THE MINISTRY OF EDUCATION, RESEARCH AND INNOVATION

"POLITEHNICA" UNIVERSITY
OF TIMISOARA

EXTERNAL INSTITUTIONAL EVALUATION FILE

INTERNAL INSTITUTIONAL SELF EVALUATION REPORT

Timisoara, May 2009

- The file was approved by the Executive Board of „Politehnica" University of Timisoara Senate in the meeting from the 4th of May 2009.

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I.1. Legal Framework for the Organization and Functioning of „Politehnica" University of Timisoara. University Board

"Politehnica" University of Timisoara, located at 300006 Timisoara, Piata Victoriei, nr.2, is a state higher education institution, founded in 1920 through the Decrees no. 2521/ 10.06.1920 and 4822/11.11.1920, under the name "Şcoala Politehnică din Timişoara" (Annex I-01_Creation Act of Politehnica School).

The current name of the university has been established by HGR no. 568/1995 (Annex I-02_HG_Referring_to_UPT_Functioning_Authorization) and confirmed by HGR no. 294/ 1997 and HG 535/1999 (Annex I-03_UPT Name Confirmation), respectively HG 676/2007 and HG 635/2008. During its continuous existence and functioning, the university bore the following names: Şcoala Politehnică din Timişoara (1920-1948), Institutul Politehnic Timişoara (1948-1970), Institutul Politehnic "Traian Vuia" din Timişoara (1970-1991), Universitatea Tehnică din Timişoara (1991-1995). In this report the university will frequently be referred to as UPT.

"Politehnica" University of Timisoara – higher education and scientific research institution, of national interest, belongs to the national education system from Romania and contributes through its activities to the global education strategy, integrating itself in the tradition of the Romanian university education and contributing to the scientific, professional and civic formation of the young people, to their integration in the economic and social life, to the permanent education of university graduates, and to the production of science and technology.

The activity of "Politehnica" University of Timisoara concurs with the principles in Magna Carta of European universities – since September 2005 UPT being one of the universities which signed Magna Carta Universitatum – and with the ideals of the Romanian education system, aiming at the free, complete and harmonious development of the human individuality and at the formation of competent, autonomous and creative professional personalities. The university is affiliated to: The National Council of Rectors in Romania (CNR), The European University Association (EUA), The European Conference of Technology Universities Rectors, The University Alliance for Democracy (AUDEM), The Association of Francophone Universities (AUF), The Association of Universities with Partial or Integral Teaching in French (AUPELF), The National Association for Computerization of University Management (ANIMU) and The National Consortium of Technical Universities (CNUT).

As a state higher education institution "Politehnica" University of Timisoara is a legal person and has university autonomy according to the Law of Education and to its own University Charter (Annex I-04_UPT_Charter). In its relations with the society the university identifies itself

through: name, seal, logo and flag, established through Senate decision, and it is presented by a public online image at www.upt.ro (Annex I-05_Site UPT_Home Page).

The UPT academic community consists of full time, associated or invited academic staff, consulting professors, research graduates, students in all university cycles, participants to postdoctoral studies, honorary academic staff and Doctori Honoris Causa. It is supported in its activity by administrative and maintenance staff.
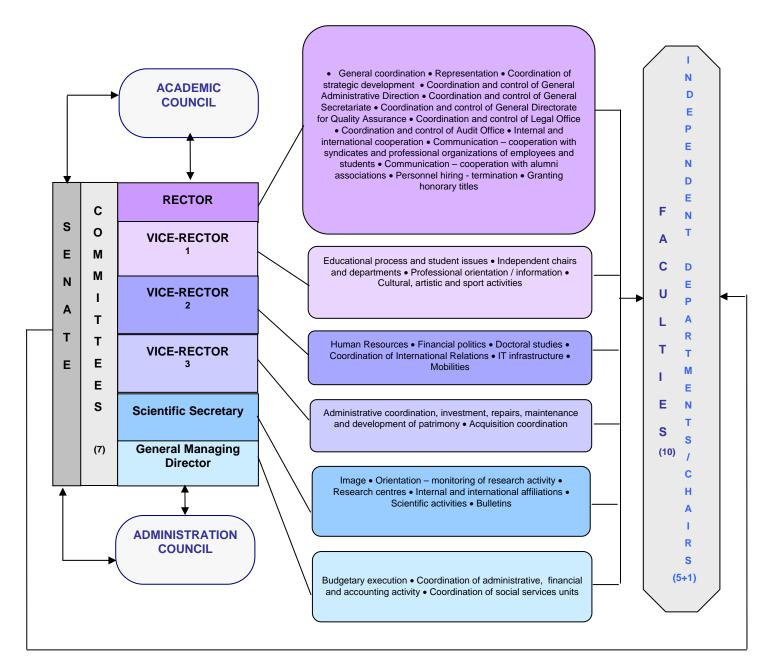
The university management takes place according to the current laws and University Chart. The highest decision forum in university is the Senate (Annex I-06_Senators_2008-2012). It is organized and functions based on the Organization and Functioning Regulation of the UPT Senate. (Annex I-07_UPT_Senate_Regulation). The Senate oversees all the domains of the university autonomy and establishes the general development strategy of the university. Its activity takes place in plenum and in committees (Annex I-08_Structure of UPT Senate Committees). The decisions regarding the university are made by the Executive Board of the Senate consisting of rector, vice-rectors, scientific secretary, general managing director and the representative of the student organizations legally constituted at university level. In accordance with the above mentioned regulation the president of the Senate Bureau is the University Rector (Annex I-09_UPT Rector Confirmation). The Senate Bureau may invite outsiders to the Senate sessions providing their presence has been a priori approved by the Senate.

The time interval 2004 –2009 brought in UPT significant changes regarding the structures providing education and research: departments, chairs and collectives. These changes reduced division and implemented new structures, conducive to performance.

- „Collective”-type structures (comprising less than 15 positions) were dismembered and department-type structures (comprising 30 or more positions) were created. Such changes took place in the Faculty of Hydrotehnics, Faculty of Industrial Chemistry and Environmental Engineering and Faculty of Mechanical Engineering.

- The former Chair of Modern Languages from the Faculty of Civil Engineering joined in 2004 the pre-existent independent departments / chairs, becoming the Department of Communication and Foreign Languages.

- The Chair of Electrotechnics from the Faculty of Electrical and Power Engineering merged in 2007 with the Chair of Physics, directly subordinate to the university board, forming the independent Department of the Physical Bases of Engineering.

- Another notable structural change was the creation in 2005 of the Faculty of Architecture by separating the former department and the former specialization of Architecture from the Faculty of Civil Engineering and Architecture, the latter keeping the name of Faculty of Civil Engineering.

- During the university year 2007-2008 it was decided to create a virtual department – evidently as an independent department - : The Department for Complementary Preparation in Informatics and Information Technology.

The structural components of „Politehnica" University are comprised, from the managerial point of view in the university flowchart (Annex I-10_UPT_Flowchart_2008), which is a component of the Charter approved by the Senate. The main elements of the charter – represented by faculty, department and chair – are also shown in the simplified flowchart below (upper management level) and satisfy integrally the requirements from the charter.

The Academic Council and The Administration Council have the roles specified in the Charter. The simplified flowchart shows the roles of the Senate Bureau members (http://www.upt.ro/cond.php), and the detailed flowchart specifies the subordination relations down

to secretarial and service level, allowing following how authority is exercised for the attributions mentioned in the simplified flowchart.

The faculties, departments and chairs of UPT are the following:

No.	Faculty	Department	Chairs
1	**Faculty of Architecture**	Architecture	-
2	**Faculty of Automation and Computer Science**	Automation and Applied Informatics	-
		Computer Science	-
3	**Faculty of Industrial Chemistry and Environmental Engineering**	Applied Chemistry and Engineering of Inorganic Compounds and Environment	-
		Applied Chemistry and Engineering of Natural Organic Compounds	-
4	**Faculty of Civil Engineering**	Civil, Industrial and Agricultural Engineering	-
		Metallic Constructions and the Mechanics of Constructions	-
		Geotechnical Engineering and Terrestrial Communication Pathways	-
		-	Installations in Constructions
5	**Faculty of Electronics and Telecommunications**	Communications	-
		Applied Electronics	-
		Measurements and Optical Electronics	-
6	**Faculty of Electrical and Power Engineering**	-	Power Engineering
		-	Electrical Engineering
7	**Faculty of Hydrotechnics**	-	Hydrotechnical Constructions and Land Improvement
		-	Hydraulics, Sanitary Engineering and Water Management
8	**Faculty of Engineering of Hunedoara**	Electrical Engineering and Industrial Informatics	-
		Engineering and Management	-
9	**Faculty of Production and Transportation Management**	Management	-
		-	Social Humanistic Science
10	**Faculty of Mechanical Engineering**	Material Engineering and Manufacturing	Technology of Machine Construction
			Materials and Welding Science
		Mechanics and Strength of Materials	Mechanics and Vibrations
			Strength of Materials
		Mechatronics	Machine Components and Mechanisms
			Mechatronics and Fine Mechanics
			Descriptive Geometry, Technical Drawing and Computerized Graphics
		Mechanical Machines, Technology and Transportation	Transportation Engineering
			Technology of Materials
			Thermotechnics, Thermal Machines and Motor Vehicles
			Hydraulic Machines
11	**Independent departments / independent chairs**	The Physical Bases of Engineering	-
12		Communication and Foreign Languages	-
13		Permanent Education	-
14		Mathematics	-
15		Preparation of the Academic Staff	
16			Chair of Physical Education and Sports

The following structural elements also act under the coordination of the Senate Bureau members: *Department for Preparation of the Academic Staff, Department of Permanent Education,*

Department for International Programmes and Relations, Centre for Students' Counselling and Information (CICS), Library, Directorate for Quality Assurance (DGAC) and research centres.

I.2. Mission, Objectives and Performance Indexes

The specification and the execution of the UPT mission, goals and activities declared in the UPT Charter are based on applying the principles of university autonomy and academic freedom.

The UPT **mission** is defined along the lines of the current and future individual and societal needs and consists of:

- *initial and permanent training at graduate and postgraduate level in engineering, interdisciplinary and complementary domains;*
- *scientific and technological research;*
- *scientific transfer, of technology and know–how, production and specific services.*

The goals of the activities taking place in UPT are:

a) *competitive training of specialists:*

- *at graduate and postgraduate level*, according to the levels agreed upon in the Bologna process (bachelor, master, doctoral) or to their equivalents in the structure prior to the Bologna process;
- *at postgraduate level* in the global context of Higher Education European Space (specialization, improvement, permanent education and others);

b) *scientific research and technological development, design, consultancy, technical assistance, expertise, production and others in the global context of the Research European Area;*

c) *improvement of education, scientific research and services delivered through:*

- ensuring the UPT members a professional and social status according to the importance for the society of the assumed mission;
- developing the infrastructure of the university;
- adapting the educational content, teaching technologies and evaluation methods, scientific research and technological development, production and services, to the global technological and scientific progress tendencies and to the social and economic development dynamics of the country;
- subordinating all the processes in the university to the principles of quality management systems;

d) *cooperation with national and foreign universities for the development of a modern and efficient education system;*

e) *integration in global, European and national informational circuits through scientific, technological, teaching, cultural and of general information - including online - activities and publications.*

For the execution of the activities defined through its mission and goals, „Politehnica" University of Timisoara creates partnerships with national and foreign institutions and economic agents, creating common interest activity structures, and cooperates with international, national and local governmental and non-governmental organizations.

