

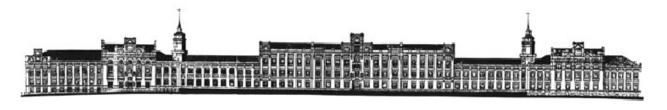
## UNITWIN/UNESCO CHAIRS PROGRAMME

# PROGRESS REPORT 2008-2009

## **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 2009

## UNITWIN/UNESCO Chairs Programme Progress Report

Period of Activity: 1.01.2009 - 31.06.2009

**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 2008-2009 is represented.

The most significant measures in the sphere of academic activities 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, 7 international conferences and 11 meeting were carried out with the participation of the UNESCO Chair.

Interuniversity exchange within the subjects of the UNESCO Chair activity took place (11 visits).

The UNESCO Chair activity was widely illustrated in publications (8 publications) and at the UNESCO Chair site <a href="http://www.unesco.ntu-kpi.kiev.ua">http://www.unesco.ntu-kpi.kiev.ua</a>

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## I. Address and Contact

	Address of the Host Institution	Address of the Chairholder (or Coordinator). Other contact person
Name	Mykhailo Zgurovsky	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)	Rector of the National Technical University of Ukraine "Kyiv Polytechnic Institute" (NTUU"KPI"), Academician of the National Academy of Sciences of Ukraine (NASU)
University/ Institution	The National Technical University of Ukraine "Kyiv Polytechnic Institute" (NTUU"KPI")	The National Technical University of Ukraine "Kyiv Polytechnic Institute" (NTUU"KPI")
Street	37, Peremohy ave.	37, Peremohy ave.
Postal Code	03056	03056
City	Kyiv	Kyiv
Country	Ukraine	Ukraine
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E-mail	zgur@zgurov.kiev.ua,	zgur@zgurov.kiev.ua,
Web Site	sidorenko@uap.ntu-kpi.kiev.ua http://www.unesco.ntu- kpi.kiev.ua	sidorenko@uap.ntu-kpi.kiev.ua http://www.unesco.ntu-kpi.kiev.ua

## 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 Assoc. Prof. Olexandr Zakhovaiko

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

Strategy workshop for Policy Makers: Scenarios for a coordinated approach to sustainable S/T co-operation with the Eastern Neighbors of the EU

Date and place: May 15, 2008, NTUU «KPI»

Partnership:

- Ministry of Education and Science of Ukraine
- National Technical University of Ukraine "Kyiv Polytechnic Institute";
- National Academy of Sciences of Ukraine
- Ministry of Education and Research of France
- Federal Ministry of Education and Research of Germany
- The National Information Center for Ukraine-EU Cooperation
- UNESCO chair: "Higher Technical Education, Applied System Analysis And Informatics", IASA
- The Scientific and Technological Research council of Turkey
- State Fund for Fundamental Research

Participants: 36 participants

**Target groups** 

Target group	Male	Female	Total
Undergraduate students			
Graduate students			
Postgraduate students			
Academics	6	3	9
Public administrators	15	10	25
Employees from industry			
Teachers from primary education			
Teachers from secondary education			
Teachers from technical and vocational			
education			
Teachers from adult education			
Others groups	2		2

## Geographical coverage for participants and partners:

☐ National

## ☑ Regional/Interregional/International

Regions	Countries
Africa	
Arab States	
Asia/Pacific	
Eastern and Central Europe	Ukraine, Russian Federation
Western Europe and North America	France, Finland, German Federation, Turkey,
•	Austria, Romania, Estonia
Latin America and the Caribbean	

**Funding sources:** 

Funding source	Type of Organisation/Institution	Period	Amount (US\$)
UNESCO Contribution			
Other contributions	National information center for EU collaboration in science and technologies sphere at the Kyiv scientific and technical center of economic information	May 15, 2008	2185

## Workshop "Participation of the Ukrainian scientists in the 7<sup>th</sup> Framework programme. Practice for applying"

Date and place: April 16, 2009, NTUU «KPI»

## Partnership:

- National Technical University of Ukraine "Kyiv Polytechnic Institute";
- The National Information Centre for Ukraine-Eu S&T Cooperation Nip Ukraine;
- UNESCO chair: "Higher Technical Education, Applied System Analysis And Informatics", IASA.

