**Course Objectives**

- To explore, design and implement creative and innovative interactions in virtual, augmented and mixed environments
- To understand specific user’s needs for dance, music and painting in virtual environments using a CAVE or an HMD
- To build an intuitive experience, with appropriate tools to quickly prototype a 3D environment and design flow of interactions
- To follow well-known principles in 3D UI: guidance and assistance
- To acquire a cultural basis on digital art experience in virtual / augmented reality

**Technico-cultural outings each Wednesday**

- One day in Paris
- One day in Lille

**Program**

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<tr>
<th>Sunday 30th June</th>
<th>Monday 1st July</th>
<th>Tuesday 2nd</th>
<th>Wednesday 3rd</th>
<th>Thursday 4th</th>
<th>Friday 5th</th>
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<tr>
<td>Transfer from Roissy airport to Compiègne</td>
<td>3D Interaction in VE</td>
<td>Perception and action</td>
<td>Technico-cultural outing</td>
<td>From interaction to presence: experiencing art</td>
<td>VR Interfaces</td>
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<td>Lunch</td>
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<td>Welcome at the international residence</td>
<td>CAVE platform visit</td>
<td>Designing a creative interaction</td>
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<tr>
<th>Monday 8th</th>
<th>Tuesday 9th</th>
<th>Wednesday 10th</th>
<th>Thursday 11th</th>
<th>Friday 12th</th>
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<tbody>
<tr>
<td>3D real time rendering</td>
<td>Dancing with VR interfaces</td>
<td>Sound music movement interactions</td>
<td>Natural user interfaces and intelligent VE</td>
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<td>Lunch</td>
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<td>Technico-cultural outing</td>
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<td>Developing a creative interaction</td>
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<td>Testing a creative interaction</td>
<td>Open experimentations</td>
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<td>Written exam</td>
<td>Final Banquet</td>
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**Weekend**

- Monday 8th
- Tuesday 9th
- Wednesday 10th
- Thursday 11th
- Friday 12th
Prerequisites

- Bachelor or master degree in Computer sciences or art
- Good skills in programming in C++/C#  

Course assessment

This summer school allows the student to obtain 3 ECTS credits. Final grade is calculated from three exams / projects, with the following breakdown:

- Theoretical knowledge examination (1h, multiple choice quiz) (30%)
- Discovery report (1-2 pages) (10%)
- Supervised team project on virtual reality (60%)

Who will be your instructor?

Indira Thouvenin obtained her PhD in Biophysics at University UPMC, Paris in 1989. Since 2001 she is a Professor at CNRS Heudiasyc Lab, University of Technology Compiègne, France. Her work focuses on adaptive feedback between human and system, in virtual, augmented, mixed environments, considering the user's state, attention and intention.

More information and Application procedure on the UTC website, international page:
https://www.utc.fr/en/international-relations/international-mobility/incoming-mobility/

Deadline // applications must be received by April 30, 2024

Cost // 2500€* including accommodation into the Compiègne Business University Residence

* To be eligible for the exchange student rate, a partnership must exist between your university and UTC. Kindly contact your mobility coordinator for more information.

Contacts

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