American Fund for Czech and Slovak Leadership Studies

Leadership in Fostering Academia and Industry Cooperation
Proposal of Dr. Sc. Zdenek Vrbka

Background

I am doctoral student at the Faculty of Informatics, Masaryk University, Brno, Czech Republic. In June 2009 I was appointed to the position of Coordinator of the Service, Science, Management, and Engineering Program (SSME).

A detour: SSME is a master study program which reflects the needs of businesses for IT professionals. Apart from education in informatics, this study provides students with broader multidisciplinary overview, especially in management, presentation and communication skills or service economy principles. Integral part of SSME study is a half-year internship in service-oriented company – so called Interim Project. Contrary to the common internships, the scope of students' work is closely associated with theoretical knowledge provided by SSME study. From SSME point of view, Interim Project enables to prepare graduates for their immediate application in the business environment.

As SSME Program Coordinator, I am responsible mainly for strategy and management of the Interim Project including communication with business partners and coordination. I cooperate with the SSME Program Leader and together with my colleague prepare most of the strategic and operative documents.

Within SSME Program activities I also teach new course PV218 Testing. This course is the first course at our faculty focused on complex testing process (in the Czech Republic, especially in academic sector, testing is still underestimated discipline and teaching of this discipline is little bit of pioneering - however, the business sector requires more and more graduates with ability to manage testing and quality of software products).

Currently, I also participate on the project SOSIRECR (Social Network of Informatics in Regions of Czech Republic) in position of regional contact point for Masaryk University. The goal of this project funded by European Union is to support the cooperation between ICT graduates and between the academia and industry in ICT sector.

Since fostering the cooperation between academia and industry is complex, I would like to expand my experience through training and internship in America. First, I would like to take part in the courses at Loyola University Chicago which are in a perfectly matching my needs. At the same time, I would like to learn from colleagues from Loyola University Chicago how to support the cooperation between academia and industry and how to support realization of internship project of university students in business organizations.

Subsequently, I would like to stay for about another month at the University of Washington, Seattle, with SSME program so I could improve my coordination skills and to compare how SSME study programs are conducted in the US. I would also like to take the advantage of my stay in USA to improve my abilities to teach and communicate in English.

American Partners

My partners are Loyola University Chicago, for my executive training and the first part of my internship and University of Washington, Seattle, for the second part of my internship.

Loyola University Chicago (LUC):

A dear friend of mine, Sandra Kumorowski, is an Adjunct Professor of Integrated Marketing Communications & Career Development at Loyola University Chicago. I met Professor Kumorowski completely incidentally during summer 2009 (Professor Kumoworski will teach SSME INTENSIVE INTEGRATED MARKETING COMMUNICATIONS STRATEGY COURSE at Faculty of Informatics, Masaryk University, Brno in May, 2010). Wth her help and Dr. Chandra N. Sekharan, who is the Department Chair for Computer Science, I would like to take the following two courses taught at Loyola University Chicago:

> **MGMT 430 Strategy and Leadership**
> **MGMT 474 Strategic Management**

The graduate courses tuition is $ 3,672.00 per course.

At the same time I would like to follow the instructor of course **COMP 370: Software Quality, Metrics, and Testing** and the instructor of course **ISOM 798 Quality in Systems Development** to learn how testing is taught at a US university, to improve my teaching skills and possibly to adjust the content of my course PV218 Testing.

I would also implement the first part of my internship at Loyola University Chicago. LUC colleagues have great experiences with organization of students' internship in business organizations and with leading of master study programs. My stay at LUC might prove helpful for both sides – I can provide LUC with my experience with SSME program coordination and with cooperation between academia and industry in the Czech Republic. I would also like to discuss the possibilities of students exchange between our universities.

I plan to schedule my stay at LUC for August 20 – November 20, 2010 (Fall Quarter 2010).

University of Washington (UW), Seattle:

University of Washington has a Global Integrated Systems Engineering program (GISE), which belongs into SSME programs. Similarly to Faculty of Informatics, Masaryk University, Brno, the GISE includes students' project (so called the Interim Project or the Design Project). This provides a culminating experience through which students bring together the systems analysis and design, project management, and financial modeling skills they have learned in the previous semester and apply them to a real-world problem using real data and presenting their results to an evaluation panel comprised of practitioners, academics, and client representatives.

