

FACULTY
OF CHEMICAL TECHNOLOGY
UNIVERSITY OF PARDUBICE
ANNUAL ACTIVITY REPORT
2024

FACULTY
OF CHEMICAL TECHNOLOGY
University of Pardubice
ANNUAL ACTIVITY REPORT
2024



CONTENTS

Intro	oduction	5
1	BASIC INFORMATION ABOUT THE FACULTY	7
1.1	Name, abbreviation and registered office	7
1.2	Mission, vision and strategic objectives	7
1.3	Faculty management and its organisational structure	8
1.4	Academic Senate	10
1.5	Scientific Council	10
1.6	Disciplinary Committee	11
1.7	Representation in the Higher Education Council	11
1.8	Changes in the field of internal regulations	12
2	STUDY PROGRAMMES, ORGANISATION OF STUDIES AND EDUCATIONAL ACT	TIVITIES14
2.1	Accredited study programmes	14
2.2	Innovation of study programmes	16
2.3	Application of ECTS and learning outcomes methodology	16
2.4	Interest in studying at the faculty	16
2.5	Students of implemented study programmes	17
2.6	Student failure rates	19
2.7	Graduates of implemented study programmes	19
2.8	Other educational activities	20
3	EMPLOYEES	22
3.1	Number of faculty employees and its development	22
3.2	Career development rules and system of remuneration	23
3.3	Qualification structure of employees	23
3.4	Qualification development of employees	24
3.5	Age structure of employees	24
3.6	Management workers	25
3.7	Employee work-life balance	25
3.8	Average gross salary of employees	26
4	INTERNACIONALISATION	28
4.1	Involvement in international cooperation	28
4.2	International mobility of students, academics and other staff	29
4.3	Overview of cooperation agreements with foreign partners	29
5	RESEARCH AND OTHER CREATIVE ACTIVITIES	33
5.1	Development of research and other creative activities	33
5.2	Grants and projects	34
5.3	Awards in the field of research and other creative activities	42
5.4	Publication and other creative activities	43
5.5	Editorial activities	44
6	COOPERATION WITH THE SPHERE OF PRACTICAL APPLICATION	47
6.1	Cooperation in educational and creative activities	47
6.2	Important professional events	50

7	SPATIAL CAPACITY AND INFORMATION AND COMMUNICATION TECHNOLOGI	ES 54
7.1	Spatial capacity and sites	54
7.2	Information and communication technologies	54
8	QUALITY ASSURANCE AND EVALUATION OF IMPLEMENTED ACTIVITIES	56
8.1	Internal system of control and evaluation	56
8.2	External control	57
۸hh	eviations used	59

INTRODUCTION

Dear Colleagues, Students, and Friends of the Faculty of Chemical Technology, University of Pardubice,

The year 2024 has brought a wealth of activities implemented at our Faculty, many of which merit our attention. The present Annual Activity Report for 2024 provides an overview of the most significant events that took place at the Faculty of Chemical Technology, University of Pardubice. It summarises the achievements accomplished through the joint efforts of our staff and students.

As an educational institution, our primary focus lies in teaching and learning. In 2024, we offered applicants a total of 64 bachelor's, master's, and doctoral degree programmes, including 14 programmes taught in English. Furthermore, two new bachelor's degree programmes were prepared for accreditation – the academically oriented programme Biomaterials and the professionally oriented programme Chemistry of Beer and Fermented Products. By enhancing the attractiveness of our study offer and seeking new ways to promote our programmes, we succeeded in partially increasing the number of students enrolled in the first year of bachelor's studies.

As part of our outreach and promotional activities, the Faculty offers popular science programmes to primary and secondary school students in its Demonstration Laboratory, aiming to stimulate the younger generation's interest in chemistry. In 2024, more than 500 students participated in experimental work in this laboratory. The Faculty also organised a chemistry day camp for secondary school students, as well as an event offering them the opportunity to experience university life for a day.

In 2024, 164 bachelor's, 107 master's, and 23 doctoral students successfully completed their studies at our Faculty. The strong demand for our graduates in the labour market is evidenced, among other things, by the traditionally high participation of representatives from various industrial sectors in the Job Fair "Kontakt", held once again this year at our Faculty. Many of our students and graduates also received awards for outstanding academic or research achievements. Among them, we would like to highlight Dr Lada Dubnová, who received the Czech Ministry of Education, Youth and Sports Award for outstanding students and graduates.

The Faculty's scientific and research activities, in which we have long achieved competitive results, were again a source of major success in 2024. Faculty staff, often in collaboration with partners and students, implemented numerous basic and applied research projects, including internationally significant projects such as ERC Advanced, ERC CZ, and EU Horizon. Our researchers also received several important awards for their scientific achievements. Notably, Professor Michal Holčapek received the Special Jury Prize in the Czech Head competition, and Professor Ivan Švancara was awarded the Metrohm Award 2024 for his lifelong contribution to the development of electroanalytical chemistry. A remarkable achievement of our academic and research community is that nine current staff members were included in the prestigious "Stanford's Top 2 % Scientists" list of the world's most cited researchers.

The foundation of our success lies in motivated and satisfied staff. One of the key internal topics in 2024 was therefore staff evaluation. A new directive was adopted introducing an updated system for evaluating the performance of academic and research staff. In cooperation with the University Centre for Information Technologies and Services, an information system was developed to fully digitalise this process and link it to the planning and evaluation of professional growth. Our Faculty was the first at the University of Pardubice to apply this system for the 2024 evaluation period. This step not only

fulfilled one of the requirements of the HR Award, but also contributed to a more rational and conceptually guided personnel policy.

One of our key priorities remains fair and transparent remuneration. In 2024, we achieved a significant increase in the average gross salary of Faculty employees, owing not only to higher base rates and personal allowances but also to additional performance-related bonuses.

Another crucial priority of the Faculty's management—concerning both staff and students—is safety and security. In April 2024, the Faculty participated in a tactical training exercise of the Integrated Rescue System units entitled "Active Attacker", organised under the leadership of the Regional Police Directorate of the Pardubice Region. In September 2024, all Faculty employees were given the opportunity to take part in three training modules on the protection of soft targets: "Protection of Soft Targets and Response to Risk and Hazardous Situations," "Mental and Psychological Preparedness for Managing Risk and Hazardous Situations," and "Protection of Soft Targets — Practical Training, Drills, Model Scenarios, and Simulations of Risk Situations." These activities will continue to be developed further, with increasing attention devoted to enhancing the safety of Faculty facilities.

We would like to express our sincere thanks to all employees and students for their cooperation and for everything they accomplished for the Faculty of Chemical Technology, University of Pardubice, in 2024.

Management of the FChT

Both masculine and feminine forms used in this document are intended to be neutral with respect to contemporary usage, emotional perception, and gender in both its biological and social sense.

1 BASIC INFORMATION ABOUT THE FACULTY

1.1 Name, abbreviation and registered office

Faculty of Chemical Technology, abbreviated to "FChT"

Registered office: Studentská 573, 532 10 Pardubice

1.2 Mission, vision and strategic objectives

The mission, vision and strategic objectives of the faculty as an integral part of the University of Pardubice are based on the university-wide concept and strategic objectives. The Implementation Plan of the Strategic Plan of the Faculty of Chemical Technology at the University of Pardubice in 2024 was based on the revised Strategic Plan of the University of Pardubice for the period from 2021 and its specification for 2024. It built on the following priority objectives and strategic priorities, which were defined by the revised Strategic Plan of the Faculty of Chemical Technology at the University of Pardubice for the period from 2021:

Priority objective 1: Student competencies for the 21st century

Strategic priorities:

- S1.1 Implementation of study programmes on a level comparable to those abroad.
- S1.2 Development of the quality of study programmes with an emphasis on use of the acquired knowledge and skills for future employment.
- \$1.3 Use of new technologies and modern aids for provision of education.
- S1.4 Strengthening of student global competences necessary for their future employment.
- S1.5 Internationalisation of bachelor's and master's degree programmes.
- \$1.6 Increasing the quality and deepening the internationalisation of doctoral studies.
- S1.7 Strengthening quality assessment of study programmes and strategic management of educational activities.
- S1.8 Expanding the range of lifelong learning courses.
- S1.9 Interfaculty and interdisciplinary cooperation within the framework of educational activities.
- S1.10 Availability of information resources.
- S1.11 Systematic care for students and systematic work with graduates.

Priority objective 2: High-quality and respected scientific research and creative activities

Strategic priorities:

- S2.1 Application of the faculty system for assessment of the quality of R&D&I.
- S2.2 Development of high-quality or strategic disciplines in which the faculty implements doctoral degree programmes.
- S2.3 Reinforcement of excellence in selected subdisciplines of FORD.
- S2.4 Strategic management of R&D&I and orientation of the faculty towards fields with international level
- S2.5 Development of modern and internationally comparable infrastructure.
- S2.6 Linking the scientific-research and creative activities of the faculty with their practical application with emphasis on commercialisation of the obtained results.

- S2.7 Permanent emphasis on student involvement in scientific research activities.
- S2.8 Promotion of collaboration between faculty departments. Promotion of inter-faculty cooperation.
- S2.9 Reinforcement of the principles of open science.

Priority objective 3: Human resources

Strategic priorities:

- S3.1 Reinforcement of the system of individual and career development of employees, including motivation supporting and developing their work activities and performance.
- S3.2 Implementation of a regular comprehensive appraisal system for staff in line with their performance and achievements.
- S3.3 Support for professional development and training of employees, acquisition of knowledge, skills and key competences.
- S3.4 Reinforcement of strategic human resources management.

Priority objective 4: International dimension and internationalisation

Strategic priorities:

- S4.1 Development of strategic partnerships and international cooperation in education and R&D&I.
- S4.2 Support for student and staff mobility.
- S4.3 Implementation of attractive study programmes and teaching of subjects in English.
- S4.4 Support for strategic management of internationalisation.
- S4.5 Implementation of the results of quality assessment of internationalisation.

Priority objective 5: Tradition and development of the faculty

Strategic priorities:

Dean:

- S5.1 Preservation of traditions and development of the faculty with a society-wide impact.
- S5.2 Implementation of a marketing strategy with the aim of developing the identity and strengthening the reputation of the faculty.
- S5.3 Reinforcement of mutual cooperation with an emphasis on synergy between faculty departments.
- S5.4 Reinforcement of the "third role" of the faculty within the Czech Republic.
- S5.5 Infrastructure fit for the 21st century.

1.3 Faculty management and its organisational structure

Faculty management from 1 December 2023

prof. Ing. Petr Němec, Ph.D. Vice-Deans: prof. Ing. Petr Mošner, Dr. Vice-Dean for Education, Statutory

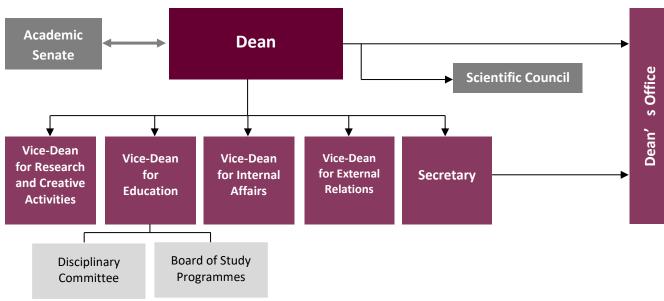
Representative of the Dean

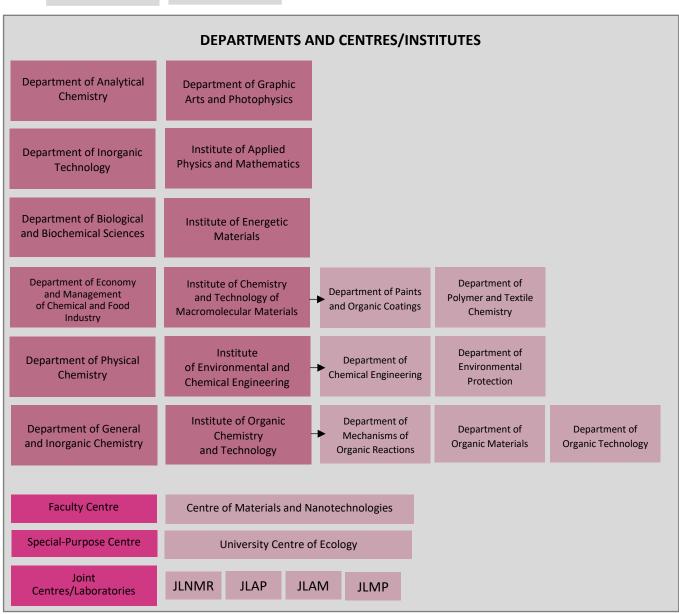
doc. Ing. Petr Česla, Ph.D. Vice-Dean for Research and Creative Activities

doc. Ing. Alena Komersová, Ph.D. Vice-Dean for External Relations prof. Ing. Liběna Tetřevová, Ph.D. Vice-Dean for Internal Affairs

Secretary: Ing. Martin Šprync

Organisational Chart of the Faculty





Legend:

JLAP Joint Laboratory of Analysis and Evaluation of Polymers

JLMP Joint Laboratory of Membrane Processes
JLNMR Joint Laboratory of NMR Spectroscopy
JLAM Joint Laboratory of Applied Medical Science

1.4 Academic Senate

Presidium:

doc. Ing. Martin Adam, Ph.D., Chair doc. Ing. Pavel Čičmanec, Ph.D.

