

## Awards for Investigations on the Efficiency of Tuned Sloshing Dampers and Damage Detection within Fatigue Samples

**The foundation Stiftung Maurer Söhne awarded two MSc Students of the Technical University Munich.**

Munich. The foundation „Stiftung Maurer Söhne“ awarded the MSc theses of Andreas M. Riedl and Ludwig Siebert in the fields of structural dynamics and technical mechanics in fall 2022. The foundation Stiftung Maurer Söhne awards every year the most outstanding BSc and MSc theses in the field of technical dynamics.

In 2022 two excellent R&D works were awarded the prize foundation Stiftung Maurer Söhne of total 2.000 €.

Andreas M. Riedl received the prize money of 1.000 € for his MSc thesis „Numerical Modeling and Simulation of Coupled TLD-Structure Response under Time History Loading“. He investigated the efficiency of Tuned Sloshing Dampers and Tuned Mass Dampers to reduce wind-induced accelerations of tall buildings using a fully coupled CFD/FE-model of the building under wind loading. The MSc thesis was supervised by Prof. Dr. Eng. Kai-Uwe Bletzinger and Máté Péntek of the Technical University of Munich (TUM).

Ludwig Siebert received the same prize money for his MSc thesis „Damage Analysis  $\mu$ -CT-Scanned Additively Manufactured Fatigue Samples with the Use of Machine Learning“. He developed a method to determine internal damages of samples for fatigue tests based on tomography scans and learning algorithms. The MSc thesis was supervised by Prof. Dr. Eng. Martin Mensinger and Johannes Diller of TUM.

The prize winners were selected by the prize committee of the Department Civil and Environmental Engineering (CEE) of TUM School of Engineering and Design. The prizes were handed over on October 28 on the CEE Department Day.

Universities are obliged to focus on project-related research due to their limited budget. The industry commonly aims at product development. In contrast, basic research shall be free of development goals and independent of potential economic benefits. Therefore, the foundation Stiftung Maurer Söhne aims at supporting R&D projects at the interface of civil and mechanical engineering.



Prize winner Andreas M. Riedl (right) and Dr. Eng. Felix Weber (Foundation).

*Photo: TUM*



Prize winner Ludwig Siebert (right) and Dr. Eng. Felix Weber (Foundation).

*Photo: TUM*

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### Information on Stiftung Maurer Söhne

In January 2007, the company members of Maurer Söhne GmbH & Co. KG Messrs. Hans and Peter Beutler and Ms. Ursula Grill, established the charitable foundation **Stiftung Maurer Söhne** based in Munich. The Foundation Maurer Söhne aims at supporting R&D projects at Technical Universities and independent Research Centres in the fields of Civil and Mechanical Engineering.

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