It would be a great opportunity to share experiences with SSME program management and the Interim Project management and to learn how colleagues from the University of Washington assure the sustainability of the cooperation between academia and industry. I would also like to set up exchanges between instructors and students with SSME program at the Faculty of Informatics, Brno.

I plan to schedule my stay at UW for January 10 – February 15, 2011.

Objectives

- Advanced development of my leadership skills in fostering of academia and industry cooperation needed for my positions at Faculty of Informatics, Masaryk University, Brno.

- Improving my teaching skills in software quality and testing and teaching skills in general.

Detailed Description

As a coordinator of innovative highly-demanding master study program SSME I need to develop further my skills for successful work in this field. Although results of SSME program are quite good (75 students, 17 business partners currently), I would appreciate to have the opportunity to learn from my colleagues how to manage the SSME program to its sustainability and better efficiency. Having the knowledge and experiences from US universities I would be in a better position to coordinate the required changes and to promote the SSME study to the students and the public.

I would like to gain new experience and skills for fostering of academia and industry cooperation in Brno, the Czech Republic. Current cooperation between academia and industry in the Czech Republic in general is insufficient and fails to assure long term equilibrium between the knowledge and practical experience for our graduates and business needs. I would like to adjust the design of the cooperation model between academia and industry and prove its successfulness on SSME program at our faculty.

I would also like to take the advantage of my stay at LUC to improve my teaching skills in software quality and testing and my teaching skills in general. It would be a privilege for me to have the opportunity to learn how to improve the content of the course PV218 Testing in cooperation with processionals from Loyola University, Chicago. My ultimate goal is to create a set of courses for software quality and testing at the Faculty of Informatics, Masaryk University, that would provide my students with deeper understanding of this subject and improve the ability of our graduates to manage software development projects more successfully.

For the second part of my stay I would like to practice my new knowledge and share my experiences with colleagues managing SSME program at University of Washington, Seattle. I believe this experience will foster my ability to coordinate SSME program and participate in the development of its strategy and management.

Organization and Time Schedule

Because of my working and academic duties I have to split my stay into two parts. The organization of my stay might be split ideally in the following way:

Chicago (Loyola University Chicago): August 20 – November 20, 2010.
Seattle (University of Washington): January 10 – February 15, 2011.

Program Cost

It is difficult to plan program cost exactly but after consulting with my American colleagues I estimate the program costs as follows:

Item	Cost in US$
Executive training seminars	2 x 3,672.00
Internship	0
Administrative fees (visa, registration fees, etc.)	500
International travel	2 x 1,200.00
Local transportation	500.00
Medical insurance	800.00
Monthly maintenance (accommodation, transportation, food)	2,000.00 (x 4 months)
Contingency	500.00
Total	**20,044.00**

To demonstrate my strong interest, I have agreed to contribute $$5,044 to my program cost.

Program Benefits

At this point I can hardly find any other project that could better fit my needs. As SSME program coordinator I develop the cooperation between academy and industry and cooperate in the development of the program strategy. The enhancement of my leadership skills and experiences gained in the US will strengthen my position and improve my work.

Although the Faculty of Informatics, Masaryk University, Brno, is the top faculty in informatics education in the Czech Republic and is the first in the Czech Republic and so far the only one which has SSME program accredited by the Czech Ministry of Education, it must strive a lot to become an above average university in the EU and to remain one of the leaders in SSME education. As a SSME program coordinator with contacts in the US I will be able to develop international cooperation between SSME programs between Masaryk and American universities. Also, I intend to use my US experience to change a rather conventional teaching methods at our faculty.

Risks

- Academia and industry cooperation environment in the Czech Republic different from the US

- University processes, strategies and history of the Masaryk University different from US universities

- Way of teaching in the Czech Republic is different from US

I believe above mentioned risks could be mitigated by well applied usage of my gained experience and skills from my program.