Einladung

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

**Herrn M.T. Killang Pratama**  
Experimentelle Methodik der Werkstoffwissenschaften  
(Prof. Dr. mont. Christian Motz)

am

**Mittwoch, 28. Juli 2021, 13:00 Uhr s.t.**

per Videokonferenz;  

**Thema der Dissertation:**

**Pulsed Electrodeposited Nanocrystalline Co-Cu alloys:**  
*Synthesis and Characterisation of Thermal and Mechanical Properties*

Single component nanocrystalline materials exhibits outstanding mechanical and physical properties, but they are unstable against thermal and mechanical loading. Addition of alloying elements are subjected to improve the thermal and mechanical stability. In the present work, supersaturated solid solution nanocrystalline Co-Cu (Co-rich) alloys were developed through the pulsed electrodeposition (PED) technique and the thermal and mechanical stability were investigated. Microstructural evolution during thermal and mechanical loading was also investigated for exploration the possible microstructural evolution mechanisms in this nanocrystalline alloy. This work shows the huge potential of supersaturated solid solution nanocrystalline Co-Cu alloys, where the thermal and mechanical stability of microstructure can be optimized by controlled de-mixing processes.

Saarbrücken, 14. Juli 2021

Prof. Dr. Christian Motz