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INSTITUTE FOR MACHINE ELEMENTS, ENGI-
NEERING DESIGN AND MANUFACTURING
CHAIR OF ADDITIVE MANUFACTURING

International Summer School on

Additive Manufacturing and Post-Processing
with Plasma-Electrolytic Polishing

within the SEAMAC Project

TU Bergakademie Freiberg, Freiberg, Germany, 01.09.2024 – 07.09.2024

AGENDA

Sunday, 01.09.2024	Arrival Day /Settling in. Location: <u>Freiberg</u>
15:00	Social Event: hiking tour (information to follow via email)
18:00	Joint Evening: barbecue (information to follow via email)

Monday, 02.09.24	Location: <u>Freiberg</u> (ZeHS, meeting room 1)
9:00	Welcome/Opening Session <i>SEAMAC team</i>
9:30	Introduction to AM: general and process chain, multi-material processing and FGMs <i>Henning Zeidler</i>
10:15	Coffee break
10:45	Introduction to post-processing of AM parts <i>Keren Zohar-Hauber</i>
11:15	Importance of part preparation in AM for post-processing <i>Evgeny Strokin</i>
11:45	Pre-processing in AM to ease post processing (Materialise Magics practical training) <i>Evgeny Strokin</i>
12:15	Safety Issues in AM <i>Keren Zohar-Hauber</i>
12:30	Lunch break
13:30	Visit of AM labs and build job preparation <i>Rico Säbsch</i>
14:15	Networking possibility including neighbouring labs & campus tour <i>Henning Zeidler</i>
16:30	Socialising opportunities

Tuesday, 03.09.24	Location: <u>Freiberg</u>
9:00	Introduction to PeP , safety issues and machine tools <i>Henning Zeidler</i>
9:30	Understanding PeP – Part 1: mechanisms and parameters <i>Toni Böttger</i>
10:30	Coffee break
10:45	Understanding PeP – Part 2: electrolyte solutions <i>Toni Böttger</i>

11:30	Lunch break
12:30	AM lab: remove AM parts from the machine and WEDM to remove parts from build plate <i>Rico Säbsch</i>
14:00 – 16:30	PeP basics - practical. <u>ZeHS room EG301</u> <i>Toni Böttger</i>
	Free evening

Wednesday, 04.09.24	Location: <u>Chemnitz</u>
7:51	Transfer from “Freiberg main station” to BMF <u>Use train RB30 towards ”Zwickau Hbf”, departing Freiberg main station 7:51 from track1</u> <i>Florian Tischner</i>
9:00	Visit to companies: BMF (Metal processing, AM & surface treatment) BMF GmbH, Dorfstraße 61, 09224 Chemnitz/Grüna https://maps.app.goo.gl/j1cRpJL8E2v8woTz6 <i>Ronny Bernstein</i>
11:00 (train departs 11:12)	Transfer to Beckmann-Institut by train (RB30) <i>Florian Tischner</i>
11:30	Visit to companies: PLASMOTION (Jet-PeP) Wirkbau complex, Lothringer Str. 11, Building D, 09111 Chemnitz <i>Vincent Stepputat</i>
12:30	PeP of complex parts - theoretical <i>Toni Böttger</i>
13:00	Lunch break
14:00 – 16:30	PeP of complex parts - practical <i>Toni Böttger</i>
	Option to joint evening event or at own disposal

Thursday, 05.09.24	Location: <u>Freiberg</u>
09:00-11:00	Excursion to Reiche Zeche: underground mine, visit to underground labs and old mining tunnels (duration approx. 2.5 hours incl. entering and exit) <i>Florian Tischner</i>
11:00 -11:45	Current R&D topics in KU Leuven <i>Ann Witvrouw, member of SEAMAC advisory board</i>
11:45-12:00	Exiting underground mine and transfer back to campus
12:00	Lunch break

13:00-15:00	General Assembly and Advisory Board meeting ZeHS Meeting Room 2 <i>Josko Valentincic</i>
13:00-13:30	Multi-material parts in PeP: challenges and options ZeHS Meeting Room 1 <i>Toni Böttger</i>
13:30-16:00	PeP of different materials – practical ZeHS lab room EG301 <i>Toni Böttger</i>
	Option to joint evening event or at own disposal

Friday, 06.09.24	Location: <u>Freiberg</u>
9:00	Analysis and measurement of PeP parts ZeHS Meeting room 1 <i>Toni Böttger</i>
10:15	Coffee break
10:30	Transfer to Karl-Kegel-Bau, Agricolastr. 1 Practical measurements / parallel sessions / split into 3 groups
10:45	Confocal microscopy <i>Kristina Navickaite</i>
10:45	Tactile surface roughness measurement <i>Diana Klemm</i>
10:45	Geometry / 3-Coordinate measurement <i>Jim Gerschler, Florian Tischner</i>
13:00	Lunch break and transfer back to ZeHS
14:00	Creating measurement reports using MountainsLab ZeHS Meeting room 1 <i>Kristina Navickaite</i>
15:00	Comparing practical results to theoretical prediction and conclusions <i>Toni Böttger</i>
	Option to joint evening event or at own disposal

Saturday, 07.09.24	Location: <u>Freiberg</u>
9:00	Application of PeP: wrap-up <i>Josko Valentincic & Henning Zeidler</i>
10:30	Finish up & certificates ceremony

HOW TO GET TO THE VENUES:

Location Freiberg: Zentrum für effiziente Hochtemperatur-Stoffwandlung (ZeHS)

<https://tu-freiberg.de/en/zehs>

<https://maps.app.goo.gl/1A5vuhw7CAN7TJCe7>

Address: TU Bergakademie Freiberg, Winklerstraße 5, D-09599 Freiberg

Use front entrance: <https://maps.app.goo.gl/h5P6x4NWoMigKbr9A>

Room: Meeting room 1 (large meeting room), ground floor, right hand side (immediately right after main entrance, in large foyer)

Location Chemnitz: Beckmann-Institut für Technologieentwicklung e.V.

<https://beckmann-institut.de/>

<https://maps.app.goo.gl/YbYSnsR32iFnYh6L9>

Address: Lothringer Strasse 11 (boom gate with porter, parking is available inside), **Building "D", Entrance "D"** (second door left after boom gate), **second floor left** (ring bell next to door)

CONTACT INFORMATION:

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