Through the Senate's Decision No. 5/2006 (Annex II-01_HS 5 din 2006), the UPT adopted the following ***performance indicators*** for the internal self-evaluation of the quality of the processes within the university: *selectivity in the selection of students, adequacy of human and materials resources, professional success of the graduates, visibility of research and technological transfer, attracting revenues from research and technological transfer, the degree of internationalization, the reputation in the local and international environment*, thus aligning the mission and objectives it took upon itself to the international performance requirements and standards.

I.3. University objectives and performance between 2004 and 2009.

The general objective of the university's top management for the period 2004-2009 was: ***the development and reinforcement of the image*** of the university as an ***trainer of specialists*** and ***a generator and synthesizer of scientific knowledge***, *in tune with the needs of the society, with a proper internal climate, favourable to the transformation and to the professional and human capitalization of its academic staff and students*. Reaching this objective implied significant efforts on several characteristic coordinates for the university which will be presented further on together with its performances.

I.3.1. The teaching process

During the reporting period, the connection between the teaching process and the needs of the society – a constant concern – was created as far as the offer of specializations, the *curricula and syllabi* are concerned, as well as regarding the total number of students. This was achieved on the basis of three parameters: i) the *feedback* associated with the departure of students from university, containing data from the labour market, regarding the need for graduate specialists in each field, ii) the f*eedback* associated with the entry of students into the university, represented by the admission exam and iii) *the education capacity of the university*, with all its components: human resources, educational facilities, technical equipments, etc., for each field.

With this kind of approach corroborated with the campaigns of career guidance in high schools – including in Hungary, after Romania has joined the European Union – but also on the *Internet*, we managed in each year to fill almost entirely the budgeted student places and to attract a

considerable number of self financing students. The number of budgeted places financed from the central budget granted to UPT has been in perfect tune with UPT's strategy (see Annex I-11_ Student numbers); it is worth noticing the increase in the number of student places in Civil Engineering, a field which was in full development in our country between 2004 and 2008). The proven capacity – *not just the one pretended to exist* – of UPT, to fill in every time the places it was granted, was due to the realistic distribution of places per field and to the usage of selection methods for the candidates that were adapted to the particular context.

Each year, an important number of graduates and specialists were provided into society, all having a good reputation on the labour market from a professional and a behavioural point of view. The existence in Timişoara, in the Timiş district and in the V - West region of numerous important companies is due, largely, as the officials from these companies publicly state (see Annex I-12_external opinions about the UPT, connected to some of programs which are to be accredited during the institutional accreditation), to the way in which UPT answers their needs for highly qualified work force.

Briefly, the student number at the admission exam for the period 2004/2005 – 2008/2009 was (the comparison was made against the 2004/2005 academic year):

Academic year	UPT_Bachelor studies		UPT_Master studies		UPT_Doctoral studies		UPT_Total	
2004 / 2005	2978	100.00%	608	100.00%	222	100.00%	3808	100.00%
2005 / 2006	2921	98.00%	706	116.00%	113	51.00%	3740	98.00%
2006 / 2007	2924	98.00%	814	134.00%	93	42.00%	3831	101.00%
2007 / 2008	2910	98.00%	950	156.00%	131	59.00%	3991	105.00%
2008 / 2009	3219	108.80%	1185	194.90%	139	63.00%	4543	119.30%

The following aspects are worth underlining: i) the constancy at bachelor level, with an upward trend in 2008/2009 (this considering that at national level the number of high school graduates is decreasing); ii) the constant progress at the master level, approximately a 16 % increase from one year to another; iii) the gradual augmentation of the number of doctoral students after the sudden decrease registered following the time when HG 567/2005 regarding the organisation of doctoral studies became effective.

The students who were admitted to master degree programmes had, considering the faculties they graduated, mostly came from UPT. However, a not negligible number of students came from other universities, mostly from the West part of the country. From the debates between the academic staff of UPT and the bachelor graduates at the presentations of the master degree programmes, it resulted that the interest for master degrees would have been much higher if there would have been an official national statute for the graduates of these studies, expressed through well defined qualifications, recognized on the labour market.

During the reporting period from UPT graduated the following number of students as seen in the table:

Academic year	UPT_5 years		UPT_ Master Degree		UPT_ Doctoral Degree		UPT_total	
2003 / 2004	1570	100.00%	381	100.00%	85	100.00%	2036	100.00%
2004 / 2005	1753	112.00%	442	116.00%	69	81.00%	2264	111.00%
2005 / 2006	1828	116.00%	595	156.00%	63	74.00%	2486	122.00%
2006 / 2007	1766	112.00%	39	10.00%	86	101.00%	1891	93.00%
2007 / 2008	1736	111.00%	515	135.00%	51	60.00%	2302	113.00%

Since in this period the graduates of UPT were mainly students from the 5 years study cycle, a correlation cannot be made with the number of accepted students (former table). The low number of master degree graduates in the academic year 2006/2007 is due to the fact that from the fall of 2006, UPT switched to master programmes with a length of 2 years and, consequently, in 2007 only the students from the master programme of the Faculty of Architecture (the only 1 year master programme) graduated. It can be noticed that in 2008 the number of master degree graduates (study programmes with a length of 2 years) was higher than in 2004. Regarding the number of those who finished doctoral studies we appreciate that compared to the average value of 70 confirmed doctors / academic year there have been variations. We consider as positive the fact that joint doctoral programmes began to function and binomials were formed between a scientific coordinator from UPT and a coordinator from other university – especially from abroad, but also from Romania, as well as between two scientific coordinators from UPT, from different fields, in the case of interdisciplinary theses.

The detailed account of the accepted students and of the graduates is presented in Annex I-11_Student numbers, Annex I-13_Graduate numbers and Annex I-14_Joint degree doctoral students 2004-2009. At graduation diplomas and diploma supplements were granted according to the current legislation (see Annex I-15_Diplomas and diploma supplements where some supplements are partially presented).

Overall, regarding the changes that incurred during the reported period at the level of the student body of UPT, we mention the following distribution per levels and type of study:

	2004 / 2005	2005 / 2006	2006 / 2007	2007 / 2008	2008/ 2009	Multiplication factor 2008 / 2009 vs. 2004 / 2005	Percentage modification 2008 / 2009 vs. 2004 / 2005
Bachelor	**13067**	**13215**	**12928**	**12679**	**12998**	**0,995**	**- 0.5 %**
Master	**597**	**746**	**818**	**1.583**	**1956**	**3,27**	**+ 227 %**
Doctoral	**1066**	**862**	**790**	**736**	**651**	**0,757**	**- 24.5 %**
- intramural	140	163	163	175	156	1,114	+11.4 %
- extramural	926	699	627	561	495	0,534	- 46.6 %
Total	**14730**	**14823**	**14536**	**14998**	**15605**	**1,06**	**+ 6 %**

The doctoral programme involves 4,2% of the total number of students of UPT and the master programmes: 12.53%. Within the doctoral programme spectacular structural changes took

place. Thus, if at the beginning of the reported period, only 13% of the doctoral students of UPT were intramural students, while 87% were extramural, to date the ratio between these categories changed to 24% and 76%.

In the field of distance learning no notable progress has been registered. The public interest for this type of learning in the technical field, at bachelor level has proven to be low (letter A from Annex I-16_Distance learning & continuous learning). There are reasons to state that, at master level, the interest for the distance learning would be much higher, both in Romania and abroad. It is necessary however to go from the actual system used by UPT, based on printed materials, to an *online* system. Based on the current resources, this change can be made starting with the academic year 2009/2010.

An important number of students were and are interested in the methical and pedagogical module run by the Department for Teacher Training (Annex I-17_ Regulations DPPD_Project). On average, the courses are attended each year by around 1260 students and graduated by around 182 students who receive a graduation certificate of the so called „ Psycho-pedagogical Studies Programme". The ratio between the ones who graduate and those who attend is on average around 14.5%. Taking into account the fact that this module interests the students from the Bologna cycle as well, the university will continue to offer this course, with the same content and in the same format.

UPT – the psycho-pedagogical module	2003 / 2004	2004 / 2005	2005 / 2006	2006 / 2007	2007 / 2008
Registered students	1367	1402	1152	1288	1097
Students that graduated	97	230	175	173	239

The detailed account is presented in Annex I-18_The psycho-pedagogical modul-students.

UPT offers through the Department of Continuous Education (DEP) opportunities for supplementary studies based on the lifelong education concept. The detailed status is presented at letter B in Annex I-16_Distance learning & Continuous education. The activity of the department had increased substantially over the past years, both in its spectrum of involvement and in the revenues it generated. The cooperation of DEP with CISCO Networking Academy, Microsoft IT Academy, SAP Universities Alliance, VUE, as well as with Romanian organizations like SIVECO, ACPART and "Petrol şi Gaze" University in Ploiesti, has proved to be a real success. Actually, besides of organizing courses, DEP is recognized as well as a testing centre: PEASON VUE – from 2005 and PROMETRIC – from 2007.

DEP has been a member in consortiums of international projects among partners like the University of Palermo or the University of Salzburg. Also, DEP obtained by itself European funds in a PHARE project aiming at the development of human resources of SMEs from the region V West and participates at the implementation of a TEMPUS IV project on the topic of "Higher

Education Learning Partnership". Additionally, DEP had contracts with third parties regarding the writing of projects for the absorption of European fund, oriented towards "The development of human resources and of the career opportunities through the development and implementation of a modern computer based system for the management of the human resources" and "The consolidation of the institutional capacity of the Regional Consortium".

We consider that in the future, the continuous education in UPT must show a positive trend, with even higher growth rates than it has now.

I.3.2. Research process

Research is managed and monitored by the Scientific and Technological Research Committee of the "Politehnica" University of Timişoara's Senate which, together with the Scientific Council of UPT (http://www.upt.ro/cercetare/consiliul.php) implements *The scientific research strategy of the „Politehnica" University of Timişoara for 2007 – 2013*, its own policies and programmes for research, development and technological transfer, as well as the specific actions meant to ensure their achievement (Annex I-19_Research Strategy_UPT_2007-2013_Strategic priorities). Convinced that the research activity must benefit from an organization and development framework where one of the fundamental principles is the freedom of the researcher in choosing the directions and topics he/she approaches and considering the fact that a substantial research activity needs an adequate infrastructure and proper retributions – in other words: financial resources -, the upper management of UPT established in 2005 "The strategic priorities regarding research at UPT between 2005 and 2008" – on the base of which it was developed the strategy mentioned above. The 2005 document highlights the importance UPT gives to the research activities and aims to induce through the tracing of priorities a modern course:

UPT considers that scientific research is a priority of the university missions, conferring personality and distinction to the university, and that reaching excellence in scientific research is a target on medium and long term. Therefore, the regulations of the university regarding the scientific research must insure a framework within which:

✓ the scientific research becomes one of the most important source of income for the university;

✓ one allows the consolidation, development and enrichment of the material base for research;

✓ one stimulates pecuniary and morally staff that is involved in research activities;

✓ one increases the importance and raises the contribution of doctoral education;

✓ one selects the human resources which are capable of research from the bachelor and master levels;

✓ one increases the degree of responsibility and involvement of the departments in the planning of research activities, in setting up research centres and developing research laboratories;

✓ one promotes in the university the new European culture of research and it supports the integration of the members of the university in research networks and major European programmes;

✓ one encourages the creation of a real added value on both the theoretical and the practical fields;

✓ one directs scientific research on the major directions of the European Union as for to answer the needs for development and consolidation of the local, regional and national environment;

✓ one ensures the conditions for an efficient orientation and access to scientific information;

✓ one informs the public opinion, the decision-makers and academic environment about the results obtained in the scientific field by the members of the academic community of the university."

