

THE SEMINARS

The following seminars offer a focused insight into the efficient manufacturing and repair of turbomachinery components for the participants along the value chain. Besides imparting basic knowledge, the seminars of the ICTM-Academy stands for the communication of highly recognized experts from industry and science. You can take advantage of the opportunity for advanced training, discussion of actual developments and future trends and the experience exchange with the professional participants coming from different areas of manufacturing and repair for turbomachinery components.

Participation Fee

The participation fee is between 595 € and 995 €, according to the detailed information of each seminar in this leaflet. ICTM - Industry Partners are admissible for booking the seminars with special conditions. Please refer to your membership during registration.

Registration

Use the opportunity to register online on
www.ictm-aachen.com/en/academy



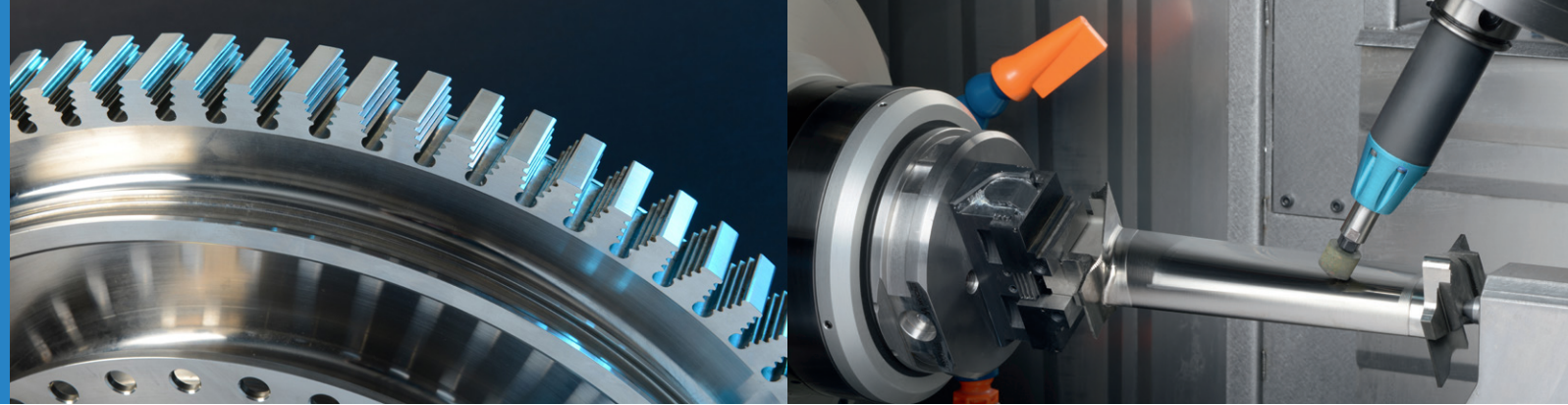
To make an appointment for the seminar "Smart Devices for Production – Smart Glass Experience Days" please send an Email to daniel.heinen@ipt.fraunhofer.de

Your Contact

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ICTM ACADEMY



Customized Training for Manufacturing and Repair of Turbomachines

The “ICTM Aachen – International Center for Turbomachinery Manufacturing” is an integrated interdisciplinary platform of exchange for R&D institutions and industry along the entire value chain of turbomachinery manufacturing. It conducts high level R&D and offers consolidated access to a wide network of experts, allowing further competencies to be called in when required.

The ICTM Academy provides an advanced training program customized to the needs of turbomachinery manufacturing. It will integrate further experts of Fraunhofer, RWTH Aachen University and industry to offer courses and seminars focusing on state-of-the-art technology and new developments. Additionally the ICTM may conduct tailor made in-house workshops to train individual skills on-site. If you are interested, please contact us using the provided contact data.

