



**UNITWIN/UNESCO  
CHAIRS PROGRAMME**

***PROGRESS  
REPORT  
2010-2011***

**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  
2011**

## **UNITWIN/UNESCO Chairs Programme Progress Report**

**Period of Activity:** 1.06.2010 – 31.05.2011

**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 2010-2011 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 2 seminars, 2 forums, and 4 international conferences were carried out with the participation of the UNESCO Chair.

Interuniversity exchange within the subjects of the UNESCO Chair activity took place (5 visits).

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

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## I. Address and Contact

	<b>Address of the Chairholder (or Coordinator). Other contact person</b>
<b>Name</b>	Mykhailo Zgurovsky
<b>Function/ Title</b>	Rector of the National Technical University of Ukraine “Kyiv Polytechnic Institute” (NTUU”KPI”), Academician of the National Academy of Sciences of Ukraine (NASU)
<b>University/ Institution</b>	The National Technical University of Ukraine “Kyiv Polytechnic Institute” (NTUU ”KPI”)
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<b>Web Site</b>	<a href="http://www.unesco.ntu-kpi.kiev.ua">http://www.unesco.ntu-kpi.kiev.ua</a>

## II. Available Resources

### 1. Human Resources

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

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

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

*The UNESCO Chair has three sections:*

- **HIGHER TECHNICAL EDUCATION,**  
headed by **Corresponding Member of the National Academy of Sciences of Ukraine, Professor Yuri 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:** Videoconference, 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:** Videoconferencing

## III. Activities

### 1. Academic Activities

#### Education/Training/Research

#### The Brokerage Event on Energy (FP7)

**Date and place:** October 19 – 20, 2010, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine

**Partnership:** National Technical University of Ukraine "Kyiv Polytechnic Institute"; The National Information Centre for EU in science and technologies; Institute of Fundamental technological Researches of Polish Academy of Sciences.

**Participants: 67**

- 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	Turkey, Armenia, Azerbaijan, Georgia, Kyrgyzstan, Uzbekistan
Eastern and Central Europe	Ukraine, Russia, Byelorussia, Poland, Moldova, Latvia, Slovenia
Western Europe and North America	Germany, Italy
Latin America	

## 2. Conferences/Meetings

### International interdisciplinary Humboldt-conference “Mathematics and life sciences: possibilities, interlacements and limits”

**Date and place:** August 5-8, 2010, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine

Partnership: Humboldt-Club in Ukraine under the auspices of Alexander von Humboldt Foundation (Germany) and Embassy of the Federal Republic of Germany in Ukraine, Institute of Mathematics of the National Academy of Sciences of Ukraine and Clinical Hospital “Feofania” under State Administration, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Bogomoletz Institute of Physiology, A.V. Bogatsky Physico-Chemical Institute, National Academy of Sciences of Ukraine, Institute of Radiation Medicine and Research Center of the National Academy of Medical Sciences of Ukraine, German Academic Exchange Service DAAD.

#### **Participants: 150**

- 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	Indonesia
Eastern and Central Europe	Ukraine, Russia, Poland
Western Europe and North America	Germany, France, Great Britain, USA
Latin America	

#### **Publications:**

**Title:** Proceeding of the International interdisciplinary Humboldt-conference «Mathematics and life sciences: possibilities, interlacements and limits» (August 5-8, 2010, Kyiv, Ukraine).

**Publishers:** NTUU “KPI”

**Year of Publication:** 2010

**Type of document/material:**

- Book
- Periodical
- Others – Proceedings of the Conference

**Language(s):** Ukrainian

**Keywords:** mathematics, biology, chemistry, brain and nerves problem, mathematical modeling for medicine.

## International Conference “Geodynamical phenomena: from observations and experiment to theory and modeling”

**Date and place:** September 20-24, 2010, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine

**Partnerships:** National Technical University of Ukraine “Kyiv Polytechnic Institute”, Subbotin Institute of Geophysics of the National Academy of Sciences of Ukraine, Minnesota University, Twin Cities (USA), California University, San Diego (USA), Institute of Physics of the Earth of Russian Academy of Sciences, Moscow (Russia).

**Participants:** 110

- 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	USA
Eastern and Central Europe	Ukraine, Russia

### **Publications:**

**Title:** Proceeding of the International Conference “Geodynamical phenomena: from observations and experiment to theory and modeling” (September 20-24, 2010, Kyiv, Ukraine).



