

23.-26.06.2025

BASICS OF GROOVE ROLLING

@ International Center for Groove Pass Design (IKZ)

Groove rolling and the Institute of Metal Forming (IMF) have a long-standing history together. The accumulated and continually expanding knowledge sets the IMF apart as a pioneering entity in the area of research and development for groove rolling processes. Presently, this extends beyond mere experiential insights to include cutting-edge technological innovations for process optimization and design. Notably, artificial intelligence (AI) and numerical simulations play pivotal roles in this evolution. Join us on a comprehensive 4-day training course offered by the IMF, providing a unique opportunity to augment your existing expertise or, for those transitioning careers, to establish a robust knowledge foundation. Dive into the latest trends of groove rolling, as the course addresses core facets ranging from material modeling to process design. Our commitment to a robust practical orientation ensures an immersive and valuable learning experience.

Hosts:

PD Dr.-Ing. habil. Matthias Schmidtchen

Dipl.-Ing. Max Weiner

Dipl.-Ing. Christoph Renzing

Dipl.-Ing. Richard Pfeifer

Dipl.-Ing. Jennifer Mantel

Dipl.-Wi.-Ing. Max Stirl

Prof. Dr.-Ing. Ulrich Prahl

Cost:

1.600 € pp

Registration:

kalibrierzentrum@imf.tu-freiberg.de

Monday | 23/06/25



08:00 09:00

09:00 10:00

10:00 11:00

11:00 12:00

12:00 13:00

13:00 14:30 Introduction and Opening

14:30 16:30 Setup of PyRoLL for Computational Sessions

Tuesday | 24/06/25



08:00 09:00 Modelling of Material Flow

09:00 10:00 Hands on Calculation Session

10:00 11:00 Computational Session with PyRoLL

11:00 12:00 Material Modelling in Groove Rolling

12:00 13:00 Lunch

13:00 13:30 Current Research Topics of Groove Rolling

13:30 14:30 Hands on Calculation Session

14:30 15:30 Computational Session with PyRoLL

15:30 16:00 Questions and Answers Day 1 / 2

Wednesday | 25/06/25



08:00 09:00 Thermal Modelling in Groove Rolling

09:00 10:00 Hands on Calculation Session

10:00 11:00 Computational Session with PyRoLL

11:00 12:00 Force, Torque and Energy Demand in Groove Rolling

12:00 13:00 Lunch

13:00 13:30 Groove Rolling of Rebars

13:30 14:30 Hands on Calculation Session

14:30 15:30 Computational Session with PyRoLL

15:30 16:00 Questions and Answers Day 3

17:00 21:00 "Freiberger Bierführung" and Dinner at "Rathauskeller"

Thursday | 26/06/25



08:00 09:00 Process Design

09:00 10:00 Hands on Calculation Session

10:00 11:00 Computational Session with PyRoLL

11:00 12:00 Institute Tour, Snacks and Farewell