



Zaporizhzhya National Technical University



PRACTICE ORIENTED MASTER PROGRAMMES IN ENGINEERING IN RU, UA, UZ.

Report on the fulfilled activities (August 2012)



Approval of the updated curriculum for Masters degrees 2012/2013

Disciplines :

- ❑ "Quality engineering" – 3 ESTS,
- ❑ "Theory and practice of solving engineering problems" – 2 ESTS,
- ❑ "The audit and fundamentals of systems certification based on ISO standards" – 2 ESTS,
- ❑ " Soft Skills for engineers" – 2 ESTS.

were introduced into the Masters degree curriculum for the Software Engineering speciality.

Міністерство освіти і науки, молоді та спорту України
Запорізький національний технічний університет

“ЗАТВЕРДЖЕНО”
Г.С. Соколов
2012 г.

ПОСВЯТНИЙ НАЧАЛЬНИЙ ПЛАН
2012

Вона спеціальність: спеціальність з програмного забезпечення систем
Спеціальність: 9.05010001 спеціальність з програмного забезпечення систем
Освітньо-кваліфікаційний рівень: магістр
Кваліфікація: магістр з програмного забезпечення систем
2130 Професіонал в галузі програмування
2131.2 Аудитова комп'ютерна система
2210 Завдання університету та виконавчих навчальних закладів

Сфера знань: 01-47%

Термін навчання: 1,5 роки (3 семестри)

Графік навчального процесу

Місяць	Вересень	Жовтень	Листопад	Грудень	Січень	Лютий	Березень	Квітень	Травень	Червень	Листопад	Грудень	Січень	Лютий	Березень	Квітень	Травень	Червень	Листопад	Грудень	Січень	Лютий	Березень	Квітень	Травень	Червень					
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Примітки:
А - відпочинок;
БВ - навчальні заняття;
СД - службові відрядження;
Е - вільний день;
Ж - вільний день;
З - вільний день;
И - вільний день;
К - вільний день;
Л - вільний день;
М - вільний день;
Н - вільний день;
О - вільний день;
П - вільний день;
Р - вільний день;
С - вільний день;
Т - вільний день;
У - вільний день;
Ф - вільний день;
Х - вільний день;
Ц - вільний день;
Ч - вільний день;
Ш - вільний день;
Щ - вільний день;
Ъ - вільний день;
Ы - вільний день;
Ь - вільний день;
Э - вільний день;
Ю - вільний день;
Я - вільний день;



Approval of the updated curriculum for Masters degrees 2012/2013

Disciplines:

- "CAD | CAM | CAE Design for Engineers" – 10 ESTS,
 - "Modeling manufacturing systems" – 3 ESTS,
 - " Reengineering of the existing machine shops " – 2 ESTS
- were introduced into the Masters degrees curriculum for the specialty " Information Engineering Technology "

Міністерство освіти і науки, молоді та спорту України
Запорізький національний технічний університет

ЗАТВЕРДЖУЮ
С.В. Белкин
2012 р.

РОБОЧИЙ НАЧАЛЬНИЙ ПЛАН
дисципліни

Форма навчання: В.06010102 Інформаційні технології проектування

Спеціальність: магістр

Освітньо-кваліфікаційний рівень: магістр з інформаційних технологій проектування

Кваліфікація: 2131.2 Аналіз комп'ютерних систем
2310 Вихіден університету та інших навчальних закладів

Шифр групи: ІОТ-710м

Термін підготовки: 1,5 роки (3 семестри)
Графік навчального процесу

Місяць	вересень	жовтень	листопад	грудень	січень	лютий	березень																														
Понеділок	25	24	25	26	27	28	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22						
Вівторок	26	27	28	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Середа	27	28	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Четвер	28	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	01	
П'ятниця	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	01	02	
Субота	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	01	02	03	
Неділя	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	01	02	03	04	05	

Легенда: Д - аудиторні заняття, К - контрольні роботи, ЛК - лабораторний контроль, РК - рубіжний контроль, СС - експертна оцінка роботи, К - курсова, КР - практичні, ДР - державна атестація

Підпис: [Signature]



Ready to start training for a new subjects

- Lecturers got acquainted with the materials provided by European partners
- Lecturers developed work programs for new disciplines
- Prepared trial versions of lecture notes on the introduced disciplines

