

**NOTE:** Short Courses or Social Events with insufficient registration will be cancelled and registrants' fee refunded.  
**SHORT COURSES** (A full description of the short courses can be found on the Symposium website. Courses are on Sunday, July 9, and Saturday, July 15. Full-day courses are from 8:00 a.m. – 5:00 p.m. and include lunch. Unless otherwise noted, half-day courses are from either 8:00 a.m. – 12:00 noon or 1:00 p.m. – 5:00 p.m.)

<b>Course Description</b>	<b>Until May 19</b>	<b>After May 19</b>	<b>Schedule</b>	<b>Fee</b>
<i>SC-1 (Full Day): Reflector Antenna Design and Analysis (Hans-Henrick Viskum)</i>	\$350	\$400	Sunday	
<i>SC-2 (Full Day): Iteration-Free Approaches to Solving Large Antenna and Scattering Problems (Raj Mittra, Stefano Maci, and G. Vecchi)</i>	\$350	\$400	Sunday	
<i>SC-3 (Half Day): Performance Enhancement of Communication Antennas using Metamaterials (Junho Yeo and Raj Mittra) (note: starts at 8:30)</i>	\$225	\$275	Sunday AM	
<i>SC-4 (Full Day): The Art and Science of UWB Antenna Design (Hans Schantz)</i>	\$350	\$400	Saturday	
<i>SC-5 (Half Day): Miniaturization and Material Design Methods for Antennas (C. C. Chen and John Volakis)</i>	\$225	\$275	Saturday AM	
<i>SC-6 (Half Day): Advances in the Design of Electrically Small Antennas (Steven R. Best)</i>	\$225	\$275	Saturday AM	
<i>SC-7 (Half Day): Micro and Nanostructured Transmission-Line Metamaterials and their Applications (George V. Eleftheriades and Nader Engheta)</i>	\$225	\$275	Sunday AM	
<i>SC-8 (Half Day): Planar Antennas for Wireless Communications and their Recent Advances (Kin-Lu Wong)</i>	\$225	\$275	Sunday PM	
<i>SC-9 (Full Day): Domain Decomposition Methods for Computational Electromagnetics (Jin-Fa Lee)</i>	\$350	\$400	Saturday	
<i>SC-10 (Full Day): Genetic Algorithms (GA) and Particle Swarm Optimization in Engineering Electromagnetics (Yahya Rahmat-Samii)</i>	\$350	\$400	Sunday	
<i>SC-11 (Full Day):EBG Surfaces, Artificial Magnetic Conductors and Soft-Hard Surfaces (Per-Simon Kildal, Stefano Maci, and Daniel Sievenpiper)</i>	\$350	\$400	Saturday	
<i>SC-12 (Full Day): Reverberation Chamber for Characterizing Antennas and Mobile Terminals under Rayleigh Fading: Efficiency, TRP, TIS, AFS, diversity, MIMO, UWB (Per-Simon Kildal)</i>	\$350	\$400	Sunday	
<i>SC-13 (Full Day): Smart Antennas (Tapan Sarkar and Magdalena Salazar-Palma)</i>	\$350	\$400	Saturday	
<i>SC-14 (Full Day): Dielectric Resonator Antenna Theory and Design (Ahmed A. Kishk and Branko Kolundzija)</i>	\$350	\$400	Sunday	
<i>SC-15 (Full Day): MW/mmW Photonics for Large Phased-Array Antennas (Dilip K. Paul)</i>	\$350	\$400	Sunday	
<i>SC-16 (Half Day): Modeling and Simulation Strategies in Electromagnetics: Teaching via Virtual Tools (Levent Sevgi)</i>	\$225	\$275	Saturday AM	
<i>SC-17 (Half Day): Antenna Evaluation for Communications with Diversity/MIMO (Rodney Vaughn)</i>	\$225	\$275	Saturday AM	
<i>SC-18 (Full Day): On the use of Support Vector Machines for Antenna Array Processing (Manel Martinez and Christos Christodoulou)</i>	\$350	\$400	Saturday	
<i>SC-19 (Full Day): Computational Electromagnetics in Solving Real-World High-Speed EMI/EMC and Packaging Problems (Omar Ramahi)</i>	\$350	\$400	Sunday	