

Augmented and virtual reality in our society, sensors and network infrastructure

Personal presentation & module organization

Dr. Taha RIDENE, taha.ridene@mines-paris.org

Personal presentation

Dr. Taha RIDENE

taha.ridene@mines-paris.org

www.taha-ridene.com



Teaching

- Java/JEE/C/C++: *ECTEI*
- MIG & Option Mareva: *Mines ParisTech, L'X*
- RFD « Pattern Recognition », 3D Point Clouds Processing, Augmented reality : *EFREI*

Domaine de recherche

- 3D modeling, Multi sensors data fusion, RV/RA, RDF
- Multi-sensors data fusion
- Project example : www.terradynamica.com



CALADIOM

Summer School: global context

- What does it mean the term "Augmented Reality" ?
- What is the need of the "Augmented Reality" in our Society ?
- What is the future of the "Augmented Reality" ?

Summer School: global context

3D & Augmented reality

- Application domain : 2D/3D image processing, virtual reality, multi sensors acquisition

Aim of this lecture

- To deal with 3D aspects
- Calibration

Internships ... jobs



Plan of the lectures

- ***72/75 Hours : lectures, tutorials & labs***

Plan of the lectures

● *Key words:*

- ▮ Augmented reality : INTRODUCTION
 - ▮ Definition – History – Applications – R&D domain
- ▮ 3D processing : INTRODUCTION
 - ▮ Definition – History – Applications – link with RA
- ▮ Augmented reality : link with RV
 - ▮ Interaction Cycle, Sensors
- ▮ Augmented reality : algorithms & technics
 - ▮ 3D Vision, 3D registration, Calibration

Tools:

- ▮ Programming : C/C++ - OpenCV

Organisation du Module :

- ▢ Remarks
 - ▢ To do not miss lectures ...
 - ▢ To be on time ...

- ▢ Evaluation system
 - ▢ Multiple choice
 - ▢ Project presentation

Question ?

- Give a definition about Augmented and Virtual Reality ?

Thank you for your attention