

# UNITWIN/UNESCO CHAIRS PROGRAMME

# *PROGRESS REPORT* 2011-2012

UNESCO CHAIR In Higher Technical Education, Applied System Analysis and Informatics at the National Technical University of Ukraine "Kyiv Polytechnic Institute" and Institute for Applied System Analysis



NTUU "KPI" – KYIV – Ukraine 2012

# UNITWIN/UNESCO Chairs Programme Progress Report

## Period of Activity: 1.06.2011 – 31.05.2012

## Title of UNESCO Chair:

Higher Technical Education, System Analysis and Informatics

Institution/Country: National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukraine

Report established by: Prof. Dr. Mykhailo Zgurovsky

**Function/Title:** Chairholder of the UNESCO Chair in Higher Technical Education, System Analysis and Informatics, Rector of the National Technical University of Ukraine "Kyiv Polytechnic Institute", Academician of the National Academy of Sciences of Ukraine

# Summary

In the progress report of the UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at the National Technical University of Ukraine "Kyiv Polytechnic Institute" and educational and scientific complex "Institute for Applied System Analysis" the main information about the results of its activity in 2011-2012 is represented.

The most significant measures in the sphere of academic activity connected with the organization and holding of seminars, trainings, conferences at national and international level, realization of international projects in the field of education are illustrated. Thus, during the reporting period 3 seminars, 2 forums, and 3 international conferences were carried out and 3 international projects implemented with the participation of the UNESCO Chair.

Interuniversity exchange within the subjects of the UNESCO Chair activity took place (6 visits).

The UNESCO Chair activity was widely illustrated in periodicals, scientific publications and at the UNESCO Chair site <u>http://www.unesco.ntu-kpi.kiev.ua</u>

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# I. Address and Contact

	Address of the Chairholder (or Coordinator). Other contact person
Name	Mykhailo Zgurovsky
Function/ Title	Rector of the National Technical University of Ukraine "Kyiv Polytechnic Institute" (NTUU"KPI"), Academician of the National Academy of Sciences of Ukraine (NASU)
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# **II. Available Resources**

# 1. Human Resources

### 1. For the Administration of the UNESCO Chair

Coordinator Executive Secretary Academic Secretary Partial time support Secretary Prof. Sergiy Sidorenko Olena Poptsova Prof. Sergiy Shukayev Olena Kizub

### 2. For the teaching/training/research activities

#### The UNESCO Chair has three sections:

- HIGHER TECHNICAL EDUCATION, headed by academician of the National Academy of Sciences of Ukraine, Professor Yuriy Yakimenko, First Vice Rector of the National Technical University of Ukraine "Kyiv Polytechnic Institute"
- APPLIED SYSTEM ANALYSIS, headed by Professor Natalia Pankratova, Vice Director of the Institute for Applied System Analysis (IASA)
- INFORMATICS, headed by Professor Alexander Pavlov, Dean of the Faculty of Informatics and Computer Engineering NTUU"KPI" and the Organizational branch, that provides the formal aspects of daily activity.

## 3. For the information and documentation activities:

Academic Secretary Prof. Sergiy Shukayev

## 2. Material Resources

**Sources:** Host Institution, Governmental body

- **FOR THE ADMINISTRATIVE WORK:** Computers, fax machines, xerocopy machines, printer, and storage systems.
- FOR THE TEACHING/TRAINING/RESEARCH ACTIVITIES: Lecture rooms, video-edition, projector, Book edition, CD – edition, proceedings editions, e-learning.
- FOR THE INFORMATION AND DOCUMENTATION ACTIVITIES: Web-site, posters, brochures, Proceedings, Book editions.
- FOR OTHER ACTIVITIES: Conferencing

# **III.** Activities

# 1. Academic Activities

# Education/Training/Research

## International Seminar «Erasmus Mundus, EWENT»

Date and place: March 27, 2011, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

Partnership: National Technical University of Ukraine "Kyiv Polytechnic Institute", Warsaw University of Technologies.