Ing. Marie Nevyhoštěná

Members:

doc. Ing. Martin Adam, Ph.D.

doc. Ing. Marek Bouška, Ph.D. (from 15 April 2024)

Ing. Jaroslav Barták, Ph.D.

doc. Ing. Pavel Čičmanec, Ph.D.

Ing. Aleš Eisner, Ph.D.

Bc. Jana Hrušková

prof. Ing. Roman Jambor, Ph.D.

Ing. Petr Knotek, Ph.D.

Ing. Petr Leinweber (until 17 September 2024)

Ing. Marie Nevyhoštěná

Ing. Patrik Pařík, Ph.D.

Bc. Martin Šanda

Ing. David Vaculík (from 30 September 2024)

Bc. Josef Velebný

doc. Ing. David Veselý, Ph.D. (until 14 April 2024)

prof. Ing. Jaromír Vinklárek, Dr. prof. Ing. Tomáš Weidlich, Ph.D.

1.5 Scientific Council

Chair: prof. Ing. Petr Němec, Ph.D., Dean of the Faculty of Chemical Technology

Internal members: prof. Ing. Libor Čapek, Ph.D.

doc. Ing. Petr Česla, Ph.D. prof. Ing. Čestmír Drašar, Dr.

prof. Ing. Michal Holčapek, Ph.D. prof. Ing. Aleš Imramovský, Ph.D.

prof. Ing. Roman Jambor, Ph.D.

prof. Ing. Petr Kalenda, CSc.

doc. Ing. Alena Komersová, Ph.D. prof. Ing. Miroslav Ludwig, CSc.

prof. Ing. Jiří Málek, DrSc. prof. Ing. Petr Mošner, Dr.

doc. Ing. Jiří Pachman, Ph.D.

prof. RNDr. Tomáš Roušar, Ph.D.

prof. Ing. Aleš Růžička, Ph.D. prof. Ing. Miloš Sedlák, DrSc. prof. Ing. Petra Šulcová, Ph.D. prof. Ing. Liběna Tetřevová, Ph.D. prof. Ing. Ladislav Tichý, DrSc. prof. Ing. Karel Ventura, CSc. prof. Ing. Jaromír Vinklárek, Dr. prof. Ing. Tomáš Weidlich, Ph.D.

External members:

prof. RNDr. Jiří Barek, CSc. Faculty of Science, CU Praha

prof. Ing. Roman Čermák, Ph.D. Dean of the Faculty of Technology, TBU in Zlín

Mgr. Karolína Gondková MEYS CR, Praha

prof. RNDr. Libor Grubhoffer, CSc., Biology Centre CAS, p.r.i.

Hon. D.Sc., Dr.h.c.

prof. Ing. Jiří Hanika, DrSc., Dr.h.c. Institute of Chemical Process Fundamentals of CAS, p.r.i.,

Prague

prof. Ing. Kamila Kočí, Ph.D. Institute of Environmental Technology, TUO Ostrava

prof. Ing. Zdeňka Kolská, Ph.D. Faculty of Science, JEPU Ústí nad Labem

Ing. Josef Liška Synthesia, a.s., Pardubice

Ing. David Pohl, Ph.D. Synthos, a.s., Kralupy nad Vltavou

prof. Ing. Václav Švorčík, DrSc. Faculty of Chemical Technology, UCHT in Prague

Ing. Daniel Tamchyna, MBA Spolchemie, a.s., Ústí nad Labem

prof. Ing. Martin Weiter, Ph.D. Vice-Rector, BUT in Brno

1.6 Disciplinary Committee

Disciplinary Committee until 10 October 2024

Chair: prof. Ing. Petr Kalenda, CSc.

Members: Anna Gondková, student of a bachelor's degree programme

Ing. Michal Kašpar, student of a doctoral degree programme

Ing. Petr Resl, student of a doctoral degree programme

doc. Ing. David Veselý, Ph.D., Head of IChTMM prof. Ing. Miloš Sedlák, DrSc., Head of IOChT

Disciplinary Committee from 11 October 2024

Chair: prof. Ing. Petr Mošner, Dr.

Members: Ing. Kamil Bečvář, student of a doctoral degree programme

Ing. Martin Gorčík, student of a doctoral degree programme

Ing. Marie Nevyhoštěná, student of a doctoral degree programme

prof. RNDr. Tomáš Roušar, Ph.D. prof. Ing. Jaromír Vinklárek, Dr.

1.7 Representation in the Higher Education Council

The faculty is represented in the Higher Education Council by Ing. Petr Bělina, Ph.D. (member of the Presidium) and doc. Ing. Marek Bouška, Ph.D. (member of the Assembly).

1.8 Changes in the field of internal regulations

The internal regulations of the faculty which govern the activities of the faculty are in particular constituted by directives, orders, measures and notices. The following internal regulations were issued in 2024.

Name of internal regulation	Ref. No.
Directive No. 1/2024 as amended by Amendment No. 1: Support for young	sfcht/0022/24
employees and employees with the potential for excellence in submitting basic	
research projects	
Directive No. 2/2024: Rules of Procedure of the Editorial Board of the FChT	sfcht/0032/24
Directive No. 3/2024: Rules for the Construction and Allocation of Financial	sfcht/0147/24
Resources of the FChT	
Directive No. 4/2024: Rules for Granting the Status of Emeritus Professor	sfcht/0158/24
Directive No. 5/2024: Admission Procedure for the Academic Year 2025/2026	sfcht/0226/24
Directive No. 6/2024: Schedule of the State Final Examinations for Follow-up	sfcht/0229/24
Master's Study Programmes in the Academic Year 2024/2025	
Directive No. 7/2024: Schedule of the Final State Examinations for the Follow-up	sfcht/0230/24
Master's Study Programmes in the Academic Year 2024/2025	
Directive No. 8/2024: Evaluation of Academics and Researchers at the FChT	sfcht/0298/24
Directive No. 9/2024: Rules for the Recognition of Study Obligations for Students	sfcht/0299/24
Transferred to a New Study Programme Due to the Expiry of Accreditation of the	
Original Programme	
Amendment No. 1 to the Directive No. 4/2023: Admission Procedure for the	sfcht/0020/24
Academic Year 2024/2025	
Amendment No. 1 to the Directive No. 7/2023: Schedule of the Final State	sfcht/0049/24
Examinations for Bachelor's Study Programmes in the Academic Year 2023/2024	
Amendment No. 2 to the Directive No. 4/2023: Admission Procedure for the	sfcht/0051/24
Academic Year 2024/2025	
Amendment No. 3 to the Directive No. 4/2023: Admission Procedure for the	sfcht/0065/24
Academic Year 2024/2025	
Amendment No. 4 to the Directive No. 4/2023: Admission Procedure for the	sfcht/0106/24
Academic Year 2024/2025	
Amendment No. 5 to the Directive No. 4/2023: Admission Procedure for the	sfcht/0146/24
Academic Year 2024/2025	
Amendment No. 1 to the Directive No. 1/2024: Support for young employees and	sfcht/0228/24
employees with the potential for excellence in submitting basic research projects	
Dean's Measure No. 1/2024: Obstacles to Work on the Side of the Employer and	sfcht/0282/24
Cancellation of Classes	
Amendment No. 1 to the Dean's Measure No. 1/2023: Support for Publishing in	sfcht/0023/24
Open Access Journals at the FChT	
Announcement No. 1/2024: Conference of Doctoral Students in English	sfcht/0063/24
Announcement No. 2/2024: Conditions and the amount of the Students' Prize of	sfcht/0097/24
the Dean of the Faculty of Chemical Technology of the University of Pardubice	
awarded in the year 2024	
Announcement No. 3/2024: Graduation Ceremony 2024	sfcht/0139/24
Announcement No. 4/2024: Holidays for Students of Doctoral Study	sfcht/0148/24
Programmes	
Announcement No. 5/2024: Establishment of Sub-Inventory Committees	sfcht/0154/24
Announcement No. 6/2024: Commencement 2024	sfcht/0159/24

Announcement No. 7/2024: Matriculation of First-Year Students at FChT	sfcht/0231/24
Announcement No. 8/2024: Cancellation of Classes for First-Year Bachelor's	sfcht/0232/24
Students	

2 STUDY PROGRAMMES, ORGANISATION OF STUDIES AND EDUCATIONAL ACTIVITIES

2.1 Accredited study programmes

The FChT had a total of 66 accredited study programmes in 2024. These included 17 bachelor's, 20 master's and 29 doctoral study programmes. From the above-mentioned study programmes, 2 master's and 12 doctoral study programmes were offered in English.

In the academic years 2023/2024 and 2024/2025, the FChT had the following accredited study programmes.

	Originally accredited study programmes								
Code	Name of study	Name of field of study		dard len tudy (yea	CCFE code				
	programme	_	Bc.	NMgr.	Ph.D.	CCFE code			
B3912	Special Chemical and Biological Fields	Laboratory Assistant	3			5345R020			
N1407	Chemistry	Organic Chemistry		2		2802T003			
P1419	Analytical Chemistry	Analytical Chemistry			4	1403V001			
P1420	Physical Chemistry	Physical Chemistry			4	1404V001			
P1421	Organic Chemistry	Organic Chemistry			4	1402V001			
P2833	Chemistry and Technology of Materials	Surface Engineering			4	2808V027			
P2833	Chemistry and Technology of	Chemistry and Technology of Inorganic Materials			4	2808V003			
	Materials	Engineering of Energetic Materials			4	2808V035			
P2837	Chemical and Process Engineering	Environmental Engineering			4	3904V005			

Newly accredited study programmes						
Code	Name of study programme	me of study programme Standard length (years)		f study		
		Bc.	Mgr.	Ph.D.		
B0413A050050	Management of Sustainable Businesses	3				
B0488A050003	Economics and Management of Chemical Industry Enterprises	3				
B0512A130006	Analysis of Biological Materials	3				
B0531A130012	Pharmacochemistry and Medicinal Materials	3				
B0531A130013	Surface Protection of Building and Construction Materials	3				
B0531A130014	Graphic Arts and Printing Technology	3				
B0531A130016	Inorganic and Bioinorganic Materials	3				
B0531A130017	Polymer Materials and Composites	3				
B0531A130024	Evaluation and Analysis of Foodstuffs	3				
B0531A130025	Chemistry	3				
B0531A130038	Chemistry for Science	3				
B0531P130002	Modern Printing and Visualisation Technologies	3				
B0588A130001	Chemistry and Technology of Environmental Protection	3				
B0914P360019	Laboratory Diagnostics in Medicine	3				
B0531P130004	Chemistry of Beer and Fermented Products	3				

B0531A130039	Biomaterials		3		
N0413A050010	Economics and Managemen	t of Chemical Industry	<u> </u>	2	
110413/1030010	Enterprises	it of ellermear maastry		2	
N0512A130006	Analysis of Biological Materi	als		2	
N0531A130013	Graphic Arts and Printing Te			2	
N0531A130027	Engineering of Energetic Ma			2	
N0531A130028	Analytical Chemistry	rections		2	
N0531A130029	Inorganic and Bioinorganic (hemistry		2	
N0531A130029	Evaluation and Analysis of F			2	
N0531A130030	Material Engineering	ocustums		2	
N0531A130031	Materials Chemistry			2	
N0531A130032	Physical Chemistry			2	
N0531A130047		nic Chemistry		2	
110331/113004/		nology of Organic Specialities		2	
N0531A130052	Chemistry and Technology of			2	
N0531A130052	Organic Coatings and Paints			2	
N0531A130054	Technology of Polymer Man			2	
N0711A130008	Engineering of Energetic Ma			2	
N0711A130008		nical Engineering		2	
N0711A130013		onmental Protection		2	
N0711A130014	Sustainable Development in			2	
N0711A130014	Inorganic Technology		2		
N0914P360001	Bioanalytical Laboratory Dia	anostics in Madicina		2	
P0413D050023	·	t of Enterprises with Process			4
F0413D030023	Manufacturing Operations				4
P0512D130013	Biochemistry			4	
P0531D130009	Analytical Chemistry				4
P0531D130003	Inorganic Chemistry				4
P0531D130011	Chemistry and Technology of	of Inorganic Materials			4
P0531D130015	Organic Chemistry	inorganic waterials			4
P0531D130013	Physical Chemistry				4
P0531D130052	Engineering of Energetic Ma	terials			4
P0531S130070	Surface Engineering	iteriais			4
P0711D130001	Organic Technology				4
P0711D130001	Inorganic Technology				4
P0711D130023		nical Engineering			4
10/110130027		onmental Engineering			4
P0413D050024		t of Businesses with Process			4
104130030024	Manufacturing Operations	it of Businesses with Frocess			4
P0512D130014	Biochemistry				4
P0531D130010	Analytical Chemistry				4
P0531D130012	Inorganic Chemistry				4
P0531D130012	Chemistry and Technology of	of Inorganic Materials			4
P0531D130014	Organic Chemistry	inorganic waterials			4
P0531D130010	Engineering of Energetic Ma	terials			4
P0531D130051	Physical Chemistry	rections			4
P0531D130034	Surface Engineering				4
P0711D130002	Organic Technology				4
P0711D130002	Chemical and Process	Chemical Engineering			4
10/110130020	Engineering	Environmental Engineering			4
P0711D130028	Inorganic Technology	Liviloninental Engineering			4
10/110130020	morganic reciniology				→

2.2 Innovation of study programmes

In 2024, in close cooperation with programme guarantors, course supervisors and other teaching staff, continuous innovation of individual study programmes and their courses was implemented within the framework of valid accreditations.

