

Internship

Automated Fiber Placement

Composite Automation

SAM XL is a manufacturing automation expertise centre that forms a unique liaison between TU Delft faculties, the industry and suppliers. We develop software and hardware to enhance the intelligence, connectivity and flexibility of industrial robots. This robot technology for executing complex and varied tasks on large structures is validated and demonstrated in our industrial-scale automation lab.

Automated Fiber Placement (AFP) is a composite manufacturing process in which a robot lays down composite tape to build a composite laminate one tow at a time. Both thermoset and thermoplastic materials are being explored. The planning and correct placement of the tows has a crucial effect on the performance of produced parts.

Internship openings

- 4-6 month internship working on the AFP tool, learning the process, investigating pain points of the system and designing and integrating improvements.
- 3 month internship creating a Rhino/Grasshopper program to program toolpaths for AFP, taking fiber angles and curvature of a CAD surface as design inputs.
- MSc thesis topic involving manufacturing trials to push the TRL of in-situ consolidated thermoplastic AFP higher. Involves manufacturing trials, improvement of the process, validation by NDT and mechanical testing.

Your profile and skills

- HBO / WO engineering student
- Independent worker
- Fast learner
- Enthusiastic about composites

What we offer

- A cool workspace with a lot of robots
- Access to high-end hardware
- Dynamic and experienced colleagues
- Mentoring in task scoping and implementation
- Exposure to robotic manufacturing technology know-how
- An internship remuneration.

Interested? Send your CV and a short motivation to internships-samxl@tudelft.nl