

**STUDENT GRANT COMPETITION - Projects Accepted for Funding 2016**

Project No.	Project title	Proposer	Guarantor
<b>FACULTY OF TECHNOLOGY</b>			
IGA/FT/2016/001	Multitopic ligands for advanced supramolecular systems	Ing. Alena Matelová	Mgr. Robert Víchá Ph.D.
IGA/FT/2016/002	Research of polymer composite materials and their processing tools	Ing. Lukáš Mařas	doc. Ing. Soňa Rusnáková, Ph. D.
IGA/FT/2016/003	Application of additives and other functional substances in manufacturing of selected foodstuff	Ing. Kateřina Moudrá	doc. Ing. Vendula Pachlová Ph.D.
IGA/FT/2016/004	Syntheses and investigation of chemical transformations of derivatives of quinoline, 1,2,3-triazole, and pyridine attached to the bornane system	Ing. Filip Křemen	doc. Ing. Stanislav Kafka CSc.
IGA/FT/2016/005	Research for detecting and analyzing surface quality nonnormative way	Ing. Milena Kubišová	doc. Dr.Ing. Vladimír Pata
IGA/FT/2016/006	Particle-stabilized emulsions	Ing. Veronika Mikulcová	doc. Ing. Věra Kašpáriková CSc.
IGA/FT/2016/007	Viscoelastic modeling of polymer melt flow with free surface	Ing. Tomáš Barbořík	prof. Ing. Martin Zatloukal, Ph.D., DSc.
IGA/FT/2016/008	The Determination of Bioactive Compounds in Non-traditional Plant Materials and Products	Ing. Irena Hlaváčová	Ing. Jiří Mlček Ph.D.
IGA/FT/2016/009	Processing methods of natural and synthetic polymers, evaluation and comparison of their properties based on applied production processes	Ing. Marek Pöschl	doc. Ing. Dagmar Měřinská, Ph.D.
IGA/FT/2016/010	Properties study of advanced materials	Ing. Hýlová Lenka	doc. Ing. David Mařas Ph.D.
IGA/FT/2016/011	Computer simulations of technologically relevant hyaluronan and its interactions with proteins	Mgr. Roman Witasek	RNDr. Marek Ingr Ph.D.
IGA/FT/2016/012	Extended Study of Some Processes Improving an Environmental State and Quality of Foodstuffs	Ing. Michal Zálešák	doc. RNDr. Jan Růžička Ph.D.
IGA/FT/2016/013	The preparation and characterization of patterned surfaces used for the formation of polymer materials	Ing.Jan Kotěna	Ing. Antonín Minařík Ph.D.
<b>CENTRE OF POLYMER SYSTEMS</b>			
IGA/CPS/2016/001	Biological properties of polymers	Mgr. Petra Rejmontová	doc. Ing. Petr Humpolíček, Ph.D.
IGA/CPS/2016/002	A thin polymer layer with carbon nanofillers based percolation networks for VOCs detection	Ing. Michal Kovář	doc. Ing. Petr Slobodian, Ph.D.
IGA/CPS/2016/003	In situ polymerization of poly (ethylene glycol) diacrylate based hydrogel electrolyte in flexible supercapacitors	MSc. Haojie Fei	doc. Nabanita Saha M.Sc. Ph.D.
IGA/CPS/2016/004	Preparation and Characterization of Bioactive Polymer Systems	Ing. Pavlína Holčapková	doc. Ing. Vladimír Sedlářík, Ph.D.
IGA/CPS/2016/006	Synthesis of functional fillers on the basis of metal oxides and sulfides	Ing. Milan Masař	doc. Ing. et Ing. Ivo Kuřítká, Ph.D. et Ph.D.
IGA/CPS/2016/007	Preparation and characterization of functional polymer materials for thin films applicable in printed electronics and sensor technology	Ing. Jakub Ševčík	doc. Ing. et Ing. Ivo Kuřítká, Ph.D. et Ph.D.
IGA/CPS/2016/008	Magnetorheological elastomers based on modified filler and preparation of advanced suspensions of magnetic particles	Ing. Martin Cvek	doc. Dr. Ing. Vladimír Pavlánek
IGA/CPS/2016/009	Optimization of viscoelastic properties of polyolefin blends intended for preparation of foams with controlled inner structure	Ing. Věra Čáňová	doc. Ing. Tomáš Sedláček Ph.D.
<b>FACULTY OF MANAGEMENT AND ECONOMICS</b>			
IGA/FaME/2016/001	Enhancing Business Performance Through Employees' Knowledge Sharing	Ravindra Hewa Kuruppuge	doc. PhDr. Ing. Aleš Gregar, CSc.
IGA/FaME/2016/003	Project of analysis of modern economic and managerial tools in hospitals	Ing. Bc. Šárka Papadaki, Ph.D.	Ing. Bc. Šárka Papadaki, Ph.D.
IGA/FaME/2016/004	Economics of quality and its impact on the efficiency of business processes and their parameters in Czech enterprises	Ing. Marie Čermáková	prof. Ing. Felicita Chromjaková, Ph.D.

