

Report on the Activities of Science and Research

Faculty of Economics Technical University of Liberec

2014

1. Research, Development and other Activities

The main directions of the research, development and innovation activities of the faculty are set out in the Long-term Plan. With regard to the focus of the study programs, three main research orientations were formulated. The Economics and Management program focuses on strategic management of business performance; the topic of the Economic Policy and Administration program is Good Governance for functioning governance; and the System Engineering and Informatics Program focus is on Agile Information Services as an important attribute of system approaches.

In the area of targeted support, one program project in the social science program OMEGA of the Technology Agency of the Czech Republic was solved at EF TUL in 2014: ***“Regional Price Index as an Indicator of Real Social and Economic Disparities”***.

In cooperation with the Institute of Management of the Catholic University in Ružomberok, the three-year international research project *“Improving the Performance of Production Processes”* provided by the European Economic Interest Association in Brussels was completed.

Within the framework of contract research, two contracts were solved for the application sphere. For the company KORID LK, the *Survey of Selected Indicators of Transport Service on the Tram Line No. 11* was carried out. For the Statutory City of Liberec, documents were prepared for processing and updating the system of Territorial Analytical Data for the Municipality of Liberec with extended competence. Both were carried out in relation to the results of the TACR Project TD010029 *“Definition of Sub-regions for Differentiation and Solution of Social and Economic Disparities”*.

Operational Programs Financed by EU Structural Funds					
Project (number)	Operational program	Implementation period (from-to)	Total financial amount provided (CZK)	Financial amount provided in 2014 (CZK)	Area supported (short, concise)
CZ.1.07/2.4.00/17.0054	OPVK	2011-2014	4 483 061	502 017	Cooperation between universities and the public sector, competitiveness, international cooperation
CZ.1.07/2.2.00/28.0317	OPVK	2012-2014	17 494 804	5 557 271	Innovation of study fields, e-learning support for teaching at EF TUL
CZ.1.07/2.2.00/28.0233	OPVK	2012-2015	11 098 308	3 829 637	Change of teaching academic foreign language for specific purposes in the tertiary sphere
CZ.0.07/2.2.00/28.037	OPVK	2012-2014	2 670 730	530 188	Innovation of the Doctoral Study Field
TOTAL			35 746 903	10 419 113	

In 2014, four innovative projects from the operational program *Education for Competitiveness* were solved at EF TUL.

TUL has also been involved in a project to support the European Research Area within the Regional Contact Organization (EUPRO II project).

Publishing of the scientific journal *E + M Economics and Management*, which is included in the database of Journal Citation Reports - Social Sciences Edition and was given an impact factor of 0.422, continued for the seventeenth year.

Scientific Conferences

In September 2014, EF TUL organized the IMEA Doctoral Conference together with the Liberec Informatics Forum Conference, which is organized by the Department of Informatics of EF TUL.

The IMEA conference is organized annually by one of the faculties of the University of Pardubice, the University of Hradec Králové and the Technical University of Liberec.

In May 2014, the Department of Business Economics and Management in cooperation with VÚTS a.s. organized the seventh Symposium of Human Resources Development in Science and Research 2014 at the Sychrov State Chateau.

Support of Post-doctoral Staff

EF TUL is involved in the university-wide project *Supporting the Creation of Excellent Research and Development Teams* at the Technical University of Liberec. The project is implemented within the Operational Program Education for Competitiveness, the area of Human Resources in Research and Development Support.

Cooperation with Application Sphere and Transfer of Innovations

In 2014, EF TUL established the Office of Analyses and Studies for the **Transfer of Science and Research Results**. The aim of the office is to cooperate with practice in the long term by offering a variety of courses, e.g. Marketing, Statistical Data Processing or Business Process Optimization.

A traditionally successful element, what is focused on the transfer of innovation between the academic and application spheres, is a connection of particular study subjects with the Preciosa Crystal Challenge (PCCH) competition of the partner company Preciosa. Within PCCH, student teams create projects that often result in almost completely created business plans, including prototypes of new or innovated products, therefore representing first stages of would-be start-ups. At the end of the year, EF TUL representatives launched the Student Business Club initiative, which aims to support the business environment at TUL and create real start-ups with TUL support.