One of the first measures taken by the Executive Board of the Senate regarding research was to establish a system in which of the funds attracted through the research activities will benefit *almost entirely*, after all the expenses have been covered, its provider.

Thus, from June 2004, the overheads quota levied by the Rectorate for the amounts gathered from research activities was reduced from 25% of the labour costs foreseen in the research contract, to 3% of the contract's value, and subsequently another 3% of the contract's value remains at the disposal of the contract's manager, as working capital, which can be spent especially after the end of the contract, for any purpose, except for salaries. The rest of the amounts attracted through research activities – that is 94% of them! – were left at the disposal of the research team, counting on the fact that the research team will take care that it will be used in reasonable proportions for the benefit of the people who did research work and the laboratories where they do the research and/or teaching activities, which is what really happened. At the same time, it was correctly counted on the fact that a part of these funds would be allocated by their managers to support the printing of their works and their direct participation at major scientific events. In the stimulating framework that was established, various research structures were created and/or consolidated – congregates, laboratories, centres, institutes, excellence centres, research facilities with multiple users, interdisciplinary research platforms (Annex I-20_Research structures in UPT), some having a statute governed by the Ministry of Education, Research and Youth, while others have an *ad-hoc* existence.

Taking into account that a technical university has to demonstrate its research capacity through the degree by which the results of the research can be applied in the economic area, the UPT emphasised applied research through direct contracts with the beneficiaries from the industry, who are capable of financing and put to use the research's results. In 2007 were signed 230 such contracts, with a total value of 3,765,832 lei, while in 2008 were signed 187 contracts having a total value of 2,144,167 lei.

In 2007 the top management of UPT noticing that "… only a small percentage of the members of the teaching and research community of UPT are *de facto* active in the research field in

real teams, with research subjects soundly based, with a systematic work plan and an internal organisation adequate for high performances" took the initiative of creating in UPT several interdepartmental research centres, open to each and every potential researcher from the university, irrespective of which chair/department he/she belongs to. Five such institutes were approved and specifically: the Interdisciplinary Research Institute, the Renewable Energy Research Institute (ICER-TM), the Automotive Research Institute, the Environmental Protection Research Institute and the Materials Research Institute.

Till 2007 it has been effectively established the Renewable Energy Research Institute. In order to create its infrastructure a project with a length of 36 months and a value of around 17 million Euros won the selection (and was launched in 19.3.2009) for structural funds from the European Union, within the Sectorial Operational Programme "Increase of the Economic Competitiveness" - Priority Axis II.

In order to facilitate the contacts between the university and the society, to reach the goal of better focusing the research towards the society's needs and for a more consistent implementation of the innovative ideas generated within the university, in 2004, the Research and Technologic Transfer Centre of the „Politehnica" University of Timişoara was created, to which was allocated a space of 400 square meters – the 1st floor of the R Building of UPT – equipped at high standards with funds raised from L-Bank Stuttgart. Within the Centre are currently active German companies interested in cooperating with UPT – a certain amount of collaboration has already taken place – and an office of the Fraunhofer Association of Research Institutes from Germany – the largest research organisation in Europe, with which UPT is already working on two major research/technological transfer projects: "Timişoara Vision 2030", aiming at the traffic optimisation in Timişoara and its vicinity, as well as "Informatisation of data management at the Timiş County Council".

In the institutional and managerial framework here described, in the context of a high competitiveness at national and international levels, at the "Politehnica" University of Timişoara have been organised numerous scientific events (Annex I-21A_UPT Scientific Activities_2004-2008 and Annex I-21B_Scientific Activities 2009) and has been published a large number of books and articles encompassing the scientific work of various researcher categories, some of them providing according to the citations reference elements in their respective fields. The results from the annexes I-21 show UPT has been significantly involved in the international circuit of scientific manifestations as organiser/ co-organiser. We highlight as an example of international cooperation the SACI International Symposium, organized by UPT – the Faculty of Automation and Computer Science, in collaboration with the BMF Applied Sciences University from Budapest, under the patronage of IEEE. In 2010 three events with a distinct international impact will be held at UPT: the

IAHR Symposium on Hydraulic Machinery and Systems (September), the International Conference on Software Maintenance (September) and the IFAC Symposium on Telematics (October).

The participation of the teaching staff to scientific events organized by other institutions has been notable. The decision of the UPT management to support the participation of youth to such manifestations by allocating from its own extra-budgetary centralized revenues a sum of 300 EUR during the academic years 2005/2006 and 2006/2007 and of a sum of 500 EUR during the academic year 2007/2008 has contributed to the current situation.

The Senate of the UPT aims to stimulate the diversity of types of participation at scientific research activities through the national funding organisms (MECI, ANCS, CNCSIS, the Romanian Academy, etc.) as well as the international organisms (the European Commission – through the programme PC7, foundations, and other organisms). Following competitions, a significant number of research grants and contracts have been won bringing funds on one side and prestige on the other. UPT appears in the Central Registry of Potential Contractors under the number 3284 and is eligible for funding through the national programmes administrated by the National Authority for Scientific Research ANCS.

The financing programme of interdisciplinary research platforms represents an important source of funding the research infrastructure. In its framework three grants with a total value of 20,500,596 lei were awarded to "Politehnica" University of Timişoara.

In the framework of the National Plan for Research, Development and Innovation II, initiated in 2007, UPT won in the following programme categories that were financed for the year 2008: 14 research programmes for young doctoral students in the HUMAN RESOURCES Programme (2008 value: 482,545 lei); 7 projects in the IDEAS programme (2008 value: 1,844,656 lei); 3 projects in the CAPACITIES programme (2008 value: 2,232,099 lei); 1 project in the INNOVATION programme (2008 value: 101,717 lei); 34 projects in the PARTNERSHIPS programme (2008 value: 4,390,451 lei). At the 2008 call for applications of the National Plan for Research, Development and Innovation II another 29 projects were successful and will be financed in 2009.

An increased attention was attached in the previous years to the internationalisation of the research activity. In 2007 UPT implemented international contracts as well as Sixth and Seventh Framework Programme contracts.

Throughout the period concerned, the management of the university encouraged the publication of the research results undertaken by the research body of the university – composed of teaching staff, researching engineers and doctoral students – in journals and at prestigious conferences. For this purpose, it was established that it is a *sine qua non* condition for the promotion on the position of associate professor and professor, before the national regulations were issued on this matter, to publish a certain number of articles in this type of journals and at this kind

of conferences. It has been promoted with determination the objective of visibility correlated with impact metrics of an as high as possible level, mainly the ISI standard. In the table below is presented a comparative situation regarding the published articles. A detailed situation is provided in Annex I-22_Articles 2004-2008.

Year	Articles with ISI – Journal quotation	Articles with ISI – Proceedings quotation	Articles with other quotations	Articles without quotations but recognized by CNCSIS	Articles without quotation at various international conferences	Articles with quotations – total	Articles - total
TOTAL 2004-2008	555	452	590	1799	3123	1597	6519
2004	73	18	25	401	484	517	1001
2008	213	243	398	304	571	854	1729

The data reflects the progress recorded and it must be correlated with the mentality change in the university regarding the need of focusing the publishing activities towards visibility. In this context, we take the liberty to consider that the current way in which CNFIS and various regulations at national level encourage the organization of scientific events by all the universities in as many fields as possible is of such nature that it leads to a dispersal of efforts and a reduction of the average level of these events.

During this period, the *Scientific and Technical Bulletin of UPT* continued to be published in all the fields it is well-known for. We highlight the fact that the Electrical Engineering series of the Scientific and Technical Bulletin of UPT, under the name „Journal of Electric Engineering" is INSPEC indexed and has appeared for the past 9 years in an electronic format (http://www.jee.ro/) as well. Even if in the case of the other series (http://www.upt.ro/cercetare/publicatii_upt.php) some progress was obtained as far as the internationalization of the Editorial Board and the internationalization of the authors are concerned, unfortunately we did not succeed in making them part of any high visibility circuit.

I.3.3. Human Resources

The teaching staff of UPT being, without any doubt, its most priced asset, actions are taken incessantly within the university to ensure a proper internal climate, based on reciprocal respect, comity and cooperation between the members of the community, whichever their category or hierarchic position would be. The top management of UPT has shown a particular interest in increasing the incomes of its staff. Gradually, the incomes of the whole staff of UPT – but especially, by percentage, of young teaching staff and intramural doctoral students – have increased considerably in the timeframe here analyzed. Furthermore, (food and gift vouchers have been offered to all employees), in certain years in larger amounts, in other years in a smaller amount, but nevertheless, with a record level in the year 2007/2008 (Annex I-23_Gross Income & Vouchers).

The financial resources required for all these actions were raised by:

> increasing the budgetary allocations, corresponding to "the base financing", by increasing the number of students, but also the amount per student and by the improvement of performance indicators on the base of which MECT allocates financing to universities (each year, based on these indicators UPT has been ranked no. 1 in the country among the technical universities and the universities with a significant technical component);

> improving the turning into profit of the potential for research, development, innovation, consultancy, expertise, certification, etc. of the university;

> improving the turning into profit of the real estate patrimony of the university;

> curtailing the expenses of the instruction process by a more rational definition and administration of the *curricula*;

> cutting back on the utility expenses through autonomisation and the usage of modern technologies.

Regarding the promotion of the staff in the didactical hierarchy, UPT has led a balanced policy in which it took into account both the needs of the institution – immediate, short term and long term – and the individual interest of each person (see Annex III-10_HBES_36_2005). This approach, accompanied by the unyielding enforcement of the proven value criteria, has created opportunities for an important number of academic staff to accede – evidently through competition – to upper positions.

In order to facilitate for the teaching staff, students and essentially the whole academic community of UPT, the participation to cultural events, series of conferences and cultural-artistic evenings with important guests (writers, historians, journalists, etc.) were organized by the faculties. Concurrently, in order to promote a climate of closeness and comity at the level of various structures – mainly at faculty and rectorate levels – the organization of reunions during the winter holiday season or at the beginning or end of various activities have been endorsed. These initiatives have been appreciated by the participants, giving us reasons to declare that they reached their objectives.

I.3.4. Financial Resources

As it is the case with any organization, for UPT too the financial resources play an essential part. Subsequently, these have been handled with maximum care.

First of all, a particular attention was directed towards the strict implementation of all active regulations. The degree to which this has been successful is probably most eloquently illustrated by the fact that at none of the annual control missions undertaken within the university, the Court of Accounts has not identified other than minor, rectifiable and immediately rectified unconformities.

