



# Crafting your Career /

## JOIN US

### **Thesis/Intern (m/f) – Development of Powertrain Coordination with Plasma Technology**

We are looking for a **Thesis/Intern (m/f) in the field of Development of Powertrain Coordination with Plasma Technology** to join our engineering team at our office in Wegberg near Aachen.

#### **/ Background /**

In order to achieve future regulations, high NO<sub>x</sub> conversion efficiency from low temperature is needed and DENSO is developing plasma technology as unique and original solution. With this technology, high NO<sub>x</sub> adsorption performance is realized from low temperature with LNT.

#### **/ Scope of Duties /**

The task of this thesis/internship is to optimize whole powertrain control with LNT. By using this control strategy, DENSO wants to quantify CO<sub>2</sub> emission benefit with same tailpipe NO<sub>x</sub> with plasma technology. You will introduce coordination concept to manage combustion, electrification and exhaust aftertreatment with plasma technology and quantify the potential.

#### **/ What you'll do /**

- Support improvement of Plasma – LNT model by effectively using the engine data
- Support the update of the existing LNT model in the ECU with plasma model in order to estimate NO<sub>x</sub> adsorption ratio and NO<sub>x</sub> load amount more accurately
- Support LNT performance by enabling regeneration using a heating strategy

#### **/ What you'll need /**

- Currently enrolled in an engineering Bachelor/Master with the focus on automotive or mechanical engineering or similar
- Fluent English skills both written and spoken
- Fundamental knowledge of Diesel engine and aftertreatment is expected
- Good knowledge on MathWorks MATLAB/Simulink
- Data analysis skills (Basic level)
- Available for a duration of at least 6 months
- Good MS Office skills especially Word, Excel and PowerPoint

#### **/ Are you interested? /**

Please apply via email to [jobs@denso-auto.de](mailto:jobs@denso-auto.de) by providing the job number 2018DNDE35. For more information please contact Mr. Constantin Köntges (Human Resources), phone: 02432 / 4919 – 333 or via email: [jobs@denso-auto.de](mailto:jobs@denso-auto.de).