

COURSE GUIDE – short form

Academic year 2014-2015

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|--------------------------|----------------------|-----------------------|----|---------------|----|-------------|-------------------|-------------------------|---|
| Course name ¹ | Mobile Robots | | | | | Course code | RBT.309. DI.DS | | |
| Course type ² | DS | Category ³ | DI | Year of study | IV | Semester | 7 | Number of credit points | 6 |

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|----------------|---------------------------|--|----|---|----|----|----|--|
| Faculty | Mechanical Engineering | Number of teaching and learning hours ⁴ | | | | | | |
| Field | Mechatronics and Robotics | Total | L | T | LB | P | IS | |
| Specialization | Robotics; Mechatronics | 84 | 42 | | 14 | 28 | 6 | |

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|---|-------------|--|
| Pre-requisites from the curriculum ⁵ | Compulsory | Mathematics, Applied Mechanics, Theory of Mechanisms, Microcontrollers - Microprocessors, Micromotors, Sensorial Systems |
| | Recommended | Electrotechnics and Electrical Machines, Hidraulical and Pneumatical Drives of Mechatronical Systems |

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|----------------------------------|--|
| General objective ⁶ | The goal of this discipline is to give specific information about mobile robots, to the students on Robotics. |
| Specific objectives ⁷ | <ul style="list-style-type: none"> • Presentation of general issues and common types of locomotion for mobile robots • Study of kinematics and dynamics of mobile robots • Presentation of motion control methods |
| Course description ⁸ | The discipline offers general and specific information as follow: mobile robots locomotion, mobile robots architectures, kinematics and dynamics of wheeled and legged robots, motion control of wheeled and legged robots, sensors for mobile robots. |

| Assessment | | | Schedule ⁹ | Percentage of the final grade (minimum grade) ¹⁰ |
|-----------------------|---|------|-----------------------|---|
| Continuous assessment | Class tests along the semester | | | % |
| | Activity during tutorials/laboratory works/projects/practical work | | 25 | % |
| | Assignments | | 25 | % |
| Final assessment | Final assessment form ¹¹ | Exam | 50 | % |
| | Examination procedures and conditions: 1. Written knowledge test, with three topics, each one being evaluated from 1 to 10. 50 % | | | |

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| Course organizer | Prof. Ioan DOROFTEI | |
| Teaching assistants | Lecturer Florentin BUIUM | |

¹Course name from the curriculum

² DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

³ DI – imposed, DO –optional, DL – facultative (from the curriculum)

⁴ Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)

⁵ According to 4.1 – Pre-requisites - from the Course guide – extended form

⁶ According to 7.1 from the Course guide – extended form

⁷ According to 7.2 from the Course guide – extended form

⁸ Short description of the course, according to point 8 from the Course guide – extended form

⁹ For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

¹⁰ A minimum grade might be imposed for some assessment stages

¹¹ Exam or colloquium