

SUCCESSFUL PARTNERSHIP IN EDUCATION, RESEARCH AND PRACTICE BETWEEN GERMAN AND CZECH UNIVERSITIES

Authors:

Rainer F. Haller , University of Applied Sciences, Regensburg, Germany,
rainer.haller@e-technik.fh-regensburg.de

Abstract – A successful collaboration between a Czech and a German university is described. New qualities from such collaboration can be obtained, if the possibility of carrying out of high - level engineering projects related to practical problems is given. These goals can be reached, if a third partner, namely regional enterprises, are involved in the collaboration. One of the successful ways is the creation of a foundation, sponsored by the enterprises and supervised by the university. An important condition for a successful, and above all permanent, collaboration is the harmonious link between the coordinating staff.

Index Terms – international collaboration, participation of enterprises, high - level engineering projects, PhD- students

History

One of the most important foundations for a high- level university education lies in the principle of “ unity of education and research” postulated in former times by Alexander v. Humboldt /1/. Related to the engineering education, this principle must be extended by the fact that the lessons, exercises etc., especially in later studies, should be closely related to practical problems. As shown in the described collaboration between the West Bohemian University (ZCU) of Pilsen (CZ) and the University of Applied Science (UAS) of Regensburg (G), this principle can also be extended to the improvement of relationships between universities.

The exchange of students and teaching staff between our two universities is based on existing EU- mobility- programs e.g. TEMPUS, SOCRATES, ERASMUS. In addition to that, over 12 years ago a bilateral contract between UAS and ZCU was signed, in which all kinds of possible collaboration were defined /2/. Of course, this contract was (and still is) very helpful for the practical realisation of existing EU- programs and especially for the expedient solution to temporary difficulties in (mostly) formal problems. This collaboration has since worked normally, but on a relatively low level (about 2 to 3 students per semester and occasional lecturers).

This collaboration became closer about 9 years ago when the electrical engineering departments of both universities commenced a closed partnership, related to relevant and common energy engineering problems. Initially, in addition to the scheduled lectures, a remarkable increase in visiting lectures was experienced. In this way the potential exchange students come into closer contact with the staff of each of the two universities, what resulted in a decrease in anxiety and also served to promote future interests. In addition to an increase in the number of students and staff on exchanges, a number of small engineering projects were carried out. For instance; Electromagnetic Interferences on Power Transmission Lines, Over- Voltage Problems in Networks etc. In the last 3 years the content of some equivalent lectures were homogenised and even a common book for teaching purposes in both universities was commissioned, initially in the English language, but in both languages is foreseen for the future.

This new kind of collaboration was also helpful in breaking down old ideological and cultural barriers between both students and teaching staff. German students have obtained excellent additional theoretical knowledge, based on the high level of theoretical tuition in Pilsen. Czech students were happy to be able to use the excellent conditions and practical resources available in Regensburg. Both sides have learned and profited enormously from one another, linguistically as well as technically. Necessary conditions for this process were common project interests. Nevertheless, the excellent human contacts, developed between the program co- ordinators and all participating colleagues, have greatly promoted this process.

University foundation

A new quality of relations was reached in 1999 when, initiated by the regional enterprises of Regensburg, a university foundation was created /3/. The initial intention of this foundation was to increase the number of Czech exchange students coming to Regensburg. The necessary funding was obtained through foundation

capital. This idea has enjoyed a considerable resonance in the region, up to now more than 50 small and medium sized enterprises have taken part in sponsoring the foundation. A distinct advantage lies in the fact that students, if they wish, have the opportunity of gaining practical placements in one of the foundation enterprises. Of course, this engagement of enterprises is also a small part of their marketing strategy, directed to the former eastern countries governments. This is especially relevant in light of the new situation within the EU. By this same means it is now also possible to undertake higher level engineering projects, interesting to highly qualified and motivated students such as PhD- candidates. Under these optimum conditions it should be possible to utilise the results obtained from such PhD- theses. This new kind of collaborative possibility has resulted in a significant increase in the number of exchange students, as shown on figure 1. Visible is also, the influence of the economic situation and connected structural problems, especially in smaller enterprises, on the number of available placements and consequently on high- quality of PhD- students. Successful arrangements for obtaining practical placement for high- level PhD- students with an enterprise rests to some extent on the efforts of the coordinating staff.

