Master Thesis Work

Post-processing for Metal Additive Manufacturing “3D printing”

At Research and Development you will be a key contributor to the next generation outstanding luxury cars from Volvo. Together with other engineers around the world, you and your team will find and create innovative ways how to enable the technique in the R&D process to a final product that makes life less complicated and more enjoyable for people. Are you interested in design and Additive Manufacturing “3D printing” technology? Do you share our passion for people, the environment and our urge to create a superior driving experience? Research and Development is the place for you to prosper.

Background

Volvo was one of the early adaptors of the technique and has used it both for Models, prototypes and process aids. The technology has recently taken the step to go from “Rapid Prototyping” to Additive Manufacturing. We are now interested to gain knowledge about post-processing methods for AM “3D Printing” and the different factors that influence it.

Description of thesis work

The purpose of the thesis is to come up with suitable solutions for post-processing depending on various needs. You will make a study of how we work today and find better methods in how to ensure requested quality of AM components for various programs and projects.

Expected outcome

- Case studies
- Benchmark
- Process methodologies
- Identify opportunities for future deliveries
- Suggestions of concrete improvements to implement
- Design guidelines for post-processing
**Desired qualification**

Good knowledge about metals, industrial processes, vehicles, economy. Excellent knowledge in post-processing methods, joining and an ambitious work approach. Knowledge in additive manufacturing is considered as advantage.

**Duration**

- Estimated starting date: January 2018
- 20 weeks, (30 ECTS).
- The work will be carried out at Volvo Cars, Gothenburg.
- For 1 student

**Organization**

The work will be carried out at Volvo Cars, Gothenburg. Department of Industrial and Materials Science is hosting the competence centre “Centre for additive manufacturing – metal (CAM²)” that involves broad network of national and international companies, including Volvo Cars. Hence, candidate will perform the work in the broader network of MSc and PhD students, working in different aspects of additive manufacturing in CAM².

**Contact**

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We want your application at the latest 2017-11-30.