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WARSAW UNIVERSITY OF TECHNOLOGY
POLITECHNIKA WARSZAWSKA

This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the transparency and fair academic and professional recognition of qualifications at international and national levels. It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed at home or abroad by the individual named on the original qualification. The description should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

DIPLOMA SUPPLEMENT

valid with diploma no. 27649

I. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1. Surname: **Wei**
2. First name (s): **Li-Wei**
3. Date of birth (day, month, year): **28.11.1985**
4. Student's identification number or code, or student's registration number: **27649/241220/13.09.2011**

II. INFORMATION IDENTIFYING THE QUALIFICATION

1. Diploma identification number: **27649**
2. Name of qualification (title conferred)[1]: **magister inżynier (Master of Science in Engineering)**
3. Main field of study and field of specialisation: **Automatic Control and Robotics**

   Photonic Engineering
4. Name and status of awarding institution[1] **Politechnika Warszawska (Warsaw University of Technology)**

   Warsaw University of Technology is an autonomous state university-type higher education institution, having its own legal personality. With its tradition dating back to 1826, the University has been working under its present name, Warsaw University of Technology, since 1915. The legal basis for the University is provided by the Law on Higher Education of 27 July 2005 and the University Charter. Warsaw University of Technology awards the degrees ("professional titles") of *magister inżynier* (Master of Science in Engineering), *magister inżynier architekt* (Master of Science in Architecture), *magister* (Master of Science), *inżynier* (Bachelor of Science in Engineering), *inżynier architekt* (Bachelor of Science in Architecture) and *licencjat* (Bachelor of Science) in the fields of study offered at the University, and the degrees ("academic degrees") of *doktor* (PhD) and *doktor habilitowany* (DSc); it also applies to the relevant national body for the conferment of "the academic title" of *profesor* (professor). Warsaw University of Technology is listed in the index of the European Federation of National Engineering Associations, FEANI INDEX.

   The Faculty of Mechatronics: was established in 1962 as a result of the transformation of the Precision Mechanics Division of the Faculty of Mechanics and Technology into the autonomous Faculty of Precision Mechanics. In 1996 the Faculty was renamed the Faculty of Mechatronics, which better reflects its interdisciplinary character. The educational programmes of the Faculty are run at the fields of study: Automatic Control and Robotics, Biomedical Engineering, Mechatronics, and Mechanics and Machine Design. Full-time and part-time studies are provided at the first, second and third level (Ph.D. studies), including also part-time studies of the first (as well as distance learning using Internet) and second cycle.
5. Name and status of institution administering studies:

   Studies were completed at Warsaw University of Technology and at :

   Université Paris-Sud XI, France, State higher education institution;university-type higher education institution, in accordance with the Erasmus Mundus Master Course dated on 15.01.2007.

   Partner Universities: Warsaw University of Technology, Poland; Université Paris-Sud XI, France; Technische Universiteit Delft, Holland; Friedrich Schiller Universität Jena, Germany.
6. Language(s) of instruction/examination: English

[1] In the case of translation into a foreign language, the names given remain in the original language.

III. INFORMATION ON THE LEVEL OF THE QUALIFICATION

1. **Level of qualification:** Higher education: Master's degree
2. Official length of programme:
   2 years (4 semesters, 1 semester = 15 weeks = 30 ECTS credits; 1 ECTS credit = 25–30 hours of student's work)
3. Access requirements: Bachelor's diploma;
   qualification procedure based on the documents submitted

IV. INFORMATION ON THE CONTENTS AND RESULTS GAINED

1. Mode of study: Full-time studies
2. Programme requirements:
   Programme requirements for the field of Automatic Control and Robotics included as Annex No 4 to the Regulation of the Minister of National Education and Sports of 18.04.2002 (Dziennik Ustaw No 116 of 2002, item 1004). In accordance with the Law on Higher Education, the Institution provides its degree programmes in the fields of study for which names and requirements are defined in the regulation of the Minister of Science and Higher Education.
   Curriculum requirements were adopted by the Decision of the Council of the Faculty of Mechatronics on 19.06.2007 with further amendments.

3. Programme details – modules or units studied and individual achievements grades and marks/ECTS credits obtained:
   Within the programme of study undertaken, the student is required to complete all compulsory courses, equivalent to 114 ECTS credits, and elective courses, equivalent to 6 ECTS credits.
   The student prepares his/her diploma thesis under the academic supervision of an advisor appointed by the Faculty Council. The final ("diploma") examination is an oral examination taken before a board of examiners. The board gives a grade for the diploma thesis and a grade for the diploma examination on the basis of the examinee's responses to questions concerning the diploma thesis and problem-related questions.

