

## Data Science: Tyre Dimensions assignment – Apollo Tyres Global R&D Enschede

### Who we are

Apollo Tyres is a tyre manufacturer with Indian roots. It is an ambitious and growing company, with factories in India and Europe (Netherlands and Hungary) and sales offices all over the world. In our Global R&D Centre in Enschede around 130 employees work on the development of new passenger car tyres and agricultural tyres for the brands Apollo and Vredestein. Furthermore, we have a subsidiary office in Frankfurt with around 25 employees.

Within the R&D organisation, the Pre-Development team is dedicated to the mid and long-term investigations of advanced technologies. The task of this team is to develop knowledge, models, and concepts to improve tyre performance to the future level of customers and legislative requirements.

### Problem description

- One of the steps in the tyre production process involves curing in a mould. This step will give the tyre its final properties and shape
- A new mould is required for new product lines and tyre sizes. Producing a mould can be both time consuming and expensive
- The final dimensions of the tyre after mounting on a rim depend on many parameters, such as the materials used, tyre construction and mould dimensions. Accurately predicting these dimensions can be a real challenge

### Objective

- Apply Advanced Data Analytics to increase the accuracy of the tyre dimension predictions

### Assignment Proposal

- Data collection, cleaning, and preparation
- Apply different Artificial Intelligence algorithms to correlate input parameters with the tyre dimensions (output)
- Sensitivity analysis of the input parameters
- Documentation and sharing of the internship results

### Your profile:

- You are an enrolled Bachelor or Master of Engineering discipline
- You are available for 5-6 months
- You have a background in Data Analytics
- You have good command in English
- Prior experience with Python is a plus

### What we offer

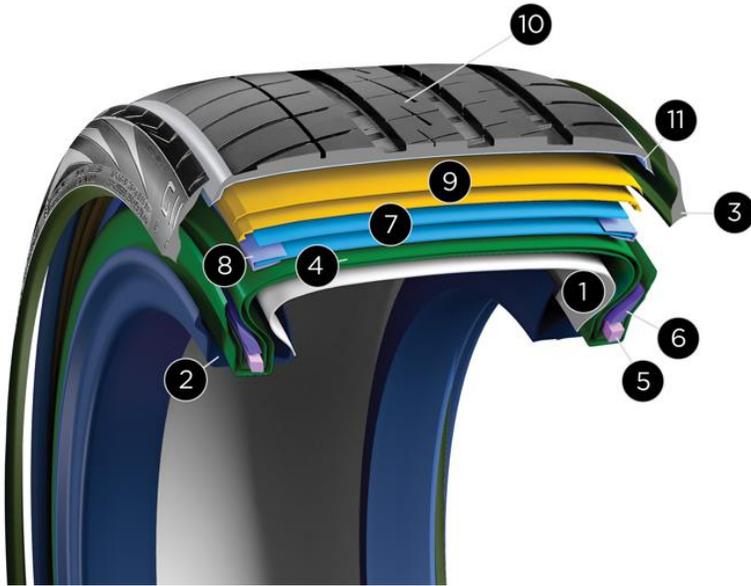
- Dynamic & innovative work environment
- Flat hierarchy
- Inspiring colleagues from all over the world
- Internship allowance up to EUR 400

**Start date:** To be decided.





## ULTRAC VORTI



1. Inner liner
2. Rim cushion
3. Sidewall
4. Carcass layers
5. Bead
6. Apex
7. Belt layers
8. Gumedge
9. Nylon overhead / Cap ply
10. Tread
11. Undertread

## WINTRAC PRO



1. Inner liner
2. Rim cushion
3. Sidewall
4. Carcass layers
5. Bead
6. Apex
7. Belt layers
8. Nylon overhead / Cap ply
9. Tread
10. Undertread
11. Wingtip