

Zhanwu Xiong

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I have been studying in 6 universities in 6 different countries including China, South Korea, UK, Spain, France and Sweden. This particular experience gives me not only diplomas but also the ability of communicating and cooperating with different people in a dynamic environment.

EDUCATION

- 2007 - present **ERASMUS MUNDUS MASTER IN VISION AND ROBOTICS (VIBOT)** at
 Université de Bourgogne, France
 Universitat de Girona, Spain
 Heriot Watt University, UK
- 2005 - 2007 **Master in Computer Science** at Kunsan National University, South Korea
- 2001 - 2005 **Bachelor in Computer Science** at Nankai University, China

AWARDS

- 2007 - present Erasmus Mundus Studentship
- 2005 - 2007 Studentship for studying in Kunsan National University (South Korea)

RELEVANT EXPERIENCE

- 2009 **Robust object tracking and recognition based on multiple cues**
This ongoing research is part of the vision based human activity recognition system which aims to make robot understanding object manipulation actions. To build such a system, it is necessary to track the object being manipulated as well as the human hand. More than normal tracking task, not only the position of tracked object is needed but also the state, for example the direction of the object. Appearance based mean-shift tracking is applied and 3D information (disparity) will be involved as well. Due to the occlusion of hand and view point change, the appearance of the object may vary a lot, thus a learning procedure will be applied to model the object along the tracking. The learning procedure will also enable the recognition of the object.
A thesis will be written based on the research.
- 2008 **3D scene/object reconstruction from stereo images**
A review of current techniques of 3D reconstruction including camera calibration, pose estimation, image matching and the final reconstruction.
An application which can reconstruct 3D scene/object from stereo image pairs was implemented in MATLAB, a technique report was written and a presentation was given based on the work.

- 2008 **Visual object classification**
Research based on the PASCAL Visual Object Classes Challenge 2007. A bag-of-word technique based approach was implemented and tested. Technique report and presentation were done as well.
- 2008 **Autonomous robot localization and navigation**
Design a system to achieve specified robot localization and navigation tasks. The system was implemented within Webots simulation environments and tested with e-puck robot.
- 2008 **Hardware based real-time hand tracking and finger counting**
A real-time hand tracking and finger counting system implemented on a RC-10 board.
- 2007 **Research assistant in Object-Oriented Geography Information System lab, Dept. of Computer Science, Kunsan National University**
Research of tempo-spatial event model for Geography Information System (GIS) and reusable GIS software module designing. 2 conference papers and a thesis were written based on the work.

COMPUTER SKILLS

- Experienced with C/C++ language
- Experienced with Matlab
- Familiar with both Windows and Linux operating system

LANGUAGES

- **Chinese:** native
- **English:** fluent
- **Korean:** basic

REFEREES