

Ministry of Education and Science of Ukraine

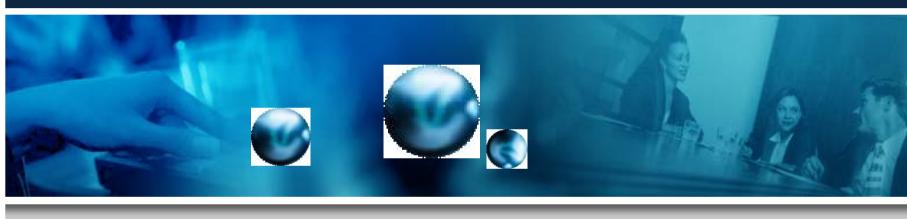
## National Technical University "Kharkiv Polytechnic Institute"

# NTU "KhPI" Distance Learning System



Coordination meeting of the project TEMPUS SCM T017B06 - 2006 12-14.09.2007

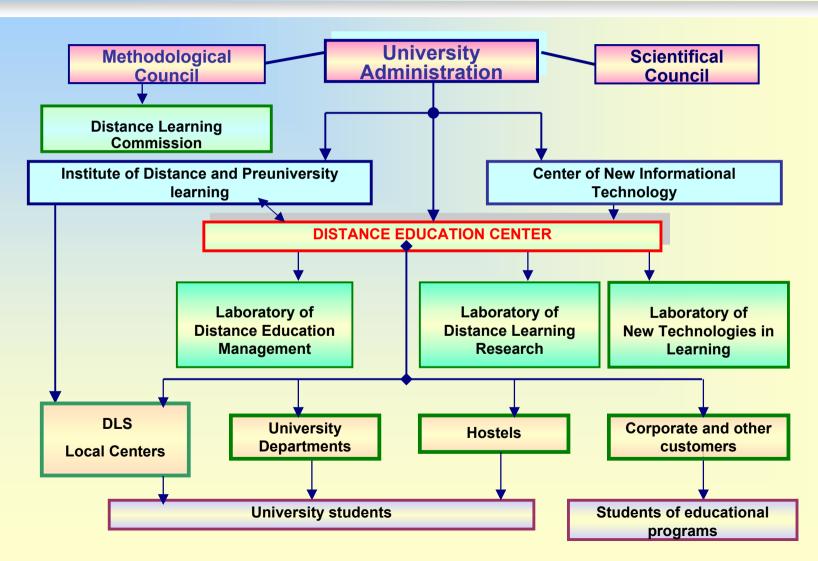
### STRUCTURE AND SUPPORT



### OF DISTANCE LEARNING SYSTEM

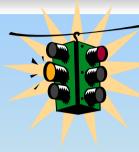


# STRUCTURE OF NTU "KhPI" DISTANCE LEARNING SYSTEM (DLS)





#### **NORMATIVE SUPPORT**



# Normative documents currently in force in DL area

- 1. Conception of the Distance Learning Development in Ukraine (12.2000)
- 2. Regulations on Distance
  Learning
  (21.01.2004)

## University normative documents

- Regulations on Distance Education in NTU "KhPI"
- Regulations on the Expertise of Distance Courses
- Regulations on the Organization of Distance Learning Instructional Process in NTU "KhPI"
- Regulations on the Presentation of the Learning Materials in Electronic Form for DL



### **SYSTEM ENGINEERING SUPPORT**



University is the regional center of Ukrainian Research and Academic Network (URAN)



The total number of computers increased quickly and now is equal to 2100. The university network has strong server group that consist of 50 servers. Number of computerized rooms,



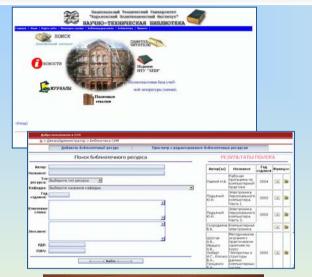
OCHOBЫ Be6-Knace ипх

KhPI has its own e-learning environments





#### **METHODOLOGICAL SUPPPORT**





#### **Educational electronic resources**

- Electronic catalogue of the University bibliotheca (more than 200 000 units)
- Resources on department servers, and more than 67 department's sites
- Base of full-text electronic resources, created by KhPI faculty – more than 480 units integrated in LMS Information Management System