2.3 Application of ECTS and learning outcomes methodology

The principles of a credit system are applied corresponding to the international ECTS – European Credit Transfer System. Use of the credit system is enshrined in the Study and Examination Regulations of the University of Pardubice.

The profiles of graduates of bachelor's, master's and doctoral study programmes are described in the newly accredited study programmes, as are the learning outcomes of individual subjects, in relation to the outcomes of the INP National Qualifications Framework for Tertiary Education (Q-RAM) and in accordance with the Framework of Higher Education Qualifications of the Czech Republic.

2.4 Interest in studying at the faculty

Open days in 2024

The Faculty of Chemical Technology held its open days on 26 and 27 January for the general public, with a special session on 1 and 2 February for students of the Upper Secondary School of Chemistry Pardubice. Exactly 201 secondary school students visited the faculty during these events (70 grammar school students and 131 students from other secondary schools). The faculty introduced its bachelor's degree programmes in the form of a fair and offered laboratory tours. As part of the accompanying programme, prospective students were informed about the admissions procedure, opportunities for studying abroad, accommodation options in university Halls of Residence, and other aspects of university life at the University of Pardubice. Additionally, the career prospects for graduates were also presented.

Cooperation with primary and secondary schools and the search for talented students

The FChT has long been involved in cooperation with secondary schools and in the search for talented students and applicants for study at the faculty. Significant activities in this area include:

- systematic promotion of the faculty at selected secondary schools,
- excursions by secondary schools to faculty premises,
- competition entitled "Search for the Best Young Chemist in the Czech Republic" (for primary schools),
- competition entitled "Chemistry Race" (for secondary schools),
- competition entitled "Chemistry Olympics" (for secondary schools),
- Students' Professional Activity contest SPA (for secondary schools).

Admissions procedure

The admissions procedure for studies in bachelor's degree programmes for the academic year 2024/2025 took place in two rounds. The deadline for the first round of applications was 31 March 2024. This was subsequently extended until 31 May 2024. In view of the fact that the capacity of some bachelor's degree programmes was not filled during the first round of the admissions procedure, a second round was announced with the deadline for applications being 11 August 2024. The second round of the admissions procedure was then carried out by evaluating the applicants' academic results

from secondary school - on the basis of these results, a ranking was drawn up, according to which the applicants were admitted to their chosen course of study where the capacity of the study programmes so allowed.

The deadline for submission of applications for master's degree programmes was 30 June 2024. The admissions procedure was held in the period from 3 September until 4 September 2024. Entrance examinations took the form of an oral interview or a written test.

The deadline for submission of applications for doctoral degree programmes was 31 May 2024. The admissions procedure in the form of an oral interview was held on 11 June 2024.

The results of the admissions procedures held in 2024 are summarised in the following table.

Number of students who applied, were accepted and enrolled in the 1st year of bachelor's, master's and doctoral studies							
Number of students Applied Accepted Enrolled							
Bc.	904	652	384				
Mgr.	226	148	109				
Ph.D.	39	35	33				
Total	1169	835	526				

2.5 Students of implemented study programmes

The number of students at the faculty as of 31 October of the respective year is given in the following tables. The letter f after the number indicates foreign students.

Total number of students								
Year 2020 2021 2022 2023					2024			
Number of students	1236+132f	1190+132f	1087+119f	1006+114f	1030+100f			

Number of students by form and level of study								
Form and level of study	2020/21	2021/22	2022/23	2023/24	2024/25			
Students with Czech citizenship	1236	1190	1087	1006	1030			
Foreign students	132	132	119	114	100			
Total students	1368	1322	1206	1120	1130			
Full-time study								
Bachelor's programmes	859+78f	813+85f	709+72f	648+65f	695+58f			
Master's programmes	264+25f	264+20f	263+15f	244+16f	224+16f			
Total full-time	1123+103f	1077+105f	972+87f	892+81f	919+74f			
Total combined study	-	-	-	-	-			
Doctoral programmes	113+29f	113+27f	115+32f	114+33f	111+26f			

Number of full-time students by study programme							
Charles and another and	2022	2/23	2023	3/24	2024/25		
Study programme	Bc.	NMgr.	Bc.	NMgr.	Bc.	NMgr.	
*Chemistry and Technical Chemistry	2+0f	-	1+0f	-	-	-	
* Chemistry and Technology of Foodstuffs	8+0f	0+1f	1+0f	-	-	-	

Total		972+	-87f	892+	-81f	919	9+74f
Inorganic Technology		-	5+0f	-	3+0f	-	3+0f
Sustainable Dev. in Ch Technology	nemistry and	-	12+0f	-	9+0f	-	9+1f
Process Engineering	Env. Protection	-	4+0f	-	5+0f	-	-
Chemical and	Chemical Engineering	-	4+1f	-	5+1f	-	5+0f
Physical Chemistry		-	10+0f	-	11+0f	-	6+1f
Materials Chemistry	Materials Chemistry		0+2f	-	0+4f	-	-
Material Engineering		-	10+0f	-	18+0f	-	16+0f
Inorganic and Bioinor	ganic Chemistry	-	9+0f	-	9+0f	-	4+0f
Analytical Chemistry		-	23+1f	-	23+1f	-	22+1f
Engineering of Energe	tic Materials	-	11+1f	-	8+1f	-	8+0f
Modern Printing and	Visualisation	-	-	-	-	27+0f	-
Chemistry for Science		-	-	-	-	5+0f	-
Chemistry		85+4f	-	86+6f	-	102+4f	-
Evaluation and Analys	is of Foodstuffs	59+6f	27+1f	55+5f	23+0f	54+6f	30+0f
Technology of Polyme Processing		-	6+0f	-	8+0f	-	7+1f
Organic Coatings and		-	4+0f	-	4+0f	-	3+0f
Organic Chemistry and Technology	Techn. of Organic Specialities.	-	-	-	3+1f	-	-
	Organic Chemistry	-	14+0f	_	13+0f		14+0f
Inorganic and Bioinorg		25+2f	_	9+1f	-	15+1f	_
Medicine Laboratory Diagnostic	s in Medicine	102+7f	-	181+10f	-	264+17f	
Bioanalytical Laborato		-	48+0f	_	42+1f	_	45+3f
Engineering of Energe		-	-	-	0+1f	-	0+1f
Polymer Materials and	d Composites	11+1f	-	14+1f	-	10+0f	-
	plogy of Environmental	20+3f	-	19+2f	-	14+0f	-
Graphic Arts and Print		33+2f	8+1f	26+2f	10+1f	12+1f	11+2f
Surface Protection of Construction Material	-	8+0f	-	8+0f	-	2+0f	-
Pharmacochemistry a	nd Medicinal Materials	86+21f	-	84+18f	-	100+19f	-
Analysis of Biological	Materials	43+10f	26+4f	33+11f	26+4f	42+8f	29+4f
Economics and Manag Industry Enterprises	gement of Chemical	18+1f	23+1f	20+2f	22+2f	7+0f	12+1f
Management of Susta		-	-	-	-	25+1f	-
* Chemistry and Tech		-	14+1f	-	2+0f	-	-
* Chemistry		-	3+1f	-	-	-	0+1f
* Special Chemical and Biological Fields		206+15f	1+0f	111+7f		16+1f	

^{*} Originally accredited study programmes.

Number and proportion of doctoral students								
Year 2020/21 2021/22 2022/23 2023/24 2024/25								
Number of students	142	140	147	147	137			
Percentage of total number of students (%)	10.3	10.5	12.1	13.1	12.1			

2.6 Student failure rates

The failure rate of students (as of 31 October) over the last five academic years in study programmes implemented at the FChT is shown in following table.

Student failure rates in %							
Level of study	2019/20	2020/21	2021/22	2022/23	2023/24		
Bc.	27.6%	30.3%	31.6%	29.6%	28.1%		
Mgr.	9.9%	12.1%	10.6%	9.4%	10.8%		
Ph.D.	13.4%	13.4%	10.7%	13.6%	9.5%		

2.7 Graduates of implemented study programmes

Care for graduates of study programmes at the FChT is provided in cooperation with the University of Pardubice, which operates the graduate website https://absolventi.upce.cz/. Registration allows graduates to keep up to date, receiving information and news about their home University of Pardubice and the faculty they graduated from.

Development of the number of FChT graduates from the point of view of individual levels of study over the last five years is shown in the following table.

Numbers of graduates of individual levels of study								
Level of study 2020 2021 2022 2023 2024								
Bc.	163	172	165	164	164			
Mgr.	26	31	39	30	25			
Ing.	96	81	76	86	82			
Ph.D.	28	17	16	17	23			
Total	313	301	296	297	294			

The numbers in the table correspond to the V 12-01 statement for the period from 1 January to 31 December of the respective year.

Awarded theses of FChT students

In 2024, a number of dissertations, diploma and bachelor theses were awarded for their outstanding theoretical and experimental level. The following prizes were awarded:

- Student Prize awarded by the Dean of the Faculty of Chemical Technology at the University of Pardubice for an outstanding dissertation in the academic year 2023/2024 (5 prizes),
- Level I Student Prize awarded by the Rector for a diploma thesis defended in 2024 (1 prize),
- Level II Student Prize awarded by the Rector for a diploma thesis defended in 2024 (3 prizes),
- Student Prize awarded by the Dean of the Faculty of Chemical Technology at the University of Pardubice for an outstanding level and defence of a diploma thesis (3 prizes),
- Den Braven Production s.r.o. Prize for the best diploma thesis defended in 2024 in the field of polymer materials and composites (1 prize),
- DEVRO, s.r.o. Prize for outstanding level of the diploma thesis and its defence in 2024 in the fields of food, biochemical, and biological sciences or in the field of food packaging materials, technologies, and related materials (3 prizes),
- Pfizer, spol. s r.o. Prize for the best diploma thesis defended in 2024 in the field of pharmaceutical chemistry (2 prizes),

- General Director's Prize from Synthesia, a.s. for the most content-rich diploma thesis defended in 2024 in the field of organic pigments and technologies, processes, materials, and technologies that have a significant impact on industrial production (2 prizes),
- SYNTHOS, a.s. Prize for the best diploma thesis in the field of chemistry in the academic year 2023/2024 (3 prizes),
- Teva Czech Industries s.r.o. Prize for the best diploma thesis defended in 2024 focusing on pharmaceutical chemistry and technology (2 prizes),
- JUTA, a.s. Prize for the best diploma thesis in the field of chemistry and chemical technology in the academic year 2023/2024 (2 prizes)
- Miroslav Jureček Foundation Prize (3 prizes),
- Student Prize of the Dean of the Faculty of Chemical Technology of the University of Pardubice, for outstanding level and defence of a bachelor's thesis (3 prizes),
- Den Braven Production s.r.o. Prize for the best bachelor's thesis defended in 2024 in the field of polymer materials and composites (1 prize),
- Pfizer, spol. s r.o. Prize for the best bachelor's thesis defended in 2024 in the field of pharmaceutical chemistry (2 prize),
- General Director's Prize from Synthesia, a.s. for the most content-rich bachelor's thesis
 defended in 2024 in the field of organic pigments and technologies, processes, materials, and
 technologies that have a significant impact on industrial production (2 prizes),
- Teva Czech Industries s.r.o. Prize for the best bachelor's thesis defended in 2024 focusing on pharmaceutical chemistry and technology (2 prizes).

