Name: Rusu Alexandru

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Affiliation:
Master Student in the Erasmus Mundus VIBOT Master (Vision & Robotics):

- School of Engineering and Physical Sciences of Heriot Watt University, Scotland, UK
- Escola Politecnica Superior of the Universitat de Girona, Catalunya, Spain
- Centre Universitaire Condorcet in Le Creusot, a subdivision of The Departament of Sciences and Technology of the University of Burgundy, France

Website: www.vibot.org

Other affiliation:
Intern of the Underwater Robotics Department of the VICOROB Lab (Computer Vision and Robotics Group) located in the Institute of Informatics and Applications at the Universitat de Girona, Spain.
Website: http://vicorob.udg.es/

Home Country:
Romania

Relevant experience:
B.Sc. System Engineering and Computer Science: "Image based Visual Servoing through Predictive Control", Technical University "Gh.Asachi" of Iasi (Romania), 2009.

Thesis topic and main research directions:
An improved navigation system for an Autonomous Underwater Vehicle (AUV) which combines navigation data from a Doppler velocity log (DVL), an Imaging Sonar (IS) and an ultra-short baseline (USBL) acousting tracking system to provide superior three-dimensional position estimates to the AUV in order to perform the task of visual inspection of hydroelectric dams.

Research Directions:
1. Extended Kalman Filter for estimating the vehicle state (position, heading and velocity) and its uncertainty using a stochastic sensor fusion algorithm.
2. A particle filter used to fuse the information from the sensors in order to give a geo-referenced position estimate.

Principal Research interests:
- Autonomous robots navigation and localization
- Medical Robots (assistive and rehabilitation robots, robotic surgery)
- Scene segmentation and interpretation
- Visual perception
- Image Analysis and Medical Imaging
- Data mining and machine learning

Languages:
Romanian (Native Language), English (Proficient User).

Spanish, German, French (Beginner level)

Dreams/Hobbies:

I am highly interested in improving my knowledge in the field of computer vision and robotics (autonomous robots, medical, assistive and rehabilitation robots) and to actively participate in the evolution of new technologies.

Hobbies: music, all kind of sports, travelling, foreign languages.