Number of Contracts Concluded with the Application Sphere Subject to Use Research, Development and Innovation Results

Revenue from Contractual (Contracted) Research and Development

Involvement of the Faculty of Economics TUL in Contractual Research				
Project (number)	Internal project number	Implementation period (from-to)	Total financial amount provided (CZK)	Area of Cooperation
KORID LK, s.r.o.	4868/3410	2014	56 000	Survey of selected indicators of transport services on the tram line No. 11
SML – Municipality of Liberec	4992/3300	2014	122 000	Updating the system of territorial analytical materials for the Municipality with extended competence Liberec
TOTAL			178 000	

In 2014, two new contracts were concluded for the use of research results from the Technology Agency of the Czech Republic project TD010029. In 2014, EF TUL received a total of 178 000 CZK from contracts for contract research for the company KORID LK and the Statutory City of Liberec.

Revenue from Paid Courses

In 2014, EF TUL founded the Office of Analyses and Studies to expand its cooperation with the application sector to transfer the results of science and research. The area of this office is active long-term and systematic cooperation with practice. The office commercially offers management courses on various topics, such as marketing market research, statistical data processing from various surveys or internal company data, and optimization of production and other processes in companies. The newly established office managed to realize one commercial course in the field of law.

Operating in the Region

EF TUL has had a long-term cooperation with the Regional Authority of the Liberec Region and the Municipality of Liberec in the preparation of regional development strategies and plans.

In 2014, cooperation with the city on the creation of materials for the analysis of sustainable development of the territory and evaluation of the economic pillar of territorial analytical materials (ÚAP) for the ORP Liberec took place, which followed the successful evaluation of the economic pillar in 2010 and 2012. The Faculty is also a member of the Liberec Tourism Association and a member of its narrower Council body.

2. Internationalization

Strategies for the Development of International Relations and International Environment

EF TUL formulates its international strategy as part of TUL. The fact that the faculty significantly contributes to the creation and implementation of the international strategy of the university is evidenced by the fact that two members of EF TUL management worked in the Internationalization Team of the Ministry of Education, Youth and Sports IPN Kredo “Quality, relevance, efficiency, diversification and openness of higher education in the Czech Republic. Higher Education Strategy to 2030” in 2014.

Internationalization is one of the faculty's priorities and is reflected in very concrete steps. Above-standard international relations with partner universities are built on this basis, thus joint study programs such as joint degression or double degression, joint international projects and other activities can be realized.

The internationalization of the faculty in the field of research and innovation activities also include the establishment of cooperation with another British university - the University of Staffordshire, where there are points of contact for joint research. A similar effect can be expected from the cooperation with the Finnish University of North Karelia, whose representatives visited EF TUL in 2014 with specific topics of cooperation, as well as the forthcoming multilateral international project Erasmus Plus coordinated by the partner university of Zwickau. Inspiration for applied research, creation and support of start-ups and spin-off companies can be drawn from Canadian, British and Finnish partner universities.

Co-operation with the University of Chemnitz continued as part of the Transnational Career Service project aimed at career support for students. At EF TUL, the non-profit organization AIESEC was set up, offering EF TUL students job opportunities abroad. In 2014, the International Staff Week was held for the first time and successfully at the TUL as part of the Erasmus program. EF TUL representatives participated very significantly on its organizing.

3. Quality Assurance and Evaluation of Implemented Activities

For the internal evaluation of the quality of education, anonymous assessment by students is used, executed via a survey in IS STAG each semester. Further, evaluation is carried out annually on the basis of observations of the heads of Departments, resulting in suggestions for innovation of courses and curricula, including staffing.

In 2014, a new methodology for evaluating the quality of teaching was prepared within the INPROTUL project at the Faculty of Economics TUL.

In 2014, the Faculty of Economics TUL underwent a standard process of re-accreditation for several fields of study.

Benchmarking with Similarly Oriented Universities

To compare research results with similarly oriented universities in the Czech Republic, the faculty uses the evaluation of research and development results of research organizations (including public universities), which is carried out annually by the Research, Development and Innovation Council in a rolling manner over the past five years on the basis of approved methodology.