Within UPT it has been relentlessly enforced the *principle of decentralized financial administration, up to the department/chair level*, which made both the decision makers and the simple members of the academic community more responsible.

In order to increase the revenues of the university specific measures were taken for each type of revenue:

✓ To increase the revenues for the "base financing" category, actions were initiated in order to improve the CNFIS quality indicators, whose importance in the funds allocation has become more and more significant over the years, as well as to boost the number of students at master and intramural doctoral levels, which have a better financing coefficient.

✓ To increase the revenues from the "complementary financing" category, actions were taken to support a large number of rehabilitation and development projects of the university's teaching and research infrastructures as well as the social and sports infrastructure – regarding the spaces themselves, as well as their furnishings and technical equipment.

✓ To increase the revenues from the university's own extra budgetary sources, actions were taken to motivate the substructures of UPT to attract such financial resources, by rising from 60% to 80%, the percentage of the founding that is allocated to the substructure that obtained it. Afterwards the fees for the self-financing students and the fees for retaking failed classed were increased. The number of research contracts and grants multiplied, the value of these contracts and grants became more substantial and the rents for the real estate that was temporary unnecessary for the good functioning of the university were raised.

Thus, from the precarious financial situation of the university as it was at the end of the anterior reporting period, we managed to reach a financial situation that can be qualified as excellent, which allowed significant salary raises, as it has been shown regarding the teaching staff, the rehabilitation and updating of numerous teaching and research places – as well as the social and sport facilities – their refurnishing and equipment with ultramodern technical installations, as well as building some new ones. There would be no exaggeration to state that, between Mars 2004 and December 2008 the image of the university has been radically altered for the better.

In Annex I-23_Gross Income & Vouchers, letter A, an analytical image on the evolution of the financial resources of UPT for the reporting period is presented and in Annex I-24_UPT Income Evolution, letter B, a comparative analytical analysis over the financial resources for the period 2004-2008 is being offered.

I.3.5. Real estate patrimony

As it had been shown during the report, the real estate and technical patrimony of UPT became, after dozens of years of under financing, not just out of date, worn out, but literally to a

large extent damaged. In this context, actions were taken to generate projects and afterwards to obtain financial resources for their implementation. The whole university has been, in one way or another, to a larger or smaller extent, targeted by this type of projects which had a total value of around 1700 milliard ROL.

First it was attempted the rehabilitation and/or updating of the existing real estate patrimony, at the level of the Rectorate, the faculties and the social complex.

Then, the furniture was renewed almost entirely (for example in 2007, only for the lecture rooms there were over 15 milliard ROL invested in furniture, and for the student residences another 5 milliard ROL).

In the student residences – in all the 16 that are at the discretion of UPT – a connection to the *Internet* by optic fibre was established, up to room level. Moreover, video surveillance systems were installed in a good percentage of student residences, while in the remaining ones the problems are on their way to be solved.

Complex rehabilitation and updating works were initiated and finished for new departments or departments that changed their location:

− The IT Business Incubator – 3rd floor, R building

− The Technological Transfer Centre – 1st floor, R building

− The Mathematics department – 2nd floor, Rectorate building

− The Physical Education and Sports Chair –1st floor, student residence 2MV

− The Department of Physical Basis of Engineering – 3rd floor, Electro. C building

− The CA1 and CA2 amphitheatres of the Faculty of Civil Engineering (around 250 places each)

− The 151 amphitheatre at the Faculty of Mechanical Engineering (around 150 places)

− The A101 and "Alexandru Rogojan" amphitheatre at the Electro group of Faculties (around 220 places the first one and around 380 places the second one)

− The *Fast-food* of the 1C student restaurant

− The 1MV, 22C, 21C, 20C and 19C student residences (with a total of around 2500 accommodation places)

In all the 16 student residences individual central heating systems, double-glazed uPVC windows, polystyrene heath and sound insulators were installed and the exterior painting was renewed. In all the student residences the furniture was changed. Each student residence room – and UPT has a total of over 2000 such rooms – was equipped with a refrigerator.

Double-glazed uPVC windows were installed and the walls of all the faculties were painted.

Capital repair work of the roof of the Rectorate building – a particularly complex project – was performed.

The capital repair work of the Electro group of Faculties – an especially complex project – has begun and is to date close to its completion.

The capital repair work of the Faculty of Management in Production and Transportation was initiated and is to date close to completion.

The capital repair work of the Faculty of Civil Engineering begun and is currently close to completion.

The capital repair work of the Faculty of Hydrotechnical Engineering begun and is completed.

The building of the new UPT library – on its full name: the Centre for Documentation, Continuous Education and Technological Transfer – has begun and is at an advanced stage, after the financial resources for this objective were allocated in 2005 through a Governmental Decision from the national budget.

The building of the Swimming Pools Complex from the Sports Base no. 2, comprising one indoor and one outdoor swimming pool has begun and it has been completed.

The landscaping of a park in the area between the Faculty of Mechanical Engineering, the Faculty of Civil Engineering and the Faculty of Electrical Engineering was initiated and completed.

The improvement of two new UPT Senate halls – the "Large Hall" and the "Small hall" – in the Rectorate building were initiated and completed. In the same building it was improved to a level of refinement the entry hall and the stairwell up to the mezzanine.

The works for transforming the 1st floor of the 1C student restaurant into a multifunctional adjustable space (these works were accompanied by the consolidation of the building) have begun and were completed.

The capital repair of "Casa Politehnicii 2" was initiated and completed.

The rehabilitation and updating works at the Sports Base no. 1 were initiated and completed.

The rehabilitation and updating works at the Sports Base no. 2 have begun.

Construction works for building penthouses on top of the D building of the Electro faculties group, a part of the SPM building belonging to the Faculty of Mechanical Engineering and a part of the building with the heating system of the Faculty of Industrial Chemistry and Environmental Engineering were initiated.

Three new projects have been launched: the headquarters of the Faculty of Architecture and new general spaces for teaching and research on Traian Lalescu Street, new general teaching and research spaces as an extension of the Faculty of Industrial Chemistry and Environmental Engineering on Vasile Pârvan Boulevard and a Polyvalent Hall with 2500 places on Fagului Street. Also, the headquarters of the Renewable Energy Research Institute is going to be built on Muzicescu Street and equipped using structural funds from the European Union (around 17 million Euros).

In Hunedoara a new ultramodern student residence with a student restaurant at the ground floor has been built, while consolidation, rehabilitation and complex revision works that affected all the UPT buildings in this city were and are still carried on.

Laboratory equipment with a value of around 200 milliards ROL has been bought for all the faculties, making the current status radically different from the one presented at the end of the past report period. In order to illustrate the range of the progress, we mention that in this timeframe over 3500 high-performance computers have been bought.

To offer our students the possibility of travelling in a cheap and safe way to their internship placements, in field trips, to attend cultural or sports events, etc., in 2007 were bought a bus with a capacity of 54 people, another one with a capacity of 28 people and a van with 9 places. Obviously, all these are available equally to the teaching staff and to the other categories of employees of the university. We highlight the fact that an important number of UPT students – from the Faculty of Industrial Chemistry and Environmental Engineering, the Faculty of Hydrotechnical Engineering, the Faculty of Electrical Engineering, the Faculty of Mechanical Engineering, The Faculty of Civil Engineering, the Faculty of Architecture and the Department for Communication and Foreign Languages – had the opportunity to do study trips or group internships at companies in their respective fields.

In Annex I-25_Investment status, a summary of the investment, consolidation, rehabilitation and capital repair works of the real estate patrimony of UPT executed between 2004 and 2008 is being presented.

I.3.6. Intranational relations

All along the reported period, UPT has maintained very good relations with the other universities from Timişoara and from around the country, as well as with the Timiş Chamber of Commerce, Industry and Agriculture and the companies that work in Timişoara, the county, the region and the country.

Close relations were kept with the larger companies in the area in order to receive *feedback* that can be used to better adapt the teaching and scientific research activities but also with the target of determining these companies to provide support in the updating of the teaching and research infrastructure. This target has been reached in many occasions.

Careful and successful collaboration was continued with the local, county, regional and national authorities. UPT assumed a complex role of a development catalyst and a link between the different institutions. UPT was actively involved in establishing the strategy and the local, county, regional and national policies in the fields it is most competent for. For example, the rector of UPT participated at the elaboration of the national research, development and innovation strategy for the period 2007-2013.

The relations of the university with the Timiş County Education Inspectorate and the high schools from the county were good, but not consistent enough. This collaboration was poor from the point of view of the common activities. In the future, more attention should be given to these relations.

Regarding the connections with the Timiş County Council, the Timişoara Local Council, the Timişoara City hall and the Timiş Prefecture we can say that they were excellent. To support such affirmation we mention the collaboration between UPT, Timiş County Council, the Timişoara Local Council, the Timişoara City hall and IBD/GTZ for the creation and maintenance of the IT Business Incubator, an objective particularly appreciated by our guests, itself and the partnership that sustains it.

We insist on making a special note on the relations the university had with MEdCT.

In 2004, the Alumni and Former Employees Association (AFSAPT) was created. Unfortunately the management of this association has not proven itself capable to put to good use the huge support potential for UPT that this association could have generated.

I.3.7. International relations

Another priority of the upper management of UPT in the period in question was to increase the visibility and improve the image of the university.

Signing bilateral cooperation agreements, consortium agreements, *ad-hoc or generic,* with as many universities as possible was one of the methods used. International cooperation agreements were signed especially with European universities, but also with universities from USA, Canada, South Africa and Japan. We can state that UPT is more present now in the international academic circuit than in its whole history. All kinds of mobility are based on the bilateral agreements between UPT and the host university. In April 2009 were active:

- 156 bilateral Erasmus agreements for the academic year 2008/2009 and 174 for the academic year 2009/2010;
- 2 CEEPUS networks where UPT is a partner and a beneficiary of mobilities;
- 76 framework agreements that include mobilities;
- 5 agreements with foreign companies that allow the mobility of students interested in internships;

Each year there have been around ten partnerships on European research programmes (PC6, PC7). There were documentation visits and experience exchanges in which a large percentage of the teaching staff was involved. There has been a consistent collaboration in the area of joint doctoral degrees.

Most partnerships were made within the ERASMUS programme, the direct beneficiaries being the students. The evolution of the Erasmus agreements and of the number of framework

agreements is shown in the table below. The main analytic and synthetic aspects regarding the mobilities are presented in Annex I-26_DPRI Synthesis and Annex I-27_Framework agreements UPT.

Evolution of international agreements	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008
Erasmus agreements	38	52	72	126	121
Framework agreements	6	37	48	65	63

UPT achieved some successes in the area of mutual recognition of the studies undertaken and the double-degree programmes. In the context described above, UPT has 15 cooperation conventions for double-degree programmes with universities from France, Germany, Japan, etc., 7 of which have been signed between 2004 and 2008.

II. The quality assurance process for study programmes and standards, respectively, for reference standards, as part of the strategic institutional management

It is a generally known fact that in the past years systematically and professionally assuring the quality of educational practices as well as of the whole activity of a university has become a *sine qua non* condition for considering an institution trustworthy. This explains why, ever since 2004, UPT established a Quality Assurance General Directorate and shortly afterwards the rector put forward "The Rector's Statement regarding the policy for quality assurance in UPT" (Annex II-01_Rector's Statement – Policy for Quality Assurance) and the associated documents – Objectives in the quality field, mission, values and core principles (http://www.upt.ro/calitate.php).

