

**STUDENT GRANT COMPETITION - IGA - Projects Accepted for Funding in 2021**

Project No.	Project title	Proposer	Guarantor
<b>FACULTY OF TECHNOLOGY</b>			
IGA/FT/2021/001	Multitopic guests: From basic phenomena towards functional molecules	Ing. Petr Janovský	doc. Mgr. Robert Vícha, Ph.D.
IGA/FT/2021/002	Syntheses and investigation of chemical transformations of compounds with the structure of quinoline, benzo[e]diazepine and their oxygen analogues	Ing. Zuzana Máčalová	doc. Ing. Stanislav Kafka, CSc.
IGA/FT/2021/003	Applicability of empirical methods for evaluating the quality of wheat flour, dough and bread to determine the technological quality of gluten-free and non-traditional wheat materials	Ing. Romana Šebestíková	doc. RNDr. Iva Burešová, Ph.D.
IGA/FT/2021/004	The influence of technological trends on the quality and properties selected foods	Mgr. Richard Adámek	doc. Ing. Vendula Pachlová, Ph.D.
IGA/FT/2021/005	Optimization of the injection moulding and 3D printing process - the influence of parameters on the final product	Ing. Petr Fluxa	Ing. Antonín Minařík, Ph.D.
IGA/FT/2021/006	Usage of innovative methods for the production and processing of materials and composite structures	Ing. Jan Ondřík	doc. Ing. Ondřej Bílek, Ph.D.
IGA/FT/2021/007	Preparation, characterization and application of polymers	Ing. Jakub Martínek	prof. Ing. Pavel Mokrejš, Ph.D.
IGA/FT/2021/008	The determination of biologically active substances and other parameters of non-traditional foods in selected technological processes	Ing. Anna Plášková	doc. Ing. Jiří Mlček, Ph.D.
IGA/FT/2021/009	Physico-Chemical and Biochemical Methods for the Reduction of Undesirable Substances in the Field of Environmental Protection and Food Industry	Ing. Dagmar Šašínková	doc. Ing. Markéta Julínová, Ph.D.
IGA/FT/2021/010	Preparation of advanced biopolymer systems	Ing. Karolína Kocourková	Ing. Antonín Minařík, Ph.D.
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IGA/FaME/2021/002	Performance analysis of container yard for the dwell time and reshuffle: A smart port 4.0 perspective	Tereza Bartošová / Mohan Saini	doc. Ing. Zuzana Tučková/ Ing. Denisa Hrušecká, Ph.D.
IGA/FaME/2021/003	Performance management, consumer behaviour, and sustainability of firms in a competitive digital world	Alex Ntsiful	prof. Ing. Boris Popesko, Ph.D.
IGA/FaME/2021/004	Performance management, Social media usage, SME innovation, and Sustainability of firms in a Digital world	Adwoa Yeboaa Owusu Yeboah	doc. Ing. Petr Novák, Ph.D.
IGA/FaME/2021/005	Significant factors in the sustainability of economic growth with a focus on the SME segment	Zdenko Metzker	prof. Ing. Jaroslav Belas, Ph.D.
IGA/FaME/2021/006	Role of governance in big data driven business decisions in the era of Industry 4.0: A strategic management perspective	Najam Ul Zia / Jan Holočí	prof. Ing. Felicita Chromjaková, P.D.
IGA/FaME/2021/008	Sustainability of Human resource management	Aydan Huseynova	Ing. Jana Matošková, Ph.D.
IGA/FaME/2021/009	Green human resource management practices leading transformation towards sustainable performance in the selected sectors	Muhammad Shoab	doc. Ing. Roman Zámečník, Ph.D.
IGA/FaME/2021/011	Macro and Micro Analysis of the Relationship between Investment, Stock Market and Growth	Francis Atiso	prof. Ing. Drahomíra Pavelková, Ph.D.
IGA/FaME/2021/013	From the point of view of tax law and one's own belief, donate corporate donations in companies operating in the Czech Republic	Ing. Blanka Jarolímová	doc. Ing. Zuzana Tučková, Ph.D.
