



# Data Manager for Environmental Projects

- Gain specialist skills in collecting and analyzing environmental data.

Participate in lectures-seminars, tutorials, practical work and discussions, interviews and on-site visits, - real case studies & self-learning - build a project and present it at the final seminar. Earn your grades with individual participation in class and a group project.



Three interesting complementary units:

1. Collecting Environmental data - 7 ECTS credits
2. Environmental Data Processing and Analysis - 7 ECTS credits
3. Mobile and Web Management of Environmental Data - 7 ECTS credits

Possibility of gaining more ECTS credits with language courses & the final internship (May / June)



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- Season One. (4 weeks in February)

environmental monitoring - hazard management strategies - geo-referenced data - connection to communication networks

- ≡ Sensors and Arduino
- ≡ Wireless Sensor Network (WSN) and Arduino, Computer networks, Metadata
- ≡ Statistics and Sampling, In-field data acquisition
- ≡ Data processing, Geomatics and Geographic Information System (GIS) basics, Global navigation satellite system (GNSS).

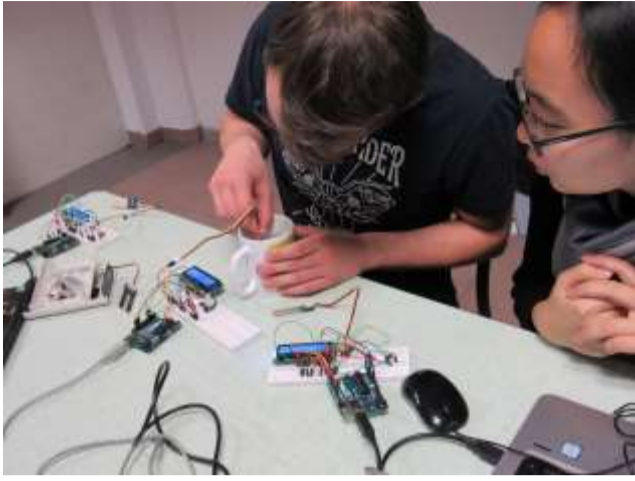
- Season Two (4 weeks in March)

methods and tools to study complex data - identifying consistent sub-sets - presenting results in the form of maps and charts.



- ≡ Distributed spatial data extraction and management
- ≡ Spatial autocorrelation - variograms - variance estimation - Kriging
- ≡ Introduction to linear models
- ≡ Regression over spatially autocorrelated variables
- ≡ Introduction to semantic networks, ontologies & big data management
- ≡ Geomatics

Requirements: Basic knowledge in Statistics



■ Season Three (4 weeks in April/May)

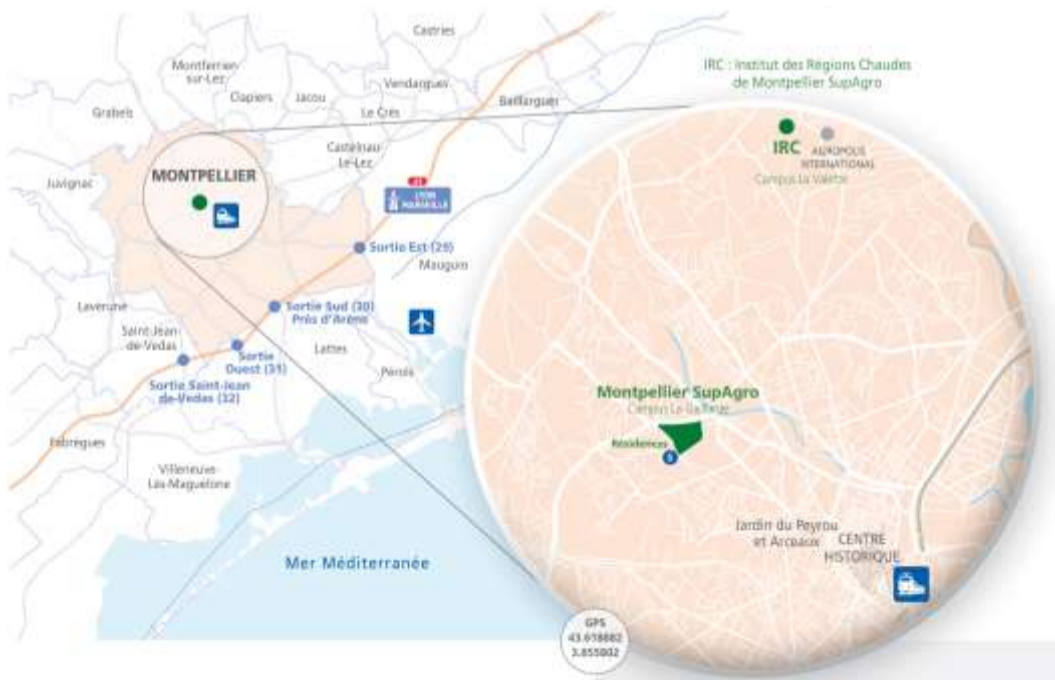
web and mobile technologies - dissemination of environmental data - crowd-sourcing, sensor networks, and so on - Spatial data maps - remote sensing images



- /// Designing a mobile web application for on-site collecting data - Interactive web pages with
- /// JavaScript, Web services
- /// Project in precision agriculture

Requirements: Very basic skills in Web design and Programming (any language)

Partners: UMR MISTEA (SupAgro INRA) and UMR ITAP (SupAgro IRSTEA) Research Units



Montpellier in the South of France - a dynamic student town - restaurants, cinemas, cafés & shops with cultural, artistic, musical, wine tasting and sporting opportunities just a walk away from the student's hall of residence. 3 hours from Paris, 2 hours from Barcelona & 20 minutes from the beach