



3DiTEX
innovative textiles

Modeling the thermoforming of tubular composite structures, and its consequences on in-service properties

Context

3DiTex is a start-up based near Bordeaux in Canéjan (33610), founded in 2018, which aims to design and market a technology for the production of hollow or tubular textiles and composites.

3DiTex technology is based on algorithms capable of transcribing customer specifications into programs for its high-speed continuous textile production machines. It is particularly well suited to the processing of thermoplastic ribbons with complex geometries. 3DiTex aims to democratize the use of composites in mass markets such as mobility, energy, sports & leisure and industry.

3DiTex has already filed patents and carried out an initial phase of R&D work, demonstrating the feasibility of the technology and validating it with an initial group of customers. 3DiTex has now entered a second phase of development, moving from proof-of-concept to pre-industrial technology, developing applications with its industrial partners and customers and, finally, developing certain strategic bricks in terms of algorithms.

Objectives :

- Contribute to the development of algorithms for identifying isospaced trajectories on a 3D topology,
- Develop multiphysics behavior models for composites tape
- Model winding and thermoforming of thermoplastic composites

Profile required:

- Student: engineer or university student with 5 years' higher education, majoring in Mechanics/Mathematics.
- Knowledge of composite materials.
- Knowledge of programming languages (Python, C/C++, Java, etc.)
- Very good level of English (B2 minimum)

Documents requested

- CV
- Cover letter
- Copy of candidate's identity document
- Transcript of grades for the last three years

Financing :

- 3DiTEX, CIFRE funding

Contact

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Location:

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