In harmony with this statement and with the Bologna process, for the quality assurance measures to be successful, a large importance was given to the creation of an institutional culture of quality. In this regard, due to the inherent inertia of the educational system and its institutions, even in universities with a long tradition, consistent results can only be obtained on the long run. The strategic institutional management of UPT sought that the implementation of all processes be made according to the principles of quality management, considering the quality culture as an omnipresent component of all actions. The strategic plans of the university and of the faculties (see for example Annex II-02_UPT_ Strategic plan for the period_2008-2012), available online at http://www.upt.ro/plstrag.php, just like the operational plans which are available at http://www.upt.ro/pl_op.php (see for example, Annex II-03_Operational plan_Fac. MPT_2008) prove that the university's processes are designed and executed taking into consideration the certification of the quality of the results that will be obtained. In this context, in the following lines we will make reference, in addition to the facts presented in chapter 1, to the quality assurance processes for the study programmes and to complementary processes, as part of the strategic institutional management, as well as to the quality assurance structures of the university.

II.1. Processes for quality assurance of study programmes and complementary processes

In the context provided by the general objective of the upper management of UPT for the period 2004 – 2008, based on the continuous evaluation of education as a system in which numerous processes are taking place, UPT paid attention to adapting its study and research programmes to the current trends in the fields of science, technology and culture, to the needs of the Romanian society, as well as to making them compatible with the programmes of other universities and various academic and professional institutions recognised in Romania or abroad. Since the academic year 2005/2006, actions were taken in order to reorganise the education offer so as to

structure it on three subsequent cycles, as recommended in the Bologna Declaration – Bachelor, Master, Doctoral, in the variant *4+2+3* for the field of "engineering sciences" and *3+2+3* for the fields "exact sciences" and "social and communication sciences".

Since in the view of UPT one of the unquestionable values of the technical higher education system has always been insuring a complex training, highlighting both the formative aspects, the transmission of solid and ample fundamental knowledge and the informative aspects, the transmission of up-to-date knowledge with the purpose of creating practical abilities, in perfect tune with the requirements of the labour market, the transition towards the new structural model was made with due attention to maintaining this value.

The structure of the university: faculties and study programmes at the date the current name has been decided can be seen in HGR no. 568/1995 (Annex II-04_HG 568 & UPT) while the structure and the current study programmes can be seen in Annex 2 of HG 676/2007 (Annex II-05_HG_676_2007_Annex2). The table below sums up for the period between the academic years 2006-2007 ÷ 2008-2009 the bachelor study programmes as well as the master and doctoral programmes, indicating the structures in which each programme functions. In the table are also included the programmes that are on their way to liquidation.

No.	Faculty	Programmes active in the academic year 2006-2007 (i) Programmes active in the academic year 2007-2008 (ii) Programmes active in the academic year 2008-2009 (iii)			
		Years (credits) / number of programmes with m spec. (in liquidation)	Bachelor	Master (120 credits)	No of doctoral fields (Field – no. of scientific coordinators)
1	Faculty of Architecture	6 years (360 credits)/1 programme		2	Civil Engineering – 1 affiliated to the Faculty of Civil Engineering (i) Civil Engineering – 2 affiliated to the Faculty of Civil Engineering (ii, iii)
2	Faculty of Automatics and Computer Science	5 years (300 credits) / 1 with 2 spec.	240 credits: 4 (i,ii) 5 (iii)	3	2 fields System engineering -6 internal + 1 external Computer and Information Technology – 8 internal + 1 external (i) Computers and Information Technology – 13 internal + 1 external (ii, iii))
3	Faculty of Industrial Chemistry and Environmental Engineering	5 years (300 credits) / 1 with 4 spec. 5 years (300 credits) / 1 with 1 spec. 3 years (300 credits) / 1 with 1 spec. (i)	240 credits: 2	3	3 fields Chemistry – 2 internal + 1 external Chemical engineering – 13 Materials engineering – 2 (i, iii) Materials science and engineering – 3 (ii)
4	Faculty of Civil Engineering	5 years (300 credits) / 1 with 2 spec (i) 5 years (300 credits) / 4 with 1 spec (ii, iii)	240 credits: 6	5	1 field Civil engineering – 17 (i,ii) Civil engineering – 16 (iii)
5	Faculty of Electronics and Telecommunications	5 years (300 credits) / 1 with 2 spec 3 years (180 credits) / 1 with 2 spec (i)	240 credits: 3	4 (i) 5 (ii,iii)	1 field Electronic engineering and telecommunications – 15 (i, iii) Electronic engineering and telecommunications – 14 (ii)
6	Faculty of Electrical Engineering	5 years (300 credits) / 2 with 1 spec	240 credits: 2	2	2 fields Energetics – 3, Electrical engineering – 9 (i) Energetic engineering – 4, Electrical engineering – 9 (ii) Energetic engineering – 5, Electrical engineering –

No.	Faculty	Programmes active in the academic year 2006-2007 (i) Programmes active in the academic year 2007-2008 (ii) Programmes active in the academic year 2008-2009 (iii)			
		Years (credits) / number of programmes with m spec. (in liquidation)	Bachelor	Master (120 credits)	No of doctoral fields (Field – no. of scientific coordinators)
					9 (iii)
7	Faculty of Hydrotechnical Engineering	5 years (300 credits) / 1 with 3 spec 5 years (300 credits) / 1 with 1 spec 3 years (180 credits) / 1 with 1 spec (i)	240 credits: 1	3	1 field Civil engineering – 8
8	Faculty of Engineering in Hunedoara	5 years (300 credits) / 1 with 2 spec (i) 5 years / 4 with 1 spec	240 credits: 5 (i) 6 (ii, iii)	3	1 field Materials science and engineering – 1 (i) Materials engineering – 1 (ii, iii)
9	Faculty of Management in Production and Transportation	5 years (300 credits) / 2 with 1 spec	240 credits: 1	3	1 field Industrial engineering – 1 Engineering and management – 1 (ii, iii)
10	Faculty of Mechanical Engineering	300 credits: 5 years / 2 with 4 spec (i) 5 years / 3 with 1 spec (i) 5 years / 1 with 7 spec (i, ii) 5 years / 1 with 5 spec (ii) 5 years / 2 with 1 spec(ii, iii) 5 years / 2 with 3 spec (ii, iii) 5 years / 1 with 4 spec (iii) 5 years / 1 with 2 spec (iii) 180 credits: 3 years / 1 with 1 spec (i) 3 years / 1 with 2 spec (i)	240 credits: 7 (i, ii) 8 (iii)	10 (i) 12 (ii, iii)	5 fields Energetics – 1 (i) Energetic engineering – 1 (ii, iii) Industrial engineering – 7 internal + 1 external (i, iii) Industrial engineering – 6 internal + 1 external (ii) Mechanical engineering – 15 (i) Mechanical engineering – 28 (ii) Mechanical engineering – 32 (iii) Computer science – 1(i) Computers and information technology – 1 (ii, iii) Materials science and engineering – 5 (i) Materials engineering – 6 (ii, iii)
11	Department for Communication and Foreign Languages of UPT	4 years / 2 with 1 spec (i) 4 years / 1 with 1 spec (ii) 3 years / 1 with 1 spec (i)	180 credits: 2 (i, ii) 3 (iii)	-	-
12	Department for Mathematics of UPT	-	-	1	-

Each cycle is organised using the transferable credits system, while the education process is organised and functions following the regulations approved by the Senate of UPT between 2004 and 2006 and updated, where necessary, afterwards:

"Regulation regarding the organisation and consecution of studies at Bachelor's level in UPT" (http://www.upt.ro/pdf/licenta&master/RODPI_2008.pdf and Annex II-06_RODPI_2008),

"Regulation regarding the organisation and consecution of studies at the Master's level in UPT" (see http://www.upt.ro/pdf/licenta&master/RegulamentMaster_15.04.2007.pdf and Annex II-07_Master_regulations_2007),

"Regulation regarding the organisation and consecution of studies at Doctoral level in UPT" (http://www.upt.ro/pdf/doctorat/RODSUND.pdf and Annex II-08_RODSUND_2005).

The regulations provide the framework in which the transferable credit system can become a habitual instrument that can function at normal parameters. Still, in reality this system is used by

students only on a very small scale for national and international mobilities. Strengthening it will therefore have to be a concern in the following years.

The status of the study programmes activated by the university in the period 2005/2006 – 2008/2009 is presented in detail on the university's website at: http://www.upt.ro/licenta.php and http://www.upt.ro/master.php.

We highlight the quantity and quality of the data available online: study programmes, competence lists, didactical and research missions of the study programmes, evaluation criteria (NB: the traceability can be checked on 4 academic years). An example, associated with the academic year 2008/2009 is given in the Annex II-09_Competences_Edu_Plan_Misssion_-Evaluation_criteria. The students, the academic community and the larger audience have the possibility to discover, evaluate and check the correctness of the data, for example those regarding the evaluation criteria. At the request of the student organisations on the university's website will be posted, for the academic year 2009/2010, a synthesis of the data available on the web pages of the faculties regarding the *syllabi*.

UPT's concern for assuring the quality of the study programmes and of the standards, as part of the strategic institutional management plan, can be seen through the content of all the university's regulations regarding the education process, through the actions it undertook and the records it made. Explicitly this concern is shown in the Decision No. 05/2006 of the UPT's Senate regarding the quality assurance policy for teaching activities in UPT (Annex II-010_HS 5 of 2006).

According to this decision UPT esteems that assuring the quality of its didactical activity is i) a process aiming at continuously raising the level of its graduates and at certifying in front of the society the skills, competences and knowledge they posses; ii) a process with a fundamental importance that expresses the university's commitment for a set of principles that allows it to cooperate at different levels with other universities, with various partners and with the society in general; iii) a process in the framework of which UPT targets, at first, the content, organisation and development of its study programmes through the perspective of their adequacy to the requirements of the society, but also the relation between the teaching and the research, development and innovation activities, the degree in which each of these activities are open towards the others. In this context: a) research must offer to the education process scientific competences and expertise, manifested in the timeliness and correctness of the data and in the development of the creative thinking skills and in the same time to function as to attract by its visibility the interest of the future generations of students; b) the education process must be a good environment for the dissemination and assimilation of recent developments, for the identification of the human resources capable to do research and a means for maintaining and developing reciprocal relations with the wider society. UPT sees the good functioning of this relation as a major element of its own mission.

The decision no. 05/2006 of UPT's Senate was implemented through several regulations regarding the mechanisms of UPT as far as the study programmes, the knowledge evaluation and the competences acquired by the students are concerned, the assurance of the quality of the teaching body , the resources for learning and the support given to its students.

