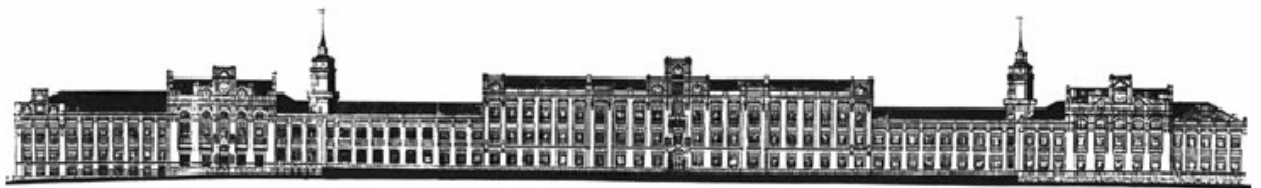UNESCO

UNITWIN/UNESCO CHAIRS PROGRAMME

PROGRESS REPORT

2006-2007

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
2007

UNITWIN/UNESCO Chairs Programme
Progress Report

Period of Activity: 1.01.2006 – 30.06.2007

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 2006 – 2007 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, 4 international conferences and meeting were carried out with the participation of the UNESCO Chair. Two projects was realized with the support of UNESCO and UNESCO-CEPES.

Intensive interuniversity exchange within the subjects of the UNESCO Chair activity took place (8 visits).

In 2006 the opening of the Supercomputer Centre and of The International Workshop on the Start of the Ukrainian Branch of the World Data Centre in partnership with the Geophysical Centre of the Russian Academy of Sciences, the opening of the UNESCO Chair Department at the Scientific Research Institute for Applied Information Technologies took place.

The UNESCO Chair activity was widely illustrated in periodical (14 publications) and at the UNESCO Chair site http://www.unesco.ntu-kpi.kiev.ua

C O N T E N T S	

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
Phone	+38 044 236 69 13 +38 044 241 76 77	+380-44-236-69-13 +380-44-241 7677
Fax	+380-44-241 7677	+380-44-241 7677
E-mail **Web Site**	zgur@zgurov.kiev.ua, sidorenko@uap.ntu-kpi.kiev.ua http://www.unesco.ntu-kpi.kiev.ua	zgur@zgurov.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	Olena Shyshatska
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

- ▪ **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

UNESCO Project "Technical and Methodological Support of Training Programme for International Project Management"

Date and place: October 1, 2005 – April 24, 2006, 2 terms without separation from work, NTUU "KPI"

Partnership: United Nations Educational Scientific and Cultural Organization (UNESCO), National Commission of Ukraine for UNESCO, National Technical University of Ukraine "Kyiv Polytechnic Institute"(Faculty of Management and Marketing),the UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at the NTUU „KPI" and IASA

- ☑ 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	
Latin America and the Caribbean	

Funding sources

Funding source	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution		January 7, 2005	$13000
Other contributions	NTUU "KPI"	September 1, 2005 – May 1, 2006	$40000

Results:

The students are already applying the acquired knowledge when preparing project propositions for participation in the international contests, such as the 6th and the 7th EU Framework Programmes, TEMPUS-TACIS etc. A part of the students is involved in the organization and holding the important Ukrainian international conferences, which will take place in NTUU "KPI" in the 2007-2008.

2007 – Black Sea Universities Network "Sustainable Development Round Table" for Universities – members of Consortium Programme in Sustainable Development

2007 – 12th international conference of European Council for Business Education "Cooperation CIS – EU in the Business Education"

2008 – Forum of the Black Sea Regions Universities.

Publications:

Title: Technical and Methodological Support of Training Programme for International Activity Management /Proceedings of the 2nd EUI-Net International Workshop, European Models of Synergy between Teaching and Research in Higher Education, 4-6 May 2006.

Publishers:Technical University of Tallinn
Year of publication: 2006 рік
Type of document/material:
- ☐ Book
- ☐ Periodical
- ☑ Others (please, specify) — Proceedings of the Conference

Language(s): English
Keywords: Managers, international project management, training programme, capacity building, higher education.

