

## Ph.D. Thesis Topics for academic year 2023/2024

### Study programme: Technologies and Materials

	Ph.D. Thesis Topic	Supervisor	Department
1.	<p><b>Research of measurement accuracy of contactless 3D scanners</b></p> <p><b>Abstract:</b> The dissertation will focus on the research of measurement accuracy of systems for contactless 3D digitization of machine parts (optical or laser 3D scanners). These devices are now increasingly used for the purpose of dimensional and shape inspection of parts. Although much research has been done in this area, there are still many unanswered questions in view of the dynamically evolving field. It is necessary to focus on the whole chain of inspection, ie digitization - data processing - control. The subject of the research will be, among other things, determining the influence of the scanning process strategy on the accuracy of digitization using 3D scanners or verifying the properties of a new generation of sublimation preparations, which are beginning to be used in the field of optical metrology for treatment of optically unsuitable surfaces.</p>	doc. Ing. Radomír Mendřický, Ph.D.	KSA