#### Participants: 70

- ☑ Undergraduate students
- Graduate students
- ☑ Academics
- Public administrators
- Employees from industry, or other private sector

Teachers from primary education

- Teachers from secondary education
- Teachers from technical and vocational education
- □ Other groups

#### Geographical coverage for participants and partners:

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Africa	
Arab States	
Asia/Pacific	
Eastern and Central Europe	Ukraine, Poland
Western Europe and North America	
Latin America	

# International Seminar «Japan Society for Promotion of Science - JSPS»

**Date and place:** April 24, 2012, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

**Partnership:** National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukraine-Japan Center at National Technical University of Ukraine "Kyiv Polytechnic Institute", Embassy of Japan in Ukraine, Japan International Cooperation Agency (JICA), Ministry of Foreign Affairs of Ukraine, State Agency for Science, Innovation and Informatization of Ukraine, Fundamental Researches State Fund of Ukraine, National Academy of Sciences of Ukraine.

#### Participants: 75

- ☑ Undergraduate students
- Graduate students
- ✓ Academics
- Public administrators
- Employees from industry, or other private sector
- Teachers from primary education
- □ Teachers from secondary education
- Teachers from technical and vocational education
- Other groups

#### Geographical coverage for participants and partners:

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Africa	
Arab States	
Asia/Pacific	Japan
Eastern and Central Europe	Ukraine
Western Europe and North America	

# 2. Conferences/Meetings

# Experts meeting "Concept development for a Foresight Center of Ukraine – a nation-wide network of foresight information exchange and monitoring"

**Date and place:** June, 29-30, 2011 National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

**Partnership:** National Technical University of Ukraine "Kyiv Polytechnic Institute", United Nations Industrial Development Organization.

### Participants: 120

- ☑ Undergraduate students
- Graduate students
- Academics
- Public administrators
- ${\ensuremath{\boxdot}}$  Employees from industry, or other private sector
- □ Teachers from primary education
- □ Teachers from secondary education
- Teachers from technical and vocational education
- Other groups

## **Regional Coverage**

## □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Africa	
Asia/Pacific	Japan
Eastern and Central Europe	Ukraine, Russia, Austria
Western Europe and North America	Germany
Latin America	

#### Publications:

**Title:** Experts meeting "Concept development for a Foresight Center of Ukraine – a nation-wide network of foresight information exchange and monitoring"

Publishers: NTUU "KPI", №27 Year of Publication: July, 1, 2011 Type of document/material:

- Book
- Periodical
- □ Others Proceedings of the Conference

Language(s): Ukrainian

**Keywords:** United Nations Industrial Development Organization, Foresight Center of Ukraine, creation and development of cleaner production program in Ukraine, stable development, methodology of foresight, development of new resource- and energy-saving technologies.

#### VII International Scientific and Methodical Conference "Teaching Pedagogical Psychological and Disciplines Technical in University: Socially Responsible Dimension"

Date and place: October 13-14, 2011, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

**Partnerships:** Ministry of Education and Science, Youth and Sport of Ukraine, Academy of Pedagogical Sciences of Ukraine, G.S. Kostiuk Institute of Psychology, National Technical University of Ukraine "Kyiv Polytechnic Institute", International UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU "KPI" and the Educational-Scientific Complex "Institute of Applied System Analysis" (IASA), Faculty of Law and Sociology, Psychology and pedagogic Department, International Centre for development of business ethics.

#### Participants: 70

- ✓ Undergraduate students
- Graduate students
- ✓ Academics
- Public administrators
- Employees from industry, or other private sector
- □ Teachers from primary education
- □ Teachers from secondary education
- □ Teachers from technical and vocational education
- □ Other groups

## **Regional Coverage**

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Australia	
Asia/Pacific	
America	
Eastern and Central Europe	Ukraine, Russia, Slovakia

#### Publications:

Title: Proceedings VII International Scientific and Methodical Conference "Teaching Psychological and Pedagogical Disciplines in Technical University: Socially Responsible Dimension" (October 13-14, 2011, Kyiv, Ukraine).

