

CALL FOR PARTICIPATION

Virtual Reality Summer School, Virtual Reality European Meeting

25 - 29 august 2014, Biarritz, France

<http://VR-SummerSchool.estia.fr>

(online registration)

Contact: j.cieutat@estia.fr

Deadline for registration: 30th June 2014

Objectives

The objective of this summer school is to propose a privileged moment for stimulating discussions and exchanges around Virtual Reality. Meetings will be organized around talks, workshops and social events.

As for every summer school, PhD students, academic or private researchers, are invited to come to present the progresses of their research works, challenges and corresponding solutions they put forward. We also encourage Master students to participate.

Within these privileged moments, we hope to be able to stimulate European collaborations around Virtual Reality leading to new European projects proposals (Horizon 2020).

Overview

We observe several evolutions of research axes of scientific community in Virtual Reality.

Among these evolutions, 3D worlds have become very realistic nowadays and a lot of research has been focused on 3D interaction these last years, with specific interests in natural user interfaces and tangible interfaces.

Since interaction is closely related to perception, sensory interfaces are continuously evolving for a perception that is now multi-sensory. In the same way, systems, such as virtual human or robot, senses, communicates and interacts.

On the other hand, with mobile and pervasive computing, it is becoming also usual to augment our perception of real world. We can observe more and more mixed universes, and we deal with multisensory augmented reality now. However, several questions subsist on engineering of these new systems.

Program

« Immersive and Augmented Perception & Interaction »

Human sciences

- Perception and interaction theories
- Immersion and Presence
- Assessment methodology

From the users to the systems

- 3D Interaction
- Haptic and tactile interaction
- Natural user interactions (gestures/body, voice, eyes/expression, brain ...)

From the systems to the users

- Virtual humans/robots expressivity and communication

Models and Simulation

- Real-time models based physical and based images
- Action and task models
- Pose computation to merge real and virtual

Software tools and Methods

- Distributed and collaborative frameworks
- Development models and software engineering
- Engineering of mixed Environment

Technologies

- Multi-modal and multi-sensorial interfaces
- Tangible interfaces
- Augmented reality drivers

Applications and uses

(Product design and ergonomics, architecture and building, geographical domain and 3D GIS, cultural heritage and tourism, health and re-education, scientific computation, learning and training, video games and serious games)

We propose several workshops to begin with in the morning followed by the speech of an invited speaker. During workshops, ESTIA's FabLab will be put at disposal for challenges like building your own virtual reality interface or perform your own augmented reality application. Each day, an international researcher will come to share his expertise and point of view on evolutions of each topic of the Summer School program:

- Virtual and Augmented Perception and Interaction, Daniel Mestre, CNRS Research Director
- 3D animation and interactive virtual environments, David Oyarzun, Head of Department, Vicomtech, Spain
- NUIs contributions to Virtual Reality and Augmented Reality, Samir Otmane, Evry University Professor
- Motion capture and synthesis for Virtual Humans and Avatars. Ronan Boulic, Research Group Leader, EPFL, Switzerland
- Practical Applications of Virtual and Mixed Reality environments, Software and System Engineering of new Applications, Roland Blach, Head of Virtual Reality Competence Center, Fraunhofer IAO, Stuttgart

A picnic on the beach will be organized if the weather allows it. Afternoons will be mainly devoted to Phd student talks and discussions.

Social Events

We envisage several social events, between sea and mountain, around sport, culture and local gastronomy.

On Wednesday afternoon, it will be possible either to visit the typical basque country villages and famous prehistoric caves of Isturritz and d'Oxocelhaya (<http://www.grottes-isturitz.com/>), either to visit the prehistoric caves of Sare before the ascension, on foot or by train, or the Rhune famous mountain which overlook all of the basque coast.

On Sunday the 24th and on Saturday the 31th of August, surf initiation will be proposed. If the waves do not allow us, a pelota initiation will replace it, which is another well-known basque sport.

How to participate

Summer school, Virtual Reality European meetings, will take place at ESTIA, the Engineering Institute of Advanced Industrial Technologies, in Bidart in the South West of France, on 25th – 29th August, 2014. Summer school is open to PhD, just like Master students, post-doctoral researchers, and academic or industrial researchers. Industrial leaders who want to propose an European project related to summer school topics are also welcome.

The summer school fee is 350 €, including lunch and coffee/tea breaks, all classes and workshops. The fee includes an accommodation in a bungalow inside a campground close to ESTIA. We can provide you with a list of other accommodation if you wish to book something on your own.

Registration is available on <http://VR-SummerSchool.estia.fr>. Deadline is 30th June, 2014.

PhD students will get recognized credits (CFU).

Any presentation, academic or industrial, requires to preliminary send, via an email to j.cieutat@estia.fr, the title of researches, an abstract and a one-page description.

Any proposal of workshop is to be sent to the organizers.

We hope to see you at the summer school.

Scientific Committee:

Angelos Amditis (ICCS, Zografou, Greece)
Roland Blach (Fraunhofer IAO, Stuttgart, Deutschland)
Ronan Boulic (EPFL, Lausanne, Switzerland)
Patrick Bourdot (LIMSI, Orsay, France)
Pierre Chevaillier (Lab-STICC, Brest, France)
Jean-Marc Cieutat (ESTIA Recherche, Bidart, France)
Philippe Gravez (CEA-List, Saclay, France)
Samir Otmane (IBISC, Evry, France)
David Oyarzun (Vicomtech, San-Sebastian, Spain)
Alexis Paljic (Robotics Center, Mines ParisTech, France)
Simon Richir (LAMPA, Laval, France)
Indira Thouvenin (Heudiasyc, Compiègne, France)

Local Organization Committe:

Jean-Marc Cieutat: General Organization

Erika Reuter: General Organization and Communication

Nadine Péhau: Webmaster

Annie Perez: Accountant

Benjamin Macia et Frédéric Grillet : Logistic and IT

Pascal Bagieu : Credit Registration