Participants: 46 participants

**Target groups** 

Target group	Male	Female	Total
Undergraduate students			
Graduate students	1	4	5
Postgraduate students	8	2	10
Academics	19	12	31
Public administrators			
Employees from industry			
Teachers from primary education			
Teachers from secondary education			
Teachers from technical and vocational			
education			
Teachers from adult education			
Others groups			

G	Seographical coverage for participants and partners:
	National
$\checkmark$	Regional/Interregional/International

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

## 2. Conferences/Meetings

## Congress of the Black Sea University Network «Forum on higher education»

Date and place: 2-5 April 2008, National Technical University of Ukraine «Kyiv Polytechnic Institute», Kyiv, Ukraine

Partnership: Ministry of Education and Science of Ukraine, National Technical niversity of Ukraine «Kviv Polytechnic Institute». Black Sea University Nety

	institute», Black Sea University Network, iir in Higher Technical Education, Applied IU «KPI».
<b>Inder the auspices:</b> of the UNESCO-C	EPES.
Participants: 212  ☑ Undergraduate students ☑ Graduate students ☑ Academics ☑ Public administrators ☑ Employees from industry, or other priing the company education ☐ Teachers from secondary education ☐ Teachers from technical and vocation ☑ Other groups	onal education
Regional  ☐ National  ☑ Regional/Interregional/Internation	Coverage nal
Regions	Countries
Africa	
Asia/Pacific	
Eastern and Central Europe	Azerbaijan, Albania, Bulgaria, Armenia, Greece, Georgia, Moldova, Russian Federation, Rumania, Serbia, Ukraine, Turkey
Western Europe and North America	
Latin America and the Caribbean	
Publications:  Title: Proceeding «Forum on higher ed Network, April 2-5, 2008 Kyive Publishers: NTUU "KPI"  Year of Publication: 2008  Type of document/material:  □ Book □ Periodical □ Others – Proceedings of the Collanguage(s): English	

Keywords: Black Sea Region, University Network, education, science, innovations,

mobility, regional cooperation, development.

Publishers: Kyivsky Polytechnic, №14 Year of Publication: May 18, 2008 Type of document/material:  □ Book □ Periodical (Newspaper) □ Others
Type of document/material: ☐ Book ☑ Periodical (Newspaper)
□ Book ☑ Periodical (Newspaper)
Periodical (Newspaper)
Others
LI Ottiers
Language(s): Ukrainian
Keywords: Black Sea Region, University Network, education, regional cooperation,
development.
'
IX International Scientific and Practical Students', Postgraduates'
and Young Scientists' Conference. "Ecology. Person. Society".

Date and place: May 13-18, 2008, NTUU «KPI»

**Partnership:** Scientific Student Association of NTUU "KPI", The Royal Institute of Technology (Sweden), Delft University of Technology (the Netherlands), State Polytechnic University of Catalonia, NTUU «KPI» Department for scientific and educational work, State Ecologic Inspection of the Ministry of Environmental Protection of Ukraine, NTUU "KPI" Chair in Ecology and Technology of Plant Polymers, NTUU "KPI" Chair in eco-biotechnology and bio-power engineering, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA

Partici	pants: 201
$\checkmark$	Undergraduate students
$\checkmark$	Graduate students
	Academics
$\checkmark$	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
	rtogional octorago

## □ National☑ Regional/Interregional/International

Regions	Countries	
Africa		
Arab States		
Asia/Pacific		
Eastern and Central Europe	Ukraine, Poland, Russian Federation, Republic of Belarus, Azerbaijan, Lithuania, Moldova	
Western Europe and North America	Sweden, Spain, the Netherlands	
Latin America and the Caribbean		

### **Publications:**

**Title:** Proceedings of XI International Scientific and Practical Students', Postgraduates' and Young Scientists' Conference. "Ecology. Person. Society" (May 13-18, 2008. Kviv. Ukraine ) Publishers: NTUU "KPI" Year of Publication: 2008 Type of document/material: ☐ Book Periodical ☑ Others – Proceedings of the Conference Language(s): Ukrainian **Keywords:** protection of flora and fauna, ecological monitoring, ecological legislation, problems of ecological education and awareness, mathematic modeling methods, efficient usage of natural resources. Title: Ecology. Person. Society. Publishers: Kyivsky Polytechnic, №19 Year of Publication: May 30, 2008 Type of document/material: Book  $\square$ Periodical (Newspaper) Others Language(s): Ukrainian

Keywords: ecological future, modern technologies, water purification, ecological

## IX International Conference "Progressive Equipment and Technology - 2008»

education and awareness, ecological laws.