#### Publishers: 'Diya'

Year of Publication: 2011

#### Type of document/material:

 $\mathbf{\nabla}$ Book

Periodical (Newspaper) 

Others - Proceedings of the Conference

#### Language(s): Ukrainian

Keywords: social responsibility, society, ethics of responsibility, profession, engineering activities, educational technology training.

# Fifth International Conference "Women in Science and Education: Past, Present, Future"

**Date and place:** November 3-5, 2011, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

**Partnerships:** Ukrainian Center of Gender Education at NTUU "KPI", UNESCO Chair, "Higher Technical Education, Applied System Analysis and Informatics" at NTUU "KPI", Kyiv Institute of Gender Studies, Ukrainian International Committee on Science and Culture of the NAS of Ukraine, Ukrainian Women's Fund.

#### Participants: 90

- ☑ Undergraduate students
- Graduate students
- ✓ Academics
- ☑ Public administrators
- Employees from industry, or other private sector
- □ Teachers from primary education
- □ Teachers from secondary education
- □ Teachers from technical and vocational education
- □ Other groups

#### **Regional Coverage**

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Arab States	
America	USA
Eastern and Central Europe	Ukraine, Russia, Lithuania
North Europe	Norway, Sweden, Finland
Western Europe and North America	Germany
South Europe	Italy

#### Publications:

**Title:** Materials of the Fifth International Conference "Women in Science and Education: Past, Present, Future" (November 3-5, 2011, Kyiv, Ukraine).

Publishers: NTUU "KPI"

Year of Publication: 2011

Type of document/material:

$\mathbf{\Lambda}$	Book
	Perio

Periodical (Newspaper)

Others - Proceedings of the Conference

Language(s): Ukrainian, Russian, English

**Keywords:** woman in science, gender dimension, gender movement, innovative information technology in science and education, intellectual potential of young people and women.

**Title:** Ukrainian-workshop "NTUU "KPI"-WUT. New horizons in research cooperation" **Publishers:** Kyivsky Polytechnic, No. 37 **Year of Publication:** November 10, 2011 **Type of document/material:** 

#### Type of document/material:

<u>ן</u>	Book

Periodical (Newspaper)

Others – Proceedings of the Conference

#### Language(s): Ukrainian

**Keywords:** gender issues, the role of women in history, women's leadership in science, the rights of women and children, young people and science problems of national gender policy, biomedicine, information technology.

# Fair of Japanese Universities "Education in Japan"

**Date and place:** March 19-20, 2012, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

**Partnerships:** Ukraine-Japan Center at National Technical University of Ukraine "Kyiv Polytechnic Institute", Ministry of Education and Science, Youth and Sport of Ukraine, Ministry of Education, Culture, Sports, Science and Technology of Japan, Embassy of Japan in Ukraine, Japan International Cooperation Agency (JICA).

#### Participants: 1200

- Undergraduate students
- Graduate students
- $\blacksquare$  Academics
- Public administrators
- $\blacksquare$  Employees from industry, or other private sector
- □ Teachers from primary education
- □ Teachers from secondary education
- □ Teachers from technical and vocational education
- □ Other groups

#### **Regional Coverage**

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Africa	
Arab States	
Asia/Pacific	Japan
Eastern and Central Europe	Ukraine
Western Europe and North America	

**Title:** Education in Japan: closer look **Publishers:** Kyivsky Polytechnic, No. 8 **Year of Publication:** March 22, 2012

#### Type of document/material:

	Book
$\checkmark$	Periodica
	Others -

odical (Newspaper)

Others – Proceedings of the Conference

#### Language(s): Ukrainian

**Keywords:** preserving peace and strengthening international ties, promoting Japanese culture in Ukraine, the Ukrainian-Japanese projects, sustainable development.

