

Internship Offer

Title : Schlumberger - Automation of rubber wrapping to manufacture expandable packers used in oil and gas industry.

Department : Manufacturing Engineering

Product Line : RSP

Summary : Schlumberger Manufacturing organization has launched a transformation program to improve quality, efficiency, flexibility and reliability with strong cost reduction objectives. Automation and robotic are the pillars of this transformation and ambitious projects are required to make a step change in our technology and Mfg processes.

The Schlumberger Technology Center FCS based in Abbeville France manufactures expendables products which are run and set into oil or gas wells to isolate a wellbore section in order to measure formation pressure and collect formation fluid samples. Revenues generated by this technology in the field is around \$100M per year.

These packers are manufactured with elastomer which is wrapped manually by operators. This operation requires a lot of resources and is performed for every products and at each manufacturing steps.

The objective of this internship is to automate the elastomer wrapping process.

Essential Responsibilities and Duties :

The intern will report to the Center Manufacturing Engineering Manager and will work in the RSP manufacturing department. She / he will have first to understand packers manufacturing and elastomer wrapping processes. A VSM (Value Stream Mapping approach) will be required to present this first analysis.

The intern will have then to propose different concepts and solutions to automate the process. A very deep Technology watch will required to find and propose technology already used in the industry. The technical background in robotic and automation will be crucial for an effective communication with the suppliers. Feasibility and financial studies will be required to select the best technology.

Another part of the project is to define elastomer setting programs using current winding machines. Automatism and robotic programming background will be very useful for this phase. The intern will have then to manufacture and test samples to qualify these elastomer setting processes. Her / his operational and technical skill will be very important.

The intern will also act as a project leader and will therefore have to involve and inform regularly all stakeholders of this project (Manufacturing, Engineering, QHSE, Maintenance and supply chain).

The final deliverable will be to propose the technology to be implemented in the Technology Center as per budget constraints, current and future manufacturing processes and design and implementation time requirements.

Education and Prior experiences

Industrial engineering – Robotic and automatism – Manufacturing

Final internship (Bac +5).

Key skills

Strong technology background and interest in industrialization approach. Witten and oral Communication skill in English and French and with different population (suppliers, managers and operators) are essential. Project management skill is also very important.

Starting Date: January to September