

## The summer schools of the Faculty of Mechanical Engineering delighted students and teachers

Unique figurines made on a 3D printer based on scans of your face or hand-cast bronze bells. These souvenirs were made and taken away by high school students who participated in two week-long summer schools organised by the Faculty of Mechanical Engineering of TUL. The Faculty targeted all high school and grammar school students enthusiastic about technology with the summer school. It was the first time that the intensive courses were organised.

It offered them to students for free. "We met boys with an unvarnished interest in technology, so much so that our teachers were pleasantly surprised by their level. Some schools selected students and gave them participation as a reward. This great interest was reflected in the lessons, and our teachers also enjoyed it," said the Vice-Dean of the Faculty of Mechanical Engineering, [Luboš Běhálek](#).

The faculty wanted to reach out to technology enthusiasts and motivate them to study at the university. *"High school students work on equipment they don't usually get to. It's a completely different form of presentation than open houses. We can engage the students intensively and focus on specific topics. Students lose their shyness in the university environment, find that we offer many interesting areas, and get to know the teachers as nice people who are often close to their age. Perhaps some of these young people will join us,"* added Vice Dean Běhálek.

The two-week marathon kicked off with the Summer School of Technology and Engineering Technologies. For example, a dozen students learned about foundry technology or tested the mechanical properties of composites. The faculty took as hands-on and interactive an approach as possible.

During the Summer School of Robotics, Automation and 3D Technologies last week of May, participants tried controlling and programming an industrial robot, scanning and subsequently 3D printing. They learned what compressed air is useful for in automation and how to drive motors and create a vacuum. They entered virtual reality, learned about the environment, and used the visual programming language LabVIEW. They learned how to create simple programs.

*"I've already completed my first week of engineering technology, and while I know I won't need it as an electrician at this point, I was happy to broaden my horizons to another technology area. Robotics and automation are already directly related to what I'm studying in school. There are devices that we don't have at school, such as large robotic hands. I'm really looking forward to the 3D printer,"* said Jiří Rýdl from the Secondary Industrial School and Higher Vocational School Liberec, who also completed his professional practice in the 3D printing laboratory of the 3D Technology Department under the guidance of Jiří Šafka. *"I liked it here, and I'm definitely thinking about going to the Faculty of Engineering after graduation,"* added Jiří Rýdl.

The faculty has yet to collect student responses, but the first spontaneous reactions are enthusiastic. *"For example, Lukáš Bálik, a second-year student of the Liberec Industrial School, came to thank us after the first week for 'preparing a great programme'. We were delighted by such spontaneous reactions,"* the vice-dean quoted one of the students as saying: *"We want to push high school students in what they enjoy, offer knowledge and boost their confidence."*

*Summer schools are a good opportunity to achieve this, and we would like to hold them again in the future."*