The FSD Course

Montpellier SupAgro

CIHEAM Centre International de Hautes Études Agronomiques Méditerranéennes

WAGENINGEN UR For quality of life

THE UNIVERSITY OF QUEENSLAND AUSTRALIA

INRA SCIENCE & IMPACT

cirad LA RECHERCHE AGRONOMIQUE POUR LE DÉVELOPPEMENT

POLITÉCNICA

Analysis and Design of Sustainable Agricultural Systems: Concepts, Methods and Applications to Mediterranean and Tropical systems.

Dates and place

**12-16 July 2016
Montpellier (France)**

Organized by

Montpellier SupAgro
(J. Wery)
CIHEAM-IAM.M
(H. Belhouchette)

In collaboration with

INRA
(France)
Wageningen University
(Netherlands)
University of Queensland
(Australia)
Technical University of Madrid
(Spain)
CIRAD
(France)

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The FSD Course 2016

Course objectives

-Present **concepts and methods** for analysis and design of Agricultural Systems, in a multi-scale (field, farm, landscape) and multi-domain (socio-economic and biophysical) integrated approach.
-Gain theoretical and practical understanding of the **protocols, models and tools** that can be used in such integrated approaches.
-**Illustrate and practice** these methods with examples of sustainable intensification of Agricultural Systems in cereal-based systems in Mediterranean and Tropical areas, both for mechanized and small holders' farming systems.
-Discuss how they **can be used in your research project**.

The course is designed for **PhD students or post/doc scientists** who have some experience of Agricultural System analysis and modelling at crop, farm or region level at least in one of the domains (agronomy, ecology, geography, economy…) and which would like to strengthen their theoretical background and knowledge of methods in integrated analysis and design of Agricultural Systems.

Course structure

Part 1 (on line): an introduction to challenges, concepts and methods (to be done on line before the residential course).
Trainees will have to watch some videos, do short exercises and read papers selected from the online proceedings of the 5th Farming Systems Design conference held in Montpellier in 2015 (http://fsd5.sciencesconf.org/). A set of material will be proposed by the course organisers and of material will be proposed by the course organisers, but, trainees would be let free to pick additional papers.

Part 2 (residential):
The course will be introduced by two sessions : an interactive debrief about learning from part 1 and a presentation of the two test cases to be used for practical work:
  - Households and small family farms in face of food security and climate change in South and West Africa.
  - Large mechanized farms based on marketed products (cereal and milk production) in the nexus food-energy-water in North Africa.
During the following three days we will alternate short lectures, practical group exercises, and plenary feedbacks on the following aspects: conceptual modelling, agrosystem modelling, farm modelling, agent-based modelling, farm typologies, multi-scale and multi-domain scenarios simulation, integrated analysis and modelling, participatory research…
The course will be concluded by a half day seminar organized by the trainees addressing methodological questions on Agricultural Systems analysis and design on their own project in the light of what they have learned in the course.
For more details go to (http://fsd5.european-agronomy.org/)

How to apply

The number of trainees is **limited to 30** and priority will be given to capacity building in national institutions and projects in Africa and in the Mediterranean region. This course is also offered to students registered in the doctoral schools of the partners institutions of the FSD initiative.

The course is free of charge but trainees will have to cover their travel and accommodation costs. Application should be sent to fsd5@european-agronomy.org before June 20, 2016 with a CV and a motivation letter describing how this course can fit into their professional project.

The course will take place at the IAM.M-CIHEAM in Montpellier (France) from July 12 (morning) to July 16 (noon) 2016. Housing facilities can be offered to PhD students with a priority to those attending the "Mediterranean forum for PhD students and young researchers" organized by CIHEAM-IAMM in the following week.