Instruments (S. van Berkel, ESA-ESTEC)			**12:00**	19. Large Reflector Antennas (P. Moseley, ESA-ESTEC)	**12:15**	24. Future Trends and Research Lines (E. Saenz, ESA-ESTEC)
13:00	Lunch	**13:00**	Lunch	**13:00**	Lunch	**13:00**	Lunch	**12:45** **13:00**	Closure of the course Lunch
Lunch Break									
14:00	3. Feed systems and radiators (A. Tornese, ESA-ESTEC)	**14:00**	9. Service Antennas (V. Iza, ESA-ESTEC)	**14:00**	14. Multibeam Antennas Architectures, part I, Single Feed per Beam, Multi Feed per Beam, Active Arrays (G. Toso, ESA-ESTEC)	**14:00**	20. Low Frequency Antennas (B. Byrne, ESA-ESTEC)	**14:00**	25. ESA Antenna Measurements Facilities, (I. Barbary, E. Van Der Houwen, A. Riccardi, ESA-ESTEC)
15:00	Coffee break	**14:45**	Coffee break			**15:00**	Coffee break		
15:20	4. Reflector Antennas (S. Mercader-Pellicer, ESA-ESTEC)	**15:10**	10. TICRA Tools for Space Antennas RF Design: Methods, Applications, and Insights (C. Cappellin, TICRA)	**15:30**	15. Optimization Techniques Applied to Phased Arrays for Next-Generation SatCom Systems (M.Pellet, ESA-ESTEC)	**15:15**	21. Advanced Hybrid Workflows for Antenna Placement in Space Applications (C. Gomez Molina, Ansys)		Final Questionnaire, online homework **(*)**
16:20	5. Satellite radio-frequency payloads and instruments – Overview, needs and challenges (S. D'Addio, ESA-ESTEC)			**16:20**	Coffee break				
				16:40	16. Beam Forming Networks and Digital Beam Forming (P. Angeletti, ESA-ESTEC)				
18:00	Welcome cocktail			**18:40**	Social Dinner				

(*) The final questionnaire is not mandatory but useful for all the participants. It contains multiple choice answers and permits PhD students to get 3 international credits. At the end of the Course all the participants will receive the link to fill in online the questionnaire. The questionnaire can be completed online in the week after the course. From the moment every participant starts completing the questionnaire online, the link will remain open for a maximum time of 2 hours. A first Certificate of Attendance will be given to all the participants. A second Exam Certificate will be given only to the participants who will complete the final questionnaire obtaining a minimum score of 18 out of 30. The participants obtaining the best scores in the final questionnaire will be acknowledged.