

Tárgytematika / Course Description

Project Spring

AJNM_JFTA004

Tárgyfelelős neve /

Teacher's name: dr. Tamándi László

Félév / Semester: 2021/22/2

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 0/2/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

Aim of the course is to enhance the project-focused engineering skills (as e.g. time management, communication, stakeholder management, reporting) and teamwork.

This subject targets the enhancement of individual/small group engineering work of students in different fields of vehicle development. The application of theoretical knowledge is required - in the field of CFD, durability and fatigue, vibration and acoustics etc. Selected works are also realized in a student-made race car.

TANTÁRGY TARTALMA / DESCRIPTION

Time schedule of the course:

- Choice of the themes; Construction of the project groups; Project definition, properties
- Determination of the project objectives and the non-objectives; Distribution of the tasks
- Scheduling; Cost planning
- Submission of the project plans; Reports/presentations on the approved project plans
- Interim reports with feedback: Project phases, Roles in the project, Abilities of the Project Leader, Communication in the project, Changes in the project, Teamwork, Risk management, Project completion, activities after the project completion, Project-, Program-, Portfolio Management
- Submission of the finite project documentation; Final reports with presentation

Main professional topics of the projects:

- chassis (strength, fatigue, vibration ...)
- composites (cover and load carrying elements, monocoque ...)
- suspension (types, optimization and fine tuning, wheels, wheel hubs and uprights ...)
- steering (mechanism, steering wheel ...)

- vehicle electronics (power and control electronics, telemetry, electric drive ...)
 - drivetrain
 - engine
 - aerodynamics (drag- and downforce, diffuser, wings - CFD simulations and measurements ...)
 - race team management (media appearance, sponsor management, team image, financials ...)
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SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Project Management Institute: A Guide to the Project Management - Body of Knowledge, ISBN 978-1-9355-8967-9

Joseph Heagney: Fundamentals of Project Management, ISBN 978-0-8144-1748-5;

Michael L. George et. al: Lean Six Sigma Pocket Toolbook, ISBN 978-0-0714-4119-3