IGA/FaME/2021/014	New competitive advantages based on work environment risk management	doc. Ing. Petr Briš, CSc.	x
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FACULTY OF APPLIED INFORMATICS			
IGA/FAI/2021/002	Analysis of the resilience of medical facilities in the event of an epidemic and armed attack	Ing. Marta Blahová	doc. RNDr. Vojtěch Křesálek, CSc.
IGA/FAI/2021/003	SW Support for Population Protection and Soft Targets	Ing. Martin Džermanský	doc. Ing. Martin Hromada, Ph.D.
IGA/FAI/2021/008	Solution of current aspects of pandemic, cyber and occupational security	Ing. Petra Dostálová	doc. Ing. Martin Hromada, Ph.D.
IGA/FAI/2021/009	BCI signal Classification based on Artificial Intelligence in MS AZURE environment	Ing. et Ing. Martin Burdík	prof. Ing. Roman Jašek, Ph.D.
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REGIONAL RESEARCH CENTRE CEBIA-Tech			
IGA/CebiaTech/2021/001	Data mining, Machine Learning and Nature-inspired Optimization Algorithms with Applications	Mirshahi Sina	doc. Ing. Zuzana Komínková Oplatková, Ph.D.
IGA/CebiaTech/2021/002	HYDROLYSIS OF LIPID-RICH WASTE WITHIN THE SCOPE OF ANAEROBIC DIGESTION	Samuel Emebu MSc.	Ing. Jiří Pecha, Ph.D.
IGA/CebiaTech/2021/003	Real-time Imaging of Human Body using RGB-D Cameras	Ing. Jiří Ševčík	doc. Mgr. Milan Adámek, Ph.D.
IGA/CebiaTech/2021/004	Use of polygraph and real 3D models of objects in virtual reality as evidence in criminal proceedings	Ing. Irena Drofová	doc. Mgr. Milan Adámek, Ph.D.
IGA/CebiaTech/2021/005	Research of Brain-Computer Interface for control of intelligent systems	Ing. Martina Žabčíková	prof. Ing. Roman Jašek, Ph.D.
IGA/CebiaTech/2021/006	Delay as a desired and undesired part of cyber-physical processes and systems	Ing. Martin Strmiska	doc. Ing. Libor Pekař, Ph.D.
IGA/CebiaTech/2021/007	Implementation and measurement of a sonar rangefinder with continuously modulated transmission frequency and evaluation of its suitability for robotic applications	Ing. Petr Smejkal	doc. RNDr. Zdeněk Úředníček, CSc.
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FACULTY OF HUMANITIES			
IGA/FHS/2021/001	Academic Environment: Success and Stress	Mgr. Jana Martincová, Ph.D.	Mgr. Jana Martincová, Ph.D.
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FACULTY OF LOGISTIC AND CRISIS MANAGEMENT			
IGA/FLKŘ/2021/001	Transport Infrastructure in the Cities and Towns	Ing. Kateřina Víchová	x
IGA/FLKŘ/2021/002	Implementation of Risk Management Principles in Museums and other Public Institutions in the Czech Republic	Mgr. Marek Tomašík, Ph.D.	x
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## CENTRE OF POLYMER SYSTEMS

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IGA/CPS/2021/001	Biocompatibility of materials	Ing. Simona Káčerová	doc. Ing. Petr Humpolíček, Ph.D.
IGA/CPS/2021/002	Preparation and characterization of nanocomposite systems	Ing. Monika Muchová	doc. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D.
IGA/CPS/2021/003	Piezoresistivity of advanced materials	Ing. Alena Ronzová	doc. Ing. Michal Sedlačík, Ph.D.
IGA/CPS/2021/004	Preparation and characterization of intelligent systems based on thermoplastic elastomers and magnetic particles prepared by 3D printing	Ing. Danila Gorgol	Ing. Miroslav Mrlík, Ph.D.
IGA/CPS/2021/006	Database development of initiation energy values, T0 depending on variation of the basic composition of rubber compound	Ing. Aleš Machů	doc. Dr. Ing. Radek Stoček