

Development and Calibration of a Driver Model for Lap-Time Prediction of a 14-DOF Vehicle GT-SUITE Model

➤ Supporting companies: **GammaTech Engineering** (GTE) and **Gamma Technologies** (GT)

- ❑ Start date: March 2025
- ❑ Project duration: 6÷8 months
- ❑ Site:
 - GTE's offices in Turin
- ❑ Compensations: Meals, travel expenses
- ❑ Motivations and Project Scope

- In this MSc thesis project, the student will contribute to the development of a workflow within the GT-SUITE environment aimed at predicting lap-time performance.
- The focus of the work will be on creating and calibrating an advanced driver algorithm to control both the longitudinal and lateral dynamics of a 14-DOF vehicle model
- The project will involve various tasks, including calculating the G-G diagram for the vehicle, calibrating driver parameters and assessing driver performance on specific circuits
- The advanced driver algorithm obtained through this work will support GT in advancing its lap-time simulation workflow, enhancing both driver performance and vehicle potential usage. This will enable customers to use a single simulation platform for comprehensive vehicle performance development.