Basic Seminar Cutting Technology

April 1 – 2, 2020 or September 2020

Actual challenges for metal cutting are shorter cycle times and increasing cost pressure with the same quality demands as well as the application of innovative design materials. To react to these challenges, the user needs to understand the potentials of modern tools and technologies and apply them in a professional way. The Basic Seminar Cutting Technology provides a basic understanding of the chip formation process and the process parameters. The optimal choice of tool material, machinability of different material classes and the determination of surface integrity are core topics of the seminar. The basic understanding provided from the seminar is furthermore presented by means of hands-on practices at machine tools and test rigs. The Basic Seminar Cutting Technology is made for technologists that recently started working with cutting of geometrically defined cutting edge or seek to renew or deepen their knowledge. The provided basics are particularly relevant for difficult-to-machine materials of turbomachinery components.

Participation Fee: 995 € (ICTM-Industry Partners: 895 €)

Location: WZL RWTH Aachen

Seminar language: German (English on demand)

Basic Seminar Grinding

May 6 – 7, 2020 or September 9 – 10, 2020

Continuously developments in the field of difficult to machine materials, like they are used in the aerospace industry for example for turbomachinery components, represent major challenges for the grinding technology. In order to meet these challenges, it is necessary to obtain basic knowledge about grinding methods, tools, use of coolant lubricant, sensor technology as well as modern measurement devices. The basic seminar grinding technology provides theoretical and practical training for operators of grinding technology, machine operators, foreman's as well as workshop and department managers from the fields of work preparation, manufacturing, service and marketing. In addition to the basic knowledge taught, practical demonstrations on grinding machines and tools are conducted to deepen the acquired knowledge of the seminar participants.

Participation Fee: 995 € (ICTM-Industry Partners: 895 €)

Location: WZL RWTH Aachen

Seminar language: German (English on demand)



Basic Seminar EDM and ECM

September 23 – 24, 2020

The significance of electrical discharge and electro-chemical machining processes for turbomachinery components has continuously increased during the last years. In particular for manufacturing of discs and blades, these machining processes can be an efficient alternative to the conventional machining processes. Due to the higher flexibility of the used machines a more economic solution for the manufacturing of turbomachinery components can be yielded. This seminar provides a broad training for users of EDM and ECM technologies as well as basic knowledge for both processes, tools, dielectrics, electrolytes, sensors and metrology for a better understanding in practice. The topics are additionally presented by means of hands-on training and practical demonstrations at WZL shop floor.

Participation Fee: 995 € (ICTM-Industry Partners: 895 €)

Location: WZL RWTH Aachen

Seminar language: German

AI in Manufacturing

October 6 – 7, 2020

The benefits of AI and ML have already been demonstrated by first AI-pilots such as Predictive Maintenance as well as Product Quality Prediction in production. Nowadays, many companies aim to turn data into value. The most commonly used approach is applying AI and ML. However, the implementation of AI-projects remains a challenge due to many parameters that have to be considered. For this reason, we would like to run through the most important steps in the implementation of an AI-project based on concrete production use-cases. The individual steps are accompanied by hands-on sessions, in which you as a participant prepare data sets, train ML-algorithms and evaluate the results of the ML-models independently using the programming language Python.

Target group: Engineers, software developers, data scientists or researchers from the production environment, who would like to develop the know-how to carry out an AI-project in production and gain programming experience in the implementation of ML-algorithms.

Participation Fee: 595 € (ICTM-Industry Partners: 495 €)

Location: Fraunhofer IPT

Seminar language: German or English

Smart Devices for Production – Smart Glass Experience Days

Conduction according to demand respectively after individual agreement

Smart devices depict a simple and quick way to integrate the worker into the factory of the future due to their comparably low costs and high flexibility. They can provide real savings in the areas of e.g. assembly, logistics or maintenance. At the same time, these earnings have to be realized despite technical as well as legal obstacles.

This seminar thus provides an overview of the current state-of-the-art technology and systems as well as first-hand experience due to application scenarios and show cases. Participants can experience and understand the potential as well as limits of these smart helpers in various environments and applications. Additional expert workshops provide insights into organizational and legal aspects of the use cases.

Participation Fee: 699 € (ICTM-Industry Partners: 599 €)

Location: Fraunhofer IPT

Seminar language: German or English