**Date and place:** 20-24 May 2008, on the base of National Technical University of Ukraine «Kyiv Polytechnic Institute», Kyiv, Ukraine

Partnerships: Ministry of Education and Science of Ukraine, Ministry of industrial policy, National Technical University of Ukraine «Kyiv Polytechnic Institute», Institute of Mechanical Engineering of the NTUU "KPI",Institute of ultra-hard materials (NAS of Ukraine), Scientific council on a mechanics rigid deformable skew field NAS of Ukraine, The Society of Mechanical Engineers at the NTUU "KPI", Public Corporation «Research Institute of Aeronautical Technology» (Ukraine), Sevastopol National Institute of Nuclear Energy and Industry, Sevastopol National Technical University, Wroclaw University of Technology (Poland), Otto-von-Gürike University of Magdeburg, Faculty of Mechanical Engineering of University of Belgrade, Technical University of Gabrovo (Bulgaria), UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI».

<b>Partici</b>	pants: 202
	Undergraduate students
	Graduate students
	Academics
abla	Public administrators
abla	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, Russian Federation, Serbia,
	Montenegro, Poland, Bulgaria
Western Europe and North America	Germany
Latin America and the Caribbean	

## 21<sup>st</sup> International CODATA Conference "Scientific Information for Society – from Today to the Future"

**Date and place:** 5-8 October 2008, National Technical University of Ukraine «Kyiv Polytechnic Institute», Kyiv, Ukraine

**Partnership:** National Technical University of Ukraine «Kyiv Polytechnic Institute», Committee on Data for Science and Technology (CODATA) of the International Council for Science, National Academy of Science of Ukraine, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI».

Partici	pan	ts:	3/5
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☑ Other groups

$   \sqrt{} $	Undergraduate students
	Graduate students
abla	Academics
abla	Public administrators
	Employees from industry, or other private sector
	Teachers from primary education
	Teachers from secondary education
	Teachers from technical and vocational education

## Regional Coverage

□ National

## ☑ Regional/Interregional/International

Regions	Countries
Africa	Ghana, Egypt, South Africa
Asia/Pacific	Azerbaijan, Israel, India, Iran, China,
	South Korea, Malaysia, Japan, Australia
Eastern and Central Europe	Byelorussia, Bulgaria, Georgia,
	Lithuania, Poland, Russian Federation,

	Rumania, Slovakia, Ukraine, Czech
	Republic
Western Europe and North America	Canada, USA, Austria, Belgium, Hungary
	Great Britain, Ireland, Spain, Італія,
	Netherlands, Germany, Norway, France,
	Sweden,

### Publications:

**Title:** Abstracts «Scientific Information for Society – from Today to the Future». 21st International CODATA Conference, October 5-8, 2008.- Kyiv, 2008. – 287 p.

Publishers: NTUU "KPI"
Year of Publication: 2008
Type of document/material:

Book

✓ Book✓ Periodical✓ OthersLanguage(s): English

**Keywords:** Scientific Data for Biology, Physics, Material Science, International Databases, Information Sciences, Sustainable development, Environmental Protection, Public Health, Universal Communications, Information Security.

**Title:** World Scientific Forum in KPI. **Publishers:** Kyivsky Polytechnic, №30 **Year of Publication:** October 16, 2008

Type of document/material:

☐ Book

☑ Periodical (Newspaper)

□ Others

Language(s): Ukrainian

**Keywords:** Data Retention, Development of Information Technologies, International Cooperation, Information Society.

## IV<sup>th</sup> International Conference "Women in Sciences: the Past, the Present-day, the Future."

Date and place: November 7-8, 2008, NTUU «KPI»

**Partnership:** Ministry for Family, Youth and Sport of Ukraine, Ministry for Culture and Tourism of Ukraine, UNDP Programme of Equal Opportunities, Public Organization "Women in Sciences", UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA, International Organization "Zhinocha Gromada", Ukrainian International Committee for Scientific and Cultural Issues at NAS of Ukraine, Ukrainian Gender Education Centre at NTUU «KPI»

Participants: 153 participant	ants	partici	153	pants:	Partici	P
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✓ Undergraduate students

☑ Graduate students

✓ Academics

✓ Public administrators

☐ Employees from industry

☐ Teachers from primary education

☐ Teachers from secondary education

pplied System Analysis and Informatics	2008–2009
☐ Teachers from technical and vocational ☐ Other groups	education
Regional ☐ National ☑ Regional/Internation	Coverage
Regions Africa	Countries
Arab States	
Asia/Pacific	
Eastern and Central Europe	Ukraine, Lithuania
Western Europe and North America	Germany, USA
Latin America and the Caribbean	Germany, GOA
Editi 7 tillollod dild tilo Odlibbodii	
Publisher(s): Kyivsky Polytechnic, №3 Year: November 20, 2008 Type of document/material:  □ Book □ Periodical(newspaper) □ Others Language(s): Ukrainian Keywords: gender realities, women in	science and education, gender culture
/II International Scientific	
<del>_</del>	ovement control and construction
of aviation and space technology	<u>».</u>
Note and place. April 22.24, 2000, NEU	I KDI
Date and place: April 23-24, 2009, NTUL	J «KPI»
<del>_</del>	versity of Ukraine «Kyiv Polytechnic Technical Education, Applied System
Participants: 173  ☑ Undergraduate students ☑ Graduate students ☑ Academics ☑ Public administrators □ Employees from industry, or other p □ Teachers from primary education □ Teachers from secondary education □ Teachers from technical and vocatio □ Other groups	
Regional	Coverage
□ National	
☑ Regional/Interregional/Internation	al

