




Priazovskyi State Technical University

MMATENG Project results

Modernization of two cycles (MA, BA) of competence-based curricula in Material Engineering according to the best experience of Bologna Process, 543994-TEMPUS-1-2013-1-BE-TEMPUS-JPCR

ENSCL - Lille, France , May 29, 2017



Results achieved by the project in addressing the priorities of Engineering and engineering trades

- Updating and unifying the curricula for training in various degree programmes in the area of Material Science (Applied Material Science, Metal Science, Thermal Treatment of Metals, Powder and Composite Materials)
- PSTU academic staff mastered new teaching technologies gained new knowledge which they are now transferring to their students
- Expanding the range of competences of the university graduates which meets the today requirements in the labor market
- Extending and reinforcing international cooperation of PSTU, integration of PSTU into the European education area on the basis of the Bologna Process
- PSTU growth in employability at the industrial companies
- Development of a new educational standard of Ukraine on Material Science degree courses
- Positive way the processes of all-Ukrainian reforming of the economics and social sphere through enhancing the quality of training of Material Science specialists

List of the implemented new/modernised Curricula/module inclusive ECTS

CORE Curricular

1. Metal Science - 6 ECTS
2. Methods of structural analysis and quality control of metal products - 5 ECTS.
3. Physical properties and methods of materials research - 5 ECTS
4. Mechanical properties and structural strength of materials - 6 ECTS.
5. Solid State Physics and Chemistry - 4 ECTS
6. Material selection - 5 ECTS
7. Materials Science - 6 ECTS
8. Introduction to the specialty-3 ECTS
9. Machine parts (CAD-CAM-CAE) - 4 ECTS
10. Basics of production organization and management - 3 ECTS
11. Corrosion and metal protection - 3 ECTS.
12. Nonomaterials and Nanotechnologies - 6 ECT
13. Perspective Strengthening Technologies of Material Treatment - 6 ECTS.

TRANSFARABLE Curricular

14. Effective communication in groups, presentation skills - 4 ECTS.
15. Survival in the labour market.
16. Management of organizations - 3 ECTS.

Retraining of 9 PSTU teachers at EU Universities on new curricular and methodology



Jan.19 – 31, 2015, 4 PSTU teachers are training at KU Leuven, Belgium



July 20-Aug.02, 2015
5 PSTU teachers are training at Todeusz Kosciuszko Cracow University of Technology.

Training of PSTU teachers on new curricula package at home basis (as follow-up of the trainings in EU universities)



Prof. Efremenko is giving lecture "The objectives, content and methods of teaching at the KU Leuven




Nataliya Karavaeva is presenting new course «Light weight materials for transportation applications» for teachers of Dept. of Metal Science and Heat Treatment of Metals.



Inna Malysheva is giving a lecture on Nanomaterials and nanotechnologies.



Victoria Ivashchenko is presenting a new course "Materials from renewable resources" for teachers, postgraduates and students of the Materials Science Dept.



Training of PSTU teachers on new curricula package at home basis (as follow-up of the trainings in EU universities)

18 academic staff from PSTU were retrained on new curricula package

(10 core and 3 transferable curricula)

at home basis during the project lifetime

Training of PSTU teachers on new curricula package at home basis with stakeholders

56 persons of PJRC AZOVSTAL IRON & STEEL WORKS were

Retrained during the project lifetime



Prof., DSc. Ihor Tkachenko are giving master-class on the topic "New methods of material selection and design, assessment, forecasting and quality improvements for steel products"

Development of learning environmental: Material Information Technology Laboratory and Joint WEB based platform at PSTU



Training of BA / MA students of Materials Science of 3 active specializations trained on the updated curricular

Training of students of the newly opened specialization "Materials Science and Design of Materials" (MA) on the disciplines related to the materials selection

Training of BA students of other specialties studying the discipline Material Science

Holding of Master-classes and students pilot teaching at PSTU using new leaning environmental.

456 PSTU students have been trained in the programmes/courses developed by the project during the MMATENG project lifetime:

Male- 287

Female- 169





Links with society

PSTU partnership with employers, schools and the
labour

market in the knowledge's triangle:

TEMPUS "MMATENG" project are implemented in
current innovative educational projects

➤ "School-University –Enterprise"

➤ "Step into the future"



Links with society

METTINVEST holding group signed cooperation agreement with PSTU and special schools

From 2014 to 2017, PSTU "MMATENG" teachers trained 21 schoolchildren who participated at the students scientific conferences and 6 schoolchildren were trained for Minor Academy of Sciences of Ukraine conference on Materials Science.

