Chairman	**Tucci Vin.**
Topic	*Modeling and applications of materials and devices based on carbon nano structures*
Objectives	Materials and devices based on carbon nanostructure like carbon nanotubes (single o multi wall), carbon nano fibers, graphene platelets, etc. are increasingly used in many industrial applications due to the exceptional intrinsic properties offered by such systems. For example, high performance multifunctional components for aeronautic and automotive sectors can be obtained by mixing carbon nanoparticles with suitable polymer matrices. Such materials may replace traditional ones in structural applications due to their high fracture toughness against impact damages, easy processability and shaping possibilities, resistance to several aggressive environments (corrosion, flame, moisture, etc.). In order to optimize the performances without extensive and costly trial and error tests, accurate modeling and simulation are required at both material and device level. The aim of the session is to present recent results concerning the modeling and applications of materials (in particular polymeric composites) and devices employing carbon nanostructures. In particular, papers focused on either theoretical approaches or experimental techniques for achieving increased efficiency, reliability, robustness of the materials and devices are of special interest.