

## ARIS research projects in progress

ARIS	Project number	Title	Responsible person / Project coordinator on the Faculty of Mechanical Engineering	Duration
	<b>J2-70090</b>	Sustainable recovery of strategic and critical raw materials from e-waste touchscreens and printed circuit boards using biopolymer-based magnetic nanocomposites and their application as electrochemical sensors for endocrine disruptors in the environment	Assist. Prof. Dr. Olivija Plohl olivija.plohl@um.si	1.3.2026 – 28.2.2029
	<b>J2-70109</b>	Sustainable yarn manufacturing technologies with high-performance passive cooling for thermal comfort management	Assoc. Prof. Dr. Vanja Kokol vanja.kokol@um.si	1.3.2026 – 28.2.2029
	<b>GC-0007</b>	Sustainable technologies for circular waste and energy management in the fight against climate change	Prof. Dr. Željko Knez/ Prof. Dr. Aleksandra Lobnik aleksandra.lobnik@um.si	1.7.2025 – 30.6.2028
	<b>J7-60118</b>	Human Exposure to Radiation from new Wireless Communication Technologies using Advanced Electromagnetic-Thermal Dosimetry Models	Prof. Dr. Jure Ravnik Jure.ravnik@um.si	1.2.2025 – 31.1.2028
	<b>J2-60048</b>	Development of anisotropic thermally conducting and insulating substrates for recyclable flexible electronics	Assoc. Prof. Dr. Vanja Kokol vanja.kokol@um.si	1.1.2025 – 31.12.2027
	<b><u>J2-60049</u></b>	Development of Advanced Cellular Metamaterials	Assist. Prof. Dr. Nejc Novak nejc.novak@um.si	1.1.2025 – 31.12.2027
	<b>J7-60120</b>	Design, development, and characterisation of innovative biodegradable vascular stents	Prof. Dr. Janez Kramberger janez.kramberger@um.si	1.1.2025 – 31.12.2027
	<b><u>L2-60138</u></b>	Self-learning collaborative welding application	Assist. Prof. Dr. Timi Karner timi.karner@um.si	1.1.2025 – 31.12.2027
	<b>N2-0328</b>	Effect of temperature conditions on the microstructure and mechanical properties additively manufactured materials	Prof. Dr. Damjan Klobučar/ Prof. Dr. Franc Zupanič franc.zupanic@um.si	1.1.2024 – 31.12.2027
	<b>Z2-60175</b>	Efficient bacterial cellulose-based anion exchange membranes for alkaline fuel cell applications	Dr. Maša Hren masa.hren@um.si	1.1.2025 – 31.12.2026

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	<b>N2-0388</b>	Novel approach to acquire UltraPURE nanoCELLulose	Senior Research Fellow Dr. Selestina Gorgieva  selestina.gorgieva@um.si	1.1.2025 – 31.12.2026
	<b>N2-0326</b>	Experimental and numerical analysis of static and fatigue double-side bending of rubber matrix composites	Prof. Dr. Jernej Klemenc/ Prof. Dr. Srečko Glodež  srecko.glodez@um.si	1.1.2024 – 31.12.2026
	<b>J2-50086</b>	Nanofibrillar cellulose membranes in microbial fuel cells: material development for sustainable, high value-added applications	Senior Research Fellow Dr. Selestina Gorgieva  selestina.gorgieva@um.si	1.12.2023 – 30.11.2026
	<b>J2-50087</b>	Fabrication of high capacitance electrospun fibrous net for flexible supercapacitor	Assist. Prof. Dr. Alenka Ojstršek  alenka.ojstrsek@um.si	1.10.2023 – 30.9.2026
	<b>L2-50059</b>	Nanostructured coatings of high-entropy alloys for use in toolmaking	Dr. Aljaž Drnovšek / Prof. Dr. Franc Zupanič  franc.zupanic@um.si	1.10.2023 – 30.9.2026
	<b>V2-24074</b>	Extension of the national measurement standard basis in the field of "length" and development of physical and technological basis for ensuring traceability of laser interferometers with frequency in infrared range on the unit metre	Prof. Dr. Bojan Ačko  bojan.acko@um.si	1.10.2024 – 31.3.2026