Material Engineering Service-Office (MESO)



- Conducting research in the framework of partner agreement with enterprises in the City of Mariupol and Donetsk region
- Commercial research works
- Improving the skills of enterprise specialists
- Educational and training projects for laboratories personnel of enterprises

Involvement of new participants in MMATENG plus project and a network of MESO



**PJRC
AZOVSTAL
IRON & STEEL
WORKS**

**PJSC Ilyich
Iron and
Steel Works**



**JSC "Dneprodzerzhinsk Steel Works
named by Dzerzhinskiy**



Dissemination and sustainability



New horizons of cooperation in the field of Material Engineering: PSTU, Igor Sikorsky Kyiv Polytechnic Institute and Todeusz Kosciuszko Krakow University of Technology are visiting PJSC Ilyich Iron and Steel Works – MMATENG PLUSE Partner (Mariupol, May 19-20,2016)

Dissemination and sustainability PSTU MMATENG Conferences

The Ministry of Education and Science of Ukraine
Pryazovskyi State Technical University

INTERNATIONAL SCIENTIFIC AND TECHNICAL CONFERENCE «UNIVERSITY SCIENCE – 2015»

SCIENTIFIC AND METHODOLOGICAL SECTION
“TODAY MATERIAL ENGINEERING FOR REALIZATION OF THE “MMATENG” PROJECT OBJECTIVES”

Conference proceedings

Ukrainian-Poland MMATENG Project Regional Conference at Tadeusz Kosciuszko University of Technology, Krakow, March 2015

Ukraine's Project Coordinators: **Przybylski, Oksana; Chelidze, Zoya; Danygina, Yuliy Bohomo**

PSTU teachers are getting Training Certificates in Krakow, January 2015

TEMPUS

MMATENG

Mariupol, 19-20 May 2015

Education, Audiovisual and Culture Executive Agency of European Union
Katholieke Universiteit Leuven

International Educational Project TEMPUS “MMATENG”
Pryazovskyi State Technical University
Politechnika Krakowska im. Tadeusza Kosciuszki

Tempus

MMATENG

International Scientific-Methodological Conference

“HOW TO TEACH MATERIAL SCIENCES: NEW APPROACHES AND EXPERIENCES FROM THE MMATENG PROJECT”

Conference proceedings

July 23
Krakow-Mariupol, 2015

Tel-Aviv University, Israel, November 2014

Conference - Today material engineering for realization of the “MMATENG” project objectives, May, 2016

Monitoring of project implementation in National Technical University of Ukraine «KTU», 13 June, 2014

Министерство образования и науки Украины
Государственное высшее учебное заведение
«Приазовский государственный технический университет»

110-летию доктора технических наук, профессора **Соколова Константина Ивановича** посвящается

СОВРЕМЕННЫЕ АСПЕКТЫ И ПЕРСПЕКТИВЫ РАЗВИТИЯ МАТЕРИАЛОВЕДЕНИЯ, МЕТАЛЛУРГИИ И ЭНЕРГЕТИКИ

Сборник материалов Международной научно-технической конференции «Университетская наука - 2017»

В свете реализации Европейского проекта

TEMPUS

MMATENG

Мариуполь, 18-19 мая 2017 г.

The Ministry of Education and Science of Ukraine
State Higher Education Institution «Pryazovskyi State Technical University»

International Scientific and Methodological Conference «University Science - 2018»

TODAY MATERIAL ENGINEERING FOR REALIZATION OF THE “MMATENG” PROJECT OBJECTIVES

Conference proceedings

Consortium Conference and Staff Training for Network Infrastructure of MESO at TU Berlin 2nd - 8th of December 2015

International Scientific and Methodological Conference «University Science - 2018» 19-20 May 2018