**Publishers:** NTUU “KPI”

**Year of Publication:** 2010

**Type of document/material:**

- Book  
 Periodical (Newspaper)  
 Others – Proceedings of the Conference

**Language(s):** Ukrainian

**Keywords:** latest computational methods in seismology, lithospheres and crustal dynamics, mineralogy, mantle heat-transfer, geophysical fields.

## International Conference «From Applied Research to Entrepreneurship: Promoting Innovation-driven Start-ups and Academic Spin-offs»

**Date and place:** November 9-11, 2010, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine

**Partnerships:** Economic Commission for Europe, Ministry of Education and Science of Ukraine, National Technical University of Ukraine “Kyiv Polytechnic Institute”, The Royal Norwegian Embassy in Ukraine.

**Participants:** 178

- 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
North Europe	Norway, Estonia, Sweden
Western Europe and North America	Netherlands, Germany, Great Britain

### Publications:

**Title:** International Conference «From Applied Research to Entrepreneurship: Promoting Innovation-driven Start-ups and Academic Spin-offs» (November 9-11, 2010, Kyiv, Ukraine).

**Publishers:** NTUU “KPI”

**Year of Publication:** 2010

**Type of document/material:**

- Book
- Periodical (Newspaper)
- Others – Proceedings of the Conference

**Language(s):** Ukrainian, Russian, English

**Keywords:** commercialization of results of scientific researches, businessman, business, public policy

## German-Ukrainian power forum

**Date and place:** December 22, 2010, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine

**Partnerships:** National Technical University of Ukraine “Kyiv Polytechnic Institute”, Embassy of the Federal Republic of Germany in Ukraine.

**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
Africa	
Arab States	
Asia/Pacific	
Eastern and Central Europe	Ukraine
Western Europe and North America	Germany
Latin America	

## Ukrainian-workshop “NTUU “KPI”-WUT. New horizons in research cooperation”

**Date and place:** April 6-9, 2011, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine

**Partnership:** National Technical University of Ukraine “Kyiv Polytechnic Institute”, Warsaw university of technologies, Ukrainian-Polish Center at NTUU “KPI”, 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).

### **Participants: 98**

- 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

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

**Title:** Ukrainian-workshop “NTUU “KPI”-WUT. New horizons in research cooperation”

**Publishers:** Kyivsky Polytechnic, No.15

**Year of Publication:** April 21, 2011

**Type of document/material:**

- Book
- Periodical (Newspaper)
- Others

**Language(s):** Ukrainian

**Keywords:** Warsaw University of Technologies, Technical University of Lodz, collaboration, double diploma, environmental protection, solid-state physics, navigation systems, nanoceramic materials, measuring and communications devices, mechanical engineering, sustainable development.

## International forum “For Peace, Mutual Understanding, and Cooperation for the Safer World”

**Date and place:** April 19, 2011, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine.

**Partnership:** Ministry of Emergency Situations of Ukraine, The Ukrainian Peace Council, Slavutych City Hall, National Technical University of Ukraine “Kyiv Polytechnic Institute”, JICA Project “Ukrainian-Japanese Center”, 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”.

### **Participants: 442**

- 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
- 

<b>Regions</b>	<b>Countries</b>
Africa	
Arabian countries	
Asia/Pacific	Japan
Eastern and Central Europe	Ukraine, Russia, Poland
Western Europe and North America	
Latin America	

### **Publications:**

**Title:** Proceeding of the International forum „For Peace, Mutual Understanding, and Cooperation for the Safer World” (April 19, 2011, Kyiv, Ukraine).

**Publishers:** NTUU “KPI”

**Year of Publication:** 2011

**Type of document/material:**

- Book
- Periodical
- Others – Proceedings of the Conference

**Language(s):** Ukrainian

**Keywords:** Chernobyl nuclear power plant, technological, humanitarian and international aspects, projects, ecological constituent of sustainable development, safe world.

**Title:** International forum „For Peace, Mutual Understanding, and Cooperation for the Safer World”

**Publishers:** Kyivsky Polytechnic, No.17

**Year of Publication:** May 5, 2011

**Type of document/material:**

- Book  
 Periodical (Newspaper)  
 Others

**Language(s):** Ukrainian

**Keywords:** Chernobyl catastrophe, atomic energy, social responsibility, risks, international cooperation, ecological and economic rehabilitation.

## International Conference “System Analysis and Information Technologies 2011”

**Date and place:** May 23-28, 2011, National Technical University of Ukraine “Kyiv Polytechnic Institute”, Kyiv, Ukraine.