Cooperation with future employers of students

The faculty enjoyed cooperation with future employers of students in 2024. Apart from publishing information about demand on the part of companies for graduates of the faculty, the faculty organised a meeting of students and representatives of chemical companies called CONTACT 2024 on 20 March 2024, which was attended by 57 companies. The Faculty of Economics and Administration at the University of Pardubice and university career centre participated in organisation of this event together with the FChT. The aim of this meeting was to put future graduates of the faculties in contact with potential employers and to help them get their bearings on the job market. Company presentations and face-to-face meetings were held in the university auditorium and on faculty premises, during which both parties had ample opportunity to talk about the things which interested them.

2.8 Other educational activities

The FChT offered a number of additional educational activities for interested parties during the course of 2024. These included licensing study and the University of the Third Age, preparatory courses, as well as student research and professional activities.

Licensing study

Licensing study in the field of "Theory and Technology of Explosives" is intended for further education and retraining of workers in explosives, munitions, processing and disposal plants and factories, as well as workers who use, store and do business with explosives and explosive hazardous substances. This study is also suitable for obtaining basic information about protection of various facilities against gas explosions, vapour explosions or dispersion of combustible dusts. The study also includes the issue of

testing and special analysis of explosives, lectures on the basics of ballistics, munitions and weapons design.

Licensing study in the field of "Rock Blasting" is intended for further education and retraining of workers from the field of blasting technology. Based on the decision of the Czech Mining Authority, reference number SBS24151/2022/ČBÚ-22, the curricula and texts of the licensed study meet the requirements for the qualification and professional competence of applicants for the blasting technical supervisor examination. The study is focused on the specialisations of surface mining and engineering work.

University of the Third Age

The FChT offers study at the "University of the Third Age" to senior citizens and others with the lecture series "Chemistry for Life". In this programme, the latest findings in the fields taught at the faculty, which are of interest to the general public, are presented in a popular format. Teachers from the ranks of the academic staff of the faculties at the University of Pardubice and experts from the sphere of practical application present selected topics in an attractive manner and try to overcome the ingrained negative attitudes of the non-professional public towards chemistry as such. The "University of the Third Age" programme promotes continuous intellectual development in the post-productive age, interest in current events, practical use of the acquired knowledge, a permanent active approach to life and creates a place for people to meet and establish new relationships.

More information about licensing study and the University of the Third Age which were implemented at the FChT in 2024 can be seen in the following table.

Licensing study and University of the Third Age							
Name of educational activity	Number of participants	Length of study	Form of study	Number of hours			
Theory and Technology of Explosives - implemented at the IEnM (launched in 2022)	6	4 semesters	licensing	345			
Theory and Technology of Explosives - implemented at the IEnM (ongoing)	16	4 semesters	licensing	345			
Rock Blasting – implemented at the IEnM (ongoing)	8	2 semesters	licensing	300			
Chemistry for Life (completed)	30	4 semesters	U3V	184			
Chemistry for Life (ongoing)	46	4 semesters	U3A	184			

Preparatory courses

Before the beginning of regular tuition in the winter semester of the 1st year of bachelor's degree studies, the Department of General and Inorganic Chemistry organises a course entitled "General and Inorganic Chemistry" every year. The course is aimed at acquiring and consolidating the most basic chemical skills such as chemical nomenclature, solving chemical equations, learning about the amount of substance and the preparation of solutions with the defined concentration.

Student Research and Professional Activities

Student Research and Professional Activities (SRPA) is the name of an activity for students of bachelor's and master's degree programmes at the FChT which engages students in research and professional activities beyond the framework of their studies. SRPA is an important form of preparation for students, during which they learn to present the results of their work, develop research and professional skills and contribute towards improvement of their argumentation skills, presentation skills and professional writing. The ninth year saw participation by 29 students from 11 faculty departments.

3 EMPLOYEES

3.1 Number of faculty employees and its development

The FChT had a total of 296.88 employees (FTE) in 2024, of which 52% were academics, 22% were researchers and the remaining 26% were other employees.

	Total academics (FTE)							
	Professors Associate professors Professors Assistant professors Assistants Lecturers SRD staff Extraordinary professors							
Women	5.20	12.75	33.21	2.29	1	-	-	53.45
Men	28.42	28.90	42.25	0.85	•	-	-	100.42
TOTAL	33.62	41.65	75.46	3.14	•	-	-	153.87

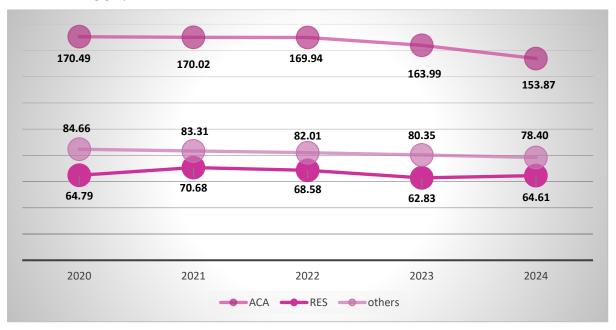
	Total researchers and other employees (FTE)							
	Postdoctoral researchers ("Postdoc")	RES not included in other categories	Other SRD staff	Other employees	TOTAL RES and other employees			
Women	-	25.29	-	65.70	90.99			
Men	-	39.32	-	12.70	52.02			
TOTAL	-	64.61	-	78.40	143.01			

The FTE numbers of academics, researchers and other FChT employees from the point of view of foreign nationality are shown in the following tables.

Academics with foreign nationality (FTE)								
	Professors	Associate professors	Assistant professors	Assistants	Lecturers	SRD staff involved in teaching activities		
Women	0.35	-	-	-	-	-		
Men	-	-	1.92	-	-	-		
TOTAL	0.35	-	1.92	-		-		
Of which: Germany	-	-	-	1	1	-		
Poland	-	-	-	-	-	-		
Austria	-	-	-	1	1	-		
Slovakia	-	-	1.00	-	-	-		
Other EU states	0.35	-	0.42	1	1	-		
Other non-EU states	-	-	0.50	-	-	-		

Researchers and other employees with foreign nationality (FTE)							
	Postdoctoral researchers ("Postdoc")	RES not included in other categories	Other SRD staff	Other employees			
Women	-	7.98	-	0.75			
Men	-	7.13	-	-			
TOTAL	-	15.11	-	0.75			
Of which: Germany	-	1.33	-	-			
Poland	-	0.25	-	-			
Austria	-	-	-	-			
Slovakia	-	2.00	-	0.75			
Other EU states	-	2.08	-	-			
Other non-EU states	-	9.45	-	-			

The development of the number of FTEs among FChT employees over the last five years is illustrated in the following graph.



3.2 Career development rules and system of remuneration

Heads of FChT departments are obliged to prepare an annual qualification development plan for each employee and are obliged to submit this plan in writing to the Dean of Faculty by 31 January. An FChT staff development plan is prepared annually in relation to this, as was also the case in 2024, and is discussed and approved by faculty management by 1 March of each respective year.

Qualification requirements for the performance of individual work activities are defined by the Internal Wage Regulations of the University of Pardubice. The Internal Wage Regulations also lay down a uniform procedure (conditions) for the provision of fixed salaries and on-call bonuses and the amount of all such monetary benefits to university employees for work performed for the university within the framework of a basic employment relationship in accordance with Act No. 262/2006 Coll., the Labour Code, as amended. These Internal Wage Regulations also regulate the basic conditions for negotiating remuneration from an agreement in the case of university staff working for the university on the basis of agreements on work performed outside of an employment relationship.

3.3 Qualification structure of employees

Measured in terms of individuals, a total of 316 people were working at the FChT as of 31 December 2024, including 166 academics, 71 researchers and 79 other employees, as shown in the following tables.

	Number of academics by full-time equivalent and highest qualification attained (numbers of individuals)											
FTE		Professor		Asso	ciate Profe	ssor	DrSc., C	Sc., Dr., Ph.I	D., Th.D.		Other	
FIE	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL
up to 0.3	0	2	2	0	1	1	1	2	3	1	2	3
0.31-0.5	2	3	5	0	2	2	2	2	4	1	1	2
0.51-0.7	0	1	1	0	1	1	0	0	0	0	0	0
0.71-1	5	28	33	13	26	39	31	38	69	0	1	1
TOTAL	7	34	41	13	30	43	34	42	76	2	4	6

In accordance with the methodology of the Ministry of Education, Youth and Sports, the categorisation of academic staff is based on their highest attained qualifications.

Number of researchers and other employees by full- time equivalent (numbers of individuals)									
FTE	Re	esearche	rs		Others				
FIL	Women	Men	TOTAL	Women	Men	TOTAL			
up to 0.3	0	1	1	0	1	1			
0.31-0.5	2	2	4	0	1	1			
0.51-0.7	0	1	1	0	1	1			
0.71-1	24	24 41 65 66 10 76							
TOTAL	26	45	71	66	13	79			

3.4 Qualification development of employees

The specification of newly appointed professors and associate professors in 2024, including those who are not core staff members at FChT, is shown in the table below.

Newly appointed professors and associate professors (numbers)						
Associate professors Professors						
man	2	3				
woman 2 1						
TOTAL	4	4				

Newly appointed professors and						
associate professors (age)						
	Associate					
	professors Professor					
Age range 40-49	2	3				
Age range 50-59 2 1						
TOTAL	4	4				

3.5 Age structure of employees

The age structure of employees at the FChT as at 31 December 2024 is shown in the following tables.

	Age structure of academics (numbers of individuals)											
	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL	Women	Men	TOTAL
Age range		Profess	ors	Associate professors		Assis	Assistant professors			Assistants		
Up to 29	0	0	0	0	0	0	0	1	1	1	0	1
30-39	0	0	0	0	3	3	4	12	16	0	2	2
40-49	0	5	5	8	14	22	18	20	38	1	1	2
50-59	4	12	16	4	7	11	9	8	17	0	0	0
60-69	1	11	12	2	4	6	3	2	5	0	0	0
Over 70	1	4	5	0	3	3	0	1	1	0	0	0
TOTAL	6	32	38	14	31	45	34	44	78	2	3	5

In accordance with the methodology of the Ministry of Education, Youth and Sports, the categorisation of academic staff is based on their job classification.

Age stru	Age structure of researchers (numbers of individuals)					
A a no no no no	Women	Men	TOTAL			
Agre range	Researchers not included in other categories					
Up to 29 let	3	7	10			
30-39	11	22	33			
40-49	7	12	19			
50-59	3	1	4			
60-69	2	2	4			
Over 70	0	1	1			
TOTAL	26	45	71			

Age struc	Age structure of other employees (numbers of individuals)						
A	Women	Men	TOTAL				
Agre range		Other employees					
Up to 29 let	1	1	2				
30-39	6	1	7				
40-49	19	3	22				
50-59	36	1	37				
60-69	4	5	9				
Over 70	0	2	2				
TOTAL	66	13	79				

3.6 Management workers

The gender representation of FChT employees in management bodies as of 31 December 2024 is shown in the following table.

	Management workers (numbers of individuals)						
	Dean	Vice-Dean	Academic Senate	Scientific Council	Secretary	Head of Department /Institute/ Research Site	TOTAL management workers
Women	0	2	0	3	0	3	8
Men	1	2	10	18	1	10	42
TOTAL	1	4	10	21	1	13	50

3.7 Employee work-life balance

Ensuring the appropriate work-life balance for employees is a priority for the faculty. Employees with young children, for example, are accommodated when setting holiday dates, and in the case of academic staff, this is respected when drawing up the timetable. As regards the employment contracts of employees, these are both fixed-term and open-ended, full-time and part-time.

Work-life balance					
	Number of fixed-term employment	Number of open- ended employment	Number of full-time employment	Number of part-time employment	
	contracts	contracts	contracts	contracts	
Women	39	109	132	16	
Men	51	117	140	28	
TOTAL	90	226	272	44	

3.8 Average gross salary of employees

Average gross salary of FChT and University of Pardubice employees as a whole over the last five years is shown in the following table.

