# IFSA 2016: PhD Course

Systems Thinking in Practice (STiP) in PhD Research: Appreciating and Effecting Transformations with Farming Systems Research (4 ECTS)

Date: 10-16 July 2016 including 4 days of IFSA Symposium

**Objectives**

Research has a key role to play in appreciating how purposeful transformations are realized in different parts of the world, related to farming, food, rural areas and environment. Contributing towards bringing such transformations into effect in future requires particular skills and abilities. It is necessary to focus on particular systems of interest, to be able to make relevant connections, to work with multiple stakeholders and to contextualize research activities without becoming overwhelmed by potential complexity and uncertainty. The contexts of: the increasingly multifaceted complexity of issues of sustainability, water, food and soil security and climate change in relation to food and fibre production and consumption; the maintenance or enhancement of ecosystems services and the concomitant enhancement of rural livelihoods are particularly challenging for PhD research. These contexts are, however, a core part of the IFSA community's experience. The purpose of this course is to help you, the PhD student, develop your STiP skills in contextualizing your research, to make connections among issues using systems thinking and to so improve your ability to work both strategically and purposefully in relation to transformations. The course is also designed to help you build on what other researchers have done.

Through joining this course you can expect to:

- gain an overview of the intellectual traditions of Farming Systems Research,
- make links to the history of IFSA,
- strengthen your research through developing understanding of systems theories and methodologies
- have opportunity to reflect on strengths and weaknesses of different systems approaches and methodologies in relation to your own PhD research
- get added value from your participation in the UK-based Symposium at Harper Adams University by also becoming part of a parallel critical learning systems community that has a PhD research focus
- critically review potential contributions of your research to help meet global challenges
- develop appreciation of multiple perspectives on contemporary issues
- work across multiple disciplines
- build and/or strengthen personal networks within the research community

**Process:**

The course will be held in connection to the 12$^{th}$ European IFSA Symposium and draw on the gathering of specialists and researchers within this field. Its design draws on

tried and tested ways of experiential learning. The course will be grounded in examples, including your own and other students' PhD work.

In your time at Harper Adams University you will participate in an inquiry with three main parts - before, during and after the symposium. It will also involve some preparation and submission of a final reflection.

1. *Before the course*, you will be asked to complete an assignment in which you describe and reflect on either (i) your understanding and use of system theories in your research; or (ii) the rationale you have followed, or would follow, in making a choice to include, or not, systems theories in your PhD research

2. The pre-symposium part of the course will be offered in a workshop format consisting of a mixture of student presentations, lecture inputs and group work. It will take place over two and half days *starting on the morning of Sunday 10th July and finishing at mid-day on Tuesday 12th July.*

3. The part of the course that runs in parallel to the symposium will provide mentorship and help you plan your attendance at the most relevant workshops for you at the IFSA symposium. It will also provide an opportunity for joint reflection and feedback as the symposium progresses.

4. After the symposium, *on Saturday 16th July* you and the other students will gather ***for half a day*** to recapitulate and work in groups, and complete the assignment that has been agreed, on possible improvements of your own PhD study design, or future research trajectory, linking it to systems thinking in practice. *The course will end at mid-day.*

**Background and resources**

This PhD course will benefit strongly from the fact that many outstanding researchers within farming system approaches will be gathered at the Symposium of the International Farming Systems Association. Contributions specifically to this course will come from experienced researchers who have been a part of the IFSA community for many years. They will include lectures and/or workshops that

- introduce systems theories;
- consider different systems approaches and methodologies suitable for researching issues of farming, food, rural areas and environment:
- bridge the different systems approaches – soft, hard, critical, viable etc.
- explore how to deal with handling of complexity and the role that modelling can play
- critically review focuses on action, learning and reflexivity
- explicate social systems and learning systems approaches
- explore the relationship between systems approaches and transdisciplinary research

**The key literature for the course will be:**

Ika Darnhofer, David Gibbon and Benoit Dedieu (2012) *The farming systems approach into the 21st century: The new dynamic.* Springer, Berlin.

**The following references provide additional background**

Blackmore, Chris (Ed.) (2010) Social Learning Systems and Communities of Practice. Springer: London. (For online extracts see: http://www.springer.com/computer/information+systems+and+applications/book/978-1-84996-132-5)

Ison, Ray (2010) Systems Practice: How to Act in a Climate-Change World. Springer: London. (For online extracts see: http://www.springer.com/computer/information+systems+and+applications/book/978-1-84996-124-0)

Ramage, Manus and Shipp, Karen (2009) Systems Thinkers. Springer: London.

(For online extracts see: http://www.springer.com/life+sciences/behavioural/book/978-1-84882-524-6)

Reynolds, Martin and Holwell, Sue. Systems Approaches to Managing Change. Springer: London. (For online extracts see: http://www.springer.com/computer/information+systems+and+applications/book/978-1-84882-808-7)

**Course Assessment**

To obtain the course certificate you will be required to:

- complete the assignments as outlined above
- participate in the lectures and group discussion.
- participate in one or more of the relevant workshops of the IFSA symposium.
- after the Symposium, discuss improvements to your own PhD study, or future research trajectory design linking it to systems thinking and practice.

**Registration for the Course**

There will be a charge of £75 for this course in addition to the symposium registration fee and your accommodation charges.

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**Core Course Team:**

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