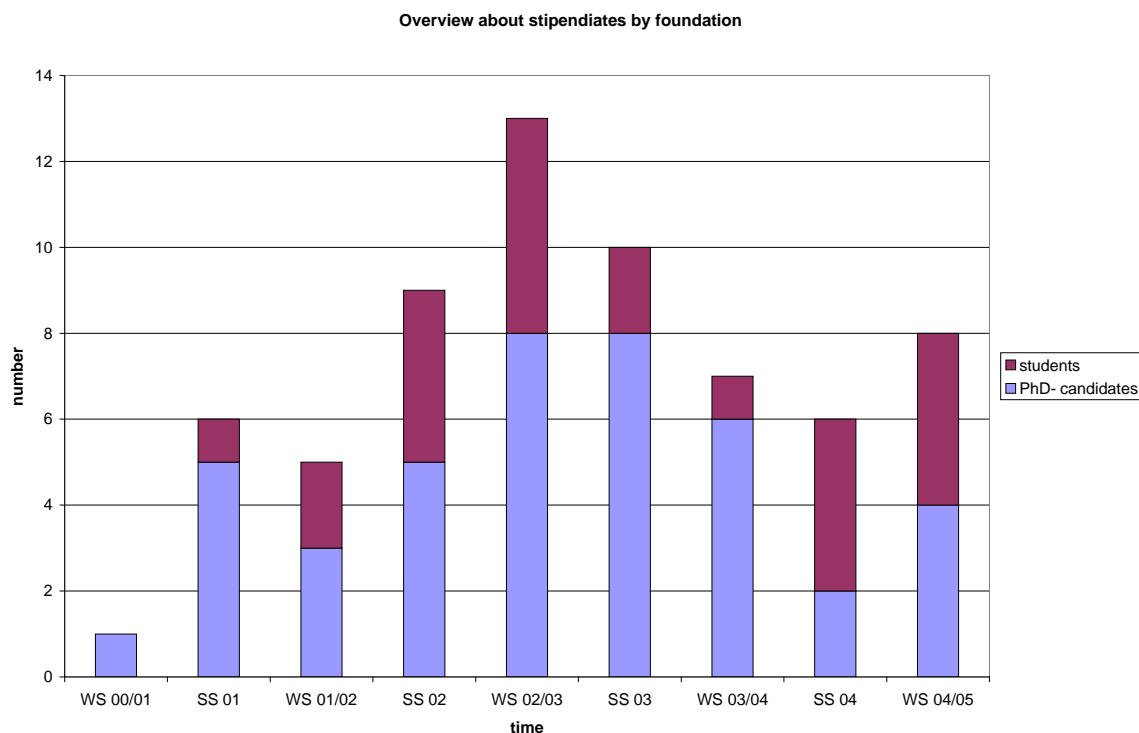


FIGURE 1: OVERVIEW OF THE EXCHANGED STUDENTS BASED ON FOUNDATIONS

Additionally, these new opportunities also enables closer scientific collaboration. Because the member of staff responsible is closely linked to the project carried out by the PhD- student, a suitable supervisor for the PhD- thesis from the other university is automatically available. Results Obtained will be published jointly either in suitable journals, or at appropriate conferences /4/.

This example of collaboration between two universities in two different countries together with participation of suitable enterprises in form of a foundation under supervision of the university demonstrates a new quality of international collaboration. The described method will be expanded in the future to include participation of another university (Brno) and also Czech industrial enterprises. Due to expansion of the capital base of the foundation it will be possible, to inaugurate a special visiting professorship, for instance for a lecturer of Plzen, in Regensburg.

Conclusion

In conclusion, the results of the excellent partnership are briefly listed:

- existing international programs for mobility of students and teaching staff are necessary
- additional bilateral contracts are helpful for the expedient solution to temporary difficulties
- the main component of a good and permanent collaboration is the harmonious link between the coordinating staff
- possibilities for carrying out higher level engineering projects, closely related to practical problems, promotes the quality of collaboration in a remarkable way. In this way the (regional) enterprises should be encouraged to

participate in such collaboration in specific ways – for instance by forming foundations or similar sponsoring- and for ensuring practical placements.

It can be postulated, that the old principle of the unity of education and research, necessary for a high quality university education extended to practical high-level engineering problems and their resulting solutions, is valid especially for the quality of international engineering collaboration between universities. For the realisation of these principles, partnership not only between universities, but also including (regional) enterprises is clearly necessary.

Finally, it should be remarked, that the described collaboration exists as an excellent example for successful partnership between politically very sensitive neighbouring regions, like Bavaria and Bohemia.

References

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