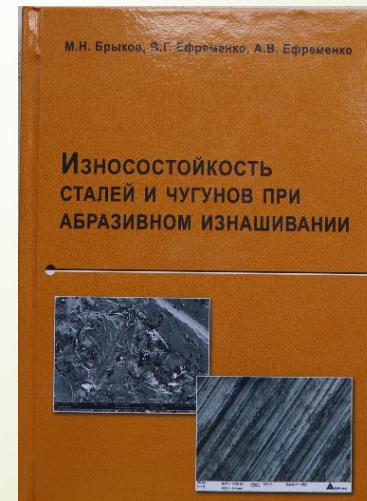
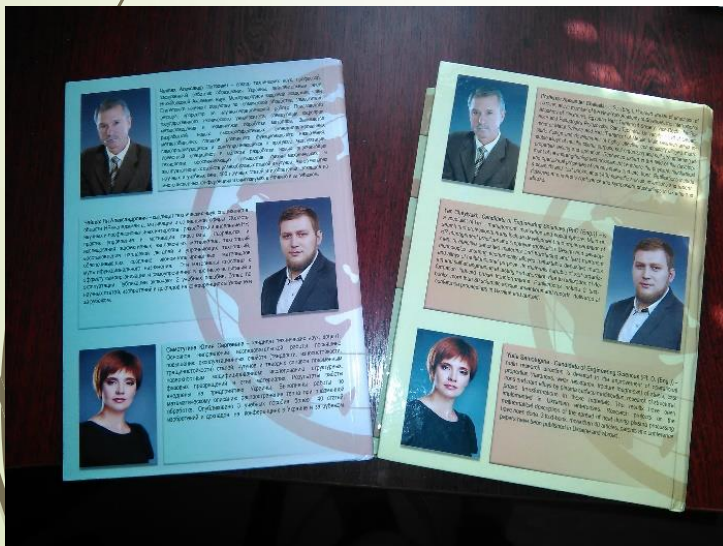
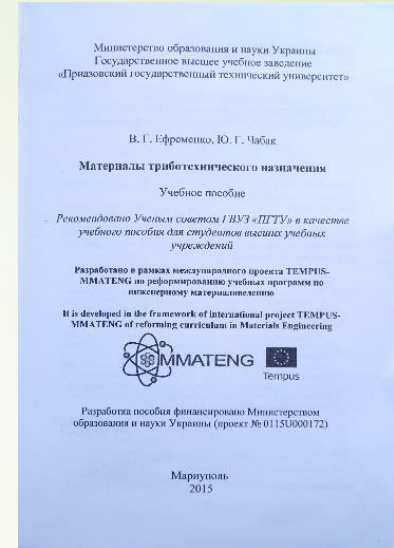
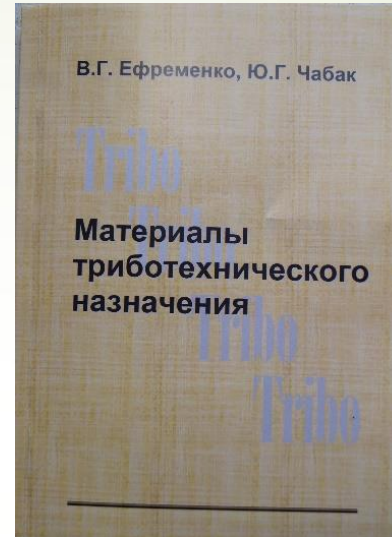
Excursion to the convert plant of PUSC (Pig Iron and Steel Works), Mariupol, May 2018

TEMPUS

MMATENG

Mariupol, 19-20 May 2018

PSTU MMATENG text-books

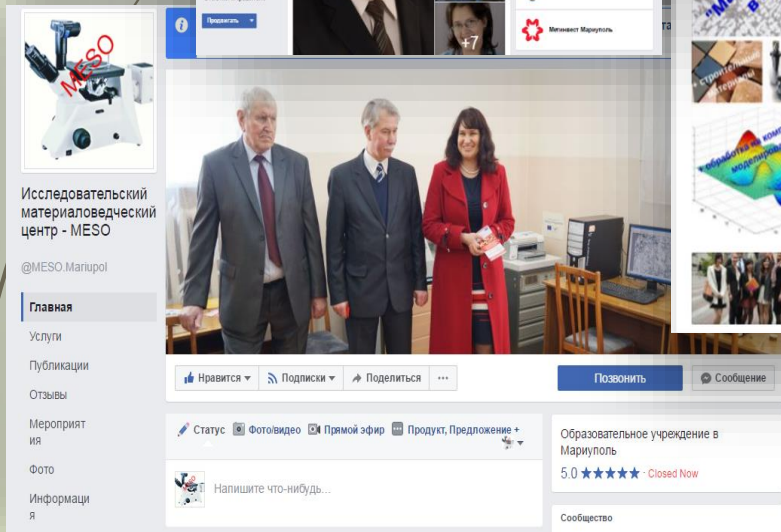


Dissemination of information about MESO

Advertising in social networks

Bulletin board <https://besplatka.ua/>

FaceBook



ЧЕЛОВЕЧЕСТВО ДЕРЖИТСЯ НА 3-Х КИТАХ: ЗНАНИЕ, ЭНЕРГИЯ, МАТЕРИАЛ...
Выбирайте нашу специальность #МАТЕРИАЛОВЕДЕНИЕ в Приазовском гос.техническом университете - ВУЗе с 80-летней историей!
Подробнее о кафедре "Материаловедение_и_перспективные_технологии" смотрите по ссылке - <http://pstu.edu/index.php?id=172&l=0>

Поступайте на специальность "Материаловедение" в Мариуполе!

- Управлять структурной и свойствами сталей, чугунов, пластмасс, керамики, переломовые и композиционные материалы.
- Разрабатывать новые высокоэффективные технологии обработки конструктивной и инструментальной стали.
- Создавать новые материалы с уникальными свойствами.
- Использовать разнообразные методы исследования и контроля материалов, диагностики брака и износа.
- Применять компьютерную обработку результатов испытаний и моделировать свойства.

Приазовский державний технічний університет |
Лучшие университеты и ВУЗы Украины - второе...
pstu.edu

VKontakte

Бесплатка

Мой кабинет

Активные объявления

Материаловедческая экспертиза

Испытания металлов на износ

Выполняем термическую обработку: металлов, керамики, стекла

MESO Fire works

MESO - Лабораторные исследования. Мариуполь

Закажите бесплатную консультацию термической лаборатории MESO по интересующей Вас услуге, нажав на кнопку справа "Заказать услугу".



Thank you for your attention