# Fair of Polish Universities

**Date and place:** March 30, 2012, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine

**Partnership:** National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukrainian-Polish Center at NTUU "KPI", Polish Education Foundation "PERSPEKTIWY".

#### Participants: 95

- ✓ Undergraduate students
- Graduate students
- ✓ Academics
- Public administrators
- Employees from industry, or other private sector
- Teachers from primary education
- Teachers from secondary education
- Teachers from technical and vocational education
- □ Other groups

#### **Regional Coverage**

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Africa	
Asia/Pacific	
Eastern and Central Europe	Ukraine, Poland
Western Europe and North America	
Latin America	

**Title:** Polish Universities in NTUU "KPI" **Publishers:** Kyivsky Polytechnic, No. 14 **Year of Publication:** April 12, 2012 **Type of document/material:** 

Book  $\mathbf{\nabla}$ 

Periodical (Newspaper)
 Others – Proceedings of the Conference

Language(s): Ukrainian

**Keywords:** education and career, Ukrainian-Polish Center, Polish educational foundation "PERSPEKTIWY", project "Training in Poland", Polish educational programs, directions and conditions of education in Polish universities.

# International Conference "System Analysis and Information Technologies 2012"

**Date and place:** April 24, 2012, National Technical University of Ukraine "Kyiv Polytechnic Institute", Kyiv, Ukraine.

**Partnership:** National Technical University of Ukraine "Kyiv Polytechnic Institute", Ministry of Education, Science, Youth and Sports of Ukraine, National Academy of Sciences of Ukraine, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU "KPI" and IASA, the Educational-Scientific Complex "Institute of Applied System Analysis"

#### Participants: 426

- Undergraduate students
- Graduate students
- Academics
- Public administrators
- $\underline{\mathbf{M}}$  Employees from industry, or other private sector
- Teachers from primary education
- □ Teachers from secondary education
- $\hfill\square$  Teachers from technical and vocational education
- □ Other groups

#### **Regional Coverage**

#### □ National

#### ☑ Regional/Interregional/International

Regions	Countries
Africa	Angola
Asia/Pacific	Iran, Georgia, Vietnam
Eastern and Central Europe	Ukraine, Russia, Poland
South Europe	Spain
North America	Canada

#### Publications:

 Title: Proceeding of the International Conference "System Analysis and Information Technologies 2012" (April 24, 2012, Kyiv, Ukraine).
 Publishers: NTUU "KPI" (<u>http://sait.kpi.ua/books/sait2012.ebook.pdf/view</u>)
 Year of Publication: 2012

# 3. Interuniversity Exchanges/Partnership

# Visit of M.Z. Zgurovsky to the Russian Federation

Date and place: June 13-15, 2011, Moscow, Russian Federation

**Purpose:** participation in the joint meeting of the Presidium of Russian Academy of Sciences and National Academy of Sciences of Ukraine

Visit of the Extraordinary and Plenipotentiary Ambassador of the Korea Republic to Ukraine, H.E. Mr. Kim Eun-Joong

Date and place: September 8, 2011, NTUU "KPI"

Purpose: opening of the Ukrainian-Korean IT technology center

# Visit of the Extraordinary and Plenipotentiary Ambassador of Japan to Ukraine, H.E. Mr. Toichi Sakata

Date and place: October 21, 2011, NTUU "KPI"

Purpose: opening speech center of the Ukrainian-Japanese center NTUU "KPI"

# Visit of M.Z. Zgurovsky to the Republic of Belarus

Date and place: November 14-17, 2011, Minsk, Republic of Belarus

Purpose: participation in the forum "Belarus - Ukraine"