Themes	Contact work hours					Time and tasks for individual work																																									
	Lectures	Consultation	Seminars	Practical work	Laboratory work	Placements	Total contact work	Individual work	Tasks																																						
Module 1. Quality Management	12			4			16	20																																							
1.1. Introduction to quality									Reading literature and preparing essay																																						
1.2. Quality Management Philosophy.																																															
<table border="1"> <thead> <tr> <th colspan="2">TITLE OF THE COURSE</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td colspan="2">QUALITY ENGINEERING</td> <td>5.01B</td> </tr> <tr> <th>Teacher(s)</th> <th colspan="2">Department</th> </tr> <tr> <td>Coordinating: Galyna V. Tabunskiyk</td> <td colspan="2">Software Tools</td> </tr> <tr> <th>Study cycle</th> <th>Level of the course</th> <th>Type of the course</th> </tr> <tr> <td>Second cycle</td> <td>MSc</td> <td>elective</td> </tr> <tr> <th>Form of delivery</th> <th>Duration</th> <th>Language(s)</th> </tr> <tr> <td>Full-time</td> <td>1 term (1 year 1 semester)</td> <td>Ukr/Eng</td> </tr> <tr> <th colspan="3">Prerequisites</th> </tr> <tr> <td>Prerequisites: bachelor's degree in electrical engineering</td> <td colspan="2">Co-requisites (if necessary):</td> </tr> <tr> <th>Credits of the course</th> <th>Total student workload</th> <th>Contact hours</th> <th>Individual work hours</th> </tr> <tr> <td>3</td> <td>108</td> <td>48</td> <td>60</td> </tr> </tbody> </table>										TITLE OF THE COURSE		Code	QUALITY ENGINEERING		5.01B	Teacher(s)	Department		Coordinating: Galyna V. Tabunskiyk	Software Tools		Study cycle	Level of the course	Type of the course	Second cycle	MSc	elective	Form of delivery	Duration	Language(s)	Full-time	1 term (1 year 1 semester)	Ukr/Eng	Prerequisites			Prerequisites: bachelor's degree in electrical engineering	Co-requisites (if necessary):		Credits of the course	Total student workload	Contact hours	Individual work hours	3	108	48	60
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Credits of the course	Total student workload	Contact hours	Individual work hours																																												
3	108	48	60																																												
Methods	8		8				16	20	Working on individual tasks and preparing reports Working on individual tasks and preparing reports																																						
SQM, 01, CMMI, metrics.	12		4				16	20	working with standards Working on individual tasks and preparing reports																																						
Is vivo																																															

Light	Deadlines	Assessment criteria
		All labs should be passed
		Grade A (excellent) - clarity of expression – excellent, confident delivery, practical tasks – full done. Grade B (good) – clarity of expression – good, thoughts and ideas clearly expressed, practical tasks – well done. Grade C (good) - clarity of expression – well-placed, delivery is fluctuate, practical tasks - well done. Grade D (passed) - clarity of expression – poor, delivery is fluctuate, practical tasks done with mistakes. Grade E (fail) - failure in theoretical or practical tasks.



Training of lectures in the EU (TUB)





Dissemination of project results

Reports were made at the international scientific-practical seminar "Experience and prospects of partnership in higher education" in Taganrog, (June 2012).

- Pritula A., Parkhomenko A., Kudermetov R., Tabunshchik G. "The experience of participation in the international educational project TEMPUS PROMENG"
- Pritula A., Tabunshchik G., Kudermetov R., Parkhomenko A. "Simulation estimation of the quality of the project PROMENG»





Dissemination of project results

Report “Renewal of the Master curriculum in accordance with the program TEMPUS-PROMENG» by A.Parkhomenko, A.Pritula was made at the annual scientific-practical conference "ZNTU Science Week - 2012 " (April, 2012).





Dissemination of project results

Report "Criteria for assessing the quality of the project Promeng» by G. Tabunshchyk was made at the annual scientific-practical conference "ZNTU Science Week - 2012 " (April, 2012)





Dissemination of project results

Report "Application of TRIZ to the stage of conceptual design high technology products" was made at the annual scientific-practical conference "ZNTU Science Week - 2012" (April, 2012) by J. Zalyubovskii, A. Luneva, A. Parkhomenko





Dissemination of project results

Reports at the annual scientific-practical conference "ZNTU Science Week - 2012" (April, 2012):

- Kudermetov R. "The introduction of the discipline " Applied informatics and digital data transmission systems" in the learning process for Master"
- Nelasa A ., Pritula A., Vasilenko A. "Teaching Discipline « SOFT SKILLS Engineers " for IT-specialists"





