Special Issue

Innovative Structural Design and the Characterisation of Textile Materials

Message from the Guest Editor

Innovative Structural Design and Textile Material Characterization have gained attention for high-performance applications in smart wearables, functional textiles, and biomedical fabrics. This Special Issue seeks recent academic achievements in:

- Advanced textile design and performance modeling.
- Tactile sensation, fabric handling, and clothing comfort.
- Theoretical textile modeling during processing.
- Thermal-proof textile materials through structural design and micro/nano materials.
- Smart wearables for health monitoring and interactive technology.
- Auxetic materials, spacer textiles, and porous structures.
- Functional textiles for protection and safety.
- Flexible smart sensors in textiles.
- Characterization of advanced materials.
- Textile-based nanocomposites and fiber-based materials.

We welcome both research papers and review articles. Please mention in your cover letter if your submission is for this Special Issue. Keyword: fibres; yarns; fabrics; textiles; functional materials; structural design; auxetic materials

Guest Editor

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Deadline for manuscript submissions

closed (20 May 2025)

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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