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

### **Publications:**

Title: Proceedings of VII International Scientifically Technical Conference

"Girotechnologies, navigation, movement control and construction of aviation

and space technology» (April 23-24, 2008, Kyiv, Ukraine)

Publishers: NTUU "KPI"
Year of Publication: 2009
Type of document/material:

☐ Book
☐ Periodical
☐ Others – Proceedings of the Conference
Language(s): Ukrainian

## X International Scientific and Practical Students', Postgraduates' and Young Scientists' Conference. "Ecology. Person. Society".

Date and place: May 13-18, 2009, NTUU «KPI»

**Partnership:** Scientific Student Association of NTUU "KPI", The Royal Institute of Technology (Sweden), Delft University of Technology (the Netherlands), State Polytechnic University of Catalonia, NTUU «KPI» Department for scientific and educational work, State Ecologic Inspection of the Ministry of Environmental Protection of Ukraine, NTUU "KPI" Chair in Ecology and Technology of Plant Polymers, NTUU "KPI" Chair in eco-biotechnology and bio-power engineering, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA

Partici	pants: 147
$\checkmark$	Undergraduate students
	Graduate students
	Academics
$\checkmark$	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**

	lational	
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☑ Regional/Interregional/International

Regions	Countries
Africa	

Arab States	
Asia/Pacific	
Eastern and Central Europe	Ukraine, Poland, Russian Federation,
	Republic of Belarus, Lithuania, Moldova
Western Europe and North America	Sweden, Spain, the Netherlands
Latin America and the Caribbean	

### **Publications:**

**Title:** Proceedings of XI International Scientific and Practical Students', Postgraduates' and Young Scientists' Conference. "Ecology. Person. Society" (May 13-18,

2009, Kyiv, Ukraine)

Publishers: NTUU "KPI"
Year of Publication: 2009
Type of document/material:

Book

☐ Periodical

☑ Others – Proceedings of the Conference

Language(s): Ukrainian

**Keywords:** protection of flora and fauna, ecological monitoring, ecological legislation, problems of ecological education and awareness, mathematic modeling methods, efficient usage of natural resources.

## 3. Interuniversity Exchanges/Partnership

## Visit of M. Z. Zgurovsky, International Educational Fair

Date and place: March 6-8, 2008, Warszawa, Poland

**Purpose:** to participate in the International Educational Fair

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

Date and place: April 5-7, 2008, Paris, France

Purpose: to participate in the session of the executive CODATA Committee

## Visit of M. Z. Zgurovsky to the Warszawa Technical University

Date and place: April 16-19, 2008, Warszawa, Poland

Purpose: to participate in the International Education Conference "Warszawa-2008"

## Visit of M. Z. Zgurovsky to Kaunas Technical University

Date and place: September 24-27, 2008, Kaunas, Lithuania

Purpose: to participate in the 27<sup>th</sup> International Conference of Rectors and

Presidents of Technical Universities of Europe.

## Visit of M. Z. Zgurovsky to Istanbul, Turkey

Date and place: February 18 – 21, 2009, Istanbul, Turkey

**Meta:** to participate in the session of the executive Black Sea University Network (BSUN) Committee

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

Date and place: 28 February – 1 March 2009, Paris, France

Purpose: to participate in the session of the executive CODATA Committee

## <u>Visit of His Excellency Ambassador of France in Ukraine M Jacques</u> FAURE

Date and place: April 21, 2009, NTUU "KPI"

**Purpose:** Lection «Bilateral cooperation between France and Ukraine. The role of France in the relationship «Ukraine-EU»»

**Results:** almost 205 university lectures and students participated in the lecture and discussion

## Visit of the Extraordinary Ambassador of the USA in Ukraine William B. Taylor

Date and place: April 23, 2009, NTUU "KPI"