Dissemination of project results

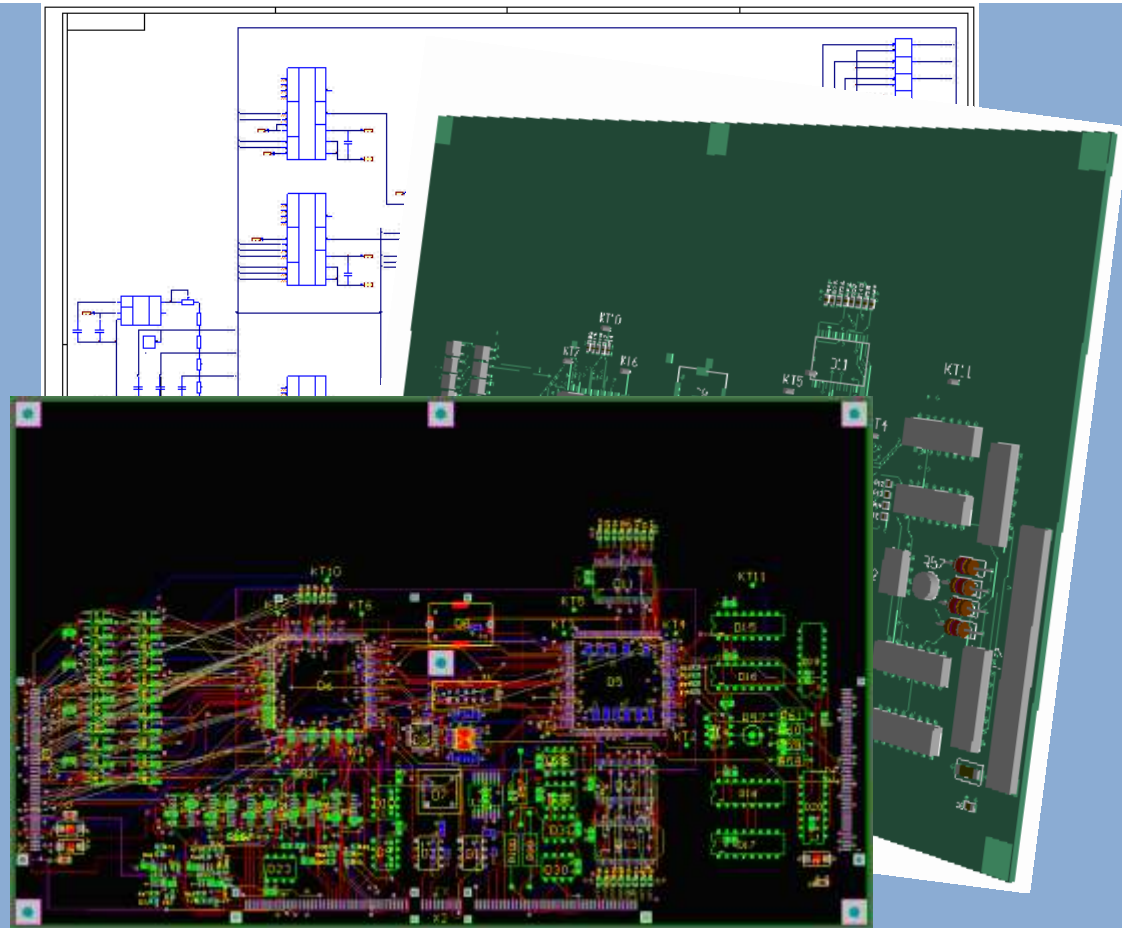
Report at the annual scientific-practical conference "ZNTU Science Week - 2012" (April, 2012):
Kolot R., Gritsaenko A., Parkhomenko A. "Software support for the process of system engineering design of high technology products"





Dissemination of project results

The Graduate Work
"The development of
information technology
design with ECAD ALTIUM"
was done by Dmitriy
Schwager (May, 2012)
under supervisor
Angelyka Parkhomenko





Planned Activities for Long-term Existence of the Project Results

There are held negotiations for scientific researches between software tools department and the following factories:

- JSC "Motor Sich" to modernize grinding machine using Altium software and Pro / Engineer;
- SPE "Khartron-YUKOM" to design a virtual prototype of test and measurement device using Altium software and Pro / Engineer.



ELM-office activities

- Discipline "Factors for successful employment in the specialty" (1 ECTS) is introduced in master's degrees curriculums at all University specialties (51 specialty)
- The university established a department for the students employment (head of Lingur V.)

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Training of lectures in the EU



As a result of training, Doc. Nesterov A. at Vilnius Technical University (May 20 - June 1, 2012) at ZNTU planned in the following activities:

- Development and approval of the work training program on discipline "Condition monitoring and protecting the environment" - 2 ESTS;
- Conduct informational lectures on the faculties of the university on the basis of visits to Lithuania for the storage and disposal of industrial and domestic origin;
- Creating a synopsis of lectures and practical guidance to the work on discipline "Condition monitoring and environmental protection."



Deviations from the initial planning

- ❑ Do not put the equipment for a computer laboratory
CAD / CAM / CAE - systems
- ❑ There are no licenses for the use of Pro / Engineer
- ❑ Do not put all the equipment for the data transmission
laboratory
- ❑ Not purchased educational literature



Planned activities

- Prepare reports on the training results in EU universities (September, 2012)
- Make reports on the TEMPUS PROMENG results in VI International SPC "MODERN PROBLEMS AND ACHIEVEMENTS IN THE FIELD RADIO ENGINEERING, INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS" (September, 2012)
- Preparing to release training manuals:
 - A.Parkhomenko, A.Pritula, V. Krischuk “Software CAD/CAM/CAE-systems. The development and practical application”
 - G. Tabunshchik, A.Pritula, T. Bragina “Software Quality Engineering”