UNESCO-CEPES and UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics joint project "Development of Conceptual Notions and Tools for Native Education Institutions Ranking Evaluation"

Date and place: since May, 1st 2006, UNESCO chair subsidiary in the Research Institute for Applied Information Technologies in Cybernetic Center of National Academy of Sciences of Ukraine.

Partnership: UNESCO-CEPES, Institute for Applied System Analysis, UNESCO Chair in Higher Technical Education, Applied System Analysis and

Informatics at NTUU "KPI", UNESCO chair subsidiary in the Research Institute for Applied Information Technologies in Cybernetic Center of National Academy of Sciences of Ukraine

Participants: 15 participants
- ☑ 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	
Latin America and the Caribbean	

Funding sources

Funding source	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Ukrainian Government	September 1, 2005 – August 31, 2007	6000

Results: with the intention to implement the project the subsidiary of the UNESCO Chair was opened in the Research institute for the Applied Informational Technologies in the Cybernetic center of the National Academy of Science of Ukraine, which allowed to involve in this activity complex ICS "Osvita" (developed in the RI AIT) which provides facilities for gathering, formation and processing data, necessary for Ukrainian higher education institutions activity Ranking evaluation.

In 2006 project "Development of Conceptual Notions and Tools for Native Education Institutions Ranking Evaluation" was presented on the competition of scientific projects of the Ministry of Education and Science of Ukraine "Investigation of Conceptual notions for Educational Institutions Evaluation and Development of System of Licensing, Accreditation and Ranking for Native Higher Education Institutions", where it was supported by the State Fund for Fundamental Researches.

On the March 24th, 2007 in the "Dzerkalo Tyzhnya" newspaper first results of the project were published – ranking of higher education institutions of Ukraine

"Top 200 – Ukraine", which was realized accordingly to the principles, developed by the international group of experts IREG (International Ranking Expert Group).

Publications:

Title: UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU "KPI", Ministry of Education and Science of Ukraine and Institute of Applied system analysis at National Academy of Sciences of Ukraine METHODS OF DETERMINATION OF UNIVERSITY RANKING IN UKRAINE

Publishers: Kyiv, Politekhnika, NTUU "KPI"
Year of Publication: 2006
Type of document/material:
- ☐ Book
- ☐ Periodical
- ☑ Others – scientific and methodical publication

Language(s): Ukrainian, English
Keywords: evaluation system, universities ranking, data gathering, ranking evaluation, higher education.

International Workshop "Virtual Integrated University Systems (VIUS)"

Date and place: April 24-26, 2006, NTUU «KPI»

Partnership: National Technical University of Ukraine «Kyiv Polytechnic Institute»; UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA, Ukrainian Institute for Information Technologies in Education, Stockholm University, Tallinn University of Technology, St. Petersburg State Polytechnic University

Patricipants: 21 patricipants
- ☐ 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, Republic of Estonia, Russian Federation
Western Europe and North America	Sweden
Latin America and the Caribbean	

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	VISBY Programme	April 24-26, 2006	

Launch of Supercomputer Centre in National Technical University of Ukraine "Kyiv Polytechnic Institute", and International Seminar "Start of Ukrainian World Data Centre in Partnership with Geophysical Centre of Russian Academy of Sciences"

Date and place: November 17, 2006, NTUU «KPI»

Partnership: National Technical University of Ukraine «Kyiv Polytechnic Institute»; UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA, Russian Academy of Sciences, Academy of Science of Moldova, National Academy of Sciences of Belarus, Geophysical Centre of RAS, International Council for Science, Ministry of Education and Science of Ukraine, Ministry for Foreign Affaires of Ukraine, National Comission of Ukraine for UNESCO

Patricipants: 400 patricipants
- ☑ 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, Moldova, Republic of Belarus, Russian Federation
Western Europe and North America	
Latin America and the Caribbean	

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Ukrainian Government NTUU «KPI»	June 2006 November 17, 2006	600 000 1629

Results: Creation of Supercomputer center is supported by the government and provides possibility to perform complicated calculations for scientists and users from different regions of Ukraine in cooperation with scientists from other countries, particularly from Russia. To achieve this it is proposed to use Ukrainian telecommunication system URAN (Ukrainian Research Academic Network), which has regional centers in Kharkiv, Lviv, Donetsk, Odessa, Simferopol, Dnipropetrovs'k. The main center is situated in NTUU "KPI".