IGA/FaME/2016/005	Alternative systems of planning, budgeting and cost allocation in the context of performance measurement in the private and public sectors	Ing. Jiří Dokulil	doc. Ing. Boris Popesko, Ph.D.
IGA/FaME/2016/006	Enterprise's Competitiveness Influenced by Consumer Behaviour on Traditional and online markets	Ing. Michael Adu Kwarteng	doc. Ing. Miloslava Chovancová/ doc. Ing. Michal Pilík, Ph.D.
IGA/FaME/2016/007	Analysis of the main digital marketing tools for B2B companies and their optimisation	Elina Bakhtieva	doc. Ing. František Lipták, DrSc.
IGA/FaME/2016/008	The Impact of Accounting Information Quality on Business Environment	Ing. Eva Kolářová, Ph.D.	-
IGA/FaME/2016/009	The Use of New Marketing Trends for Increasing of Companies' Performance in Selected Areas of Economy	Ing. Jana Durdáková	doc. Ing. Pavla Staňková, Ph.D.
IGA/FaME/2016/010	Evaluation and management of cohesion policy interventions in relation to territorial development , with emphasis on the thematic areas of entrepreneurship , human capital and employment	Ing. Filip Kučera	doc. RNDr. PhDr. Oldřich Hájek, Ph.D.
IGA/FaME/2016/015	Generation Y talent retention in ICT companies	Ing. Gabriela Potočková	doc. PhDr. Ing. Aleš Gregar, CSc.
IGA/FaME/2016/016	Use of crowdsourcing in eGovernment	Ing. Mgr. Barbora Haltofová	doc. Ing. Jaroslava Kubátová, Ph.D./Ing. Jana Matošková, Ph.D.
IGA/FaME/2016/018	Enterprise Risk Management and Company's Value A cross Industry analysis of Companies in Czech Republic	Hamdu Kedir Mohammed	doc. Ing. Adriana Knápková, Ph.D.
IGA/FaME/2016/019	Enterprise competitiveness using sentiments analysis for process and product optimisation of Czech Telecommunication Companies	Ing. Stephen Nabareseh	doc. Ing. Petr Klimek, Ph.D.
IGA/FaME/2016/020	The Relationship between Customer Relationship Management (CRM) implementation and Firm's Performance in Small and Medium Enterprises (SMEs) in Changing Condition	Ing. Minh Vu Ngo	prof. Dr. Ing. Drahomíra Pavelková
SVK/FaME/2016/001	Students'Research and Professional Activity SVOC 2016	Ing. Petr Novák, Ph.D.	-
SVK/FaME/2016/002	12th Annual DOKBAT – International Bata Scientific Conference for Ph.D. Students and Young Researchers	Ing. Lukáš Danko	Ing. Jana Matošková, Ph.D.

#### FACULTY OF MULTIMEDIA COMMUNICATIONS

IGA/FMK/2016/002	Development of students team competence with potential for practice	Mgr. Romana Čočková	doc. Ing. Mgr. Olga Jurášková, Ph.D.
IGA/FMK/2016/003	Systematization cooperation of students and graduates with professional practice including the Centre of creative industries potential research	Mgr. Kateřina Šimčíková	doc. Ing. Mgr. Olga Jurášková, Ph.D.

