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UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester: 2016/17/1

Course: Robot Technology

Code: VEMKVI3144Y

Responsible department: Department of Electrical Engineering and Information Systems

Department code: MIVIR

Responsible instructor: Dr. Attila Magyar

Course objectives:

The aim of the subject is to introduce the students to the two main branches of modern robotics: robot manipulators and mobile robotics, and to the basic notions and problems of both topics.

Course content:

- Introduction
- Robot manipulators
 - Kinematics
 - Dynamics
 - Actuation
 - Sensing
 - Motion planning
 - Motion control
- Mobile robotics
 - Locomotion
 - Kinematics
 - Perception
 - Localization
 - Planning and navigation

Requirements, evaluation and grading:

The conditions of getting signature: at least 50% result at the written midterm exam and the midterm projects. The rating is based on the written midterm exam, the midterm projects and the final exam, The final mark is computed from the sum of the above three items.

Required and recommended readings:

Bruno Siciliano, Oussama Khatib: Handbook of robotics, Springer

Roland Siegwart, Illah R. Nourbakhsh: Introduction to autonomous mobile robots, MIT Press



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