Are you interested in working together with a motivated, multidisciplinary team to develop a real-time site tracking system to guide autonomous vehicles safely through complex construction environments? Then join our team!

**Our Vision**

The Project SIMAV leads construction sites into the age of digitization. We locate construction sites with high precision and provide this information for autonomous vehicles of the second generation. This improves the safety around construction sites for the workforce and delivers a real-time image of the site to incoming cars.

**Our Goal**

We develop a system for real-time construction site monitoring to increase personal safety on highway construction sites and to show autonomous cars the exact lane guidance. Therefore, we need to develop and implement our location algorithm in a hard- and software environment.

**Topics for an Interdisciplinary Project (IDP)**

- Develop and implement an algorithm for real-time position tracking between sensors in a sensor mesh (general knowledge in programming e.g. Python)

**Your profile**

**Hardskills**

- A person with a background in computer science or electrical engineering or similar
- Experience with embedded programming in C/C++
- Knowledge in Python, QT, MQTT, HTTP, TCP and UDP
- Ideally knowledge with navigation and positioning over UWB, RTK, GPS, DGPS, WiFi, etc.
- Preferred experience with sensor fusion and data filtering

**Softskills**

- Willingness to work interdisciplinary with the business and tech team
- High motivation and willingness to learn
- You can work in part-time
- The IDP can be done as a single person or as a team project

**What we can offer**

- A place where you can build a product for the future of autonomous driving
- Get in touch with high level industry partners and VCs
- Get deep insights through working within a high-tech start-up
- Get access to the makerspace for prototyping
- Generate knowledge on how to build your own start-up

If you feel addressed, send us your application and CV to: team@intefra.com
and visit our homepage: www.project-simav.com
Or visit us in the Incubator at TUM (Lichtenbergstraße 6)

**Additional Information**

The project will be supervised by the TUM Entrepreneurship Research Institute of Prof. Breugst.

You will take two lectures like: “Entrepreneurship” and “Technology and Innovation Management: Introduction”