#### FACULTY OF APPLIED INFORMATICS

IGA/FAI/2016/004	Identification, Simulation and Control of Motional States of Robotic Structures Display Strongly Nonlinear Behavior	Jiří Zátopek	doc. RNDr.Ing. Zdeněk Úředníček , CSc.
IGA/FAI/2016/005	Audio & Video Surveillance - Proposal for a system based on Beamforming	Martin Papež	prof. Ing. Karel Vlček , CSc.
IGA/FAI/2016/006	Advanced nonlinear and predictive control methods	Stanislav Talaš	prof. Ing. Vladimír Bobál , CSc.
IGA/FAI/2016/007	Communication interface of remote laboratories management systems at European level	Michal Krbeček	prof. Ing. František Schauer, DrSc.
IGA/FAI/2016/008	Data analysis using artificial intelligence methods in the system REMLABNET	Lukáš Pálka	prof. Ing. František Schauer, DrSc.
IGA/FAI/2016/009	Analysis of the SW tools for implementation of autonomously behaving and cooperating model of criminal group for the PSI education purposes	Petr Svoboda	doc. Ing. Luděk Lukáš , CSc.
IGA/FAI/2016/010	Methods for measuring the speed of bullets from handguns	Michal Gracla	doc. RNDr. Vojtěch Křesálek , CSc.
IGA/FAI/2016/011	Information support in organization	Lukáš Pavlík	doc. Ing. Luděk Lukáš , CSc.
IGA/FAI/2016/012	The development of attributes and linkages proposal for the development of an analytical tool for assessing the safety of soft targets	Lucia Procházková	Ing. Martin Hromada , Ph.D.
IGA/FAI/2016/013	Development of a protocol and a hardware with high protection against sabotage	Adam Hanáček	doc. Ing. Martin Sysel , Ph.D.

IGA/FAI/2016/014	Specification of ICS cyber security with a focus on IDPS	Jan Vávra	Ing. Martin Hromada , Ph.D.
IGA/FAI/2016/015	Analysis of the Functional Elements of Land Transport Infrastructure	Jan Mrázek	Ing. Martin Hromada , Ph.D.
IGA/FAI/2016/016	Research of Google Bouncer security mechanisms and security analysis of APK applications stored on file share servers using the recursive analyzer	Milan Oulehla	doc. RNDr.Ing. Zdeněk Úředníček , CSc.
IGA/FAI/2016/017	Simulations in real remote experiment	Michal Gerža	prof. Ing. František Schauer, DrSc.
IGA/FAI/2016/018	Administration of the remote laboratories, monitoring of the data flow, overloading of the communication lines and elimination of the failure in REMLABNET as virtualized environment	Pavel Beňo	prof. Ing. František Schauer, DrSc.
IGA/FAI/2016/019	Hybrid data warehouse providing real-time analytics for collecting RemLabNet data	Tomáš Komenda	prof. Ing. František Schauer, DrSc.
IGA/FAI/2016/020	Creating and integrating of new modules into the system RemLabNet	Petra Špiláková	prof. Ing. František Schauer, DrSc.
IGA/FAI/2016/021	Optimization of convective precipitation forecasts to increase the success rate predictions	David Šaur	doc. Ing. Luděk Lukáš , CSc.
IGA/FAI/2016/022	Research of modern software development methodics	Veronika Veselá	doc. Ing. Zdenka Prokopová , CSc.
IGA/FAI/2016/024	Autonomous wheeled robot motion control using a combination of sensor systems	Miroslav Popelka	doc. RNDr.Ing. Zdeněk Úředníček , CSc.
IGA/FAI/2016/025	Proposal control system of service robot model, the equations of motion and signal processing for subsequent detection of 3D scenes	Michal Šustek	doc. RNDr.Ing. Zdeněk Úředníček , CSc.
IGA/FAI/2016/026	Verification cybersecurity of BYOD devices in corporate environment	Jakub Nožička	doc. Mgr. Roman Jašek , Ph.D.
IGA/FAI/2016/027	Analysis of the physiological similarities between family members	Hana Talandová	doc. Mgr. Milan Adámek , Ph.D.
IGA/FAI/2016/028	Extension and Possibilities of Improvement of Polymorphous Block Cipher Modes of Operation from a Group PM	Petr Žáček	doc. Mgr. Roman Jašek , Ph.D.
IGA/FAI/2016/029	Autonomous monitoring system	Michal Václavský	doc. Mgr. Milan Adámek , Ph.D.
IGA/FAI/2016/030	Application of Methods of Artificial Intelligence in Model Predictive Control	Jan Antoš	doc. Ing. Marek Kubalík , Ph.D.
IGA/FAI/2016/033	Design of methods for achieving more efficient production and logistics systems	Milan Jemelka	Ing. Bronislav Chramcov , Ph.D.
IGA/FAI/2016/035	Calibration of MEMS sensors	Aleš Kunčar	doc. Ing. Martin Sysel , Ph.D.
IGA/FAI/2016/036	Smart fire-detection sensor based on PIR sensors	Peter Janků	Ing. Michal Bližňák , Ph.D.
IGA/FAI/2016/037	Estimation of the intrinsic value of a company stock based on discounted cash flow methods	Tomáš Tureček	Ing. Radek Šilhavý , Ph.D.
SVK/FAI/2016/002	Support of student research activities at FAI	Bronislav Chramcov	Ing. Bronislav Chramcov , Ph.D.