11 manuals dedicated to e-learning, 2 manuals are officially recommended by Ministry of Education and Science of Ukraine

The model of distance course and its components was developed and implemented in NTU "KhPI"



#### INSTRUCTIONAL SUPPORT

#### **IMPROVEMENT OF FACULTY PROFESSIONALISM**



НАЦИОНАЛЬНЫЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ «ХАРЬКОВСКИИ ПОЛИТЕХНИЧЕСКИИ ИНСТИТУТ» ПЕНТР ЛИСТАНЦИОННОГО ОБРАЗОВАНИЯ

КАК УЧИТЬ СЯДИСТАНЦИОННО
Практические пексопентация пля ступенто



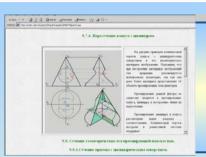
- 2 seminars in University Faculty Retraining System (management, ecourse's development) - more than 100 faculty every year
- 7 specialized distance courses on elearning methodology

Complex of recommendations for students, faculty, and managers on the organization of DL instructional process

Харкиов 2006

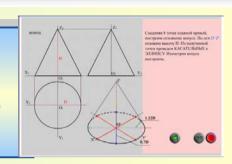


#### **MULTIMEDIA SUPPORT**



#### **Computer-aided learning software**

CALS "Engineering Design"2 years of exploitation, more than 150
users





#### **Virtual laboratory**

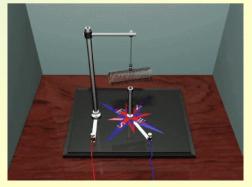
17 labs on Physics, Electrical Engineering, and Non Destructive Evaluation using virtual reality principles





## **Demonstrative practicum** on Physics

More than 40 multimedia interactive lecture demonstrations



## USE



### **OF DL TECHNOLOGIES**



## SUPPORT OF FULL-TIME AND PART-TIME STUDY ON SEPARATED DISCIPLINES

From 2001 University faculty developed and implemented more than 130 distance courses on separated fundamental, engineering, economical and language disciplines



Users of these courses are
University students that study in 11
Institutes

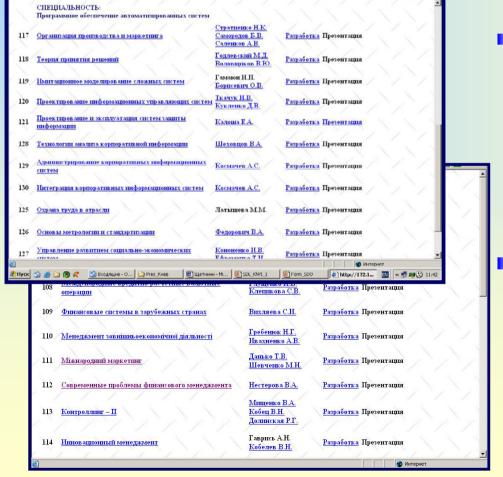
4 specialties are supplied by sets of distance courses

The program on teaching students with disabilities using DL technologies is in progress



#### PROJECT "INTERNAL KhPI GRANT"

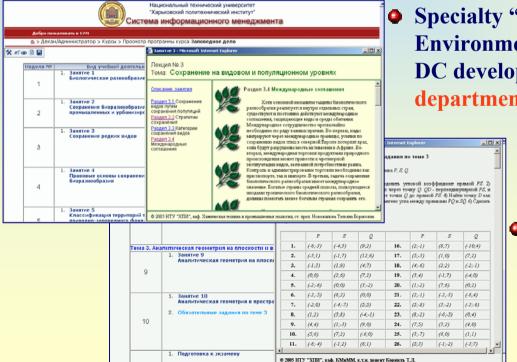
During 2003/2004 instructional year 2 programs of distance courses for masters were developed and implemented:



