

Doctorate School in Industrial Innovation Engineering



PhD course announcement

Machine Learning and Human-Computer Interaction in Supply Chain Management

Professor Matthias Klumpp Georg-August-University of Göttingen & Fraunhofer IML, Dortmund, Germany

The course is presenting basics and recent research state-of-the-art regarding the applications of machine learning and artificial intelligence as well as human-computer interaction in supply chain management and logistics. Student evaluation will be implemented as short presentations and Q&A sessions in the last course schedule.

Course prerequisites

This course requires no prior qualification, a basic understanding of mathematics and operations research is beneficial

What?	3 lectures of 2 hours each plus examination
Where?	Online / Digital
When?	Tuesday September 22, 11:00-13:00 (Lecture)
	Tuesday September 22, 14.00-16.00 (Lecture)
	Wednesday September 23, 11.00-13.00 (Lecture)
	Wednesday September 23, 14:00-16:00 (Examination: Presentations)

Contents:

Lecture 1: Introduction and background (I)

- Introduction session, course organization and examination
- Artificial intelligence and machine learning principles
- Weak and strong AI, advantages and limitations of ML

Lecture 2: Human-Computer Interaction (II)

- Success factor HCI
- Hurdles and employee groups for HCI
- Instruments supporting HCI and best practices

Lecture 3: Application Examples

- Warehousing and retail logistics
- Supply chain planning and inventory control
- Transportation applications
- ✓ Participation to the course and passing examination provides 2 CFU
- √ It is requested a registration sending an email to roberto.montemanni@unimore.it