Average gross salary of employees in CZK					
	2020	2021	2022	2023	2024
FChT					
Average gross salary	47,528	52,884	50,826	52,398	62,414
UPCE					
Average gross salary	40,698	43,143	43,789	45,316	50,643



4 INTERNACIONALISATION

4.1 Involvement in international cooperation

The FChT is involved in international cooperation in the field of research and teaching. Projects both of foreign providers and also projects funded by domestic providers intended to support bilateral cooperation are submitted and implemented

In 2024, two significant ERC projects continued: the ERC Advanced Grant project titled Oncolipidomics: Why is Lipidomic Dysregulation Pattern in Blood Similar for Various Cancers? (Oncolipid), and the ERC CZ project titled Positively Charged Heteroboranes. A new project under Horizon Europe was also accepted, titled Smart Sensors and Self-healing Functionalities Embedded for Battery Longevity with Manufacturability and Economical Recyclability (SALAMANDER). The implementation of two projects funded by the Horizon Europe programme continued: the Joint Industrial Data Exchange Pipeline (JIDEP) project and the Innovative Environmental Multisensing for Waterbody Quality Monitoring and Remediation Assessment (IBAIA) project. A new project under the Bavarian–Czech Alliance for International Cooperation (BaCzALD) has been approved. In addition to this project, the FChT was involved in several other international research projects, which are specified in more detail in Chapter 5.2.

The FChT also worked on three teaching projects in cooperation with foreign partners during the year, specification of which is seen in the table below.

	International teaching projects					
Project number	Project name	Provider/programme	Principal investigator			
EHP-CZ-ICP- 4-019	NEW Trends in Education of Sustainability-oriented Courses (NEWTEC)	MF/Financial mechanisms of the EEA and Norway	Vávra Jan, Ing., Ph.D.			
KA220-HED- 797789EC4	A New Academic Path for EU Project Managers: Narrowing the Gaps to Enable Better Project Design and Management in Europe	EU/ERASMUS+	Košťálová Jana, Ing., Ph.D.			
22320035	Innovative Education according to the Needs of Industry 4.0 Principles in V4 Countries	IVF/International Visegrad Fund	Branská Lenka, doc. Ing., Ph.D.			

In connection with involvement by the FChT in international cooperation, expenditure was incurred in 2024 for foreign business trips in the amount of CZK 5,509,000. The following table shows development of costs for foreign business trips over the last five years, which was significantly affected by the COVID-19 pandemic in 2020 and 2021.

Costs for foreign business trips (in CZK thousands)					
Year	2020	2021	2022	2023	2024
Costs for foreign business trips	522	1,148	6,854	5,388	5,509

4.2 International mobility of students, academics and other staff

The FChT continued to participate in international cooperation within the framework of the Erasmus+ programme in 2024, as is shown in the table below.

Mobility of students, academics and other staff in the Erasmus+ programme					
Index	2020	2021	2022	2023	2024
Number of outgoing students	21	14	17	28	29
Number of incoming students	13	5	9	9	9
Number of outgoing academics	2	2	3	3	7
Number of incoming academics	2	0	2	0	2
Number of outgoing other workers	0	0	2	2	1
Number of incoming other workers	0	0	1	0	0

The FChT was also involved in the following three networks within the framework of the CEEPUS programme ("Central European Exchange Programme for University Studies") during the respective year:

- CIII-CZ-0212 Ing. Radovan Metelka, Ph.D.,
- CIII-RO-1111 Ing. Radovan Metelka, Ph.D.,
- CIII-RS-0704 Ing. Bohumil Jašúrek, Ph.D.

Mobility within the framework of the CEEPUS programme is specified below.

Mobility of students and academics in the CEEPUS programme					
Index	2020	2021	2022	2023	2024
Number of projects	2	3	3	3	3
Number of outgoing students	0	0	1	0	1
Number of incoming students	4	1	7	14	9
Number of outgoing academics	1	0	5	3	2
Number of incoming academics	1	4	10	10	9
Grants (in CZK thousands)	166.5	93	241	288	180

4.3 Overview of cooperation agreements with foreign partners

The FChT has concluded agreements in particular supporting mobility of students, academic and other staff with the following foreign partners.

	Agreements with foreign partners in the field of education				
Belgium	Artvelde University of Applied Sciences				
Finland	Åbo Akademi University				
Finland	Lapland University of Applied Sciences				
Finland	Tampere University				
Finland	University of Lapland				
France	Ecole Nationale Supérieure des Ingénieurs des Etudes et Techniques d'Armement				
France	Grenoble Institute of Technology				
France	Université de Lille - Faculty Of Science And Technologies				
France	University of Caen Normandy				
France	Université de Rennes I				
Croatia	University of Dubrovnik				

Croatia	University of Zagreb
Italy	Università degli Studi dell'Aquila
Italy	Università Degli Studi Di Modena E Reggio Emilia
Italy	Università di Torino
Italy	Università degli Studi di Messina
Italy	Universita di Siena
Lithuania	Kauno kolegia Higher Education Institution
Lithuania	Klaipėdos universitetas
Latvia	Rīgas tehniskā universitāte
Hungary	Debreceni Egyetem
Netherlands	Hanzehogeschool Groningen
Norway	Norges teknisk-naturvitenskapelige universitet
Poland	Akademia Górniczo-Hutnicza w Krakowie
Poland	Uniwersitet Rolniczy im. Hugona Kołłątaja w Krakowie
Poland	Uniwersytet Łódzki
Poland	Uniwersytet Marii Curie-Skłodowskiej
Poland	Uniwersytet Mikołaja Kopernika w Toruniu
Poland	Wojskowa Akademia Techniczna
Portugal	Universidade de Aveiro
Portugal	Universidade do Minho
Portugal	Universidade de Coimbra
Portugal	Universidade da Madeira
Portugal	Instituto Politécnico de Viseu
Romania	Academia Tehnică Militară din București
Romania	Universitatea din Craiova
Greece	Agricultural University of Athens (2 agreements)
Greece	Panepistimio dytikis Attikis (2 agreements)
Greece	University of Piraeus
North Macedonia	S.S. Cryril and Methodius University in Skopje
Slovakia	Slovenská technická univerzita v Bratislave (2 agreements)
Slovakia	Technická univerzita v Košiciach (2 agreements)
Slovakia	Univerzita Konštantína Filozofa v Nitre
Slovenia	Univerza v Ljublani (2 agreements)
Germany	Friedrich-Schiller-Universität Jena (2 agreements)
Germany	Eberhard Karls Universität Tübingen
Srbia	Univerzitet u Novom Sadu
Spain	Universidad de Burgos
Spain	Universitat Jaume I
Spain	Universidad de Huelva
Spain	Universidad de Jaén
Spain	Universidad de Málaga
Spain	Universitat de les Illes Balears
Spain	Universidad de Sevilla
Spain	Universidad de La Laguna
Spain	Universidad Politécnica de Valencia
Spain	Universidad de Valladolid
Sweden	Umeå University (2 agreements)

Switzerland	FHNW University of Applied Sciences and Arts Notrhwestern Switzerland
Switzerland	University of Fribourg
Turkey	Ankara Universitesi
Turkey	Bursa Technik Üniversitesi
Turkey	Canakkale Onsekiz Mart Üniversitesi
Turkey	Marmara Üniversitesi

Other forms of contractual cooperation based on memoranda and agreements in the field of scientific research are developed by the faculty with the following partners.

Memoranda and agreements with foreign partners in the field of scientific research						
Foreign university/institution	City	Country	Year of conclusion of agreement			
Karl-Franzens Universität	Graz	Rakousko	1993			
Kemijski inštitut Ljubljana	Lublaň	Slovinsko	1994			
University of Ljubljana	Lublaň	Slovinsko	1998			
Technická univerzita Košice	Košice	Slovensko	2000			
South Valley University	Qena, Aswan	Egypt	2001			
Eberhard-Karls-Universität Tübingen	Tübingen	Německo	2004			
Matsumoto University	Matsumoto	Japonsko	2006			
Kumamoto University	Kumamoto	Japonsko	2015			
Austin Peay State University	Clarksville	USA	2019			
Tennessee Tech University	Cookeville	USA	2019			
Trenčianska univerzita Alexandra Dubčeka v Trenčíne	Trenčín	Slovensko	2021			
Université de Rennes I	Rennes	Francie	2022			
National Institute for Material Science	Tsukuba	Japonsko	2024			

Other than agreements concluded by the faculty, agreements also exist on the level of the university, e.g. with the Friedrich Schiller University in Jena, Germany, the Kyoto Prefectural University of Medicine in Kyoto, Japan, the Military University of Technology in Warsaw, Poland, the Nanyang Technological University in Singapore, Singapore, the Toyota Technological Institute in Nagoja, Japan, the University of Rennes I in Rennes, France, the Vietnam Academy of Science and Technology in Hanoi, Vietnam and the VNU University of Sciences in Hanoi, Vietnam, on the basis of which a mutually beneficial cooperation with a number of FChT departments takes place.

5 RESEARCH AND OTHER CREATIVE ACTIVITIES

5.1 Development of research and other creative activities

Research and other creative activities of the faculty are focused primarily on high-quality basic and applied research and are carried out in accordance with the Strategic Plan of the Faculty of Chemical Technology at the University of Pardubice for the period from 2021, revised on 30 November 2023, and its specification in the form of Implementation of the Strategic Plan of the Faculty of Chemical Technology at the University of Pardubice for the given year.

Research, experimental development and innovation are based on chemical sciences and fields of study which are specific to the faculty, have been developed over the long term, and in which the faculty has already achieved demonstrable results in the past and therefore has a recognised reputation in a national and international context. The FChT carries out research, experimental development and innovations mainly in the scientific field of 1 Natural Sciences (FORD 1.4 Chemical Sciences) and the scientific field of 2 Engineering and Technology (FORD 2.5 Materials Engineering).

The basic scientific research units are working groups of departments/institutes which are actively involved in projects funded mainly by the Grant Agency of the Czech Republic, the Technology Agency of the Czech Republic and ministerial providers of support. An important contribution towards development of the faculty's scientific research activities is also constituted by funds obtained in connection with cooperation with industry and international cooperation. This is also related to the high level of publication and creative activities oriented towards articles in professional periodicals with impact factors, monographs and patents, etc. In financial terms, the volume of creative activities with a focus on science, research and innovation in 2024 accounted for a significant part of the FChT budget.

The FChT has a dominant focus on basic/applied research in the following fields:

- inorganic pigments for ceramics and paints,
- analysis and separation of bio-analytical and food compounds,
- analysis of diagnostically relevant materials for the study of metabolism and oxidative stress in patients with different types of diseases,
- biologically active compounds for applications in human and veterinary medicine,
- detection of microorganisms using cultivation-based and molecular biology methods,
- electrochemistry and interfacial chemistry and methodologies for the preparation and subsequent elemental analysis of samples with a focus on the development and application of separation, analytical, detection and diagnostic techniques, instrumentation and sensors relating to human health, environmental protection and materials analysis,
- energetic materials for use mainly in the automotive, aerospace, mining, construction and defence sectors,
- photonics, optics and optoelectronics,
- environmental processes (e.g. technologies applicable to pre-treatment and treatment of process, waste and municipal water),
- chemical processes with high added value, which relates mainly to research into new and highly selective adsorbents, catalysts (homogeneous and heterogeneous catalysis) and photocatalysts,

- identification/detection of biomarkers in patients with neurodegenerative diseases and cancers, among other things, with the aim of early detection of cancer,
- bulk glasses and amorphous thin films,
- organic dyes for dyeing and printing,
- organic materials for optoelectronics,
- organic pigments for the automotive and construction industries,
- organic coatings and paints,
- organometallic and coordination compounds with subsequent application in catalytically controlled processes, as precursors of advanced materials, or compounds with biological effects,
- advanced low-dimensional nanomaterials using modern synthesis methods, their use in various applications (e.g. batteries, catalysts, water decomposition and solar cells, etc.),
- nanobiomedical technologies,
- semiconductors and materials for thermoelectric applications,
- polymer materials, fibres, composites and organic coatings,
- material printing,
- membrane separation processes,
- safety engineering and risk analysis methods for the requirements of the chemical industry,
- glass-forming materials (amorphous/crystalline form, bulk materials/thin films), advanced viscous and kinetic phenomena and physicochemical processes associated with the use of these materials,
- determination of sensitivity of individual cell types to the effects of genotoxic agents,
- fibres based on novel polysaccharides with biological properties.