**Partnership:** 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", Oles Honchar Dnipropetrovsk National University, scientific societies of students and postgraduates of NTUU “KPI” and IASA, Students’ Council of NTUU “KPI”, Students Council of IASA.

**Participants:** 110

- 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	Turkey, Iran, Armenia, Georgia, Azerbaijan, Kyrgyzstan, Uzbekistan, Jordan, Japan
Eastern and Central Europe	Ukraine, Russia, Byelorussia, Moldova
North Europe	Estonia

**Publications:**

**Title:** Proceeding of the International Conference “System Analysis and Information Technologies 2011” (May 23-28, 2011, Kyiv, Ukraine).

**Publishers:** NTUU “KPI”

**Year of Publication:** 2011

**Type of document/material:**

- Book
- Periodical
- Others – Proceedings of the Conference

**Language(s):** Ukrainian, Russian, English

**Keywords:** system analysis, intelligent system, grid-technologies in science and education, progressive information technologies, academic programs.

### **3. Interuniversity Exchanges/Partnership**

#### **Visit of M.Z. Zgurovsky to Athens, Greece**

**Date and place:** June 8-10, 2010, Athens, Greece

**Purpose:** discussing joint educational programs, participation in meetings on the joint program “Double Diploma” with University of Indianapolis, Athens

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

**Date and place:** June 18-20, 2010

**Purpose:** negotiations with the UNIDO Director about the opening of the Clean Production Center at “KPI”

#### **Visit of the Extraordinary and Plenipotentiary Ambassador of the Kingdom of Norway to Ukraine, H. E. Mr. Olav Berstad**

**Date and place:** June 29, 2010, NTUU “KPI”.

**Purpose:** discussing collaboration between NTUU «KPI» and Norwegian scientific and educational sphere

#### **Visit of the Extraordinary and Plenipotentiary Ambassador of Japan to Ukraine, H.E. Mr. Mutsuo Mabuchi**

**Date and place:** June 30, 2010, NTUU “KPI”.

**Purpose:** holding a meeting of the Joint Coordinating Committee of the JICA «Ukrainian-Japanese Center» Project

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

**Date and place:** August 8, 2010, NTUU “KPI”.

**Purpose:** holding international interdisciplinary Humboldt-conference «Mathematics and life sciences: possibilities, interlacements and limits»

**Results:** participating in meetings of the conference, holding speeches during discussions

### Visit of M.Z. Zgurovsky to the Headquarters of CODATA

**Date and place:** August 19-22, 2010, Paris, French Republic

**Purpose:** participation in the CODATA committee meeting

### Visit of the Extraordinary and Plenipotentiary Ambassador of the Turkmenistan to Ukraine, H.E. Mr. Nurberdy Amanmuradov

**Date and place:** November 4, 2010, NTUU "KPI".

**Purpose:** discussing the prospects of further collaboration expansion, increasing the number of students for studying at NTUU «KPI»

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

**Date and place:** November 17, 2010, NTUU "KPI".

**Purpose:** discussing the issues of collaboration development, launching new Ukrainian-French projects

**Results:** signing an Agreement on creating at NTUU "KPI" the Ukrainian-French Center for university and scientific collaboration

