

**GIAN Global Initiative of Academic
Networks Ministry of Education,
India**

**Jawaharlal Nehru University, New
Delhi**

10 Day Course on:

**EMERGENCE AND UNDERSTANDING OF
A COMPLEX WORLD**

10 – 21 January 2025

Prof. Dr. Fausto Frisopi

**Amidex Excellence Chair “Transdisciplinarity and Complexity
Research ” Aix-Marseille University, Marseille, France**

Schedule of the Lectures

Inauguration of the Lecture Series & INTRODUCTORY LECTURE

Day 1, 10th January 2025

Inauguration: 2 pm

Lecture: 2:15 – 4:15

Lecture Topic: **The Idea of a Complex World: Complexity Science, Economy and**

Global Challenges

4:15 – 4:30 Tea Break

4:30 – 5:30 **Continuation of the Lecture**

5:30 High Tea

Day 2, 11th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **The establishment of the modern paradigm of science and the worldview (Weltbild) of the “simple”:** from Renaissance to Laplace

4:00 – 4:15 Tea Break

4:15 – 5:15 Tutorial (1 hr): **Questioning and methods in history of ideas, history of science and philosophy**

5:15 High Tea

Day 3, 12th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **The negative issues of the modern (Galilean-Cartesian) worldview and the foundational debate of the sciences: from Riemann to Quantum Mechanics and Gödel**

4:00 – 4:15 Tea Break

4:15 – 5:15 Tutorial (1 hr): **What do we understand under “foundational crisis of science”?**

5:15 High Tea

Day 4, 13th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **The rise of a new open worldview in the twentieth Century**

4:00 – 4:15 Tea Break

4: 15 – 5:15 Tutorial (1 hr): **Methods of complexity thinking SECOND PART:
FEATURES OF COMPLEXITY**

5:15 High Tea

Day 5, 14th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **Essential features of complex phenomena**

4:00 – 4:15 Tea Break

4: 15 – 5:15 Tutorial (1 hrs): **Defining complexity from experience to science to policy
making**

5:15 High Tea

Day 6, 17th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **The essential features of complex phenomena and their
epistemological manifestation: models and simulations, AI.**

4:00 – 4:15 Tea Break

4: 15 – 5:15 Tutorial (1 hrs): **Handling with and interpreting the new technologies as**

tool

5:15 High Tea

Day 7, 18th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **Epistemic understanding of complex phenomena. The relationship between theory, model (model validation) and ontology**

4:00 – 4:15 Tea Break

4: 15 – 5:15 Tutorial (1 hr): **What do we mean with “multiple scenarios”. Case Study:**

PCC Scenarios

5:15 High Tea

Day 8, 19th January 2025

Lecture: 2:00 – 3:00

Lecture Topic: **Ontological problems of complex phenomena: the concept of emergence**

3:00 – 4:00 Tutorial (1 hr): **Ontology in philosophy (western and eastern)**

4:00 – 4:15 Tea Break

4: 15 – 5:15 Tutorial (1 hr): **Meta-ontology in philosophy and information theory**

5:15 High Tea

Day 9, 20th January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **Fixing and understanding what a complex phenomenon is: meta-theoretical approaches and meta-ontology**

4:00 – 4:15 Tea Break

4: 15 – 5:15 **Continuation of the lecture**

5:15 High Tea

Day 10, 21st January 2025

Lecture: 2:00 – 4:00

Lecture Topic: **Understanding and dealing with complex phenomena: meta-ontology and trans-disciplinary (theoretically oriented) approach**

4:00 – 4:15 Tea Break

4: 15 – 5:15 Tutorial (1 hr): **What is inter-disciplinarity and how we learn inter-disciplinarily?**

5:15 High Tea