5.2 Grants and projects

The development of the volume of funds flowing into the FChT over the last five years from research and other creative activities can be seen in the following table. The development of the number of projects and the amount of funding received from the GACR and TACR, which represent a significant group of FChT projects, is then specified.

Funds raised within the framework of research and other creative activities					
Year	2020	2021	2022	2023	2024
Institutional support for the development of the research organisation (CZK thousands)	151,052	156,143	170,038	170,038	177,428
Foreign grants (CZK thousands)	5,073	2,243	3,292	12,665	24,895
Domestic grants (CZK thousands)	154,794	135,628	118,814	87,730	154,334
Student grant competition (CZK thousands)	12,715	12,415	11,924	12,966	11,556
Additional activities (CZK thousands)	7,285	6,742	6,231	5,734	4,349

Number of projects and amount of funding received from GACR and TACR (principal investigators and co-investigators)						
	2020		2021		2022	
Provider	Number of	Funds in CZK	Number of	Funds in CZK	Number of	Funds in CZK
	projects	thousands	projects	thousands	projects	thousands
	implemented		implemented		implemented	
GACR	27	53,463	23	47,755	23	42,922
TACR	19	17,279	17	16,479	11	12,449

	20	23	2024		
Provider	Number of projects implemented	Funds in CZK thousands	Number of projects implemented	Funds in CZK thousands	
GACR	22	47,170	21	47,616	
TACR	10	10,003	12	16,173	

An overview of the individual projects implemented in 2024 at the FChT is given in the following tables.

International projects

International projects					
Project no.	Project name	Provider/programme	Principal investigator on behalf of FChT UPCE		
101058732	Joint Industrial Data Exchange Pipeline (JIDEP)	EU/Horizon Europe	Syrový Tomáš, doc. Ing., Ph.D.		
101092723	Innovative Environmental Multisensing for Waterbody Quality Monitoring and Remediation Assessment (IBAIA)	EU/Horizon Europe	Němec Petr, prof. Ing., Ph.D.		
101104028	Smart Sensors and Self-healing Functionalities Embedded for Battery Longevity with Manufacturability and Economical Recyclability (SALAMANDER)	EU/Horizon Europe	Syrový Tomáš, doc. Ing., Ph.D.		
101095860	Oncolipidomics: Why is Lipidomic Dysregulation Pattern in Blood Similar for Various Cancers? (ONCOLIPID)	EU/Horizon Europe	Holčapek Michal, prof. Ing., Ph.D.		
OISE- 2106457	International Research Experiences for Students (IRES)	National Science Foundation	Vlček Miroslav, prof. Ing., CSc.		
TH80020009	Tellurium-free Thermoelectric Modules for Waste Heat Recovery by Interface Engineering (THERMOS)	TACR/M-ERA.NET 3	Bureš Filip, prof. Ing., Ph.D.		
EHP-BFNU- OVNKM-4- 079-2022	Towards Regenerative and Sustainable Development and Society	Ministry of Finance / EEA and Norway Financial Mechanisms	Tetřevová Liběna, prof. Ing., Ph.D.		
EHP-CZ-ICP- 4-019	NEW Trends in Education of Sustainability Oriented Courses – NEWTEC	Czech National Agency for International Education and Research	Vávra Jan, Ing., Ph.D.		
LUABA24058	Bavarian-Czech alliance for photoactive films by solution atomic layer deposition (BaCzALD)	MEYS/INTER-ACTION	Bureš Filip, prof. Ing., Ph.D.		

GACR, TACR and ministerial projects

Department of Biological and Biochemical Sciences

GACR, TACR and ministerial projects				
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE	
GACR projects				
23-06536S	Pnpt1 as a regulator of metabolic reprogramming in phagocytes	GACR	Roušar Tomáš, prof. RNDr., Ph.D.	
MH projects				
NW24-04- 00422	Development of novel activators of mTOR signaling pathway as adjunct therapy in treatment-resistant depression	МН	Roušar Tomáš, prof. RNDr., Ph.D.	
MA projects				
QL24010109	Biological protection of barley during malting	MA	Brožková Iveta, Ing., Ph.D.	
OP JAK projects				
CZ.02.01.01/ 00/23_021/ 0008439	Biomedical Indicators for Personalized Medicine (BIPOLE)	MEYS	Roušar Tomáš, prof. RNDr., Ph.D.	

Department of General and Inorganic Chemistry

GACR, TACR and ministerial projects			
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE
GACR projects			
22-03945S	Polyhedral (Car)boranes; Cationic and Catalytically Applicable	GACR	Růžička Aleš, prof. Ing., Ph.D.
22-17230S	Organometallic cations of tellurium for activation of E-H bonds in boranes, silanes and phosphines	GACR	Dostál Libor, doc. Ing., Ph.D.
23-06548S	Superhydrophobic materials based on heteroboroxines	GACR	Jambor Roman, prof. Ing., Ph.D.
GN24-114900	Immobilisation of carborane-based ligands on the electrode surface for direct electrochemical redox-catalysis	GACR	Vosáhlo Petr, RNDr., Ph.D.
TACR projects			
FW06010094	Advanced epoxy composites with boron compounds	TACR	Knotek Petr, Ing., Ph.D.
MIT projects			
CZ.01.01.01/0 1/22_002/000 0504	Development and production of biodegradable lactyl lactates with conditioning effects	MIT	Olejník Roman, Ing., Ph.D.
MEYS projects			
LL2309	Positively charged heteroboranes	MEYS	Vrána Jan, Ing., Ph.D.
8J24FR020	Multinuclear main group element complexes applicable in sustainable polymer chemistry	MEYS	Chlupatý Tomáš, Ing., Ph.D.

Department of Graphic Arts and Photophysics

GACR, TACR and ministerial projects				
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE	
GACR projects				
	Infrared photonics for chemical			
22-05179S	sensors: Material strategy based on	GACR	Nazabal Virginie, doc., Dr.	
	amorphous chalcogenides			
	Advanced methods for the			
22-07635S	preparation of telluride semimetals	GACR	Němec Petr, prof. Ing., Ph.D.	
	and non-transition metals			
TACR projects				
	OILSENSE – Detection systems			
FW03010448	for industrial equipment based on	TACR	Syrový Tomáš, doc. Ing., Ph.D.	
	large area sensors			
	EllyteMat – Advanced materials			
TK04030083	for lithium and post-lithium battery	TACR	Syrový Tomáš, doc. Ing., Ph.D.	
	electrolytes			
TN02000067	New directions in electronics for	TACR	Syrový Tomáš, doc. Ing., Ph.D.	
11102000007	industry 4.0 and medicine 4.0	TACK	Sylovy Tomas, doc. mg., Fil.D.	
	Additive technology for the			
FW06010298	production of capacitive sensors for	TACR	Syrový Tomáš, doc. Ing., Ph.D.	
	large-sized touch panels			
	National centre of competence in			
TN02000051	polymer materials and technologies	TACR	Syrový Tomáš, doc. Ing., Ph.D.	
	for the 21st century			

Department of Analytical Chemistry

GACR, TACR and ministerial projects			
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE
GACR projects			
22-09556S	Self-adaptive multidimensional separation	GACR	Česla Petr, doc. Ing., Ph.D.
MH projects			
NU21-03-00499	Prospective study on early detection of pancreatic cancer and monitoring of treatment progress based on lipidomic profiling by mass spectrometry	МН	Holčapek Michal, prof. Ing., Ph.D.
OP JAK projects			
CZ.02.01.01/ 00/22_008/ 0004644	Saving lives through research in early cancer detection and prevention: Molecular, genomic and societal factors (SALVAGE)	MEYS	Holčapek Michal, prof. Ing., Ph.D.

Department of Physical Chemistry

	GACR, TACR and ministerial projects				
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE		
GACR projects					
GA24-10766S	Synthesis and Characterization of Zeolite-Encapsulated Metal Nanoparticles for Catalytic Applications	GACR	Bulánek Roman, prof. Ing., Ph.D.		
22-231205	Catalysts for the oxidative dehydrogenation of boron-based alkanes	GACR	Bulánek Roman, prof. Ing., Ph.D.		
GA24-10480S	Physical properties and thermal behavior of solution-processed and thermally evaporated chalcogenide thin films: Low-cost materials for IR optics	GACR	Barták Jaroslav, Ing., Ph.D.		

Department of Environmental and Chemical Engineering

GACR, TACR and ministerial projects				
Project number			Principal investigator on behalf of FChT UPCE	
GACR projects				
TS01030097	Integration of microalgae cultivation within the complex utilization of output streams from biogas stations in order to optimize and economize their operation in accordance with the goal of reducing CO ₂ emissions and circular economy goals.	TACR	Palarčík Jiří, Ing., Ph.D.	
SS07020305	Use of microalgae to reduce the amount of antibiotics, resistant bacteria and resistance genes in digestate from agricultural biogas plants	TACR	Palarčík Jiří, Ing., Ph.D.	
FW10010224	Research and development of innovative technology for tungsten waste treatment and reuse	TACR	Palarčík Jiří, Ing., Ph.D.	

Department of Organic Chemistry and Technology

GACR, TACR and ministerial projects				
Project Project name Provider Principal investigator on number of FChT UPCE				
GACR projects				
22-14988S	DikyanPyraZin: A versatile tool for photoredox catalysis	GACR	Bureš Filip, prof. Ing., Ph.D.	

GA24-10479S	Near-infrared emitting molecular crystals for next generation imaging (Crystal-NIR)	GACR	Imramovský Aleš, prof. Ing., Ph.D.			
TACR projects	TACR projects					
TH80020009	THERMOS – Telluride-free thermoelectric waste heat recovery modules prepared by interfacial modifications	TACR	Bureš Filip, prof. Ing., Ph.D.			

Institute of Energetic Materials

GACR, TACR and ministerial projects				
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE	
TACR projects				
TQ03000851	Ecofriendly replacement of SC-1 pyrotechnic mixture for rocket engine initiation	TACR	Vodochodský Ondřej, Ing., Ph.D.	
MI projects	MI projects			
VK01010097	Police forcible measures with reduced smoke emission	MI	Pelikán Vojtěch, Ing., Ph.D.	

Department of Applied Physics and Mathematics

GACR, TACR and ministerial projects					
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE		
GACR projects					
22-05919S	Bi2O2Se layered semiconductors doped with transition metals: correlation of transport, magnetic and thermoelectric properties	GACR	Drašar Čestmír, prof. Ing., Dr.		

Department of Inorganic technology

GACR, TACR and ministerial projects			
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE
GACR projects			
22-113975	Mixed perovskites as multifunctional materials in pigment study	GACR	Šulcová Petra, prof. Ing., Ph.D.
MI projects			
VJ01010004	The Development of a Strategic Cluster for Effective Instrumental Technological Methods of Forensic Authentication of Modern Artworks	MI	Šulcová Petra, prof. Ing., Ph.D.

Department of Economy and Management of Chemical and Food Industry

GACR, TACR and ministerial projects					
Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE		
TACR projects					
TQ01000074	Digitalization of project management teaching using the concepts of serious games, virtual and augmented reality considering the current needs of business	TACR	Košťálová Jana, doc. Ing., Ph.D.		

Department of Chemistry and Technology of Macromolecular Materials

GACR, TACR and ministerial projects						
Project Project name Provider Principal investigato behalf of FChT UPC						
GACR projects	GACR projects					
22-05244\$	Ionic liquids containing metal immobilised on 2D materials as heterogeneous catalysts for polymerisation	GACR	Honzíček Jan, Ing., Ph.D.			

Centre of Materials and Nanotechnologies

	GACR, TACR and ministerial projects						
Project number			Principal investigator on behalf of FChT UPCE				
GACR project							
23-08019X	Single-Atom-based 2D-Photocatalysts	GACR	Macák Jan, DrIng.				
23-06793S	Synthesis of large area TiO ₂ nanotube layers for effective photocatalytic degradation of pollutants in gas phase and viruses	GACR	Sepulveda Sepulveda Lina Marcela, Ph.D.				
23-070715	Two-dimensional transition metal-based phosphides by atomic layer deposition	GACR	Zazpe Raul, Dr.				
23-075745	Optical properties of amorphous, thermally and laser-crystallized chalcogenide-based materials and their optimization for phase-change nanophotonics	GACR	Krbal Miloš, Ing., Ph.D.				
23-06562S	Optimization of proton conductivity in Zr- based metal-organic frameworks by peripheral substitution of porphyrin ligands	GACR	Melánová Klára, Ing., Dr.				
MEYS projects							
LM2023037	Centre of Materials and Nanotechnologies - CEMNAT	MEYS	Wágner Tomáš, prof. Ing., DrSc.				

