



ADMISSION TO DOCTORAL STUDIES Session September 2023

Field of doctoral studies: Automotive Engineering

Doctoral supervisor: prof.dr.ing. Adrian ŞOICA

TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC 1:Development of an adaptive system for limiting the effort in the seat belt webbing

Conţinut / Principalele aspecte abordate

The general objective of this doctoral thesis will be to develop a system for limiting the effort of the safety belt webbing. Current solutions for limiting the effort in the seat belt webbing offer only a few predetermined models for limiting the restraint force of the occupant with the seat belt. Various researches have shown that, in order to better achieve adaptive protection for occupants of different sizes and masses, a continuously adjustable and real-time load limiter can be a step forward. This concept could be particularly favorable to vulnerable occupants such as short people and the elderly.

Recommended references:

Cong Wang, Qing Zhou, CONCEPT STUDY OF ADAPTIVE SEATBELT LOAD LIMITER USING MAGNETORHEOLOGICAL FLUID, <https://www.esv.nhtsa.dot.gov/Proceedings/21/09-0081>

Doctoral supervisor,

Prof. dr. ing. Adrian Şoica

Semnătură

Coordinator of the field of doctoral studies,

Prof. dr. ing. Adrian Şoica

Semnătură