**Progetto Laurea Magistrale Plus**
(Students enrolled for the first time in the Academic Year 2018/19, undertaking the internship in the company in 2019/2020)

### University infos

| Laurea degree: LAUREA MAGISTRALE IN ELECTRONIC ENGINEERING |
| University tutor / Thesis supervisor: Prof. Fabio Dell’Acqua |
| Courses / Expertize of the university tutor: remote sensing, earth observation |

### Company infos

| Company name: GENEGIS GI SRL |
| Company Tutor(s): Francesca Sapiu |
| Role in the company of the tutor(s): research and Innovation manager |

### Contents and infos on project and internship

**Project title: Earth observation and sustainable mobility**

**Activity scenario and targets of the internship - Area/Department/office/lab (where the trainee will be involved)**

**Sustainable Mobility: Monitoring of air quality and of critical infrastructure**

The proposed stage is included in a precise development business plan of the company in which the SUSTAINABLE MOBILITY is the final and global output. The project is in line with some European project Pulse (http://www.project-pulse.eu/) in which Earth observation and remote sensing images are used to air quality monitoring. Another relevant aspect is connected to H2020 SME phase 1- Trust where the last mile logistic is the central point and finally LOGISTAR (https://logistar-project.eu/) in which automatically Real time information are elaborated to build up different scenarios and to develop a decision support system for the multi-modal freight transport. The regional aspect is included in the multi scale approach that allow to acquire data to monitor the critical infrastructure state.

A detailed analysis of the critical infrastructure, using a Laser scanner acquiring a 3D Model, will allow to classify the more critical infrastructure and the location where is more urgent to apply new material created by ITALCEMENTI.

**Background / Expertize of the student required for the internship: Good English/ previous knowledge of Python**

**Potential thesis topics**

Earth observation, environmental and Critical infrastructure monitoring (road)
Theme: integration among general environmental data regarding the urban system (health, environment, transport and planification information) and the data deduced by the remote sensing images.

**Company location and place of work: GENEGIS GI SRL, viale Scarampo 47 - 20148 Milano**

**Time length of the internship: 12 MONTHS**

**Benefits provided by the company: Reimbursement of 500€ per month**

**Specific company requests: None**

**Other comments: None**