

Dear Partner,

we would like to invite your students to attend our

Summer School „Plastics – Boon and Bane“

which will take place at the **Faculty of Engineering in Rüsselsheim, Germany** from **3. – 16. August 2025**.

The program is open to all Bachelor and Master students interested in the world of plastics engineering. Students should have engineering knowledge and English skills.

First, we will discuss different aspects of the material and its unique mechanical behavior. In a lecture about manufacturing, students will learn about current processes how to treat small or large scale industrial production. Later we will have a look at lightweight designs with the example of aviation. Subsequently, students will get the opportunity to fly a passenger aircraft – in the HSRM aircraft simulator, which feels deceptively real. Different aspects of recycling are discussed in the second week and we will take a closer view on the sustainability strategies of the different countries dealing with plastic waste.

In addition to the lectures, we will have high-level excursions: we will visit a plastics manufacture and waste-to-energy plant with very high energetic efficiency, a material producer founded 176 years ago and now focusing on elastomeric components and a typical SME (small medium enterprise), marketing additively manufactured plastic parts. The university's laboratories for microplastic and additive manufacturing are part of the in-house-excursions and the students will print their own souvenirs.

This scientific program is supported by a cultural program to convey participants a glimpse into the German way of living: we will start with exploring Rüsselsheim with its city hall and its fortification and discover how traditional German cuisine tastes. Later we will see touristic highlights as the Loreley and the castles along the Rhine river (UNESCO world heritage). We will visit vibrant cities as Rudesheim, famous for its stunning views over vineyards in hillside locations, Darmstadt with Jugendstil architecture and Frankfurt with its new old town. Also a guided tour through the Center for Satellite Navigation ESA (European Space Agency) is planned. Furthermore we will visit Mainz with its old cathedral.

The program contains a language course in German and intercultural experiences with people from different continents. The participation fee for students from our partner universities is EUR 500. It covers lectures, labs, language courses, wlan, accommodation, transportation and all excursions, which are included in the official program, plus a big farewell dinner. The language of instruction is English.

You can register by sending an e-mail to summerschool-ing@hs-rm.de until July 13th.

We are looking forward to seeing your students in August in Rüsselsheim!

Dr.-Ing. Tamara van Roo

Deputy Professor

Composites and Polymer Technology

RheinMain University of Applied Sciences

Faculty of Engineering

Tamara.vanroo@hs-rm.de +49 6142 898-4438