- Specialty "Software of
  Computer-Aided Management
  Systems"(full-time study) —
  faculty of 5 departments have
  developed and implemented 11
  distance courses (3 semesters)
- External Economic Activity"
  (study by correspondence) faculty of 3 departments have
  developed and implemented 8
  distance courses (2 semesters)

# DL TECHNOLOGIES IN STUDY BY CORRESPONDENCE

Programs of distance courses that have been developed and implemented during 2004-2007 enable students studying by correspondence of 3 KhPI specialties to use completely all advantages of distance learning. The implementation of mentioned programs began in 2005/2006 instructional year with access to Internet guaranteed for students in the Izium local center of University DLS (78 students) and University campus (17 students, 2007).



- Specialty "Ecology and Preservation of the Environment": 45 distance courses (5 semesters).
   DC developers – faculty from 27 University departments.
  - Specialty "Personal Management":1 DC (4-th semester)
  - Specialty "Economical Cybernetic ": 16 DC (2 semesters). DC developers – faculty from 11 University departments.



# DISTANCE ELITIST SCHOOL "Physicist-informatist"

Founded in 2004 as a mean to prepare University entrants for Physical-technical Institute.

School program consists of 7 distance courses.

DES students are more than 200 pupils (9-11 grades).

53	Дистанционная элитарная школа "Физик-информатик" $\mathcal{Z}$ ЭШ- $oldsymbol{arphi}$	Для школьников и учителей
23	Основы Интернет тьютор Бутко Татьяна	Регистрация до 2
		апреля
2	Уроки математики	Регистрация до 2
		апреля
3	<u>Что мы знаем о холоде.</u> Тьютор Токарь Анна	Регистрация до 2
		атреля
4	<u>Практический курс психологии</u> тьютор Твердохлебова Наталья	Регистрация до 2
		ащеля
5	Основы информационных технологий	Регистрация до 2
1000		ащеля
-6	Программирование на языке Паскаль	
~	Временные формы глагола в английском языке	Регистрация до 2
	тьютор Ильченко Ирина	апреля



#### **VIRTUAL UNIVERSITIES**

#### NTU "KhPI" was a founder



Central and Eastern European Virtual University - 14 universities from 10 European countries



Academy of Distance Education – more than 15
Ukrainian institutions

NTU "KhPI" participates actively



Eurasia Virtual University– more than 25 educational institutions from 12 European and Asian countries



# NTU KhPI INTERNATIONAL PROJECTS IN DL AREA







### Partnership Program NTU KHPI – IOWA STATE UNIVERSITY

- 1. 2002 –2004 "Partnership Program to Introduce Distance Education to Ukrainian Women Engineers"
- 2. 2006 2007 "Partnership Program to Create Engineering Education Network in Ukraine"

2003 – 2005 - PROJECT TO SUPPORT INSTITUTIONAL DEVELOPMENT IN UKRAINE



- 1. 2005 2008 JEP "European Integration Training Programs for Public Administration in Ukraine"
- 2. 2005 2008 CARDS "Tuning Educational Structures in Europe Phase III and Phase IV"
- 3. 2007 2008 SCM "Practicum to Improve Ukrainian e-Learning System"



#### **PROJECT EXPECTATIONS**

- Implementation of the advanced European experience in the DL area into the practice of University DLS, first of all into the area of DLS management
- Creation of the Consultative DL Center on the base of the University DEC that will operate to develop national DL system
- Further development of all kinds of supports to the University DLS, first of all – management, system engineering, and methodological support
- Creation of cadre that could realize high-grade improvement of the University DLS operation
- Development and implementation of the set of materials for trainings on introduction of DL technologies for administrators, managers and faculty involved in functioning of the University DLS



# NTU "KhPI" PROJECT IMPLEMENTATION TEAM

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