The regulations are concisely presented on the UPT website (Annex II-11_Documents associated to HS -2006) at http://www.upt.ro/calitate.php and are accompanied by detailed informations, such as the data mentioned above regarding the study programmes. All the measures that were taken, on one side, prove the rigorous attention with which the university followed and implemented the provisions of Law 288/2004 regarding the organisation of graduate studies in the context of the Bologna process, and on the other side, transparently allow following in the period of four academic years the way in which the study programmes have respected the requirements of the MEdCT Order 3928 / 2005 regarding the quality assurance of educational services in universities

The regulations are briefly presented on the UPT website (Annex II-11_Associated Documents HS -2006) at http://www.upt.ro/calitate.php, and are accompanied by detailed information such as the one presented above, referring to the study programs. On one hand, all the actions taken prove the rigorous follow-up made by the university in regards to the implementation of the Law 288/2004 on organizing university studies in the context of Bologna process, of OMEdC 3235/2005 and of other MECI specifications associated to Bologna process, and on the other hand, they allow the transparent tracking, during the four academic years, of how the study programs comply with the specifications of the Minister's Order 3928 / 2005 regarding the quality assurance of educational services in higher education institutes (Ordinului MEdCT 3928 / 2005 privind asigurarea calității serviciilor educaționale in instituțiile de învățământ superior).

The curricula and syllabi of the UPT specializations were totally redefined in the last years based on the competencies and knowledge the university is proposing to its graduates. These are stemming from consultancy sessions the university had with important companies and institutions, alumni and others linked to the labor market. We would especially like to mention in this respect the following companies: ZOPPAS INDUSTRIES, SMC, CONTINENTAL, SIEMENS VDO AUTOMOTIVE, ALCATEL, HELLA, MOTOROLA and KATHREIN, which are linked, respectively, to the following faculties: Faculty of Mechanics, Faculty of Industrial Chemistry and Environmental Engineering, Faculty of Electrical and Power Engineering, Faculty of Automation and Computer Science and Faculty of Electronics and Telecommunications. We consider that the majors proposed by UPT answer to the social environment requirements and are compatible with the European acquis. The offer alignment will remain a permanent preoccupation especially in the context of the potential establishing in Romania of the National Framework of Higher Education Qualifications.

Certainly, the student number is important for a university, but more important is the quality of the accepted students. In this respect we would like to state that UPT was forced by the general context to be less selective on admission, in almost all majors. The adopted politics – keeping the competition with the knowledge verification sections only for the domains which are capable to fill the student admission quota: Computer Science and Information Technology, System Engineering, Informatics, Electronic Engineering, Telecommunications and Architecture, as well as practicing for the other domains the selection based on high school results – proved to be realistic, and we consider that it has to continue the following years. The admission procedure, students numbers, collection of admission problems and many others useful information are available at the address http://www.upt.ro/admitere2009/licenta.php (examples: Annex II-12_Table with Competition Types on Domains_2009 and Annex II-13_Admission Methodology_ 2009). For the students accepted based on their files and through competition, UPT organizes in the first days of the academic year Mathematics and Physics tests, and based on their results it organizes additional preparation classes. UPT also organizes the free preparation classes for the candidates at the admission exam (http://www.upt.ro/admitere2009/licenta.php).

Special structures were created for the long term management of *curricula* and *syllabi,* which implies continuous adaptation to society evolution. They are subordinate to Faculty Councils, and are called *boards* of domains and *boards* of specializations. Each of them includes specialists from various chairs/departments, representatives of students, alumni, and of main employers (to express the needs of the society), all of them being full rights members. We consider that this aspect represents a functional and organizational innovation, which demonstrated its utility. The adopted principle was in accordance with the one promoted by the European Framework of Higher Education Qualifications: from qualifications defined through required competences and recognized by the labour market, society, European and global academic environment, to education plans and *syllabi*.

The responsibility of the boards consists mainly of the initiation, approval, monitorization and periodical evaluation of the study programmes. The manner in which boards work has been regulated by decisions of the Executive Board of the Senate. The ensemble of regulations referring to boards is systematized through the procedure „The Regulations Regarding the Initiation, Approval, Monitorization and Periodical Evaluation of the study programmes in "Politehnica" University of Timisoara" (Annex II-14_ Regulation Regarding the Initiation Approval Implementation Monitorization and Evaluation of Study Programmes in UPT). The project systematizes and illustrates the experience obtained by the boards in the university. In essence, the following stages are necessary for the elaboration a study programme: elaboration of a proposal based on a feasibility study, elaboration of competences and education plan, synthesis of the

specifications for subjects established through the education plans, elaboration of *syllabi* by expert groups, validations and approvals at different hierarchical levels. The completion of studies is organized and executed in accordance with regulation from Annex II-15_Regulation End-of-study Exams. Based on it, faculties may elaborate the detailed regulations for various specializations. An example appears in Annex II-16_Taking Bachelor Degree Examination AIA Department.

As specified in chapter I of the self evaluation report, representatives from many companies belong to the UPT boards. They help improve the study programmes and the syllabi by participating to their review.

Implementation of the new *curricula* and *syllabi necessitates adaptation efforts from the academic staff*. In the new UPT curricula, the 1st year education plan is almost identical for all study fields of the "Engineering Sciences" fundamental domain, and there is also a large curricular superposition in this respect for the 2nd year. Another feature of the new UPT c*urricula* is that in semesters 1-4 of the "Engineering Sciences" fundamental domain and 1-2 of the "Exact Sciences" and "Social and Political Sciences" fundamental domains there are common groups of subjects and no optional subjects at study domain level (for example, Annex II-17A_Mec. Education Plan Years I-II). However, in semesters 5-6 of the "Engineering Sciences" fundamental domain and 3-4 of the "Exact Sciences" and "Social and Political Sciences" fundamental domains, at least 25% of the subjects are optional, specifically independently optional, and in semesters 7-8 of "Engineering Sciences" and 5-6 of "Exact Sciences" and "Social and Political Sciences", *all* subjects are optional, a good part of them independently optional (for example, Annex II-17B_ET Education Plan Years III-IV).

The *curricula* from the technical higher education have in general the following activities: lecture, seminar, laboratory, project and practical activity.

Although *the projects have an essential role in engineering training*, the subjects consisting of solely projects and the projects belonging to other subjects diminished in many curricula between 1990 and 2004. The causes were the pressure for lecture time, the tendency for a slower pace of some academic staff members and the vague statute of CNEAA regulations. This situation was mostly remedied between 2004 and 2008. Assigning projects to both domain subjects and optional subjects proved important. Therefore, when the new regulation for bachelor level came into being, students had their voice heard in regards to their chosen curricular routes. This made them responsible for their professional careers.

Other than projects, an essential element for engineering training is laboratory activity. UPT top management and Senate noticed in the 2004 assessments that the equipment of most of the laboratories was inadequate. Based on a detailed analysis, the rector concluded that 500 billions were necessary to remedy the situation, and an equal amount was needed to rehabilitate the

buildings. Not acquiring new equipment suggested serious problems on long term: i) students' inability to perform experiments, which are necessary for a better understanding of the theory and for practical skill development; ii) students getting used to inadequate environmental conditions (degraded walls, furniture, etc.), which are disheartening and incompatible to European standards; iii) members of the academic staff loosing their desire for professional improvement and not noticing the large gap between the conditions in UPT and those in serious universities from developed countries, a situation conducive to the decrease of teaching standards.

To end this situation, an ample process took place between 2004 and 2008, becoming more and more intense and large. The necessary funds were created through: i) savings; ii) sponsorships obtained from economic agents such as: L-BANK STTUTGART, SIEMENS VDO and SOLECTRON; iii) increase of the rent on the real estate that the university has rented; iv) massive access between 2006 and 2008 at the state budget through a policy of project promotion, in the favorable context created at national level. Within this process large sums were allocated, as shown in chapter I, to most laboratories of the university, for their rehabilitation as educational spaces, for furniture renewal and especially for technical equipment modernization. The result may be checked in the volume presenting the UPT laboratories, where in Annex II-18_10 Laboratories from 10 Specializations a laboratory from   each of the 10 study programmes in accreditation associated to institutional accreditation was selected. The managerial plan of UPT governing body continues to have two medium-term goals: a) continuing to equip laboratories which have not been equipped yet; b) consolidating newly equipped laboratories, if the consolidation activity has not accompanied the equipment.

At the same time, from both economic reasons and to familiarise students with working conditions in the industry, UPT supports organising laboratory work in enterprises, on their industrial equipment. From this perspective, the teaching staff was required to identify enterprises of interest, and the faculties were required to arrange holding laboratory activities in them. This goal has been achieved to a small extent because of insufficient interest from the staff and insufficient availability from the part of the enterprises. Holding laboratory activities in enterprises will continue to remain in the attention of UPT in the following years.

Considering the current and future importance of IT competences for every specialist, it was decided to offer for free to UPT students in any study year and faculty a set of optional subjects for supplementary IT training. This decision was made in the context of achieving in UPT a very good computing equipment endowment, and represents, as far as we know, a first. The classes will be held within the framework of a virtual structure, called "Department for Complementary Preparation in in IT", which will comprise teaching staff – mostly young – with appropriate IT competences. Every subject will have a number of associated credits, and the results obtained by

every student will be marked in his optional subjects student record and in the Diploma Supplement.

The practicum module consisting of industry placement is better represented in the new education plan of UPT than in that of any other university. Many UPT students did this module in good conditions, often as employees, as a consequence of the university's approaches and of their own implication. Regarding the practicum modules, every faculty has regulations regarding them, and practicum programs at specialization level. It was however impossible to solve this problem for all students, this aspect remaining an unfulfilment. The university organised, in accordance with OMEdCT 3955/2008 a UPT Practicum Module Coordination Office, lead by a director, and structures at faculty and department level (Annex II-10_Practicum Module). This created conditions for improving the organisational side of the of the practicum placements, including the approach in this respect of alumni who reached high hierarchical positions in various companies.

The concept of computer-aided teaching and learning was significantly developed in UPT during the last 4 years. 150 projectors and laptops and over 20 smart boards were acquired during this time. A significant number of licenses for analysis, synthesis and CAD software in all domains was bought.

Numerous Power Point presentations and even complex multimedia materials have been used as support for the teaching and learning process. Parts of lecture materials, laboratory activity guides, projects, seminar and homework materials, as well as project and test samples have been posted online.

Noticing the lack of general knowledge of a large number of students, UPT made available to them in the Internet rooms of all faculties about 200 ENCARTA, BRITTANICA and ART GALLERY CDs. The initiative was well received by the students and proved to be really useful.

Considering that extracurricular activities are very important for the development of future specialists, UPT together with students associations organised professional contests and conferences (Technical Student Days, IT Engineering Contest), attended by numerous participants, from many universities, and supported the participation of its students to such activities organised by other universities. It also cooperated with The National Alliance of Student Organisations from Romania (ANOSR) and with the Technical University of Cluj-Napoca to promote the ANOSR - Alma Mater initiative for inter-university student mobilities in the academic year 2008/2009 (http://www.anosr.ro/index.php/prima-mobilitate-interna-a-studentilor-romani.html).

In order to increase the number of foreign students the following actions were taken in accordance with the managerial plan: increasing the number of specialisations taught in foreign languages - especially in English, according to the demand, creating a task force at master level, responsible with coordination and initiative and acting under the name of "Politehnica

International", and reducing the quota collected by the Rectorate from the foreign students' fees from 30% to 10%.