# Visit of M.Z. Zgurovsky to the Republic of Austria

**Date and place:** November 28-30, 2011, Republic of Austria **Purpose:** participation in the UNIDO meeting

Visit of M.Z. Zgurovsky to the Republic of Austria

Date and place: December 08-11, 2011, Republic of Austria

Purpose: participation in the International Conference on Sustainable Development

# Visit of M.Z. Zgurovsky to the Russian Federation

Date and place: December 15-16, 2011, Moscow, Russian Federation

**Purpose:** participation in the joint Ukrainian-Russian Seminar "Formation of the Global GIS space for study of sustainable development"

# Visit of the Extraordinary and Plenipotentiary Ambassador of Japan to Ukraine, H.E. Mr. Toichi Sakata

Date and place: March 20, 2012, NTUU "KPI"

Purpose: fair of Japanese universities "Education in Japan" in the NTUU "KPI"

## Visit of M.Z. Zgurovsky to the Republic of China

Date and place: April 04-08, 2012, Republic of China

**Purpose:** participation in the scientific forum "Science and technology in the XXI century"

# Visit of the Extraordinary and Plenipotentiary Ambassador of the German Republic to Ukraine, H.E. Mr. Gans-Yurgen Gaymziot

Date and place: April 19, 2012, NTUU "KPI"

**Purpose:** presentation of the diploma Honorary Doctor of Faculty of Aircraft and Space Systems NTUU "KPI" professor of Munich Technical University, German cosmonaut Mr. Ulrich Walter

## Visit of the Extraordinary and Plenipotentiary Ambassador of the French Republic to Ukraine, H.E. Mr. Alen Reni

Date and place: April 20, 2012, NTUU "KPI"

Purpose: round tables with participation of intercollegiate agency Francophonie in NTUU "KPI"

**Results:** participation in round table discussions, debates

Visit of the Extraordinary and Plenipotentiary Ambassador of Japan to Ukraine, H.E. Mr. Toichi Sakata

Date and place: April 24, 2012, NTUU "KPI"

**Purpose:** meeting of Ukrainian scientists and researchers presenting the program of scientific and technological exchange of Japan Society for the Promotion of Science (JSPS)

## Visit of S.I. Sydorenko to the Republic of Albania

Date and place: May 17-19, 2012, Republic of Albania

**Purpose:** participation in the Forum and session of the BSUN Congress

## 4. Publications and multimedia materials

1. UNESCO Chair official web-site http://www.unesco.ntu-kpi.kiev.ua

 Title: M. Zgurovsky, V. Melnik, P. Kasyanov. Evolution Inclusions and Variation Inequalities for Earth Data Processing I
 Publisher(s): Springer
 Year: 2011
 Type of document/material: monograph

 Title: M. Zgurovsky, V. Mel'nik, P. Kasyanov. Evolution Inclusions and Variation Inequalities for Earth Data Processing II
 Publisher(s): Springer
 Year: 2011
 Type of document/material: monograph

- 4. Title: M. Zgurovsky, N. Pankratova. System Analysis: Problems, Methodology and Usage.– 743 p.
  Publisher(s): "Naukova Dumka" Year: 2011
  Type of document/material: book
- 5. Title: D. Ikeda, M.Z. Zgurovsky. Japan and Ukraine Different Fortunes, Common Hopes. Dialogues. – 304 p.
   Publisher(s): "Grad" Year: 2011 Type of document/material: book

 6. Title: M.Z. Zgurovsky. Kyivan Polytechnics – Pioneers of Aviation, Cosmonautics, Rocket Production. – 276 p.
 Publisher(s): NTUU "KPI"
 Year: 2011
 Type of document/material: course book

7. **Title**: M. Zgurovsky, V. Pankratov. Towards Evaluation of Sustainability of Cognitive Cards for Complex Systems.– P. 7.