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

**Date and place:** March 14-16, 2011, Paris, French Republic

**Purpose:** participation in the meeting of the World Data System Consultative Committee

### Visit of the Extraordinary and Plenipotentiary Ambassador of the USA to Ukraine, H.E. Mr. John Francis Tefft

**Date and place:** April 27, 2011, NTUU "KPI".

**Purpose:** lecture on the topic of «Democracy and why it is so important for Ukraine»

**Results:** 250 teachers and students of the university took part in discussion

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

**Date and place:** May 16-18, 2011, Saint Petersburg, Russian Federation

**Purpose:** participation in the fourth ecological congress

## 4. Publications and multimedia materials

1. UNESCO Chair official web-site <http://www.unesco.ntu-kpi.kiev.ua>
2. **Title:** Zgurovsky M.Z, Boldak A.A., Pomerantseva T.N. An Analysis of the Impact of Global Threats on the Sustainable Development of Countries and Regions of the World Using Bayesian Belief Networks. – P. 152–163  
**Publisher(s):** Kibernetika i sistemny analiz, №5  
**Year:** 2010  
**Type of document/material:** article
3. **Title:** Zgurovsky M.Z. Metric aspects of periodic processes in economy and in society. – P. 3–9  
**Publisher(s):** Kibernetika i sistemny analiz, №2  
**Year:** 2010  
**Type of document/material:** article
4. **Title:** Zgurovsky M.Z., Gvishiani A.D., Yefremov K.V., Pasichny A.M. Integration of the Ukrainian Science in the World Data System. – P. 49–58.  
**Publisher(s):** Kibernetika i sistemny analiz, №2  
**Year:** 2010  
**Type of document/material:** article
5. **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
6. **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
7. **Title:** The Essentials of Sustainable Development of the Society: Lectures Course in two parts/ M. Z. Zgurovsky, G.O. Statyuha. – K.: NTUU "KPI", 2010. – P.1. – 454 p.  
**Publisher(s):** NTUU "KPI"  
**Year:** 2010  
**Type of document/material:** course book
8. **Title:** M.Z. Zgurovsky. Thorny Path to Recovery: article and interview. – 368 p.  
**Publisher(s):** "Geneza"  
**Year:** 2010



**Type of document/material:** scientific and journalistic publication

9. **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

10. **Title:** M.Z. Zgurovsky, V.V. Yasynsky. Interconnection of Periodic Processes in Economy and Society. – P. 24-25

**Publisher(s):** «IASA» NTUU "KPI"

**Year:** 2010

**Type of document/material:** report on «System Analysis and Information Technologies: 12<sup>th</sup> International Conference on Science and Technology», SAIT 2010

11. **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

## 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; collaboration with the overseas 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.

Among the important activity directions the cooperation of the UNESCO Chair and UNESCO European Centre for Higher Education (UNESCO-CEPES) should be singled out. The main functions of which are treatment, introduction and development of the international examination principles of education quality and Ukrainian higher educational institutions work rating evaluation. The result of these activities was the compiling and publishing in 2008-2010 of the rating of Higher

Educational institutions of Ukraine “Top-200 Ukraine” that caused to broad discussion in the Ukrainian educational environment.

One of the remarkable results of the UNESCO Chair’s work was the new scientific and educational programs appearance in the university, in particular, such as “Technological forecasting”, “Intellectual property”, “Terrorist attack opposition”, “Ecologically harmless technologies”, “Bioinformatics”, “Mechotronics” and others. In general, 46 new specialties were introduced in the university.

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.

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 2010 – 2011 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.

NTUU “KPI” cooperates with the UNESCO Institute for Information Technologies in Education (Moscow) by developing the projects in the sphere of distant education. The National key point of the Institute was created and the great number of projects was started in the sphere of introduction of the distant education methods in Ukraine.

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. It also facilitates the realization of the “Dacar activity restrictions” that has the immediate importance in the United Nations educational strategy, program tasks of the UNITWIN/UNESCO Chair and other directions of the UNESCO activities.

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.

## VI. Forthcoming Activities

### XIV International Research Conference “Modelling, Identification, and Synthesis of Management Systems”

**Date and place:** September, 2011, Autonomous Republic of Crimea, Ukraine

**Partnership:** under verification

### IX International Research Conference “Mathematical and Programming Support of the MPZIS-2011 Intellectual Systems”

**Date and place:** November, 2011, Dnipropetrovsk, Ukraine

**Partnership:** under verification

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

**Date and place:** May, 2012, 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.

Ukraine plans to base on the strategy of United Nations Organization for education, science and culture, adopted at the UNESCO General Conference in October-November 2001.

According to the adopted strategy, one of the goals of Ukraine as the UNESCO member is provision of wide access to information and communication technology. It must be achieved as the result of forming the education system of the future “Education for all, lifelong and unlimited learning”.

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.

In the field of distance learning the UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics will continue to collaborate actively with the UNESCO Institute for Information Technologies in Education, Moscow.

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. Further introduction of gender research into higher educational system of Ukraine, introduction of new information technology into teaching gender courses while switching to credit-module system of education is planned.

Further activity of UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics will be based on the active work on realization of the strategical guiding lines for 2008-2013, approved at the 35th Session of the General Conference of UNESCO. Particularly, as a result of the round table work of Ministries of education, the Communiqué was decided, which designate the reference points for participating countries in fields of education and economic development, rights of education for everybody, education and sustainable development, partner relations in the interests of education and economic development. The Communiqué marks that the education and economic development are interconnected: the improvement of standards of education promotes the economic development, which for one's turn is the sources of resources for education.

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.