Despite these measures, the number of international students did not reach the targeted level. Only 37 international students were enrolled in the 2007-2008 academic year at bachelor level, 5 students at master level and 3 at doctoral level. A reason for this situation is that the Government maintains high taxes and refuses to liberalize them for international non-EU students. Another reason is represented by the fact that our country is not as attractive from the foreign students' perspective as USA, Canada, Australia or Western European countries. However, despite all difficulties, UPT maintains the goal of increasing the number of international students, especially in the new context of Romania's EU membership.

Another direction of UPT in 2004-2008 was to initiate international master programmes. Partnerships were initiated in this respect with the University of Godollo - Hungary, the University of Nice - France, the University of Applied Sciences St.Polten - Austria, the Technical University in Kaunas - Lituania, ENST-B Brest – France and Siemens VDO – the Romanian branch. We believe that the number of the international master programmes will continue to increase relatively fast to more than 10.

Between 2004 and 2009 UPT was also preoccupied to facilitate *students - employers and graduates - employers contacts*, on one hand by face-to-face actions such as "JobShop"- organised every year by BEST student organisation, and on the other – by posting information on the website of the Center for Information and Professional Orientation, which recently became the Center for Student Counseling and Information (CICS) (Annex II-20_CICS Statute and http://www.cics.upt.ro/). CICS goals and actions are presented on its website. CICS also sends newsletters to subscribing students (Annex II-21_CICS_Newsletters). Annex II-22_Graduates Questionnaires contains the questionnaire administered by CICS and in regards to students' professional occupation.

Agreeing with the idea that a modern university must, on one side, have as many entrepreneurial features as possible – of course, without making any excesses – and, on the other side, to develop and support the entrepreneurial spirit of its students, UPT proceeded accordingly. Therefore, a consistent pack of economics and managerial disciplines was introduced in the new curricula of all Bachelor degree majors, and, additionally, UPT established in partnership with the Timisoara Local Council, the Timis County Council and the German Governmental Agency for Economical Development in Romania (IBD - GTZ) a *software* business incubator, named UBIT. The incubator, which is meant to support, trough specific methods the companies opened by students or recent graduates in the *start-up* phase, became functional in 2004 and continues to work

successfully, being recognized by various experts that visited it as "an authentic business incubator".

II. 2.Structures for quality assurance in UPT

The fist steps regarding the quality assurance system framework were done by establishing in 2004 the Quality Assurance Directorate (DGAC). The directorate's activity is run under the direct supervision of the rector of the university. DGAC comprises one director and five employees – two with tasks in the field of informatics, one working on doctoral study programmes, one taking care of auditing and one in charge with the secretarial work. The directorate works as part of a quality assurance system within the framework presented in Annex II-23_SMC_OrganizationStructure (http://www.upt.ro/structura_organizatorica.php). In 2006, after the Decision Nr. 05 / 2006 of the UPT Senate was adopted, according to the Decission 3928/21 April 2005 of MEdC concerning the quality assurance of the educational services provided by higher education institutions, the Evaluation and Quality Assurance Committee from UPT (CEAC) was created. In the Annex II-24_Evaluation_and_Quality_Assurance_Commision_Members the present constituents of the commission are shown, while the working procedure is presented in Annex II-25_Evaluation_and_Quality_Assurance_Commision_Working_Procedure. The structures having responsibilities in the quality assurance field at the faculty and independent departments levels are those from Annex II-26_Members_of_the_Quality_Commissions_from_faculties, while those from chair and department levels are presented here Annex II-27_Quality_Commissions_ Departament_Chair_levels.

CEAC's activity was mainly oriented towards the implementation of those requirements of the Decision 3928/21 April 2005 of MEdC which were not directly included in the attributions of the education and student issues segment of the UPT's Rectorate managed by the specific vice-rector. CEAC elaborated a several systemic procedures for the quality assurance system which are applied within the university (see details at http://www.upt.ro/calitate.php), constantly conducted internal audits (Annex II-28_The_register_of_the_Body_of_Intern_Auditors_UPT) on the main issues of interest for the university, but especially related to students, such as: scholarships, study conditions provided by the university, accommodation in student residences (Annex II-29_Annual_Plan_for_Auditing_2008, Annex II-30A_Audit_Questionnaire_1_2008_Excerpt, Annex_II-30B_Audit_Questionnaire_2_2008_Excerpt, Annex II-30C_Audit_Questionnaire_3_-2008_Excerpt) and was involved in the preparation and review of several internal regulations. The results of the audits were presented to the Senate Board. No major unconformities were discovered.

CEAC followed directly, trough DGAC, to publicly reflect as accurate as possible the concerns and results of UPT in the implementation of the Bologna process requirements and of the

elements that show the way in which the university understands to ensure the quality of its education programs. All the information regarding the three study cycles, posted on the UPT website is administrated under the supervision of UPT's Rector, by CEAC and DGAC. The CEAC annual reports are included according to the Decision 3928/21 April 2005 of MEdC, in the general documents of the university (ex. excerpts from Annex II-31_The Univ_Strategy_in_the-_field_of_quality_assurance_2007 or Annex II-32_Report CEAC_2008, the last one also posted online at http://www.upt.ro/calitate.php).

One of the instruments used to insure the quality of the education process is the assembly of issues evaluated by the students (http://www.upt.ro/chestionareEA.php). In this context can be mentioned the evaluation made by students of the courses and teachers. This evaluation became common in UPT since 2005. The feedback received was used to improve the content of the courses, the teaching and evaluation process, the way in which the laboratory works, seminars and projects take place and are being evaluated. Recently, additional to the bachelor level (Annex II-33_The student evaluation of the disciplines bachelor_ Questionnaire) and master level (Annex II-34_ The evaluation of master programs) questionnaires, the process was established for the Physical Education course (Annex II-35_ The evaluation of the Physical Education discipline_Questionnaire). The promotions and merit salaries increase for the didactic personnel were made after taking into consideration the feedback received from students (Annex II-36_Gradations of merit). Even if, from a numeric point of view, the list of the didactic personnel evaluated is significant (ex. Annex II-37_Centralizator_Evaluation_by_the_students_2008), the way to an informal evaluation is just half completed (see also Annex II-38_Syntesis_ methodological_evaluations_2008).

Under the UPT Rector's supervision was finalized a complex on-line evaluation tool for courses and didactic personnel. This tool is ready to be used during the next academic year.

III. Presentation of the measures for assuring the accuracy, the complete and reliable character of the information disseminated by the institution

In our opinion, the presentation made in the first two chapters of the self evaluation report illustrates the preoccupation of the university to deliver, within the institution and in public, correct, clear, complete and persuasive information regarding the processes that take place in the university. UPT's website provides lots of information and consistent evidences in this respect. The transparency of the measures taken in the areas of teaching, research and student conditions is one of the main principles of management at university, faculty and departmental levels. All the measures are aligned with the actual legislation.

Additional to those presented in chapters I and II we would like to present following the mandatory requirements of the 3rd part of the ARACIS Guide, some aspects that are linked with the chapter title.

III. 1. Legal status

According to the elements presented in chapter I of this report, UPT has all the documents that attest its legal status as indicated in the founding document, its name and headquarters. Other than the locations in Timisoara, UPT also has locations in Hunedoara, all of them having a clear legal status.

All the educational programmes offered by the university have the didactic and research mission publicly stated on the university's website at http://www.upt.ro/licenta.php and http://www.upt.ro/master.php. The Master and Doctoral cycles are organized only within the domains accredited for Bachelor level. The ways in which study programmes are developed and the quality of the disciplines is being evaluated are well defined.

III. 2. University Charter and Regulations Specified by It

The UPT Charter (Annex I-04_UPT_Charter) is a public document, created according to current legal regulations.

The charter refers to the following regulations: 1) Regulation for electing the governing bodies and staff (Annex III-01_Regulations Elections 2008; it also comprises the regulation for electing student representatives in the governing bodies); 2) Regulation for Senate functioning (Annex I-07_Regulation_UPT_Senate); 3) Regulation for students' professional activity (Annex II-06_RODPI_2008); 4) Regulation for admission competition (Annex II-13_Admission Methodology_2009); 5) Regulation regarding the end-of-study examinations in UPT (Annex II-

15_Regulation end-of-study examinations); 6) Regulation regarding the evaluation of the teaching process and academic staff quality (Annex III-02_Regulation Regarding the Evaluation of the Teaching Process and Academic Staff Quality in UPT); 7) Regulation regarding the scientific research (http://www.upt.ro/cercetare/strategie.php, see also Annex III-03_Work Regulation of UPT Scientific Council); 8) Regulation of internal order (Annex III-04_Regulation of Internal Order_2008); 9) Regulation regarding the organization and functioning of UPT housing complex (Annex III-05_Regulation Housing Complex).

Each regulation mentioned in the Charter is accompanied by complementary regulations. For example, the regulation regarding students' professional activity must be associated with the regulation regarding the evaluation and grading of students (Annex III-06_UPT Evaluation and Grading Regulation), and the Regulation of internal order must be associated with the Discipline Committee Regulation (Annex III-07_Discipline_Committee_Regulation) and with the Ethical Committee Regulation (Annex III-08A_ Ethical Committee Regulation, Annex III-08B_UPT Ethical-code). Also, the regulation regarding students' professional activity is based on their university admission according to UPT Admission Methodology (Annex II-13_Admission Methodology_2009), which references the requirements from ARACIS Methodology (recruiting students through admission competition; enrollment in the admission competition based solely on the baccalaureate diploma or equivalent documents), the procedure for student graduation from one academic year into the next based on accumulated credits (ECTS), and the procedure for graduating two years of study during a single one, and which specifies the manner for regulating student transfer between UPT and other higher education institutes, as well as between faculties and specializations.

III. 3. Institution Board, Managerial Structures

UPT follows legal dispositions for electing collective governing bodies (faculty council and senate) and staff, under paragraph 4.2, subchapter 8, subparagraph A from ARACIS Methodology (Annex III-01_Election Regulation 2008). UPT rector, prof. dr. eng. Nicolae Robu, has been confirmed by MEdC through minister's order no 3583/27.03.2008 (Annex I-09_UPT Rector confirmation).

UPT governing staff (rector, vice-rector, dean, vice-dean and department heads) consists of higher education accredited teaching staff, working full time in the governed UPT internal structure. The staff members are tenured professors and associate professors, whose positions are not reserved.

UPT Central Library staff has university studies, including in the fields of library science and philology. (Annex_III-09_UPT Central Library Staff).

III. 4. Academic Staff

UPT follows legal dispositions regarding advertisement of and competition for vacant academic positions. The positions are filled with qualified UPT staff in accordance with the job descriptions. The criteria used for evaluating the academic staff for promotion correspond to the MECI requirements, being more exacting than the MECI minimal requirements every time they are defined. (Annex III-10A_2004 UPT Promotion Criteria_2004, Annex III-10B_UPT Promotion Criteria 2009). The competition for vacant academic positions in the university is regulated by the document called „UPT BexS Decision No. 36 / 08.11.2005 regarding the procedure for filling UPT vacant positions" ("Hotărâre a BExS UPT Nr. 36 / 08.11.2005 - cu privire la procedura de ocupare în UPT a posturilor didactice vacante" - Annex III-11_HBES_36_2005). The vacant positions are publicly advertised on UPT website (for example, Annex III-12 UPT Competitions – Academic Positions 2008 - 2009). The distribution of academic staff tenured in the institution is presented for the time interval 2003/2004 – 2008/2009 in Annex III-13_Evolution of Academic Position & Distribution on Age Groups. We believe that the situation reflects a satisfactory evolution of the human capital from the point of view of the UPT academic staff age distribution.