National and International Excellence of the Faculty of Economics TUL

Membership in International Associations, Organizations and Societies

doc. Ing. Klára Antlová, Ph.D. - member of the Editorial Board of the Information and Communication Technologies magazine for the Advanced Enterprises (Portugal)

prof. Ing. Lubomír Cyhelský, DrSc. - member of the International Statistical Institute (ISI), The Netherlands

Ing. Vladimíra Hovorková Valentová, Ph.D. - member of ACC NISA Economic Section

prof. Ing. Jiri Kraft, CSc. - member of the Editorial Board of Inžinerinė Ekonomika (Lithuania), member of the Editorial Board of Kreativnaya Ekonomika (Russia), member of the Board of Directors of TUD IHI in Zittau

prof. Ing. Ivan Jáč, PhD. - member of ACC NISA - Academic Coordination Center of the Euroregion Neisse

PaedDr. Helena Neumannová, Ph.D. - ACC NISA Academic Coordination Center of the Euroregion Neisse, Head of the Secretariat, Consulting Coordinator, Member of the Presidium

doc. Ing. Jan Skrbek - member of IGIP - International Society for Engineering Pedagogy, Austria, member of Comenius Academic Club (American-Czech Club)

doc. Ing. Miroslav Žižka, Ph.D. - member of editorial board of Creative and Knowledge Society - International Scientific Journal (Slovakia)

Members of the Department of Economics are members of RSAI - Regional Science Association International

Membership in Professional Associations, Organizations and Societies

doc. Ing. Klára Antlová, Ph.D. - Secretary of CSSI - Czech Society for System Integration

prof. Ing. Lubomír Cyhelský, DrSc. - member of the Czech Statistical Society, member of the Czech Demographic Society, member of the Slovak Statistical and Demographic Society

prof. Ing. Ivan Jáč, Ph.D. - member of the Czech Economic Society, Member of the Board of the District Chamber of Commerce in Liberec

prof. Ing. Jiri Kraft, CSc. - member of the Czech Economic Society

doc. Ing. Šárka Laboutková, Ph.D. - member of the Czech Economic Society, member of the Czech Society for Political Sciences, member of the Editorial Board of the scientific journal Ekonomické listy

Mgr. Jiří Rozkovec - member of the Czech Society of Operational Research

doc. Ing. Petra Rydvalová, Ph.D. - member of the Regional Contact Organization within VÚTS Liberec, a.s.

doc. Ing. Jozefína Simová, Ph.D. - Chairwoman of the Regional Club of CMS Liberec - Czech Marketing Society

doc. Ing. Jan Skrbek, Dr. - member of CSSI - Czech Society for System Integration, Chairman of the North Bohemian Section

Ing. Olga Malíková, Ph.D. - member of the Chamber of Auditors of the Czech Republic, examiner for certification of auditors in the subject Financial Accounting II of Commercial Insurance Companies

Ing. Dana Nejedlova, Ph.D. - member of the Union of Czech Mathematicians and Physicists

doc. Ing. Miroslav Žižka, Ph.D. - member of the Accreditation Commission for Higher Professional Education

Department of Marketing and Trade - member of the Czech Marketing Society and the Association of Czech Travel Agencies

4. Profile and Research Activities of Individual Departments

DEPARTMENT OF ECONOMICS

Department Profile

The Department of Economics focuses on the areas of economic theory, economic and regional policy, European economic integration, world and developing countries economy.

Research Activity

The key research activity in 2014 was the implementation of the TACR project “Regional Price Index as an Indicator of Real Social and Economic Disparities”. The main objective of the project is to find methodological ways of assessing and addressing real sub-regional disparities in the Czech Republic by adjusting nominal indicators through regional price indices (RPI, certified method), which will allow spatial comparison of price levels. The most widespread form of scientific work is participation in solving research projects, participation in international conferences with own contributions and professional publishing. In 2014, the conclusions of research activities were published in 2 articles in impacted journals, 1 article in a journal indexed in the ERIH database, and 6 articles in foreign peer-reviewed journals. In 2014, members of the Department of Economics actively participated in international conferences in the Czech Republic and abroad, 19 papers were published in WoS or SCOPUS proceedings. One GACR standard grant and one GACR junior grant were submitted. In 2014, the Department realized 6 projects within the Student Scientific and Professional Activities and 1 project of the Student Grant Competition.

Contact with Public

Academic staff members are members of ERSA and the Czech Economic Society.

DEPARTMENT OF FINANCE AND ACCOUNTING

Department Profile

The specialization of the Department in pedagogical and research activities has been focused for a long time on two basic lines: accounting and taxes, finance and financial management of business entities.

Research Activity

An integral part of the Department's work is the research activities carried out by members of the Department in 2014 by participating in the faculty's scientific research plan and within two awarded grants of an internal student grant competition with their doctoral students. The research results were presented in the form of expert articles in renowned domestic and foreign journals or in proceedings from international scientific conferences. Their outputs were focused on evaluation in RIV.

