

Faculty of Mechanical Engineering TUL – Student Grant Competition – 2025

Number	Project title	Principal investigator	Period	Subsidy CZK
5321	Research on Directed Energy Deposition additive technology for the production of optical sensor components made of glass	Ing. Mohamed Fawzy Abdelkader	2023–2025	235 355
5323	Optimizing and improving the efficiency of heat transfer applications using computational fluid dynamics modelling	Anas F A Elbarghthi, Ph.D.	2023–2025	207 114
5393	Investigation of rheological properties of silicate materials for robotic 3D printing	Ing. Ondřej Matúšek, Ph.D.	2023–2025	221 082
5432	Formation of antifouling surfaces with antibacterial activity using magnetron sputtering technology	Ing. Lucie Svobodová, Ph.D.	2024–2025	333103
5435	Assessment of the effect of welding on grain growth kinetics and fatigue life of fine grain steel joints	Ing. Daniel Klápště	2024–2026	267 680
5443	Research and development of technology and equipment for the production of nanofibrous structures	Ing. Ondřej Friedrich	2024–2026	349 535
5455	Numerical and experimental research of vehicles and their parts	Ing. Josef Břoušek, Ph.D.	2024–2026	389 772
5456	Effect of process parameters on the machining quality of biocomposite systems	Ing. Martin Váňa	2024–2026	271 073
5522	Research and development of molded parts designs in terms of application use	Ing. Jakub Bittner	2025	265 759
5534	Creation of conductive thin layers using the PVD method applied to specific materials	Ing. Anna Krobotová	2025	269 568
5538	Modification of dental fillings with nanomaterials to optimize their useful properties	Magdalena Mrózek	2025	290 563
5539	Adaptive robotic technologies for machining fragile and complex-shaped materials	Ing. Filip Švejcar	2025	199 231
5546	Research and development of equipment for the production of nanofiber structures using electroprinting technology	Ing. Ondřej Bařka, Ph.D.	2025	299 578
5500	SGC Organization – FME TUL	DFS	2025	67 388
Total FME TUL			2025	3 666 801