#### REGIONAL RESEARCH CENTRE CEBIA-Tech

IGA/CebiaTech/2016/001	Research of parameters for Environmental Engineering	Stanislav Sehnálek	Ing. Martin Zálesák , CSc.
IGA/CebiaTech/2016/002	Control System Design of mini-UAV	Tomáš Vogeltanz	doc. Mgr. Roman Jašek , Ph.D.
IGA/CebiaTech/2016/003	Ultra-thin tungsten layers	Tomáš Martínek	doc. RNDr. Vojtěch Křesálek , CSc.
IGA/CebiaTech/2016/004	Estimation of Permittivity of Materials in Free Space	Pavel Tomášek	doc. RNDr. Vojtěch Křesálek , CSc.
IGA/CebiaTech/2016/005	Measurement of Electromagnetic Interference in Near-Fields of Electronic Devices	Hana Urbančoková	Ing. Jan Valouch , Ph.D.
IGA/CebiaTech/2016/006	Software Support for Choise and Implementation of ITIL Tools	Lukáš Králík	doc. Ing. Roman Šenkeřík , Ph.D.
IGA/CebiaTech/2016/007	Hybridization of Computational Intelligence Techniques with Applications	Jakub Janoštík	doc. Ing. Zuzana Komínková Oplatková , Ph.D.
IGA/CebiaTech/2016/008	An empirical Analysis of .NET Framework and C# language Features' Adoption	Petr Čápek	doc. Ing. Roman Šenkeřík , Ph.D.

#### FACULTY OF HUMANITIES

IGA/FHS/2016/001	Teacher's belief in the pedagogical use of children's preconceptions	Kutálková	doc. PaedDr. Adriana Wiegerová , Ph.D.
IGA/FHS/2016/002	Promoting social inclusion of exceptionally gifted children	Mgr. Eva Machů , Ph.D.	x
IGA/FHS/2016/003	Family and its influence on educational aspirations of primary school pupils	Mrázková	doc. PaedDr. Jana Majerčíková , Ph.D.

IGA/FHS/2016/004	The influence of institutions on the situation of the children's home in procreation family	Malásková	doc. Mgr. Soňa Vávrová, Ph.D.
IGA/FHS/2016/005	Formation of multicultural competencies of university students in faculties providing teaching specialization	Špaček	doc. Mgr. Martina Cichá, Ph.D.
SVK/FHS/2016/001	Forum of young researchers	x	doc. PaedDr. Adriana Wiegerová , Ph.D.