COMMUNIQUÉ:

INCREASING QUALITY AND PRODUCTIVITY OF ENGINEERING EDUCATION AND RESEARCH THROUGH INTERNATIONAL COOPERATION

International Engineering Education Partnership Workshop
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Saratov State Technical University
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Introduction

We begin with the premise that international cooperation in engineering, scientific and technological (EST) education and research enhances the quality of education and research programs. We believe that an education system that is informed by an international perspective also will prepare students better for a career in the world marketplace. International cooperation in EST education can also provide the cultural perspective that students need to become well-rounded engineers, scientists and technologists. These ideas have been expressed before by some of us[1], but herewith together, we wish to expand, reiterate and re-emphasize some of the main ideas.

Our principal motivation for international cooperation is the opportunity it creates for increasing productivity, by expanding the scope of work and the number of personnel involved for each collaborating team, by adding a unique perspective from another country, by sharing facilities and equipment and human capital, and by leveraging financial resources. In addition, we wish to increase the quality of engineering curriculum through international cooperation aimed to meet the human resources needs in our economic and technological development.

The dawning of the 21st century has led many universities to seek ways to broaden their EST education systems. We are seeking to ensure that our graduates possess the new knowledge base that is the foundation of new technologies. Since the economies of nations are increasingly interconnected, we are seeking to ensure that our graduates possess the broad education needed to be successful professionals. Through international partnerships, we seek to improve our own offerings, and gain recognition through international accreditation.

Furthermore, advances in information technology, in particular the presence of the Internet, have made it easier for us to communicate. We hope to use them to establish research and education partnerships with international implications.

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[1] R. Altenkirch, et al., "What We Must Do Together to Increase Quality and Productivity", Aung, W. et. al. (eds.), *INNOVATIONS 2003: World Innovations in Engineering Education and Research*, Int. Network for Eng. Ed. and Res. (iNEER), Arlington, VA, USA, ISBN 0-9741252-0-2, pp. 1-11 (2003)

Potential Topics for International Cooperation in EST Education and Research

We do not recommend any restriction on topics selected for international cooperation in EST education and research; however, we agree to the adoption of the following steps and possible topics for future interaction in the near term:

1 We agree to be personally involved in participating in and promoting international cooperation, especially between iNEER and Russian Association for Engineering Education (RAEE).

2. We agree to encourage our staff to increase their participation in international cooperation.

3. We agree to establishing an ongoing channel of communication among us and other individuals who wish to join in the future, with the goal of further developing and implementing concrete programs for international cooperation in EST education and research.

4. We agree to help organize and attend regular progress review meetings at international forums, to promote of the best-practice elaborated by iNEER consortium members among educational environment.

5. We agree to participate in the planning and attendance of special program development and review workshops, with venues and hosting institutions to be selected by rotation through volunteerism by the respective institutions.

6. We agree to identify qualified educators and researchers in our staff who will proactively look for international collaborating partners with similar specific research interests.

7 We agree to the following general topics as examples of areas for developing future cooperation, but we also welcome other topics to be identified and added from time to time:

a. Innovative approaches for distance learning, digital libraries and quality management of university educational systems.
b. Innovative approaches to address multilinguism.
c. Innovative approaches to address international assurance of quality and standards.
d. Establishing and implementating assessment and evaluation standards.
e. Integration of research and education in international partnerships.
f. Innovations in resolving intellectual property issues.
g. Innovations in institution-to-institution collaboration across international boundaries.
h. Approaches to international accreditation and standards.
i. Innovative approaches to international research-based student exchanges.
j. Development of joint degree programs.
k. University-industry cooperation in international cooperation.
l. Collaboration in senior design projects.
m. Establishment of international consortiums in research and education.
n. Innovative e-learning delivery methodologies including synchronous shared learning and asynchronous shared learning.
o. Joint development of e-learning courses and curriculum, and development of underlying technologies such as advancement in electronic information, multimedia technologies, and massive storage technologies.
p. Joint development of non-credit short courses at senior undergraduate and graduate level, and web-based course development.
q. Analysis, accreditation and standardization (harmonization) of university degree programs.

Signed:

FROM RUSSIA:

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Rector of Krasnoyarsk State Technical University	Prof. Podlesny Sergey
Vice-Rector of Tomsk Polytechnic University, Chair of RAEE Accreditation Board	Prof. Chuchalin Alexander
Rector of Taganrog State University of RadioEngineering	Prof. Zakharevich Vladislav
Rector of Kazan State Technical University	Prof. Degtjarev Gennady
Rector of Ivanovo State Power Engineering University	Prof. Nuzhdin Vladimir
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FROM OUTSIDE RUSSIA:

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