

Materials Science and Engineering Summer School

28 August 2023 – 02 September 2023

- The first three days of the summer school take place on the main campus, Olshausenstraße 75, Hörsaal 1.
- The following two days of the summer school take place on the engineering campus (Kaiserstr 2). The meeting place before/after lab tours & hands-on training as well as for coffee breaks is Faculty Club.

Day 1: 28.08.2023

Topic	Speaker
09:00	Arrival, Registration and Coffee
09:30	Summer school opening Vice President – Prof. Eckhard Quandt
09:45	Nanoscale Magnetic Materials - Magnetic Domains <i>(Teaching & research activities of the chair and KiNSIS)</i> Prof. Jeffrey McCord
11:00	Imaging magnetization dynamics Dr. Michael Vogel
11:30	Noise in magnetic field sensors M.Sc. Elizaveta Spetzler
12:00	Lunch Break
13:00	Synthesis and Real Structure <i>(Teaching & research activities of the chair)</i> Prof. Lorenz Kienle
14:15	Material research on the new ferroelectric nitride Al _{1-x} Sc _x N using STEM Dr. Niklas Wolff
14:45	Transmission electron microscopy on mixed-oxide nanoparticles for photocatalysis M.Sc. Marie Elis
15:15	Coffee Break
15:30	Chasing the dream of discovery from Ankara to Kiel Prof. Deniz Tasdemir
16:00	My journey from METU to CAU Prof. Cenk Aktas
16:30	Opportunities for M.Sc. students in collaborative research centres: CRC 1261 – Magnetoelectric sensors in medicine Prof. Gerhard Schmidt
17:00	The Summer School Photo
17:15	BBQ & End Day 1

Day 2: 29.08.2023

Topic	Speaker
09:00	Bioinspired Materials and Biosensor Technologies <i>(Teaching & research activities of the chair)</i> Prof. Zeynep Altintas
10:15	Wearable and implantable technologies for theranostics Dr. Md Shariffuzzaman
10:45	Bioinspired smart materials for healthcare applications Dr. Sruthi Usha
11:30	The Main Campus Tour

12:30	Lunch Break	
13:30	Functional Nanomaterials <i>(Teaching & research activities of the chair)</i>	Prof. Rainer Adelung
14:45	Functional network materials and biocomposites	Dr Fabian Schütt
15:15	Additive manufacturing and self-organizing for building functional materials	Dr. Leonard Siebert
15:45	Coffee Break	
16:00	Inorganic Functional Materials <i>(Teaching & research activities of the chair)</i>	Prof. Eckhard Quandt
17:15	Microsystems and cleanroom technology for materials science	Dr. Dirk Meyners
17:45	Thin-film shape memory alloys for the treatment of intracranial aneurysms	Dr. Prasanth Velvaluri
18:15	End Day 2	

Day 3: 30.08.2023

	Topic	Speaker
09:00	Computational Materials Science <i>(Teaching & research activities of the chair)</i>	Prof. Stephan Wulfinghoff
10:15	Barkhausen noise investigation using a micro-magneto-mechanically coupled material model	M.Sc. Christian Dorn
10:45	Reduced order modeling of a thermomechanical shape memory alloy-based actuator and nearly incompressible materials	M.Sc. M. Babar Shamim
11:15	Coffee Break	
11:30	Metallic biomaterials	Dr. Berit Zeller-Plumhoff
12:00	Development of sustainable printed optoelectronics for energy and medical technologies	Prof. Tayebbeh Ameri
12:30	Lunch Break	
13:30	Multicomponent Materials <i>(Teaching & research activities of the chair)</i>	Prof. Franz Faupel
14:45	Tailored polymer thin films via chemical vapor deposition - From fundamentals to functional applications	Dr. Stefan Schröder
15:15	Nanoparticle-based nanocomposites and their potential application in brain-inspired computing	Dr. Alexander Vahl
15:45	Coffee Break	
16:30	The Engineering Campus Tour	
17:00	Lab induction	
18:00	End Day 3	

Day 4: 31.08.2023

Lab tours / Hand-on trainings		Person in charge
09:00	Arrival in Engineering Campus & Coffee	
09:30	Functional Nanomaterials	Dr. Leonard Siebert & Dr. Sören Kaps
12:00	Lunch Break	
13:00	Bioinspired Materials and Biosensor Technologies	Ekin Sehit & Gauri Hasabnis & Dr. Sruthi Usha
15:30	Coffee Break	
16:00	Inorganic Functional Materials	Dr. Prashanth Velvaluri
17:00	End Day 4	

Day 5: 01.09.2023

Lab tours / Hand-on trainings		Person in charge
09:00	Synthesis and Real Structure	Dr. Niklas Wolff
11:00	Nanoscale Magnetic Materials - Magnetic Domains	Florian Gossing & Michael Path
13:00	Lunch Break	
14:00	Computational Materials Science	Prof. Stephan Wulfinghoff
15:00	Multicomponent Materials	Dr. Stefan Schröder
17:00	Awarding Certificates	
17:30	End Day 5	

Day 6: 02.09.2023

Sightseeing activity		Person in charge
09:45	Rathaus (360-degree view), Altstadt by foot, Ferry tour to Laboe	Eda Akin, Rahil Radfar
16:00	End of Summer School	