Publisher(s): (UI), Moscow Year: 2011 Type of document/material: Report at International Scientific and Practical Multiconference: "Managing of Large Systems": "Cognitive Modelling - 2011"

8. Title: Shukayev S.M. "KPI" in the TOP 700 International QS Ranking. – P. 2

Publisher(s): Kyiv Polytechnic, №31 Year: 2011

Type of document/material: article

9. **Title**: Zgurovsky M., Kasyanov P.O., Yefremov K.V., Pasichny A.M. System Approach for Earth Data Analysis Problems.– P. 1.

Publisher(s): "IASA" NTUU "KPI" Year: 2011 Type of document/material: Materials of the Geoinformatics-2011 Conf.

 Title: Shukayev S.M. KPI - Member of the Educational Initiatives of UNESCO. – P. 1
 Publisher(s): Kyiv Polytechnic, №15
 Year: 2012
 Type of document/material: article

11. Title: M. Zgurovsky, P. Kasyanov, O. Kapustyan, J.Valero, N. Zadoianchuk. Evolution Inclusions and Variation Inequalities for Earth Data Processing III. – 338 p.
Publisher(s): Springer
Year: 2012
Type of document/material: book

# IV. Outcomes

International activity of NTUU «KPI» is one of the key directions of the university strategic development. It consists of such basic constituents: preparation of specialists and scientific and academic brainpower for foreign countries; participating in international educational organizations, funds and calls which are held with the purpose of obtaining grants; exchanging information about scientific publications, participation in conferences, exhibitions, seminars, educational fair; collaboration with the oversea institutes of higher education, including academic and student exchanges.

UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics, which has become one of the brain power centers of Ukrainian higher technical education, plays an important role in this process. The Chair took the initiative in organizing the international congresses, conferences and workshops concerning the different aspects of higher education growth and understanding of its importance in modern society.

Faculty members and students of NTUU "KPI" use the opportunities of training abroad due to educational grants and programs; implement joint scientific projects with foreign partners, the results of these workshops being published in the newspaper "Kyivskiy Politechnik".

One of the important directions of activity for the UNESCO Chair is participation in the program "UNESCO-UNITWIN OCW/OER INITIATIVE".

(UUOOI) aimed at promotion of the integrated research system, training, development of programs (education, natural, social and humanitarian sciences, culture, communication and information) and inter-university cooperation basing on the transfer of knowledge across borders.

In 2011 Handong Global University which is the member of UUOOI suggested NTUU "KPI" participating in creation of the open electronic course materials bank with free access.

Faculty members of the Chair of mathematical analysis and theory of chances under the Faculty of Physics and Mathematics of NTUU "KPI" developed electronic course "Mathematics for engineers and economists". The course includes lectures and practical trainings on linear algebra, analytical geometrics, differential and integral calculus of functions of a single variable. Besides, video version of the course was developed which consists of logically related sequence of Microsoft PowerPoint slides with appropriate off-screen commentaries. Course materials were highly appreciated by the Korean colleagues and placed on the web-site of Handong Global University www.uuooi.org/english/portal.php.

Starting from 2009, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics actively set to work on preparing NTUU "KPI" to participation in the most prestigious world university rankings, such as The Times University Rankings, QS World University Rankings. The Chair takes an active part in discussing principles of new ranking for the Central and Eastern Europe countries suggested by QS.

In 2011 NTUU "KPI" for the first time entered the list of TOP 700 of QS World University Rankings.

Another field of the Chair's activities is the comprehensive support for the participation of the University scientists in international programs of researches (FP7, TEMPUS, Erasmus Mundus, Fulbright programs, etc.). For this purpose, a number of workshop sessions were held with the involvement of UNESCO Chair on the basis of NTUU "KPI" in 2011 – 2012 for familiarizing the University's scientific community with peculiarities of making applications for international programs participation, and creation of consortia, as well as experience of the world front-rank universities in this area.

Developing the ideas of 4 projects of FULBRIGHT Program a Educational and strategic NTUU "KPI" – Fulbright Program collaborative plan on Sustainable Development for AY 2013-2017 has been worked out. There have been no examples of such cooperation between Fulbright Program and Ukraine before.