Faculty projects

GACR, TACR and ministerial projects					
Project Project name Provider Principal investigator or number behalf of FChT UPCE					
OP JAK projects					
CZ.02.01.01/ 00/23_021/ 0008593	INMA: Innovative materials for the applications with high added value	MEYS	Veselý David, doc. Ing., Ph.D.		

SGC projects

Project number	Project name	Provider	Principal investigator on behalf of FChT UPCE
SGS FChT 2024			
SGC_2024_001	Organic synthesis and structural analysis in the service of materials science.	UPCE	Hanusek Jiří, prof. Ing., Ph.D.
SGC_2024_002	Development and application of analytical, molecular biology, microbiological and cytological methods for laboratory diagnostics.	UPCE	Kanďár Roman, prof. Mgr., Ph.D.
SGC_2024_003	Research of modern methods and processes of environmental and chemical engineering and sustainable process manufacturing.	UPCE	Mikulášek Petr, prof. Ing., CSc.
SGC_2024_004	Development of modern methods for the analysis of inorganic and organic compounds in samples of natural and synthetic origin.	UPCE	Bajerová Petra, prof. Ing., Ph.D.
SGC_2024_005	Study of promising inorganic compounds and materials.	UPCE	Vinklárek Jaromír, prof. Ing., Dr.
SGC_2024_006	Synthesis and study of the properties of macromolecular and supramolecular materials for hi-tech applications.	UPCE	Novák Miroslav, Ing., Ph.D.
SGC_2024_007	Study and application of new materials for chemical and pharmaceutical technologies.	UPCE	Košťálová Daniela, doc. Ing., Ph.D.

Involvement of FChT in Rectorate Projects

University-wide Projects					
Project number			Principal investigator on behalf of FChT UPCE		
OP JAK projects					
CZ.02.02.XX/ 23_022/ 0008465	Comprehensive support for study and educational activities at UPCE - KOMPAS	MEYS	Bělina Petr, Ing., Ph.D.		
NRP projects					
NPO_UPCE_					
MSMT- 2142/2024-4	Green Deal UPCE	NRP	Mošner Petr, prof. Ing., Dr.		

5.3 Awards in the field of research and other creative activities

Awards that were received by FChT employees and students in 2024 for achievements in research and other creative activities are listed in the following table.

Awarded Person	Award	Awarding Body
prof. Ing. Michal Holčapek, Ph.D.	Extraordinary Jury Prize of Czech Head 2024	Czech Head, Prague, 24 November 2024
Prof. Ing. Michal Holčapek, Ph.D.	Medal of the City of Pardubice for long-term contribution to the city	City Council of Pardubice, Pardubice, 10 Jun 2024
Prof. Ing. Miroslav Ludwig, CSc.	Medal of the City of Pardubice for long-term contribution to the city	City Council of Pardubice, Pardubice, 10 Jun 2024
Prof. Ing. Jiří Málek, DrSc.	Robert Mackenzie Memorial Award	International Confederation for Thermal Analysis and Calorimetry, Chennai, India, 2–7 Sep 2024
Assoc. Prof. Ing. Robert Matyáš, Ph.D.	Commemorative Medal for long-term cooperation in specialist education of NATO member states	Centre of Excellence for Explosive Ordnance Disposal NATO, Trenčín, Slovakia, 2024
Prof. Ing. Ivan Švancara, Dr.	Metrohm Award 2024 for lifetime contribution to the development of electroanalytical chemistry	Czech Chemical Society and Metrohm CZ, Prague, 7 Feb 2024
Bc. Martin Holý	Best Presentation – 3rd place	26th Slovak Student Scientific Conference with international participation – Chemistry and Technologies for Life, Bratislava, Slovakia, 20 Nov 2024
Ing. Štěpán Jirman	Best Presentation – 2nd place	New Trends in Research of Energetic Materials, Pardubice, 17–19 Apr 2024
Ing. Yasmine Kadyrbekova	Best Poster	34th International Symposium on Chromatography, Liverpool, UK, 6–10 Oct 2024
Ing. Oleksandra Labzová	Best Poster	76th Congress of Chemists, Ostrava, 26–29 Aug 2024
Ing. Zuzana Lásko (Vaňková)	Best Presentation	25th International Mass Spectrometry Conference, Melbourne, Australia, 17–23 Aug 2024
MSc. Pradeep Ramanan and team	Best Student Poster	10th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, Pardubice, 23–28 Jun 2024
Nataliia Reinders, Ph.D. and team	Best Poster	15th Conference on Calorimetry and Thermal Analysis, Zakopane, Poland, 8–12 Sep 2024
Ekaterina Samsonova and team	Best Student Poster	10th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, Pardubice, 23–28 Jun 2024
Ing. Veronika Šubrtová	Best Poster	2nd Course of International School on Mass Spectrometry, Erice, Italy, 9–14 Sep 2024

Mgr. Lenka Tichá	TOP 3 Posters	15th International Conference on
		Bioimplantology and Regenerative
		Medicine, Lednice u Břeclavi, 25–26 Apr
		2024
Dr. B. Patil	Best Presentation	14th International High Energy Materials
Veerabhadragouda		Conference & Exhibits,
		Thiruvananthapuram, India, 1–23 Feb 2024
Dr. B. Patil	Best Poster – 2nd place	New Trends in Research of Energetic
Veerabhadragouda		Materials, Pardubice, 17–19 Apr 2024
Ing. Jan Zich	Best Presentation – 2nd	PhD Seminar on Inorganic Non-metallic
	place	Materials 2024, UCT Prague, 7–8 Feb 2024
Ing. Jan Zich	Best Poster	40th International and 20th European
		Thermoelectric Conference, Kraków,
		Poland, 30 Jun – 4 Jul 2024
Ing. Jan Zich	Best Poster	8th European Conference on Crystal
		Growth, Warsaw, Poland, 21–25 Jul 2024

5.4 Publication and other creative activities

Data documenting the publication activities of the FChT in journals indexed in the Web of Science database and their concretisation in terms of journals with impact factors over the last five years are presented in the following tables.

Number of publications in journals indexed in the Web of Science						
Year 2020 2021 2022 2023 2024						
Number of publications 209 211 183 189 184						

Number of publications in journals with impact factors by quartile (FORD – AIS)						
Year 2020 2021 2022 2023 2024						
Number of publications J _{imp} – Q1	51	61	49	61	44	
Number of publications J _{imp} – Q2	106	105	105	101	111	
Number of publications J _{imp} – Q3	33	31	20	20	16	
Number of publications J _{imp} – Q4	12	10	6	4	3	

The number of applied research results generated by the FChT over the last five years, including awarded patents, utility models, functional samples, prototypes, validated technologies and certified methodologies, is presented in the following table.

Number of results of applied research						
Year 2020 2021 2022 2023 2024						
Number of results	29	29	21	21	17	

An overview of selected publication and other creative activities of FChT in 2024 from the point of view of individual departments/institutes is presented in the following table.

Publication and other creative activities in 2024 by individual departments/institutes and groups of results						
Department/Institute A1 A2 C D						
DAICh	29	-	3	-		
DInT	12	-	-	-		
DBBS	16	-	-	1		

DEMCh	3	-	2	-
DPCh	38	-	-	2
DGInCh	47	-	1	1
DGAP	7	-	1	10
IAPM	17	-	1	-
JEnM	10	-	ı	-
IEnviChE	10	1	ı	1
IChTMM	17	-	-	1
IOChT	18	-	-	4
CEMNAT	63	-	-	3

Legend:

- A1 Publications in a professional periodical included in the Web of Science database J_{imp}
- A2 Publications in professional periodicals included in the SCOPUS database J_{SC}
- C Monographs, selected chapters, study texts, lecture notes
- D Awarded patents, utility models, functional samples, prototypes, proven technologies and certified methodologies

5.5 Editorial activities

Specialized books

 Tetřevová, L., Evans, R., et al. Towards Sustainable and Regenerative Development and Society: Social Responsibility as a Potential (Směrem k udržitelnému a regenerativnímu rozvoji a společnosti; Společenská odpovědnost jako potenciální). 1st edition, online, 199 pages. ISBN: 978-80-7560-516-0 (PDF). Available at: https://eshop.upce.cz/epub?fakulta=fcht

Lecture notes and study texts

- Lošťák, P., & Votinský, J. Selected Chapters from General Chemistry: Atomic Structure and Chemical Bonding (Vybrané kapitoly z obecné chemie. Struktura atomu, chemická vazba.). Reprint of the 3rd edition, 200 copies, 96 pages. ISBN: 978-80-7395-332-4.
- 2. **Švancara, I.** Analysis of Inorganic Materials: Educational Textbook (Analýza anorganických materiálů), 1st Edition, Online, 186 pages. ISBN: 978-80-7560-530-6 (PDF). Available at: https://eshop.upce.cz/epub?fakulta=fcht

Total of 200 copies, 2 online titles and 481 pages of text.

Collections

- 1. **LV Seminar on Surfactants and Detergents** (LV. seminář o tenzidech a detergentech), 51 copies. ISBN: 978-80-7560-535-1.
- Proceedings of the 26th International Seminar New Trends in Research of Energetic Materials, 31 copies (ISBN: 978-80-7560-507-8) + 7 CD-ROMs (ISBN: 978-80-7560-508-5 (PDF)) + 200 USB drives.
- 3. Proceedings of the 26th Conference on Special Inorganic Pigments and Powder Materials (Sborník 26. konference o speciálních anorganických pigmentech a práškových materiálech), 36 CD-ROMs. ISBN: 978-80-7560-523-8 (PDF).
- 4. **Proceedings of the II CoNFeReNCe: Growing with Chemistry** (Sborník II. CoNFeReNCe: Rosteme s chemií), 82 copies (ISBN 978-80-7560-509-2). Online version (ISBN: 978-80-7560-510-8 (PDF)). Available at: https://eshop.upce.cz/epub?fakulta=fcht.

- Student Scientific Professional Activity 2023/2024 Book of Abstracts (Studentská vědeckáodborná činnost 2023/2024 – Sborník abstraktů). Online version. ISBN: 978-80-7560-522-1 (PDF). Available at: https://eshop.upce.cz/epub?fakulta=fcht.
- 6. **Book of Abstracts 10th International Conference on Optical, Optoelectronic and Photonic Materials and Applications (ICOOPMA 2024).** Online version. ISBN: 978-80-7560-521-4 (PDF). Available at: https://www.icoopma.com/#home.

Total of 164 copies, 43 CD-ROMs, 200 USB drives, and 3 online titles



6 COOPERATION WITH THE SPHERE OF PRACTICAL APPLICATION

6.1 Cooperation in educational and creative activities

Cooperation with the sphere of practical application in educational activities

Cooperation between the faculty and the sphere of practical application, especially with industrial enterprises, is permanently implemented in several forms. This was also the case in 2024.

Cooperation with the sphere of practical application in the field of educational activities was implemented by means of:

- internships for students of all forms of study in industrial enterprises and research institutions,
- excursions of students to manufacturing companies, research institutions and specialist workplaces,
- work experience by students (compulsory work experience set out in the study plan),
- membership of experts from the world of work in the Scientific Council of the FChT,
- membership of experts from the world of work in the specialist boards of doctoral study programmes,
- appointment of experts from the world of work to examination boards of state final examinations and appointment to dissertation defence committees,
- entrusting tuition to leading experts from the world of work, especially those parts of courses in which students are familiarised with real technological procedures and processes,
- one-off lectures by experts from the world of work for students at all levels of study.

Student internships in industrial companies were carried out in 2024 mainly in Synthesia, a.s., Pardubice and Výzkumný ústav organických syntéz, a.s., Pardubice. These internships give students an insight into a wider range of research and production. Students from the bachelor's degree programmes Analysis of Biological Materials and Graphic Arts as well as those from the master's degree programmes Analysis of Biological Materials, Bioanalytical Diagnostics in Medicine and Evaluation and Analysis of Foodstuffs also complete internships in other chemical and food processing companies, as well as in hospitals and medical facilities throughout the Czech Republic. Completion of internships increases student employability on the job market after successful completion of their studies.

Cooperation with the sphere of practical application in creative activities

The activity of joint laboratories continued in 2024:

- Joint Laboratory for Analysis and Evaluation of Polymers SYNPO, a.s., Pardubice and the University of Pardubice, Faculty of Chemical Technology (JLAP),
- Joint Laboratory of Membrane Processes MEGA, a.s., Stráž pod Ralskem and the University of Pardubice, Faculty of Chemical Technology (JLMP),
- Joint Laboratory of NMR Spectroscopy Výzkumný ústav organických syntéz a.s., Pardubice-Rybitví and the University of Pardubice, Faculty of Chemical Technology (JLNMR),
- Joint Laboratory of Applied Medical Science Pardubice Hospital, Pardubice and the University of Pardubice, Faculty of Chemical Technology (JLAM).