   The result of study is calculated up to two decimal points as a weighted average:

   $$\text{result of study (numerical)} = AG \cdot 0{,}6 + DT \cdot 0{,}3 + DE \cdot 0{,}1$$

   where: AG — average of course grades, with weightings equivalent to the number of credits allocated to each course,
   DT — grade for the diploma thesis, DE — grade for the diploma examination.

   The above is the basis for determining the result of study expressed in words.

   The grade average obtained for coursework and examinations (AG) equals to:

   $$\frac{\sum CP \cdot G}{\sum CP} = \mathbf{4{,}17}$$ where: CP = ECTS credits; G = grades for coursework and examinations.

   The diploma examination was passed by the student on 13.09.2011 with grade 5,0 (very good) (DE).

   The student's diploma thesis entitled "Assessment on the Applicability of Finite Difference Methods in Frequency Domain to Model Light Propagation in Photonic Liquid Crystal Fibers" was graded 5,0 (very good) (DT).

Completed programme of study (table)
Abbreviations used in the table: l – lectures, c – auditorium classes or seminars, lab. – laboratory, proj. – project.
The grade for the course was calculated according to the regulations for the course and determined by the person responsible for the course.

No.	Name of the course	Number of hours				Course grade	ECTS
		l	c	lab	proj		
	YEAR I Semester 1						
1	Fundamental of Optics					3,5	23
2	Optics and Photonics					4,0	18
	YEAR I Semester 2						
1	Computer Science and Technology					4,5	5
2	French sa a Foreign Language					5,0	4
3	Master 1 Internship					4,5	10
	YEAR II Semester 3						
1	Optical Methods of Measurements and Control	30		15		4,5	5
2	Photonics Devices and Systems	30		15		4,5	5
3	Opto-numerical 2D/3D/4D Measurements Methods	30		15		4,5	4
4	Optics of Liguid Crystals	30				4,5	4
5	Computer Vision nad Augmented Reality	15			15	5,0	4
6	Advanced Wave Propagation	15			15	5,0	4
7	Polish - level A1		30			5,0	2
	YEAR II Semester 4						
1	Diploma seminar				30	4,0	3
2	Master of Science Thesis						27
3	Fibre Optics Technology	30		15		3,5	5

No.	Name of the course	Number of hours				Course grade	ECTS
		l	c	lab	proj		
	Extracurricular courses completed during studies						

Courses 1-2 in semester 1 and courses 1-3 in semester 2, were completed at Université Paris-Sud XI, France, within the framework of studies conducted in accordance with the Erasmus Mundus Master Course agreement „Optics In Science and Technology".

4. Grading scheme and grade distribution guidance:

Method used to determine the final result of study:

Grade of study (numerical)	Result of study
4,70 and above	- excellent (celujący)
from 4.30 to 4.69	- very good (bardzo dobry)
from 3.90 to 4.29	- good (dobry)
from 3.50 to 3.89	- fairly good (dość dobry)
up to 3.49	- satisfactory (dostateczny)

Grading scheme used for examinations and coursework:

5.0	- five or very good
4.5	- four and a half or more than good
4.0	- four or good
3.5	- three and a half or fairly good
3.0	- three or satisfactory
2.0	- two or fail

5. Result of study[1]: **bardzo dobry (very good)**

V. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

1. Access to further study: The graduate may apply for admission to doctoral studies and postgraduate studies.

2. Professional qualifications and status:

Mechatronics graduates have acquired elementary, general and technical knowledge of mechanics, elektronics, automatics and computer science. The display teamwork spirit and unassisted work capability, and thanks to universal and interdisciplinary education the graduate can efficiently and productvely work as a design engineer, organiser and industry manager. Graduates completing specialisation Photonic Engineering have additionally specialist knowledge in design of optical systems with extreme measuring accuracy by means of interferential and holographic methods, design of image detection and recognition systems, design of Spare equipment abd medical and environmental protection devices, design and testing of optical and opto-electronic equipment.

[1] In the case of translation into a foreign language, the names given remain in the original language.