A significant event of the year 2011 was that NTUU "KPI" (fist among Ukrainian universities) has been granted a membership in the program United Nations Academic Impact which is the global initiative of UN, involving universities into realization of 10 world acknowledged principles such as: sustainable development, human rights and freedom of speech, promotion of the dialogue between cultures, overcoming of intolerance.

In 2011 the activity of Ukrainian Gender Education Center has been signified by the realization of the project EU-UNDP. The program of equal opportunities and rights for women in Ukraine within the framework of promotion of gender research and gender education in Ukrainian universities, research and scientific centers -

supported the project 'Software support for evaluation of knowledge of gender modules in accordance with ECTS system'. The project is aimed at implementation of gender research into the system of higher education of Ukraine according to requirements of modernization and unification with European Credit Transfer System.

Owing to the active work of the UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics the international cooperation for the last years became the integral part of NTUU "KPI" and IASA. This creates the favorable conditions for future integration in the international and, in particular, European educational, scientific and informational space and promotes introduction of the reforms, which were started with the Bologna process.

NTUU «KPI» has become more open and susceptible to the experience of other universities, its interuniversity and international relations have grown, a wider opportunity for spreading one's achievements and experience has appeared.

The main aim the UNESCO Chair in Higher Technical Education, Applied System Analysis is the realization of these opportunities for cooperation with NTUU "KPI".

# **VI. Forthcoming Activities**

# ACSE 12 – Applicationso of Computer and Software Engineering

Date and place: September, 2012, NTUU "KPI"

Partnership: under verification

International Scientific Conference "Modern Problems of Electric Power Engineering and Automation"

Date and place: November, 2012, NTUU "KPI"

Partnership: under verification

# International Scientific and Practical Conference on System Analysis and Information Technology

Date and place: May, 2013, NTUU "KPI"

**Partnership:** Institute for Applied System Analysis, NTUU "KPI", UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics

# **VII. Development Prospects**

Further activity of the UNESCO Chair is aimed at the implementation of the main trends of the scientific level in order to increase the role of the university in Ukraine and other countries.

Activities aimed at the increase of the collaboration between specialists, consultants, experts in the fields of education, science and culture on the national, international and world levels are planned.

Project records (terms of reference, applications) will be developed and the search for possibilities of getting grants for the educational, research and culture projects as well as for training, student and academic exchanges will be conducted.

UNESCO Chair will continue to actively develop and implement ranking of higher education institutions of Ukraine according to the statements of Memorandum about Cooperation with UNESCO-CEPES from 25<sup>th</sup> April 2006.

UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics is going to further collaborate with the «UNESCO-UNITWIN OCW/OER Initiative» (UUOOI).

The activity of the Ukrainian Gender Education Centre, established at NTUU "KPI" in 2001 under the aegis of the UNESCO Chair, is based on creating tools that allow to implement new information technology into gender education. It acts up to the Memorandum of UNDP in Ukraine and National Technical University of Ukraine.

UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics at NTUU "KPI" plans to continue development and collaboration in the frame of Founding of the UNESCO/UNITWIN Chairs Programme, approved in 1992 at the 26th UNESCO General Conference. The main fields of this program's charity concern higher educational institutions of the developing countries and countries in transit. The UNESCO/UNITWIN Chairs projects refer to research preparation and cover all main fields of UNESCO Chair in Higher Education, Applied Systems Analysis and Informatics: education, human rights, environmental protection, humanities and applied science, communication, etc.

Further activity of UNESCO will be focused on realization of the strategic guidelines for 2008-2013, approved at the 35th Session of the General Conference of UNESCO. Particularly, fundamentalization of education on all levels; development of the system of life-long learning for the people; improvement of accessibility to the qualitative education by development of distance learning system and means of information support for the process using modern information and communication technologies.