The launch of supercomputer makes for increase of quality, accessibility and competitiveness of education and science of Ukraine on the world market of scientific and educational services, provides new possibilities of scientific research and technological development.

During international seminar a number of problems, connected with joining of scientific and educational institutions of Ukraine the Network of World Data Centers of International council for Science (ICSU), was discussed.

Publications:

Title: Seminar with participation of Russian scientists

Publishers: Kyivsky Polytekhnik, №37
Year of Publication: December 6, 2006
Type of document/material:
- ☐ Book
- ☑ Periodical
- ☐ Others – Proceedings

Language(s): Ukrainian
Keywords: scientific activity, data processing, scientific networks, technical basis, world data center.

Title: Visit of the President of Ukraine to "KPI"

Publishers: Kyivsky Polytekhnik, №36
Year of Publication: November 30, 2006
Type of document/material:
- ☐ Book
- ☑ Periodical
- ☐ Others – Proceedings

Language(s): Ukrainian
Keywords: science and technologies, World data center, supercomputer, research, intellectual scientific development.

Title: Supercomputer of KPI is the most powerful in Ukraine

Publishers: Kyivsky Polytechnic, №36
Year of Publication: 6 December 2006
Type of document/material:
- ☐ Book
- ☑ Periodical
- ☐ Others – Proceedings

Language(s): Ukrainian
Keywords: supercomputer, calculations and data processing, complex analysis, information exchange, data files.

2. Conferences/Meetings

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

Date and place: May 17-19, 2006, NTUU «KPI»

Partnership: National Technical University of Ukraine «Kyiv Polytechnic Institute», State Ecologic Inspection of the Ministry of Environmental Protection of Ukraine, NTUU «KPI» Department for scientific and educational work, Scientific Student Association of NTUU "KPI", NTUU "KPI" Chair in Ecology and Technology of Plant Polymers, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and IASA

Patricipants: 140 patricipants
- ☑ 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	Ukaraine, Poland, Russian Federation, Republic of Belarus, Azerbaijan
Western Europe and North America	
Latin America and the Caribbean	

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Participants fee	May 17-19, 2006	2400

Publications:

Title: Proceedings of IX International Scientific and Practical Students', Postgraduates' and Young Scientists' Conference. "Ecology. Person. Society" (May 17-19, 2006, Kyiv, Ukraine)
Publishers: NTUU "KPI"
Year of Publication: 2006
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, №20
Year of Publication: June 1, 2006
Type of document/material:
- ☐ Book
- ☑ Periodical (Newspaper)
- ☐ Others

Language(s): Ukrainian
Keywords: ecological future, modern technologies, water purification, ecological education and awareness, ecological laws.

VI International Conference on Intellectual Analysis of Information IAI-2006

Date and place: May 16-19, 2006, NTUU «KPI»

Partnership: Russian Association of the Artificial Intellect, Ministry of Education and Science of Ukraine, National Technical University of Ukraine «Kyiv Polytechnic Institute», UNESCO Chair in Higher Technical Education, Applied

System Analysis and Informatics at NTUU «KPI», Faculty of Applied Mathematics at NTUU «KPI», Institute for Applied System Analysis at NTUU «KPI», Prosvita Publishing House

Patricipants: 62 patricipants
- ☑ 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, Russian Federation, Republic of Belarus
Western Europe and North America	
Latin America and the Caribbean	

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Participants fee	May 16-19, 2006	

International Scientific Conference "Progressive Techniques and Technologies – 2006"

Date and place: 27-30 June 2006, on the basis of the Sevastopol National Institute for Nuclear Energy and Industry, Sevastopol, Ukraine
Partnership: Ministry of Education and Science of Ukraine, Scientific Council for the problems of the solid body at National Academy of Sciences of Ukraine, National Technical University of Ukraine "Kyiv Polytechnic Institute", Institute of Mechanical Engineering NTUU "KPI", National Metallurgical Academy, Sevastopol National Institute for Nuclear Energy and Industry, the Union of mechanical engineers of NTUU "KPI", Otto von Guericke University Magdeburg, Faculty of Civil engineering at the University of Belgrade (Yugoslavia), Technical university of Gabrovo (Bulgaria), UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI».

