

Analysis of real-world driving circumstance

Software, Electric, Mechatronic, Mechanical Engineer

Chassis Engineering Division / Brake Department

Toyota Company:

TOYOTA is one of the world's largest automobile manufacturers and a leading global corporation. Founded in 1937. Toyota now sells vehicles in 170 countries and employs over 300.000 people. Based in Brussels, Belgium, and staffed by 2.700 people and more than 60 nationalities, Toyota Motor Europe (TME) handles the wholesale marketing of Toyota and Lexus vehicles, parts & accessories, and manages Toyota's European R&D, manufacturing and engineering operations.

Description of our Team/ Division:

Chassis Engineering Division's responsibility is :

- 1) Local development of **Chassis parts** for vehicles built in Toyota's European assembly plants.
This activity is done in close cooperation with **local suppliers** and **mother divisions** in Toyota Motor Corporation (TMC) in Japan.
- 2) Investigation of **new European technologies**

Within Chassis Engineering Division, **Brake Design** Dept has development responsibility consisting of:

- 1) Design of **brake system and parts** (both foundation and control brake)
- 2) Evaluation of **brake system performance**
- 3) **Development of interfaces and logics for active integration of chassis systems**
- 4) New technologies (e.g. for hybrid vehicles).

We are inspired by the **Toyota Way precepts** and we challenge to provide **final customers** with **best quality** products with the **continuous improvement** mindset.

Brief activity scope:

In the course of the internship of 9-12 months the activity will be the development of a **tool to analyse driving circumstances from real-world data**, which consists of :

- create analysis software (Matlab)
- proceed statistical analysis and real time analysis based on existing measurement data (CAN)
- utilise of pattern recognition (neural networks, fuzzy logic, ...)
- extract data locally to create usage scenarios

The selected candidate will be proceeding the internship under the supervision of a mentor assigned from the Chassis Engineering Division. Additionally the mentor might have to contact with the institution/ school of origin for the smooth execution of the internship and good consolidation of the results.

Your Profile:

1. Education Level required:

- Excellent academic curriculum with proven track record
- Proceeding studies for Master-Degree, post graduate courses or PhD research
- Preference for candidates from (Electro-) Mechanical Engineering or Automotive Engineering

2. Experience:

The ideal candidate should have willingness to learn and passion for automotive product.

3. Technical Skills/Expertise/Knowledge:

- Basis knowledge of the general vehicle design
- **Knowledge of advanced physics and mathematics (statistics)**
- Basic knowledge of mechanical engineering
- Analytical approach and Problem-solving
- **Advanced knowledge of Matlab programing environment**
- **Knowledge of finite state machines and networks**
- Good knowledge of office IT tools

4. Behavioural Skills / Key Competencies

- Excellent communication skills (both verbal & written)
- Teamplayer
- Pro-active and persistent
- Self confident
- Proceed job with own initiative
- Motivated to learn about Toyota
- Respectful of confidentiality and security measures
- At ease with Japanese culture and respectful of cultural differences

5. Other Skills (Languages, IT,...)

- Fluent in English (Japanese is an asset)
- Experience with other programming languages is an asset

6. Practical information:

- Presence in the office as per contract agreement

Place of Employment: Toyota Motor Europe Technical Centre, Zaventem

Starting date: March 2016 ~ June 2016

Duration : 9~12 months

Confidentiality: Due to business requirement, not all performed projects can be reflected in the internship report. This issue needs to be discussed with candidate/school in advance.

Send applications through: <http://www.toyotajobs.com/>