Welcome to AMT

The Institute for Advanced Mining Technologies is characterized by a high degree of practical relevance in teaching and research, which is based on extensive fundamental research. This combination of basic and application-oriented, industry-oriented research and teaching makes the AMT **a pioneer in raw material-related education in Europe** and **one of the leading institutes in the field of automation and digitization in mining**.

At the same time, the institute not only contributes to the further development of modern mining technologies, but also contributes to the further technological development of society as a whole. This is becuase only a mining industry that is efficient, safe and environmentally compatible is fit for the future, especially in Europe. In the spirit of **Mining 4.0**, research at AMT therefore focuses above all on the **utilization of information for the monitoring of processes and machines** with the aid of **sensor technology** and modern methods of machine and process data analysis.

Founded in 2018, AMT thus continues the activities of its predecessor, the Institute for Mechanical Engineering of the Raw Materials Industry (IMR). Building on the research work of its predecessor in the fields of sensor technology, data collection and data processing, the **AMT today develops robust, networked and autonomous systems for modern high-performance mining**.

Within the scope of its research projects, the AMT also cooperates with a **large number of partners** from industry and the public sector as well as with universities and research institutions and is well connected worldwide. The **interdisciplinary research team** at AMT under the direction of Prof. Dr.-Ing. Elisabeth Zoëga, geb. Clausen comprises electrical, environmental and mining engineers as well as mechanical engineers and software developers, all of whom are actively involved in university teaching.

With regard to teaching, the AMT attaches great importance to a **holistic and modern engineering education** with a high practical relevance and the integration of innovative teaching and learning concepts. The AMT is currently actively involved in teaching 26 courses at RWTH Aachen University, ranging from fundamentals in engineering to specialized and applied courses, such as digitization in mining.

