Human-Centred Manufacturing and Usability

Sommer

HCAMU

(in German: Human-Centred Manufacturing and Usability)

Module-ID: FIN-INF-120512

Abbreviation	Credit Points	Semester	Term	Duration	Language	Level
HCMU	6	Sommer	2.	1 Semester	english	Master

Link:	LSF
Limited accessability:	
Responsibility:	Ernesto William De Luca
Lecturer:	Marianna Ciccarelli
Classes:	Lecture/Exercise: *Human-Centred Manufacturing and Usability*
Applicability in curriculum:	- M.Sc. INF: Informatik - M.Sc. INGINF: Informatik - M.Sc. WIF: Informatik - M.Sc. DKE: Applied Data Science - M.Sc. DE: Fachliche Spezialisierung - M.Sc. VC: Computer Science

Intended learning outcomes:
The students ...

- have theoretical and practical skills for the evaluation and design of safe, efficient, and human-centered work environments

- can apply principles of Human-Centered Design and Human-Centered Manufacturing
- understand risk assessment methodologies

Content:
The course aims to provide both theoretical and practical skills for the evaluation and design of safe, efficient, and human-centered work environments. It will cover key concepts related to health and safety in industrial settings, with a particular focus on risk prevention and the integration of human resources into Industry 4.0 processes. Special attention will be given to the principles of Human-Centered Design and Human-Centered Manufacturing, with an introduction to occupational ergonomics and methods for analyzing physical and cognitive ergonomics. The course will also explore risk assessment methodologies, including applications in human-robot collaboration, as well as user-machine interaction paradigms and usability concepts. Learning activities are supported by hands-on exercises in ergonomic analysis and usability testing.

Workload:

- block course
- 40 contact hours + 140 hours self study

Pre-examination requirements:	Type of examination:	Teaching method / lecture hours per week (SWS):
	Written report (Hausarbeit)	4 SWS Lecture/Exercise

Prerequisites according to examination regulations:	Recommended prerequisites:
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Media:	Literature:

Comments:

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