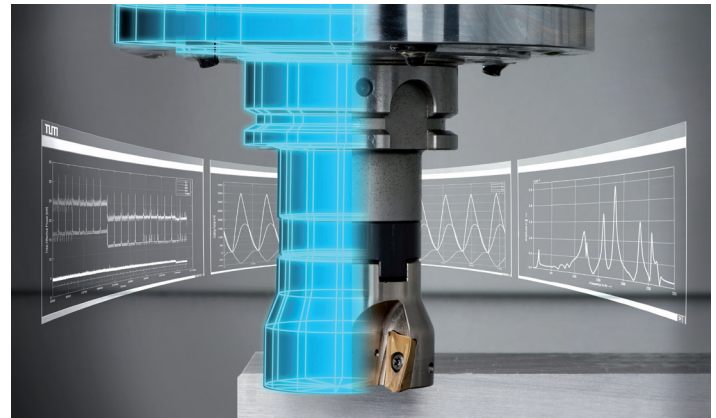# ARTIFICIAL INTELLIGENCE IN PRODUCTION ENGINEERING

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Program fees: 2,365 €

10% discount for TUM Alumni and members or employees of our strategic cooperation partners

Content

The program imparts modern methods of artificial intelligence and machine learning (ML) applied to problems in industrial manufacturing.

- **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.

Academic Responsibility

Prof. Dr.-Ing. Michael F. Zäh
Chair of Machine Tools and Manufacturing Technology
TUM School of Engineering and Design

Partner

iwb e.V.

Why this program?

The certificate program "Artificial Intelligence in Production Engineering" addresses a central challenge of production engineering in the age of digitalization and globalization. Decision makers in all manufacturing industries are increasingly required to know how to read and use big data in production engineering to drive strategic decisions that increase innovation in daily workflows and the competitiveness of the company in general. Our program provides theoretical input as well as a practical approach with a cutting-edge expertise from our collaboration with iwb at TUM. An on-site visit including live demonstrations at the state-of-the-art iwb laboratory at the TUM campus in Garching is also part of the program.

Requirements for entry

Participants should have an academic background in STEM subjects or a business degree with a quantitative focus 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.

Target Group

The program is targeted at decision makers working in the manufacturing industry. Are you a production or performance manager? Are you an industrial or mechanical engineer? Do you want to better understand how to use data to tackle problems in production engineering? Then this program is the right one for you!

Contact and further information

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About the TUM Institute for LifeLong Learning

The TUM Institute for LifeLong Learning supports international experts and leaders from science, business and society to meet the challenges of the 21st century.

Therefore, the Institute offers innovative continuing education courses and thus facilitates scientifically-based and technology-supported professional and leadership development.