

Advanced composites, e.g., continuous/short fibre or particle-reinforced composite structures, etc., are attracting increasing attention in industrial applications due to their excellent performance, i.e., high mechanical properties in terms of stiffness- and strength-to-weight ratios. In recent years, significant advances have been witnessed in the mechanics and design of composite structures with respect to novel design, fabrication, and characterisation methods. As such, this Special Issue has a particular focus on, but is not limited to, the mechanics and design of advanced composites, with respect to advanced design, fabrication, and characterisation for high-performance composite materials/structures.

Some particular subjects are mentioned here for reference and submission, e.g.,

- Continuous/short fibre or particle-reinforced composites.

- Structural analysis and design optimisation.

- Fatigue and life-cycle assessment.

- Structural health monitoring.

- Interface properties and strength.

- Constitutive relations and multiscale modelling.

- Composite sandwich structures and others.

- Advances in the mechanics and design of advanced composites.