Patricipants: 74 patricipants
- ☑ 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, Russian Federation, Serbia, Montenegro
Western Europe and North America	Federal Republic of Germany
Latin America and the Caribbean	

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Participants fee Institute of Mechnical Engineering NTUU «KPI» Mechanical Engineers Union of NTUU «KPI»	June 27-30, 2006	

IX International Science Conference "System Analysis and Informational Technologies"

Date and place: 15-19 May 2007, NTUU "KPI", Kyiv

Partnership: Ministry of Education and Science of Ukraine, National Academy of Sciences of Ukraine, National Technical University of Ukraine «Kyiv Polytechnic Institute», Institute of Applied and System Analysis at Ministry of Education and Science of Ukraine and National Academy of Sciences of Ukraine, UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI», Riga University of Technology, University of Bukovyna, Scientific Student Association of NTUU "KPI"

Patricipants: 347 patricipants
- ☑ 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	Iran
Asia/Pacific	
Eastern and Central Europe	Ukraine, Russian Federation, Republic of Belarus, Azerbaijan, Latvia, Georgia
Western Europe and North America	
Latin America and the Caribbean	

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Participants fee	May 15-19,2007	6 000

Publications:

Title: Abstracts book of IX International Science Conference "System Analysis and Informational Technologies" (15-19 May 2007, Kyiv, Ukraine)
Publishers: NTUU "KPI"
Year of Publication: 2007
Type of document/material:
☐ Book
☐ Periodical
☑ Others – Proceedings of the Conference
Language(s): Ukrainian
Keywords: system analysis, methods of analysis, intellectual decision-taking systems, progressive informational technologies.

3. Interuniversity Exchanges/Partnership

Visit of M. Zgurovsky to the Meeting of Eurasian University Association Council

Destination: Moscow, Russia

Mission: taking part in the extended meeting of Eurasian University Association Council.

Duration: 13-15 April 2006 p.

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	April 13-15, 2006	350

International Conference within the ERASMUS EU Industry-University Thematic Netwiork Project, Visit of Associate Professor O.Zakhovajko, partial time support Secretary of the UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI»

Destination: Tallinn, Republic of Estonia

Mission: taking part in the conference and reporting on the realization of the UNESCO Project "Technical and Methodological Support of Training Programme for International Project Management"

Duration: May 1-5, 2006

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	May 1-5, 2006	300

Visit of M.Zgurovsky, 2nd Meeting of the International Ranking Expert Group (IREG): "Methodology and Quality Standards of Rankings" with support of the UNESCO-CEPES

Destination: Berlin, Germany

Mission: taking part in the Meeting

Duration: May18-21, 2006

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	May 18-21, 2006	191

Visit of M.Zgurovsky, 8th meeting of directors of UNESCO Institute of Informational Technologies in Education

Destination: Moscow, Russia

Mission: taking part in the Meeting

Duration: June 15-18, 2006

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	June 15-18, 2006.	500

Visit of Kinelov V.G., Director of UNESCO Institute of Informational Technologies in Education, Moscow, Russia

Destination: NTUU "KPI", Kyiv

Mission: discussion of problems of cooperation between UNESCO Institute of Informational Technologies in Education, Moscow, and UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI» and Ukrainian Institute for Informational Technologies in Education at NTUU "KPI"

Duration: 11-14 June 2006

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	June 11-14, 2006	546

Visit of M.Z. Zgurovsky, 15th Jubilee Conference of European Association of Rectors of Technological Universities

Destination: Vienna, Austria

Mission: taking part in the conference

Duration: September 14-15, 2006

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	September 14-15, 2006	720

Visit of M. Zgurovsky, Salzburg Seminar

Destination: Kaliningrad, Russian Federation, University of Immanuel Kant

Mission: taking part in Salzburg seminar

Duration: October 2-5, 2006

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	NTUU «KPI»	October 2-5, 2006	428

Visit of students delegation from Concordia University (Nebraska, USA) headed by Prof. Andy Langewisch

