

Summary

ABET'S GLOBAL ENGAGEMENT

M. K. J. Milligan,
D. Iacona, J. L. Sussman
Accreditation Board for Engineering
and Technology (ABET), USA

This paper will discuss ABET's global activities in detail, with an emphasis on the accreditation of programs outside the US and the Washington Accord, and how these activities contribute to the quality improvement of engineering education around the world, and its impact on engineering education, and the profession.

EUROPEAN PERSPECTIVES ON THE COMPETENCES OF ENGINEERING GRADUATES

B. Remaud
University of Nantes, Commission of
certified engineers (CTI), France

The input-based approach to engineering education, which was the rule during the last century, is being replaced by the output-based approach for the design of the programmes as well as for their accreditation. In many institutions, the competences description seems close to a layer over the traditional pedagogical approaches; in particular, the definition and the assessment of the transferable skills are diversely implemented. We present and discuss the state of art in the French engineering education, and a survey to study the impact of these new approaches on the young engineers.

ORIGINS, PRESENT STATUS AND PERSPECTIVES OF THE EUROPEAN EUR-ACE ENGINEERING ACCREDITATION SYSTEM

G. Augusti
QUACING (Italian Agency for Quality
Assurance and EUR-ACE accreditation of
engineering programmes), Italy

In the EUR-ACE system a common European quality label (the EUR-ACE® label) is awarded to engineering education programmes accredited by a national Agency, under the condition that common Standards are satisfied. Nine Agencies are at present authorized to deliver the EUR-ACE® label. The history, development and future outlooks of EUR-ACE are summarized.

PROGRAM OUTCOMES: THE CORE OF PROGRAM ACCREDITATION

Özgüler A.B.
Electrical and Electronics Engineering
Department, Bilkent University, Turkey
Erçil M.Y.
Association for Evaluation and Accreditation of Engineering Programs (MÜDEK),
Turkey
Payzın A.E.
Association for Evaluation and Accreditation of Engineering Programs (MÜDEK),
Turkey
Platin B.E.
Mechanical Engineering Department, Middle East Technical University, Turkey

Program outcomes, which are statements defining the knowledge, skills, and attitudes that students must acquire by the time they graduate, is at the core of accreditation processes. MÜDEK is a non-governmental organization that carries out outcome-based evaluation and accreditation of engineering programs of Turkey. A comparative account, in the light of eleven years of experience, of the first cycle program outcomes of MÜDEK is given.

QUACING APPROACH TO EUR-ACE ACCREDITATION

G. Augusti, A. Squarzoni, E. Stefani
QUACING (Italian Agency for Quality Assurance and EUR-ACE accreditation of engineering programmes), Italy

The paper presents the QUACING approach to the EUR-ACE accreditation of Engineering programmes with reference to both accreditation conditions: the consistency of the programme outcomes established by the programmes with the EUR-ACE programme outcomes and a positive assessment of the programme quality.

DEVELOPMENT OF INDEPENDENT PUBLIC ACCREDITATION OF ENGINEERING EDUCATIONAL PROGRAMS IN RUSSIA IN THE 2000-2013 TIME-FRAME

Pokholkov Y.P.
Association for Engineering Education of Russia, National Research Tomsk Polytechnic University

The article presents the current overview of professional-public accreditation of engineering educational programs in the developed countries and describes the accreditation experience of AEER in Russia. Based on the conducted research and the decisions made at public hearings which were held in Saint-Petersburg, the amendments to the Federal Law "On Education", which are aimed at enhancing quality of engineering educational program accreditation in Russia, are proposed.

NEW EDUCATION LEGISLATIVE ACT AS DEVELOPMENT VECTOR OF NON-GOVERNMENTAL-PROFESSIONAL ACCREDITATION IN RUSSIA

Navodnov V.G., Motova G.N.
National Center of Non-Governmental-Professional Accreditation

Due to the adoption of new Federal Law "On Education in RF", public-professional accreditation is becoming urgent issue in contemporary education system. The article examines the concepts of public-professional accreditation, international accreditation and joint accredi-

tation. Based on the legislation system, expert organizations and accreditation agencies are classified according to their objectives and activity areas. The ways to develop accreditation network and register of organizations involved in higher education quality assurance have been proposed.

