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Summary

CDIO: OBJECTIVES AND MEANS OF ACHIEVEMENT

S.A. Podlesny, A.V. Kozlov
Siberian Federal University

The system of CDIO standards in terms
of implementation in Russian engineer-
ing education is analyzed. Particular
attention is paid to the scientific and
methodological elaboration of «Con-
ceive» stage. To increase the efficiency
of this stage, domestic TRIZ methodol-
ogy is considered. Relevant didactics,
CAI programs and virtual environments
of professional activity are proposed. It
is indicated that international standards
are more effective when they are imple-
mented in educational-scientific-indus-
trial (innovation) complexes.

MODERNIZATION OF ENGINEERING EDUCATION BASED ON INTERNATION- AL CDIO STANDARDS

A.I. Chuchalin
Association for Engineering Education
of Russia
National Research Tomsk Polytechnic
University

The concept of engineering education
modernization based on CDIO (Con-
ceive, Design, Implement, Operate)
Standards is considered. Comparative
analysis of the CDIO Syllabus and the
Association for Engineering Education
of Russia accreditation Criterion 5 is
given. The experience of the CDIO
Standards implementation at Tomsk
Polytechnic University is discussed. The
CDIO Academy programme for Russian
universities faculty professional devel-
opment is described.

INTEGRATED CURRICULUM DEVELOP- MENT IN INDUSTRIAL ENGINEERING PROGRAM USING CDIO FRAMEWORK

N. Kuptasthien, S. Triwanapong,
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This paper shares Thai industrial re-
quirements on new graduates entering
real-life workplace and the develop-
ment of an integrated curriculum using
CDIO framework. The result from a
questionnaire survey showed high
needs for personal and interpersonal
skills with strong industrial engineering
background. These skills were integrat-
ed into courses in 4-year program.

EXPERIENCE AND PRACTICE OF MAN- AGEMENT PROBLEM SOLUTION AT CDIO IMPLEMENTATION IN UNVERISITY EDUCATION

P.M. Vcherashniy, N.A. Kozel'
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There have appeared a great number of
management problems at universities
first introduced CDIO ideology. Taking
into account the fact that the ideolo-
gy itself leads to critical technologies
development in the current education
system, solution of management prob-
lems is to result in significant changes
in a university. The article lists and de-
scribes the problems solved in a definite
university and the results.

CDIO WITHIN THE SYSTEM OF CONTINUOUS EDUCATION "FROM SCHOOL TO HEI": STAGE "CONCEIVE" AT SCHOOL

O.V. Sidorkina, T.V. Pogrebnaya
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The article describes the system of
methods to reveal potential intellectu-
al giftedness of pupils. The system is
designed by the authors and based on
TRIZ-pedagogy. Within this system the
pupils, who are regarded as future uni-
versity applicants, are related to inno-
vative HEI (high education institution)
through innovative project activity. The
authors have analyzed how appropriate
the system is to introduce stage "Con-
ceive" at school preparation for HEIs
implementing CDIO system.