Destination: NTUU "KPI"

Mission: holding lectures and seminars on Finance in English, establishing business contacts

Duration: May 9-24, 2007

Funding sources:

Funding sources	Type of Organisation/Institution	Period	Amount (US$)
UNESCO Contribution			
Other contributions	Concordia University, USA	May 9-24, 2007	
	NTUU «KPI»	May 9-24, 2007	200

4. Publications and multimedia materials

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

2. **Title:** M. Zgurovsky**,** Bologna Process: the main principles and ways of structural reform of higher education in Ukraine
Publishers: Kyiv: NTUU «KPI»
Year of Publication: 2006
Type of document/material: book

3. **Title:** M. Zgurovsky, Ukraine in the global dimension of sustainable development
Publishers: «Dzerkalo Tyzhnya», Newspaper, №19
Year of Publication: May 20-26, 2006
Type of document/material: article

4. **Title:** M. Zgurovsky, The way to the knowledge-based society
Publishers: «Dzerkalo Tyzhnya», Newspaper, №2
Year of Publication: January 21 – 27, 2006
Type of document/material: article

5. **Title:** M. Zgurovsky, Certificated pseudo-education or the contradictions of the transition period in the sphere of higher education in Ukraine
Publishers: «Dzerkalo Tyzhnya», Newspaper, №6
Year of Publication: February 18 – 24, 2006
Type of document/material: article

6. **Title:** M. Zgurovsky, University ratings determination – a constituent of Eurointegration in the educational sphere
Publishers: „Dzerkalo Tyzhnya", Newspaper, № 28
Year of Publication: July 22-28, 2006
Type of document/material: article

7. **Title:** M. Zgurovsky, Research institutes: an opportunity for Europe
Publishers: „Dzerkalo Tyzhnya", Newspaper, № 39
Year of Publication: October 14-20, 2006
Type of document/material: article

8. **Title:** UNESCO-CEPES, Higher Education in Ukraine, Vasyl Kremen and Stanislav Nikolaenko (Co-Editors) in collaboration with Michael Stepko, Vyacheslav Bolyubash, Andrey Gurjiy, Michael Zgurovsky, Kazimir Levkivskyi, and Volodymyr Petrenko
Publishers: Bucharest, UNESCO
Year of Publication: 2006
Type of document/material: Monographs on Higher Education

9. **Title:** Michael Zgurovsky, The Sustainable Development Gauging Matrix and Its Applications
Publishers: Kyiv, NTUU "KPI" "Polytekhnika"
Year of Publication: 2006
Type of document/material: book

10. **Title:** M. Zgurovsky, N. Pankratova, System Analysis Theory
Publishers: Kyiv, BHV Publishing Group
Year of Publication: 2007
Type of document/material: textbook for higher educational institutions

11. **Title:** M. Zgurovsky: System Analysis
Publishers: Springer Verlag Gmbh & Co.KG
Year of Publication: 2007
Type of document/material: book

12. **Title:** Zgurovsky M., Petrenko A. National Ukrainian Grid infrastructure (UGRID) for science and education, Proc. Intern. Conference on Computer Science and Information Technologies, pp.6-12.
Publishers: Lviv, Ukraine
Year of Publication: October, 2006
Type of document/material: article

13. **Title:** Zgurovsky M., Petrenko A. Grid-infrastructure for supporting education and research in Ukraine.
Publishers: Baltic Grid First All-Hands Meeting, Vilnius
Year of Publication: 26-28 April, 2006
Type of document/material: article

14. **Title:** Petrenko A Development of Grid-infrastructure for educational and research segment of information society in Ukraine, with focus on ecological monitoring and telemedicine, p. 145-147
Publishers: Proc. of 20-th CODATA Conference, Beijing, China
Year of Publication: 2006
Type of document/material: article

15. **Title:** Kyiv Polytechnics: international aspect
Publishers: „Kyivsky Polytekhnik", Newspaper, №10
Year of Publication: 14 березня 2007
Type of document/material: article

16. **Title:** S. Sidorenko, Human rights: the right for education and the role of UNESCO
Publishers: „ Kyivsky Polytekhnik ", Newspaper, №22
Year of Publication: Jun 20, 2006
Type of document/material: article

IV. Others

Start of the subsidiary of UNESCO Chair in the Research Institute of Applied Informational Technologies

Date and place: 6 July 2007, Research Institute for Applied Informational Technologies, Kyiv

Partnership: NTUU "KPI", UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics at NTUU «KPI», Institute for Applied System Analysis, Supervision Council of Research Institute for Applied Information Technologies.