BASIC PRINCIPLES OF PUBLIC PROFESSIONAL ACCREDITATION OF EDUCATIONAL PROGRAMS

Gerasimov S.I.
Siberian Transport University,
Shaposhnikov S.O.
Saint Petersburg Electrotechnical University "LETI"

The article analyzes basic principle for organizing and carrying out public-professional accreditation of university degree program submitted by technical higher education institutions.

STANDARD INTERVIEW QUESTIONS FOR EDUCATIONAL PROGRAM ACCREDITATION IN THE ASSOCIATION OF ENGINEERING EDUCATION IN RUSSIA

Gerasimov S.I.
Siberian Transport University,
Shaposhnikov S.O.
Saint Petersburg Electrotechnical University "LETI",
Yatkina E.Y.
National Research Tomsk Polytechnic University

The authors analyze standard questions asked by AEER experts to students, teachers, employers, faculty authorities while visiting universities to evaluate the achievements of educational program learning outcomes.

CRITERIA FOR PROFESSIONAL ACCREDITATION OF ENGINEERING PROGRAMS OF SECONDARY AND HIGHER VOCATIONAL EDUCATION

Chuchalin A.I., Yatkina E.Yu.,
Tsoi G.A., Shamritskaya P.S.
National Research Tomsk Polytechnic
University

The new draft version of criteria for professional accreditation of engineering programs of secondary and higher vocational education is given in the paper. The criteria meet the requirements of new Federal Law "On Education in the Russian Federation" (№273-FZ) and correspond to the international standards such as EUR-ACE Framework Standards for Accreditation of Engineering Programmes and IEA Graduate Attributes and Professional Competences.

INTERNATIONAL ENGINEERING ALLIANCE CONGRESS (JUNE, 2013 SEOUL, REPUBLIC OF KOREA)

Chuchalin A.I., Gasheva U.V.
National Research Tomsk Polytechnic
University

Report of Association of Engineering Education in Russia on participation in International Engineering Alliance Congress, 2013. The major achievement of the Association of Engineering Education in (AEER) was its initiation as a provisional member of the International Agreement in professional engineer certification (IPEA). Besides, AEER discussed the formulation of accreditation criteria for programs of secondary vocational education and engineering Bachelor degree.

PUBLIC -PROFESSIONAL ACCREDITATION – EFFECTIVE TOOL IN IMPROVING EDUCATION PROGRAMS EXPERIENCE OF TOMSK POLYTECHNIC UNIVERSITY

Yatkina E.Yu.
National Research Tomsk Polytechnic
University

The article presents a comparative view of expert committee reports which describe the non-governmental-professional accreditation of educational programs in Tomsk Polytechnic University from 2003 to 2012. Previously, the terms "standards, procedures, criteria and requirements", respectively, were used. However, in this article the term "Public -professional accreditation" is officially used as stated in the Federal Law "Education in the Russian Federation" of 2012.

QUALITY ASSURANCE AND QUALITY ENHANCEMENT IN E-LEARNING

Podlesny S.A.
Siberian Federal University

The article examines the issues, challenges and possible solutions related to quality assurance in e-learning applied in engineering education.

PROFESSIONAL AND PUBLIC ACCREDITATION AS AN INTEGRAL PART OF EDUCATION QUALITY IMPROVEMENT

Pecherskaya R.M.
Penza State University

The article outlines the experience of being an expert in professional and public accreditation. Basic elements of accreditation, which effort to improve engineering training quality in contemporary world, are explained.

70-YEAR HISTORY OF ENGINEERING EDUCATION IN ALTAI

Goncharov V.D., Sitnikov A.A. ,
Sartakova O.Yu., Polzunov I.I.
AltaiStateTechnicalUniversity

The article presents the historical view of engineering education development in Altai. 70-year history of I. I. Polzunov Altai State Technical University is described.