**Purpose:** Lection «Energetic security and crisis phenomena in the evaluation of new administration of the USA»

**Results:** almost 260 university lectures and students participated in the lecture and discussion

## 4. Publications and multimedia materials

- 1. UNESCO Chair official web-site <a href="http://www.unesco.ntu-kpi.kiev.ua">http://www.unesco.ntu-kpi.kiev.ua</a>
- 2. Title: M.Z. Zgurovsky, D. Ikeda: Dialogues «Ukraine-Japan» **Publisher(s):** "Todai", magazine, №5 (572)

**Year:** 2008

Type of document/material: periodical, article

3. Title: M.Z. Zgurovsky, D. Ikeda: Dialogues «Ukraine-Japan» **Publisher(s):** "Todai", magazine, №6 (573)

Year: 2008

Type of document/material: periodical, article

4. Title: Michael Zgurovsky, Alexei Gvishiani. The Sustainable Development Global Simulation: Quality of Life and Security of the World Population (2005-2007/2008). – K.: Publishing House "Polytekhnica", 2008. – 336 p.

## IV. Outcomes

NTUU "KPI" is now effectively extending the international relations, in such a way it is implementing the modern development model of the technical university as the international educational scientifically-informational complex.

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.

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.

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 of the rating of Higher Educational institutions of Ukraine "Top-200 Ukraine" that caused to broad discussion in the Ukrainian educational environment.

NTUU "KPI" cooperate 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 favourable 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.

## VI. Forthcoming Activities

International scientifically practical conference "Aerohydrodynamics in the engineering practice"

Date and place: October 2009, Kyiv, NTUU "KPI"

Organizers: NTUU "KPI", Institute of Mechanical Engineering, UNESCO Chair.

## X International Conference on Progressive Equipment and Technology 2009

Date and place: June, 2009, Kyiv, NTUU "KPI"

Organizers: NTUU "KPI", Institute of Mechanical Engineering, UNESCO Chair.

X International Scientific and Practical Students', Postgraduates' and Young Scientists' Conference. "Ecology. Person. Society".

Date and place: May, 2009, Kyiv, Ukraine

**Organizers:** NTUU "KPI", UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA, Scientific Student Association of NTUU "KPI", NTUU «KPI» Department for scientific and educational work, State Ecologic Inspection of the Ministry of Environmental Protection of Ukraine, NTUU "KPI" Chair in Ecology and Technology of Plant Polymers, NTUU "KPI" Chair in eco-biotechnology and bio-power engineering

## VII. Development prospects

Medium-term strategy of United Nations Organization for education, science and culture, adopted at the 31st UNESCO General Conference in October-November 2001, proposes twelve strategic goals which include provision of wide access to information and communication technology. Ukraine as the UNESCO member in forming the education system of the future "Education for all, lifelong and limitless learning" should take this strategy into consideration.

Expanding its international activity in the new environment, NTUU"KPI", Institute for Applied Systems Analysis, UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics during 2005-2008 have been participating actively in the implementation of the above-listed priorities in the recent years. The role of the UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics in this process is hard to overestimate (the list of international actions held by it presents convincing evidence).

UNESCO Chair will go on with realization of the statements of Memorandum About Cooperation with UNESCO-CEPES from 25<sup>th</sup> April 2006 and will actively develop and implement ranking of higher education institutions of Ukraine as the instrument for evaluating guality and level of education services.

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

Nowadays a new wide-range UNESCO project of the Open Virtual Campus of E-Learning Centres, Technological and Engineering Universities of Central and Eastern Europe is commencing. The Ukrainian Institute for Information Technologies in Education and the Ukrainian Gender Education Centre at NTUU"KPI" are expanding their activities due to wider use of information and communication technologies.

The activity of the Ukrainian Gender Education Centre, established at NTUU"KPI" in 2001 under the aegis of the UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics, is also based on information technology. It acts up to the Memorandum of UNDP in Ukraine and National Technical University of Ukraine, aiming at further joint work on introduction of gender component into educational programmes and educational system, particularly, higher engineering education, personnel training and retraining in this field using innovative computer learning technologies.

The 34th Session of the General Conference of UNESCO approved the strategical guiding lines of development on 2008-2013. 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.

Forthcoming activities of the UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics will be directed to take an active part in these strategical guiding lines realization.

In 1992 the 26th UNESCO General Conference approved founding of the UNESCO/UNITWIN Chairs Programme. The UNESCO/UNITWIN Chairs projects refer to research preparation and holding and cover all main UNESCO fields of knowledge: education, human rights, environmental protection, humanities and applied science, communication, etc. The main fields of this programme charity concern higher educational institutions of the developing countries and countries in transit. The UNESCO Chair in Higher Technical Education, Applied Systems Analysis and Informatics at NTUU"KPI" is aiming at further development and cooperation in the framework of the UNESCO/UNITWIN Chairs Programme.