2nd Summer School on
Perception and Sensor Fusion in Mobile Robotics

September 11÷16, 2006 – Fermo, Italy

http://psfmr.univpm.it

PSFMR 2006

Director:
Prof. Primo Zingaretti
phone: +39-071-2204.899
fax: +39-071-2204.474
zinga@diiga.univpm.it

Secretary:
Dr. Ing. Emanuele Frontoni,
phone: +39-071-2204.473
fax: +39-071-2204.474
psfmr06@diiga.univpm.it

Università Politecnica delle Marche,
D.I.I.G.A. - Dip. Ingegneria
Informatica, Gestionale e
dell'Automazione
Via Brecce Bianche
60131 Ancona – Italy

Objectives and content

The principal objective of this six-day school is to introduce the state of the art in machine perception and sensor fusion in mobile robotics to young researchers.

Mobile robotics is a rapidly maturing technology for both indoor and outdoor applications. Mobile robots must have a high degree of interactivity with and adaptability to their surrounding environment.

Perception consists in acquiring real word representations by interacting with the environment using many different sensors (camera, laser, sonar, radar, GPS, etc.). The integration of sensor data is fundamental in the learning and planning processes, whose aim is modifying these internal representations to provide more robust solutions and to accomplish tasks better and better.

The main goal of this summer school is to bring to students' attention the leading edge topics and recent trends related with autonomous mobile robots.

While the first edition of PSFMR, held in Ancona on last September (http://psfmr.univpm.it/2005), was mainly centred on sensor fusion techniques, **this edition will be held in Fermo and will give more space to perception issues, focusing on Computer Vision and Image Processing methods and techniques that are more suitable in mobile robotics**.

In more detail, the following three principal topics will be discussed:
1. sensors for perception
2. computer vision, image analysis and processing
3. multi-sensor fusion

The instructors are researchers coming from prestigious research centres and universities with high experience in the mobile robotic field. Most of them are working in cutting-edge researches and/or already taught in similar schools. English is the official language of the summer school.

Main clientele and required background

Main clientele will be constituted by young researchers, mainly master and PhD students, but also recently graduates and new workers of private firms. Not graduated persons will be admitted only if presented by a senior researcher who can endorse their suitability to the school topics.

Registration

Modalities and form for registration and admission to the summer school will be published at the beginning of June. All people registered to the school mailing list (http://psfmr.univpm.it/registration.htm) will be notified one week before. Please note that a special admission fee of 250 € (which includes full board and lodging) is restricted to 30 participants, so you should register as early as possible.

Lecturers

Pierre Bessière
CNRS, GRAVIR Lab, INRIA
Montbonnot, France

Wolfram Burgard,
Dept. Computer Science,
Univ. of Freiburg, Germany

Virginio Cantoni,
Univ. of Pavia, Italy

James L. Crowley,
INPG, Grenoble, France

Sauro Longhi,
DIIGA, Univ. Politecnica
delle Marche, Ancona, Italy

Emanuele Menegatti,
DEI, Univ. of Padova, Italy

Roland Siegwart,
ASL/LSA, EPFL, Lausanne,
Switzerland

Markus Vincze
Vienna University of
Technology (VUT), Austria