7th
BALTIC REGION SEMINAR
ON
ENGINEERING EDUCATION

ST PETERSBURG STATE ELECTROTECHNICAL
UNIVERSITY LETI
St Petersburg, Russia

4-6 September 2003

SEMINAR PROCEEDINGS

edited by
Zenon J. Pudlowski
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Innovations in engineering education as a response to external environmental requirements, V. Dmitriev, E. Evstigneev, O. Khomutov & A. Kniga, Altai State Technical University, Barnaul, Russia (Opening Address)

New trends and approaches to engineering education

Towards competitive higher technological education: quality assurance and SWOT analysis of higher technological institutes, E. Mouratidist, K. Anastasioul, A. Balouktsis, K. Davidt & D. Paschaloudist, Technological Education Institute of Serres, Serres, Greece (Lead Paper)

A comparative analysis of ABET and Russian requirements for basic level engineering educational programmes, V.G. Zakharevich, A.N. Karkishchenko, V.P. Popov & N.P. Zagrai, Taganrog State University of Radio Engineering, Taganrog, Russia

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Digital academic libraries: an important tool in engineering education, S. Grigoriadou, A. Kipourou, E. Mouratidis & M. Theodoridou, Technological Education Institute of Serres, Serres, Greece

Soft skills of graduates - new challenge for universities, A.V. Valiulis, Vilnius Gediminas Technical University, Vilnius, Lithuania

The development of a university library: the impact of new information technologies, S.O. Shaposhnikov, E.P. Afanasyev, O.N. Smirnova, St Petersburg State Electrotechnical University LETI, St Petersburg, Russia

Case studies

The transformation of online work culture at the MSBTE, Mumbai: a case study, S.P. Yavalkar, G.B. Dhanokar & B.P. Tale, Maharashtra State Board of Technical Education, Mumbai, India (Lead Paper)

The application of checklists in the field of complex systems operation based on the operating experiences of a liquefied petroleum gas-handling simulator, T. Hajduk & Z. Bonca, Gdynia Maritime University, Gdynia, Poland

Using applets for physics education: a case study of a course in non-linear systems and chaos, P. Junglas, Private University of Applied Sciences, Diepholz, Germany

Presenting a course of lectures to a student cohort drawn from a range of year levels, J.D. Zakis, Monash University, Melbourne, Australia

Integrating the educational resources of high schools into the region, F. Ryabov & A.N. Mamontov, St Petersburg State Electrotechnical University LETI, St Petersburg, Russia

Importance of science subjects in engineering education

Interfacing between schools, universities and companies using project work with a real-life character: the TheoPrax method, D. Krauset, P. Eyerer & B. Hefert, Fraunhofer Institut für Chemische Technologie, Pfinztal, Germany (Lead Paper)

Biotechnology as an interdisciplinary area of science: its role in education, E. Gurgul, A. Zelga-Szmidla, A. Bylinska & K. Brendzel, Technical University of Czestochowa, Czestochowa, Poland

Developing the small school pool for engineering in South Africa, E. Horak, University of Pretoria, Pretoria, South Africa

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India's Dharavi: the options for Asia's largest slum, A.M. Viczianyt & S. Vicharet, Monash University, Melbourne, Australia (Lead Paper)

The Industrial Biotechnology Learning Centre (IBLC): an industry-academia training model in response to strategic high-tech economic development, L. Saliceti-Piazza, R. Buxeda & R. Romañach, University of Puerto Rico, Mayagüez, Puerto Rico

Leonardo da Vinci: precursor to the Fundamentals of Machine Components Design subject, M. Kotlicka & W. Tarelko, Gdynia Maritime University, Gdynia, Poland
Emerging educational needs in South Africa: the potential of Work-Based Learning, I.H. Marshall†, G.R. Burns‡ & R.B. Silberberg*, Monash University, Melbourne, Australia†, University of Glasgow, Glasgow, Scotland, United Kingdom‡, Monash South Africa, Roodepoort, South Africa*
The internationalisation of engineering education: Australian and Japanese experiences, A. Nafalski†, M. Iwahara‡, K. McDermott†, S. Yamada‡, & Ö. Gölt University of South Australia, Adelaide, Australia† & Kanazawa University, Kanazawa, Japan‡
The need to enhance English and communication skills in engineering diploma courses in the Indian State of Maharashatra, A.S. Patil & M.J. Riemer, Monash University, Melbourne, Australia
The new college system of engineering education in Lithuania, R.V. Krivickas† & J. Krivickas‡, Kaunas University of Technology, Kaunas, Lithuania†, Kaunas Technical College, Kaunas, Lithuania‡

Computers, multimedia and the Internet in engineering education

Integrating creativity into computer networks course teaching, H-C. Hsiao†, Y-H. Liang†‡ & T-Y. Lin, National Chunghua University of Education, Changhua, Taiwan†, Nan-Kai Colleges, Nantou, Taiwan† (Lead Paper)
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The development of a remote laboratory (NetLab) at the University of South Australia, J. Machotka, Z. Nedic, R. Calabrese & M. Chen, University of South Australia, Adelaide, Australia
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Teaching contemporary engineering graphics, M. Dobelis, Riga Technical University, Riga, Latvia
Activating students' thinking in lectures: an associative approach to solving problems, G.G. Rogozin, Donetsk National Technical University, Donetsk, Ukraine
A study of labour safety and hygiene curriculum in industry-related departments at institutes of technology, H-C. Hsiao†, T-Y. Lin‡ & Y-H. Liang‡†, National Chunghua University of Education, Changhua, Taiwan†, Nan-Kai Colleges, Nantou, Taiwan
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Factors to be considered in developing a curriculum and assessment for a knowledge-based engineering graduate, G.R. Burns† & C.U Chisholm‡, University of Glasgow, Glasgow, Scotland, United Kingdom†, Glasgow Caledonian University, Glasgow, Scotland, United Kingdom‡
A new approach to teaching soft skills to engineers, S. Pulko† & S. Parikh‡, University of Hull, Hull, England, United Kingdom†, SP Consulting, Stockholm, Sweden‡

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Quality assurance of engineering programmes through professional accreditation, K.J. McDermott, A. Nafalski & Ö. Gölt, University of South Australia, Adelaide, Australia
Project management: an important engineering skill, M. Wirkus, Gdansk University of Technology, Gdansk, Poland
Credit transfer opportunities between Australian and Japanese engineering programmes, A. Nafalski†, S. Yamada‡, K.J. McDermott†, M. Iwahara‡ & Ö. Gölt†, University of South Australia, Adelaide, Australia†, Kanazawa University, Kanazawa, Japan‡
Encouraging skills in emotional intelligence through team-based learning in engineering education, M.J. Riemer, Monash University, Melbourne, Australia

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