teoresi group Engineering for human life

21 December 2022

Aula Magna della Didattica di Ingegneria
Viale A. Doria 6 - University of Catania

AUTOMATION DAY 2022

Università di Catania

Company Profile

2022

Giovanni Savoca Ruggeri
Marco Bazzani
Massimo Milizia

Teoresi at a Glance

Key numbers

1 GROUP

Acting as a «one stop» solutions partner

4 COMPANIES

Established in Italy, United States, Germany and Switzerland

35 YEARS OF EXPERTISE

Across Industries

COMPANY REVENUES December 2021 **58,7M€**

PEOPLE TODAY **850+**

Teoresi at a Glance .

Who we are

Teoresi is an **international services group**, headquartered in Turin and operative on the European and United States markets, which acts as a qualified partner to foster customers product and process development through innovative technologies: from self-driving cars to nanotechnologies applied to the biomedical sector.

Teoresi is high-profile engineering. It offers an innovative approach in close synergy with the Research & Development departments of the main industrial players. Teoresi provides **turnkey solutions accelerating the customer's time-to-market**. It can intervene on all phases of a project, on single work packages or in "end to end" mode, from requirement engineering to validation activities.

International engineering services company dealing with developing the intelligence of devices, adding the "brain" that makes them smart.

Corporate Guidelines .

Our mission

We are a **trusted partner** in the development of **cutting-edge technologies wherever you are**

Corporate Guidelines .

Our vision

Corporate Guidelines .

Our core values

1

Teamwork is the only way

Corporate Guidelines .

Our core values

2

Cross-fertilization is our attitude

Corporate Guidelines .

Our core values

3

Engineering through creativity

Corporate Guidelines .

Our core values

4

Reliable, for real

MSc Final Project

Our Proposals

SUGGESTED STAGES & MSc FINAL PROJECTS. 1/4

TOPICS

- Rapid Control Prototyping of electric vehicles powertrain components.
- Design and programming of engine control systems on low cost industrial boards
- Design of an HMI touchless interface for gesture recognition
- Developing and testing XCP protocol over CAN for HIL model calibration
- Implementation of AI control algorithms on embedded systems

METHODOLOGY

Model Based Design, automatic code generation

Embedded systems programming, C , C++

Human Machine Interface (Altia, QT)

Statistical Analysis, Machine Learning

Matlab, Labview, Typhoon HIL

SEND YOUR CV BY EMAIL TO:
thesisandinternships@teoresigroup.com

SUGGESTED STAGES & MSc FINAL PROJECTS. 2/4

TOPICS

- Research and Development of optimising energy consumption on autonomous driving or platooning routes
- Research and development of simulated environment for autonomous and cooperative driving scenarios
- Research and development of digital twins that can replicate the urban environment and the routes of the transportation fleets.

METHODOLOGY

Matlab

Python, C++

Cloud

IOT

SEND YOUR CV BY EMAIL TO:
thesisandinternships@teoresigroup.com

SUGGESTED STAGES & MSc FINAL PROJECTS. 3/4

TOPICS

- Development on a neural processing unit of a neural network for Object Detection/Segmentation, using classical Artificial Intelligence frameworks such as TensorFlow and TensorRT.
- Research and development of an embedded precise localisation system based on a low-power microprocessor.
- 3D model generation from a pointcloud: polygonal model generation is required in several virtual reality and simulation applications

METHODOLOGY

Apollo Baidu

Python, C++

SVL Simulator

Unity 3D

SEND YOUR CV BY EMAIL TO:
thesisandinternships@teoresigroup.com

SUGGESTED STAGES & MSc FINAL PROJECTS. 4/4

TOPICS

- Study and development of a monitoring tool for upper limb movements for rehabilitation therapies.
- Research and development of a web-application for telemedicine and telemonitoring
- Study and development of an autonomous system for monitoring the facial expressions and for recognizing the level of pain of bedridden patients.

METHODOLOGY

Matlab

Python

Java Spring Boot

Angular Js

SEND YOUR CV BY EMAIL TO:
thesisandinternships@teoresigroup.com

Disclaimer

This report is prepared by Teoresi S.p.A. ("Teoresi" or the "Company") for the exclusive use and interest of the recipient.
The contents of this report may be subject to changes and even substantial updates.
This report as a whole and each of its contents must be considered as strictly confidential and any disclosure and / or communication to third parties other than the recipient is prohibited. This report may in no way be used, taken into consideration or mentioned by third parties other than the recipient.
No binding assessments of adequacy or feasibility are expressed in this report. No commitment, guarantee or other form of expressed or implied assurance is given by Teoresi regarding the accuracy or completeness of the information and / or opinions contained in this report.
To the maximum extent permitted by law, any liability of Teoresi, its shareholders, directors, managers, employees and consultants relating to or arising from such information and / or opinions is excluded. This content may contain legally protected information and is intended solely for the specified use.

teoresi group

Engineering
for human life

www.teoresigroup.com