Public Relations and International Cooperation

The members of the Department have been cooperating with the Finansów and Rachunkowości Departments at the University of Economics in Wrocław for a long time. One of the members of the

Department went to a study stay at the Lillebaelt Academy of Professional Higher Education, Denmark. Two members of the Department went to Vives University College in Kortrijk - Belgium. One Ph.D. student attended the Summer School on Accounting, organized by the University of Vienna in Vienna.

DEPARTMENT OF INFORMATICS

Department Profile

Department of Informatics has been focused for a long time on agile approaches to support information processes in organizations, especially in relation to new possibilities of information and communication technologies (ICT) and system analysis.

Research Activity

In 2014 the SGS project “*Agile Approaches to Information Support in Solving Emergency Situations*” was solved at the Department. Employees of the Department applied for the GACR project “*Model of ontology of early distribution of information in emergency situations*”. KIN staff and PhD students published 27 papers (including 1 chapter in a foreign monograph, 2 articles in foreign journals and 15 papers at conferences with prerequisites for inclusion in the WOS database) and 1 SW product. The system of continuous records of scientific and research activities, established at KIN, was prepared in 2014 for implementation across the university.

A member of the Department was a co-researcher of the international research project “*Evaluation Management of Information Systems and Technologies in Hospitals in the Czech Republic*” in cooperation with The Center for Information Technology CTI / GESITI - Brazil (2012-2014).

In cooperation with the North Bohemian Section of CSSI, the Department organized the *10th International Scientific Conference Liberec Informatics Forum*, which was held on 25 and 26 September 2014.

Contact with Public

The Department members are represented in a number of professional societies. Specifically, in 2014, foreign companies Comenius Academic Club and International Gesellschaft für Ingenieur Pädagogik, such as the Council of Universities, the Czech Society for System Integration, the Union of Czech Mathematicians and Physicists and the Czechoslovak TeX Users Association.

Two teachers are members of a total of 3 scientific boards and 2 doctoral boards.

A member of the Department is the guarantor of Multimedia courses within the EDUTECH project (“Children's University”).

DEPARTMENT OF MARKETING AND TRADE

Department Profile

The Department is focused on marketing and pedagogical and research activities and marketing strategies, marketing research, marketing and corporate communications and ads. It also specializes in consumer behaviour and customer value, international trade and international law.

Research Activity

Two SGS projects were implemented at the Department, the output of which was the creation of a model of internet communication for companies in the hotel industry and a concept of customer value in terms of internet shopping. In addition, two projects were submitted and accepted within the TU 2015 Institutional Plan, the IPR project - “development projects”, the TU Chemnitz project - *Transnational Career Service* and the *Kredo* project. The members of the Department participated in the implementation of the faculty research plan.

Contact with Public

The members of the Department cooperate with representatives of companies in the field of professional training, topics of final theses and lectures of experts for students. An example is cooperation with Kofola, a.s., Kitl, s.r.o., ABET HOLDING, a.s. or ABIX Europe, s.r.o.. Maintaining active contacts with faculty graduates enables students to be involved in practical projects. The head of the Department was a member of the expert team of the *Integrated plan for the development of the agglomeration of Liberec - Jablonec nad Nisou* (IPRÚ). Two members and a PhD student work in two expert groups for the area of “education” and “services and trade” of the Employment Pact of the Liberec Region.

DEPARTMENT OF BUSINESS ADMINISTRATION AND MANAGEMENT

Department Profile

The Department focuses on three areas: business environment, business process management and relationships between organizations, and strategic business management.

Research Activity

In 2014, the Department carried out contractual research for the Municipality of Liberec under the title “*Economic Background for Processing and Updating the System of Territorial Analytical Data for the Municipality with Extended Competence Liberec*”.

Two research projects were successfully completed and defended. In cooperation with KU Ružomberok, it was the international project “*Improving the Performance of Production Processes*” with the European Economic Interest Association in Brussels as contracting authority. Furthermore, activities were carried out in a VÚTS, a.s. project within the framework of EUPRO II under the title “*Regional Contact Organization Liberec - Contact for the European Research Area*”.

In 2014, the Department of Analyses and Studies was initiated at the Department. Its activity was launched in connection the successfully finished project TACR – Omega in 2013.

In May 2014, the Department in cooperation with VÚTS a.s. organized the seventh *Symposium of Human Resources Development in Science and Research 2014* at the Sychrov State Chateau. The main objective of the symposium was to respond to the directions of human resources development set out in the Horizon 2020 program. The main topics were: sector and international mobility, education in data management and promoting interdisciplinary cooperation in education.

