

ThermoPlastic composites Research Center
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TPRC, the ThermoPlastic composite Research Centre in the Netherlands, is a young open innovation, research and development centre for thermoplastic composites. TPRC primarily executes joint research projects on new thermoplastic composite technologies and applications, taking into account materials, processing and design aspects.

The founding partners of the TPRC are Boeing, Fokker Aerostructures, TenCate Advanced Composites and the University of Twente. TPRC is located right next to the University of Twente on the Business & Science Park in Enschede, the Netherlands.

The concept of the consortium is to collaborate with different parties within the supply chain on thermoplastic composites, initially in the aerospace industry which is looking for a fast deployment of thermoplastic composites into product lines quickly and efficiently. The physical centre enables researchers and developers from all parties to closely work together on open innovations. It also will enable all parties to use each other's research equipment. Serving as a catalyst for innovation, the research centre focuses on development of thermoplastic composite technologies for a broad range of end-use markets, including wind energy, oil and gas, aerospace, automotive, medical, machinery, infrastructure, sports and marine.

We are currently starting up new projects in the areas of new materials and processing methods. All projects concern physical properties and composite performance as a function of materials and processing, combining sophisticated experimental analysis with multi-scale modeling and numerical simulation where appropriate, having available recognized expertise in the field of dedicated finite element modeling.

TPRC is recruiting a

PhD student for the project "Fibre Placement"

Fibre placement is a processing method in which pre-impregnated tape is used to build up products from scratch or as an alternative to reinforce products locally. In this way the fiber orientation, and therefore structural properties, can be tailored to meet the specifications of the product in an optimized manner. The challenge is the development of a robust method to perform in-situ placement, which means that no subsequent consolidation process is needed. During this PhD assignment the main influence parameters on the processing quality will be determined for different material systems, in which correlations between material behavior and processing conditions will play a central role. The assignment involves experimental, hands-on activities, analysis and modeling.

We are looking for a highly motivated student with a master degree in a technical discipline, preferably in mechanical / aerospace engineering or in applied physics. Knowledge of industrial automation is an advantage.

If you feel that you can give a valuable contribution to the research of thermoplastic composites and would like to be part of an enthusiastic multidisciplinary team of researchers and experts from industry, send your CV together with your motivation to jobs@tprc.nl.