

FROM SURFACE PREPARATION TO ASSEMBLY, CHARACTERIZATION & MODELIZATION

Surface preparation

Texturation, 3D samples, functionalization



Innovative assemblies expertise & platform



Ageing & durability

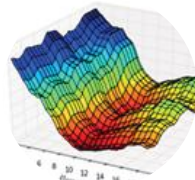
Temperature, humidity, and time control

Optical & mechanical characterization

Microscopique observation, fracture facies, traction flexion test

Analysis & Modeling

Meta model, big data, image analysis




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Surface Preparation Platform

- atmospheric plasma equipment for surface preparation
- 3 axes robot
- possibility of surface functionalization with liquid additives by plasma projection



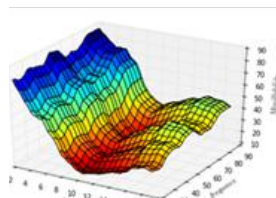
KUKA robot

6 axes robot and 2 axes table
Possibility to plug plasma, laser IR and glue application system

Recommendation of safety distances



Large range parametric studies are currently in progress to enhance the robustness of adhesive bonding techniques for CFRP's as well as metallic alloys (Al and TA6V) based on laser and plasma surface preparation.



Surface energy TOVS Fluence and frequency

Climatic environment

- Clean Rooms (ISO08)
- Multifunctional robot for bonding : JANOME JR3604N-AC Automated Adhesive Dispensing Resistive loads up to 60kW



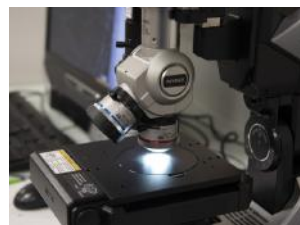
Layer Manufacturing

Possibility to produce composite by laying for development studies



KOKA Platform

Possibility to produce composite by laying for development studies



Opto-numerical Microscope
Keyence VHX5000




Static Mechanical test device
MTS criterion C43.504 (50KN)

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