In 2014, the Department academic staff submitted a bilateral GACR project, and were also involved in the preparation of Horizon 2020 projects submitted throughout TUL.

Contact with Public

In 2014, the Department offered business environment courses, namely in the area of legislative changes (NOZ, ZOK), and also in the area of work safety and quality management. Educators also took part in the 3rd year of the Jizera Mountains Champions Meisterschule for selected employees of HAAS + SOHN Rukov s.r.o., CiS Systems s.r.o. and Novus Česko s.r.o..

In the area of business management and its processes the Department cooperated in particular in with representatives of Preciosa a.s., Detesk, s.r.o., Lasvit a.s., VUTS, a.s., Bilsing Automation Czech, s.r.o., etc. in 2014. This enables the elaboration of high-quality final theses, professional students competitions and thus also high-quality preparation for their entry into practice.

In the area of business environment, the Department continues to cooperate with selected departments of the Regional Authority of the Liberec Region, the ARR - Regional Development Agency s. r. o., Corridor LK s. r. o., District and Regional Chamber of Commerce in Liberec, Municipality of Liberec and others.

DEPARTMENT OF ECONOMIC STATISTICS

Department Profile

In the area of teaching and research, the Department is involved in a wide range of statistical sciences, including statistical, econometric, economical-mathematical and operational research methods applicable in all areas of economic life. The second line of specialization of the Department members is the insurance and social policy area.

Research Activity

In 2014, the Department had 3 own projects and participated in 5 projects of other departments (Innovation of interdisciplinary study program Economics and Management with focus on the knowledge economy, Regional Price Index as an Indicator of Real Social and Economic Disparities, Agile Information Support Approaches in Emergency Management, Identification of Changes and Analysis of Transformation and Harmonization of Czech Insurance Legislation with EU Legislation, From the Concept of Good Governance to a Better Economic Environment and a Working Economy).

Own projects:

“Approach to Dealing with Natural Disasters in EU Countries“. The aim of the project was to propose an optimal model of natural disaster management for the Czech Republic. Selected partial outputs were published at international scientific conferences.

“Survey of selected traffic indicators on tram line No. 11“. The contracting authority was KORID LK, s.r.o. It was aimed at identifying certain indicators of transport services, which should serve as a basis for the creation of a transport plan for 2015. Selected aspects of the project were presented at the conference MSED 2015 in Prague at the University of Economics, Prague.

“PLASTON CR, s.r.o. Employee Satisfaction Survey“. It is a contractual project where the task of the Department is to prepare a questionnaire focusing on aspects of work in the company, which may contribute to the satisfaction or dissatisfaction of the company employees, provide guidance on how to collect data, and evaluate data from the survey.

The publication activity was aimed at summarizing the results of current and ongoing research projects.

Contact with Public

In 2014, the Department successfully started cooperation with some companies, when for KORID LK, s.r.o. it carried out a survey of transport services indicators. In addition, the Contract for Work was signed with PLASTON CR, s.r.o., which is interested in assigning selected topics of final theses to EF TUL students and also offers them the possibility of training in selected Departments of the company.

Conclusion

In the area of research and creative activities, the increasing means of institutional support enabled the creation of a three-year research focus concept that is linked to individual study programs. The aim of this concept was to clearly specify the specialization of research activities of the Departments towards the development of educational fields at the faculty. Further, to deepen the knowledge base In order to increase the success of the submission of project proposals, both in the basic area and applied research.

Cooperation with the application sphere in the area of contract research was intensified. Following the completed project of the Technology Agency of the Czech Republic, two contracts were executed for KORID LK and for the Statutory City of Liberec. Given the decreasing number of students and the financial resources associated with educational activities, it appears necessary to strengthen complementary economic activity. For this reason, an analysis of the outputs of departments which can find employment in the commercial sphere, was carried out. A set of commercial courses for the public was prepared. To improve communication with businesses, the Analyses and Studies Office was set up and steps were taken to become independent in the following year.

An important event in the activities of the faculty was the organization of the 14th International Conference of Students of Doctoral Programs IMEA 2014, which took place on 25 and 26 September 2014 in the premises of Sychrov Castle. In parallel, the Liberec Informatics Forum Conference took place in cooperation with the North Bohemian branch of the Czech Society for System Integration.