The main aims of creation and further activities of UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics subsidiary in the structure of Research Institute for Applied Information Technologies are activity coordination and cooperation of efforts and possibilities of both sides with involving of the third side for development, implementation and expansion of principles of international expertise of education quality and ranking evaluation of activity of higher education institutions in Ukraine, targeted at realization of the statements of the Memorandum about cooperation between UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics and UNESCO-CEPES European centre of Higher education from 25th of April 2006.

Publications:
Title: "KPI" – participant of the national project for university ranking
Publishers: Kyivsky Polytechnic, №24
Year of Publication: 15 September 2006
Type of document/material:
- ☐ Book
- ☑ Periodical
- ☐ Others – Proceedings

Language(s): Ukrainian

V. Impact

NTUU «KPI» efficiently extends its international activity, realizing at the same time modern model of development of technical university as international educational scientific-information complex.

UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics, which is now one of the centers of the intellectual elite, plays a great role in this process. Chair initiated many international congresses, conferences and seminars on different aspects of higher education development and awareness of its part in the modern society.

Important result of Chair's activity is launching of new scientific and educational programmes in the university, particularly "Technological

prediction", "Intellectual property", "Resist to terrorist attacks", "Pollution-free technologies", "Bio-informatics", "Mechatronics" etc. Generally in the university launched 46 new specialities.

Among important directions of the UNESCO Chair's activity it is necessary to emphasize its cooperation with European Centre for Higher Education in development and implementation of principles of international expertise for education quality and ranking evaluation of higher education institutions activity in Ukraine. As a result of this activity in 2007 Ukrainian higher education institutions rating, "Top-200 Ukraine", was formed and published, and it caused heated discussion in Ukrainian educational society.

NTUU «KPI» cooperates with UNESCO Institute for Informational Technologies (Moscow), developing projects of E-learning. National Focal Point of the Institute was created and many projects for implementation of E-learning methods in Ukraine. Among them – UNESCO project "Central-Eastern-European Virtual University", which is coordinated by TUU "KPI"

Due to active work of UNESCO Chair in Higher Technical Education, Applied System Analysis and Informatics international activity became an integral part of NTUU «KPI» and IASA. This provides for favourable conditions for future integration in international, and in particular, European educational, scientific, and informational space and contributes to implementation of reforms, started by the Bologna Process. It also helps to realize "Dacar activity restrictions", which are very important for UNO strategies concerning education, and also for UNESCO intermediate strategies for 2002-2007, programme tasks for UNITWIN/UNESCO Chair and for other directions of UNESCO activity.

VI. Forthcoming Activities

International Conference "European Council for Business Education"

Date and place: May 31 – June 3, 2007, Kyiv, NTUU «KPI»

Partnership: NTUU «KPI», International university of Finance, UNESCO Chair

VIII Internattional Scientific and Methodical Conference "Higher technical education: problems and prospects in the scope of Bologna process"

Date and place: September 21-22, 2007, Kyiv, NTUU «KPI»

Partnership: NTUU «KPI», UNESCO Chair

Round table on the issues of sustainable development for the members of the Black Sea Universities Network (BSUN)

Date and place: June 14-16, 2007, Kyiv, NTUU «KPI»

Partnership: NTUU «KPI», UNESCO Chair, Black Sea Universities Network

Forum of the higher educational institutions of the Black Sea Region Countries

Date and place: April 2008, Kyiv, NTUU «KPI»

Partnership: National Comission of Ukraine for UNESCO, Black Sea Universities Network, NTUU «KPI», UNESCO Chair

VII. Development prospects

Medium-term strategy of United Nations Organization for education, science and culture for 2002-2007, 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 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 25th 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.

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.