The UPT Human Resources Committee ensures that the academic staff satisfies legal requirements for filling the positions and for obtaining merit pay and gradations of merit. Therefore, it verifies:

- The performances achieved (for example, Annex III-14_Synthetic Assessment in the context of Annex II-36_Gradations of merit); they are based on self evaluations which are verified by heads of departments and faculties, and they are always correlated with evaluations made by students and colleagues; for the latter, the questionnaire made by CEAC or a departmental questionnaire (http://www.upt.ro/chestionareEA.php) may be used; [1]

- That the members of UPT tenured academic staff, in whichever higher education institute they work, cover in one academic year no more than three times the required number of teaching hours per person, and that the retired members of UPT tenured academic staff, who work as associate teaching staff, cover at most the prescribed number of teaching hours per person; this verification is based on individual declarations;

- That the legal requirements for hiring associate academic staff non-tenured in higher education are satisfied; this verification is based on personal files made at the beginning of each semester;

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[1] Evaluation criteria are also applied to the administrative and maintenance personnel (Annex III-15_Methodology for granting merit pay to administrative and maintenance personnel)

- That the UPT academic staff inform in writing the heads of the institutions where they work full time and part time about their number of part-time teaching hours; this verification is based on personal statement and certificates;

- That the persons who apply for lecture positions hold doctoral degrees in the job related domains;

- That the persons who apply for assistant positions have certified pedagogical training;

To ensure the quality of the teaching process, The Councils of Faculties and Departments distribute the human resources on specializations in a balanced manner, and assign material resources to the taught subjects. *The Syllabi* (Annex III-16_Syllabus_Model) allow the rapid identification of the way in which subjects are covered by teaching material and papers necessary to the teaching process according to the plan of each taught subject.

At the beginning of the academic year 2008/2009, according to Annex III-13_Academic Positions Evolution & Group Age Distribution, 70.74% of the UPT academic positions are filled with members of UPT academic staff working full-time, 27.3% with members of UPT academic staff working part-time (hourly paid), and the rest, under 2%, with teaching staff from outside UPT. 26,94 % of positions are those of professor and assistant professor. At the level of independent departments and faculties there are differences from the specified mean values; they are mainly associated with the length of existence of these departments and faculties. Similarly, there are differences at specialization level, caused by the termination of certain study programmes and by the apparition of new master programmes.

III. 5. Infrastructure

According to the specifications of chapter I in this report, the infrastructure consolidation was a priority of UPT top management. It comprised the high value investments already mentioned and a rigorous management of the university patrimony, including the patrimony supporting a high quality educational process in accordance with the teaching plans and the number of students. For this purpose the application „Record of Entity Administered Areas and Their Assets" was created („Evidența Spațiilor Gestionate de entități şi a Dotărilor acestor spații" - Annex III-17_ESGD_Presentation and Codes). It provides all information about *entity administered areas/ building, on levels* and *areas globally administered by entity*, the surface area of each building, the entire surface area of the university, areas belonging to the library, rented areas to and from third parties, the number and surface area of classrooms, laboratories and workshops. It also allows tracking the number of student seats in all UPT areas, including those in classrooms and laboratories, correlating them with the size of study formations (series, groups, subgroups etc.), and tracking the distribution of computing equipment in teaching and research laboratories. The

university currently administers 43,188 m^2 for teaching activities (lectures, seminars, laboratory and workshop activities), 66,113.19 m^2 for for dormitories, 10,871.14 m^2 for the cafeteria and 61,255.16 m^2 for the sports complex.

The computing equipment mentioned in chapters II and III consists of over 3,500 highly advanced computers. It was distributed to all faculties allowing large scale computer utilization, especially CAD, experimental data processing, simulations, writing reports, creating presentations etc. The UPT top management considered the promotion of computer utilization a priority. Every student works on a computer at master level, and two students at most share a computer at bachelor level. Every computer comes with licensed software required for the taught subjects.

UPT Library, created in 1921 is organized in a central entity and 6 branches (5 specialty level branches and a faculty level one, at Hunedoara). Its surface area has 2,300 m^2, from which 150 m^2 are occupied by the lecture rooms, with a capacity of 50 seats. The library holds about 700,000 publications: books, periodicals, doctoral theses, standards and inventions, all stored in traditional units and in free access shelf rooms (for 1983 − to date see Annex III-18 Library Books Magazines). It also offers access to specialty databases and full text online magazines. Its activity is computerized, the branches working online, too, on the central server. The electronic catalogue (COBUT) comprises all the books acquired by the library since 1983, which total 211,000 exemplars (89,500 titles), and may be consulted both at the Library (on the 28 computers) and on the Internet. The Central Library will move in the near future to a new location, with a surface area of 7,180 m^2, which will ensure reading rooms (1,720 m^2) for 600 readers.

- The university has also its own publishing house, „Politehnica" Publishing House of Timisoara, accredited by CNCSIS, and a multiplication center with a digital printing machine and computers. Other than UPT Bulletins, „Politehnica" Publishing House has published 368 titles in the last 5 years (76 in 2004, 80 in 2005, 72 in 2006, 100 in 2007, and 108 in 2008 until December 2008), as well as 43 titles until April 2009. Since 2006 it has also been publishing 11 uninterrupted series of doctoral theses (theses approved by doctoral committees are published as ISBN and ISSN volumes). In 2008 alone 104 theses have been published.

As mentioned in the previous chapters, laboratory consolidation was a priority of UPT top management. The equipment from most laboratories is very good and corresponds overall to the requirements of all taught subjects. The entire equipment corresponds to the inventory documents.

III. 6. Financial Activity

The financial and accounting activity in UPT is executed by qualified staff, the head accountant having a university degree in Economics. (Annex III-19_Financial and Accounting Departments Staff).

UPT is a public institution and a legal person having its own revenue and expenditure budget, fiscal code (4269282) and accounts in treasury and commercial banks.

UPT is a non-profit institution, has a distinct financial and accounting compartment, and prepares balance sheets (for example, Annex III-20A_Report_Balance_Sheet_2007 and Annex III-20B_Balance Sheet Report _2008) and the account for budget implementation, which illustrate that the expenditures are in accordance with current legislation, and show the sources and destinations of collected revenue.

The fees for self-financing students are calculated in accordance with the mean school cost per academic year, and are communicated to students through posts on the notice board of each faculty and on the university's website (Annex III-21_HBES_Tuition, see also http://www.upt.ro/pdf/licenta&master/HBES_Nr.10_2008.pdf). Other than tuition, UPT website also specifies school fees (Annex III-22_2007_2008_School fees) and housing fees .

The same communication means are used to inform students about financial assistance (scholarships, social assistance, urban transportation cards, computer acquisition, support for student accommodation outside campus). Information about the destination of revenue resulting from tuition may be obtained from the balance sheet and its annexes published on UPT website, or from student representatives in University Senate.

UPT is audited every year by representatives of The Court of Auditors and the results of the control are debated in the University Senate or the Executive Board of the Senate.

III. 7. Students

As specified in chapter II, student recruitement is done through the university's own admission procedures, and enrolment in the admission competition may be done solely based on the baccalaurate diploma or other documents equivalent to it, accepted by MECI. The relationship between the university and its students is officialised through study contracts.(Annex III-23_Study Contracts).

Students transfer between higher education institutions, faculties and specializations follows the current legislation, being regulated by internal regulations referring to bachelor and master levels. Such transfers have been made at the beginning of academic years only.

UPT issues to all graduates the Diploma Supplement and the student record, containing their results. The procedures for conferring the diplomas and graduation certificates follow the legislation, information being available on UPT website: http://www.upt.ro/AbsolventiSiActe.php .

Students' living and study conditions are always in the attention of UPT top management. The university grants four types of scholarships: social, study, merit and excellency. The procedure for granting them follows current regulations and has been internally audited in 2008. The regulation for granting the scholarships is available on UPT website: (see Regulation for Granting Scholarships and Financial Assistance - Regulament privind acordarea de burse si ajutoare sociale at http://www.upt.ro/licenta.php). The large number of students housed in dormitories is administered by UPT Social Service and follows regulations for organizing the activities in the dormitories (Annex III-24_Regulations student dormitories, see also http://www.cics.upt.ro/). Students have full academic rights receive information about the conditions offered by the university and about all the stages of the educational process (for example, see the „Who do we contact in the university in regards to different problems?" section - „Cui ne adresam in universitate pentru diferite probleme?" at http://www.upt.ro/stud.php, as well as http://www.upt.ro/AbsolventiSiActe.php).

Students are represented in all UPT bodies for governing and control of the faculties and of the university, totaling at least 25% of their members.

III. 8. Research Activity

According to UPT Charter, research is one of the UPT mission components. It is specified in the strategic plans of the university, faculties and independent departments. Chapter I of this report detailed UPT's view on research, its valorification and stimulation.

The research subjects from the research plans subscribe to the scientific areas of bachelor and/or master domains, and the research mission is associated to all study programmes under the form presented in Annex II-09_Competencies_Education Plan _Mission_Evaluation Criteria.

UPT research strategy has the following main goals: i) consolidating research centres in order to allow them to reach the level of Excellency Centres, able to harness and train the human capital; ii) accrediting at least a research centre for every bachelor domain functioning in the university, therefore providing professional visibility to master and doctoral specialists; iii) continuing to create powerful and complex research centres, with research institute status, following the example of the Institute of Research for Renewable Energy.

The research politics concentrate on: i) orientation towards EU research programmes (PC, structural funds etc.) and national research programmes (CNCSIS, PNCDI-II, IMPACT); ii) orientation towards research and development domains requested in the economical field; iii) yearly

self evaluation and the utilisation within it of the following performance indexes: the values of financial resources attracted on types of financing sources, the number and quality of initiated international research cooperation activities; the number of papers which appeared in ISI publications and *proceedings*, as well as the number of papers presented in world congresses, conferences, symposia and *workshops* warranted by renowned international professional organizations; the number of articles published at international events organized in Romania; the number of papers which appeared in Romanian publications with referents, including the UPT publications, the quality of monographies, treaties, manuals and teaching manuals published by renowned national (CNCSIS approved) and international publications houses; the number of doctoral students involved in the research activities of the centres/departments; the number of doctoral theses finalized within the research activities of the centres/departments; iv) the use of master theses through publications and participation at conferences and national or international symposia, concurrent with financial support of the action by departments and faculties; v) developing the doctoral co-tutorship and creating in this context facilities for doctoral study and preparation intervals at renowned UE universities.

UPT focuses constantly on the practical use of scientific research activity. This activity is undertaken by teaching and research staff through papers published by international and CNCSIS approved national publishing houses, participation at symposia and national and international seminars, contracts, consultancy etc. It is based on contracts or conventions between national and/or international partners, and it is evaluated by specialty committees. The faculties involve periodically the teaching staff, research staff and alumni in scientific activities, symposia, conferences, and the proceedings are given wide visibility.

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