VI. ADDITIONAL INFORMATION

1. Additional information, including practical placements completed, awards received:
   The graduate completed studies at Warsaw University of Technology (Poland) and at Université Paris-Sud XI, France, within the framework of studies conducted in accordance with the Erasmus Mundus Master Course agreement „Optics In Science and Technology" dated on 15.01.2007 between: Warsaw University of Technology, Poland; Université Paris-Sud XI, France; Technische Universiteit Delft, Holland; Friedrich Schiller Universität Jena, Germany.

2. Sources of further information:
   Further information on the qualification obtained available on the Faculty website at: **http://www.mchtr.pw.edu.pl**
   Information about the Institution and its degree programmes available on the institution's website at: **www.pw.edu.pl**
   Information about the recognition of qualifications: Bureau for Academic Recognition and International Exchange – Polish ENIC-NARIC (**www.buwiwm.edu.pl**) and European Federation of National Engineering Associations FEANI (**www.feani.org**).

VII. CERTIFICATION OF THE SUPPLEMENT

1.Date: 24.10.2011 r.

2. Signature and seal of the Head of the organisational unit

Official seal

DZIEKAN
WYDZIAŁU MECHATRONIKI PW
prof. nzw. dr hab. inż. Krzysztof Lewenstein

VIII. INFORMATION ON NATIONAL HIGHER EDUCATION SYSTEM

1. Access to higher education

The total duration of education until completion of a school which offers the possibility of taking the secondary school leaving examination (maturity examination) is 12–15 years. Having passed successfully the secondary school leaving examination (maturity examination), graduates are awarded a secondary school leaving certificate (maturity certificate) which entitles them to apply for admission to a higher education institution.

2. Higher education system

The system of higher education and its activity are legislated by the Law on Higher Education of 27 July 2005. It regulates the functioning of State (public) and Non-state (non-public) higher education institutions that are run according to the same principles and requirements. Irrespective of their legal status, higher education institutions are divided into **university-type (academic) schools** and **schools of higher vocational education**

An **academic school** is a higher education institution in which at least one organisational unit is authorised to award doctoral degree.

A **school of higher vocational education** is a higher education institution that runs first-cycle, second-cycle or long-cycle programmes and has no authorisation to award doctoral degree.

Higher education institutions offer first-cycle, second-cycle or long-cycle programmes as well as doctoral (third-cycle) programmes.

First-cycle programmes leading to degree of *licencjat* last from six to eight semesters, while those leading to degree of *inżynier*, seven or eight semesters.

Second-cycle programmes last three or four semesters, and long-cycle programmes last from nine to twelve semesters.

Doctoral programmes last no longer than four years and upon their completion students are awarded a certificate *(świadectwo ukończenia studiów doktoranckich)*. The academic degree of *doktor* or *doktor w zakresie sztuki* is awarded in a separate procedure

Degree programmes, including doctoral programmes, may be run in full-time or part-time mode of study.

3. Degrees ("professional titles") awarded to graduates of higher education institutions

- *licencjat, licencjat pielęgniarstwa* or *licencjat położnictwa, inżynier, inżynier pożarnictwa, inżynier architekt* and *inżynier architekt krajobrazu*: degrees awarded to graduates of first-cycle programmes;
- *magister* and equivalent degrees of *magister sztuki, magister farmacji, magister inżynier, magister inżynier architekt, magister inżynier architekt krajobrazu, magister inżynier pożarnictwa, magister pielęgniarstwa, magister położnictwa, lekarz, lekarz dentysta, lekarz weterynarii*.

4. ECTS credits

The number of ECTS credits allocated to a study period of one semester may vary from 27 to 33, while that assigned to an academic year amounts to 60.

The number of ECTS credits required for completion of a first cycle programme: 180–240, for completion of a second-cycle programme: 90–120, for completion of a long-cycle programme: 270–360.

5. Academic degrees, academic degrees in arts, academic title, academic title in arts

The academic degrees are the degrees of *doktor* and *doktor habilitowany* of a specific area of science in a given scientific discipline.

The academic degrees in arts are the degrees of *doktor* and *doktor habilitowany* of a specific area of arts in a given artistic discipline. Academic degrees are conferred by units of higher education institutions, of Polish Academy of Sciences and by research and development units authorised in separate proceedings.

The academic title is the degree of *profesor* of a specific area of science, while the equivalent degree in arts is the degree of *profesor* of a specific area of arts. The degree of *profesor* is conferred by the President of the Republic of Poland.