

Artificial Intelligence in Production Engineering

This micro-credential is designed for: professionals/life-long-learners

Subject area: Computer Science/ICT

University: TUM

Prerequisites: Participants should have an academic background in STEM subjects or a business degree with a quantitative focus (e.g., econometrics, operations research) and 2-5 years of professional experience. Basic programming experience (Matlab or Python) is recommended. We offer a 90-minute self-paced online tutorial to refresh your programming skills.

Costs: €2,365

Description

The certificate program “Artificial Intelligence in Production Engineering” addresses a central challenge of production engineering in the age of digitalization and globalization. Databases and data cleansing: Participants learn about various data sources and how to deal with missing, redundant and noisy data. Data transformation: Participants learn about different feature extraction and selection techniques to transform raw data into a meaningful data set. Data mining and modeling: In order to make predictions, participants learn how to apply ML models for regression and classification tasks. Evaluation and interpretation: Using real-world examples from production engineering, participants learn how to interpret the outcome of ML models.

<https://www.ill.tum.de/certificate/artificial-intelligence-in-production-engineering/>

Learning outcomes

Participants:

- + will learn about various data sources and how to deal with missing, redundant and noisy data
- + will practise different feature extraction and selection techniques to transform raw data into a meaningful data set
- + will apply ML models for regression and classification tasks
- + will learn how to interpret the outcome of ML models

General information

Contact hours per week: 0

Total workload: 75 (in hours for the whole course)

ECTS credits:	3
Course start date:	31/05/2023
Course end date:	02/06/2023
Weekly teaching day/time:	
Time zone:	CET (Denmark, Germany, France, Netherlands, Switzerland, Czech Republic)
Further information:	
Activities and methods:	Lectures, Group work, Exercises
Presence on campus:	31.05.-02.06.2023

Final examination

Form:	assignment
Date:	02/06/2023
Location/format:	on host campus
Add. info/requirements:	

Registration

To register for this micro-credential, follow the registration requirements of the corresponding university as specified here ("How do I sign up"): www.euroteq.eu/microcredentials-registration.

Administration

Number of places:	
Minimum participants:	
Contact:	Al.production.engineering@lll.tum.de

This course is a micro-credential developed by EuroTeQ Engineering University, a collaborative activity of the partner universities DTU, L'X, TU/e, TalTech, CTU and TUM. It is the responsibility of the participant to check if you fulfil the requirements to participate in a specific course, as specified in the description. When the course is completed successfully, participants will be awarded the EuroTeQ micro-credential, evidencing the learning outcomes. For further information about EuroTeQ Engineering University, visit www.euroteq.eu or get in touch with the above-mentioned point of contact.