In this area it is necessary to emphasise cooperation between the faculty and industrial enterprises, research institutions and hospitals. It is not possible to list all of the partners with which individual faculty departments are involved in various projects, be this in the form of basic or applied research, implemented through joint research teams and complementary activities. There is however no doubt that this form of cooperation in resolving current problems in industrial and application practice contributes, among other things, towards development of scientific research at the faculty and towards the education of students and therefore attention must be dedicated to it.

Overview of cooperating entities

An overview of the entities with which the FChT cooperated in 2024 on TACR projects, projects of ministerial providers of support and contractual research projects is given in the following tables.

Cooperating organisat	ions for TACR projects
ALS Czech Republic Ltd., Prague	MDT-Medical Data Transfer Ltd., Brno
Asociacion Centro de Investigacion Cooperativa en	MICRORISC Ltd., Jičín
Nanociencias CIC Nanogune, San Sebastián,	
Gipuzkoa, Spain	
Argotech Plc., Trutnov	Moravian-Silesian Automotive Cluster, Ostrava
ARIA PURA Ltd., Prague	NANOPROGRESS, Pardubice
ASIO TECH Ltd., Brno	NETWORK GROUP Ltd., Brno
BD SENSORS Ltd., Buchlovice	ORLEN UniCRE Plc., Litvínov
Callidtas Ltd., Podsedice	PHYSTER TECHNOLOGY Plc., Prague
Central Glass Czech Ltd., Prague	Plastics Cluster, Zlín
Centre of Organic Chemistry Ltd., Rybitví	Prokyber Ltd., Kladno
Colognia Press Plc., Kolín	Simple Engineering Ltd., Ústí nad Labem
Continental Automotive Czech Republic Ltd., Jičín	Association of the Chemical Industry of the
	Czech Republic, Prague
CONTINENTAL Ethanol Energy Plc., Vrdy	Synpo Plc., Pardubice
Czech Technical University in Prague, Prague	Tech Aid Czech Brand Ltd., Blansko
ECOCOAL Ltd., Ostrava, Mariánské Hory	TEGnology A, Søborg, Denmark
ELCERAM Plc., Hradec Králové	TERAMED Ltd., Prague
EPS Biotechnology Ltd., Kunovice	TESLA BLATNÁ Plc., Blatná
Explosia Plc., Pardubice	Jan Evangelista Purkyně University in Ústí nad
	Labem, Ústí nad Labem
Feromagnet Ltd., Světlá Hora	Palacký University Olomouc, Olomouc
Fortemix Production Ltd., Ostrava	Tomas Bata University in Zlín, Zlín
FORTES Interactive Ltd., Brno	Institute of Macromolecular Chemistry, Czech
	Academy of Sciences, Prague
Fraunhofer Institute for Manufacturing Technolog	UVB TECHNIK Ltd., Hlučín
of Advanced Materials – IFAM, Dresden, Germany	
HELLA AUTOTECHNIK NOVA Ltd., Mohelnice	VSB – Technical University of Ostrava, Ostrava
INOTEX Ltd., Dvůr Králové nad Labem	University of Chemistry and Technology, Prague
Institute of Microelectronic Applications Ltd.,	Brno University of Technology, Brno
Prague	
IPMA Czech Republic, Prague	XGLU Ltd., České Velenice
University of South Bohemia in České Budějovice,	University of West Bohemia, Pilsen
České Budějovice	
Katchem Ltd., Kralupy nad Vltavou	Zlín Creative Cluster, Zlín

Leibniz Institute for Solid State and Materials	ZODPA Ltd., Prague
Research, Dresden, Germany	
MAGICWARE Ltd., Prague	3Dees Industries Ltd., Prague
Masaryk University, Brno	

Cooperating organizations in the implementation of sectoral projects
AUSTIN Plc., Prague
D-TECHNIK Plc., Jablůnka
EPS Biotechnology Ltd., Kunovice
University Hospital Hradec Králové, Hradec
Králové
University Hospital Olomouc, Olomouc
University Hospital Motol, Prague
Friedrich-Alexander University Erlangen-
Nürnberg, Erlangen, Germany
GENERI BIOTECH Ltd., Hradec Králové
Masaryk University, Brno
Masaryk Oncology Institute, Brno
National Institute of Mental Health, Klecany
University of Ostrava, Ostrava
PARAMO Plc., Pardubice
SYNPO Plc., Pardubice
TOMIL Ltd., Vysoké Mýto
University of Hradec Králové, Hradec Králové
Charles University, Faculty of Medicine in
Hradec Králové, Hradec Králové
Charles University, Faculty of Medicine in
Pilsen, Pilsen
Palacký University Olomouc, Olomouc
Research Institute of Brewing and Malting
Plc., Prague

Cooperating organisations for contractual
research projects
Temperatior Ltd., Liberec
Centre for Road Transport Services, Pardubice
Pyrotechnic Service Ltd., Stará Bělá
Temperatior Ltd., Liberec
DEMCAK Ltd., Lázně Bohdaneč
CROMTRYCK Ltd., Hrušovany u Brna
PARAMO Plc., Pardubice
Pardubice Region Hospital, Pardubice
TailorMem Ltd., Zájezd

Cooperation was also developed with a number of other entities, e.g. the following.

Other cooperating organisations
American Society for Mass Spectrometry
American Vacuum Society
Association of the Pulp and Paper Industry
Central Polytechnic Workshops
Czech Herpetological Society
Czech Immunological Society
Czech Medical Association J. E. Purkyně, Czech Society of Clinical Biochemistry
Czech Membrane Platform
Czech Glass Society
Czech Anthropological Society
Czech Chemical Society
Czech Society of Chemical Engineering
Czech Society for Biochemistry and Molecular Biology

Czech Society for New Materials and Technologies

Czech Society of Industrial Chemistry

Czechoslovak Microscopy Society

Czechoslovak Society for Microbiology

Czechoslovak Association for Crystal Growth

Czech Battery Cluster

Electrochemical Society

Eurachem-Czech Republic

European Federation of Chemical Engineering, Working Party on Membranes

European Membrane Society

European Microscopy Society

European Thermoelectric Society

FATIPEC

Hi-Tech Innovation Cluster

International Adsorption Society

International Association of Research Organizations for the Information, Media and Graphic Arts Industries

International Circle of Educational Institutes for Graphic Media Technologies and Management

International Confederation for Thermal Analysis and Calorimetry

International Lipidomics Society

International Polymer Colloids Group

International Project Management Association Czech Republic

International Society of Electrochemistry

International Zeolite Association

Union of Czech Mathematicians and PhysicistsRegional Innovation

Council of the Pardubice Region

Materials Research Society

Optical Society

Jan Marek Marci Spectroscopy Society

Czech Association for Blasting Techniques and Pyrotechnics

Association of the Pulp and Paper Industry

Association of Textile Chemists and Colourists

Czech Chemical Industry Association

6.2 Important professional events

A number of interesting and socially beneficial events took place at the FChT in 2024. These include the following.

Current Issues in Food Microbiology

The seminar covered current topics in food microbiology, bacterial resistance, biofilms, epidemiological cases related to food and water, and new technologies in the food industry.

Organizer: Department of Biological and Biochemical Sciences

Date: 17 - 18 January, 2024

18th Annual RANK Conference

The conference serves as a forum for sharing practical knowledge and experiences primarily from the routine analysis of both human and extrahuman genomes.

Organizer: Department of Biological and Biochemical Sciences

Date: 20 - 21 March, 2024

26th International Seminar "New Trends in Research of Energetic Materials"

A seminar on new trends in the research of energetic materials, which is a global gathering primarily for young professionals and university teachers working in the fields of education, research, development, processing, analysis, and applications of all types of energetic materials.

Organizer: Institute of Energetic Materials

Date: 17 - 19 April, 2024

11th International Conference on Chemical Technology ICCT

A conference focused on innovations and interesting developments in chemical and pharmaceutical technologies, considering the principles of the Green Deal and decarbonization. The goal of the conference is to create a space for international cooperation between businesses, universities, and research institutions.

Organizer: Czech Society for Industrial Chemistry, Faculty of Chemical Technology, UPCE

Date: 15 - 17 April, 2024

Trends in Inorganic Technology 2024

The conference was a meeting of experts working in the field of inorganic technologies, both classical and modern. The aim of the meeting was to enhance mutual awareness between academic institutions and industrial practice, to present the results of scientific research achieved since the last meeting and plans for the near future, to discuss issues related to the training and employment of graduates in the field of Inorganic Technology, and to contribute to further development of cooperation among the individual institutions.

Organizer: Department of Inorganic Technology in cooperation with the Czech Chemical Society

Date: 21 – 23 May, 2024

44th International Czech and Slovak Calorimetry Seminar

A seminar dedicated to the use of calorimetric methods and thermal analysis methods in various fields, from both research and practical perspectives.

Organizer: Department of General and Inorganic Chemistry, Joint Laboratory of Solid-State Chemistry

Date: 27 - 30 May, 2024

X. Pharmacokinetic Seminar

A seminar aimed at students and professionals focused on dissolution and dissolution testing.

Organizer: Department of Physical Chemistry

Date: 19 - 20 June, 2024

10th International Conference on Optical, Optoelectronic and Photonic Materials and Applications

An international conference focused on optical, optoelectronic, and photonic materials for a wide range of applications, from telecommunications to photovoltaics, as well as on the optical, optoelectronic, and electro-optical properties of all classes of materials and material systems.

Organizer: Centre for Materials and Nanotechnology

Date: 23 - 28 June, 2024

26th CSIP-PM: Conference on Special Inorganic Pigments and Powder Materials

The conference focuses on the exchange of new knowledge in the field of powder materials and inorganic pigments, their applications, physicochemical properties, and methods of evaluation or ecological aspects of production.

Organizer: Department of Inorganic Technology

Date: 17 September, 2024

55th Seminar on Surfactants and Detergents

A seminar for those interested in research in the production, analysis, and application of surfactants.

Organizer: Department of Analytical Chemistry

Date: 5 - 6 November, 2024

18th Karel Vytřas Seminar on Sensing in Electroanalysis

A meeting of international project leaders dedicated to presenting research results in the field of electroanalysis and discussing prospects for further cooperation.

Organizer: Department of Analytical Chemistry

Date: 11 - 15 November, 2024

XVII. Conference on Pigments and Binders

The conference on pigments and binders is a professional international event. It deals with the production of coatings, surface treatments, and their further applications. It is a meeting place for representatives of manufacturing companies, research and development organizations, universities, and commercial firms.

52

Organizer: Institute of Chemistry and Technology of Macromolecular Substances, Department of

Coatings and Organic Coatings, CHEMAGAZÍN

Date: 14 - 15 November, 2024

7 SPATIAL CAPACITY AND INFORMATION AND COMMUNICATION TECHNOLOGIES

7.1 Spatial capacity and sites

The Faculty of Chemical Technology is located in Pardubice – at Stavařov, Studentská 573. This site is home to the dean's office and the HA, HB and HC buildings house lecture halls, classrooms, laboratories and offices for staff and students of doctoral degree programmes. Other faculty sites are located at Stavařov, Studentská 84 (building EA), in the Technology Pavilion in Doubravice, Doubravice 41 and in the town centre at Čs. legion 565.

The faculty has three large-capacity lecture halls on the na Stavařově campus. These are lecture hall C1 with capacity to accommodate 234 people, lecture hall C2 with capacity to accommodate 99 people and lecture hall C3 with capacity to accommodate 55 people.

An important part of the faculty's spatial capacities is constituted by laboratories, which comprise 52 rooms with capacity to accommodate 920 people. The faculty also has 27 classrooms with capacity to accommodate 787 people and 7 computer rooms with capacity to accommodate 153 people.

7.2 Information and communication technologies

The information and communication systems of the Faculty of Chemical Technology are part of the complex system of information and communication technologies of the University of Pardubice. They are used both for teaching and scientific research activities, but also within the framework of the operational and management activities of the faculty.

The faculty's information infrastructure consists of computer rooms including the relevant technical equipment, personal computers and other computer and office equipment used by faculty staff and students of doctoral study programmes, audio-visual and presentation equipment, including interactive whiteboards, and software.

The Faculty of Chemical Technology uses information systems operated by the Centre of Information Technologies and Services (CITS) of the University of Pardubice, as well as funding access to a range of commercial products from major technology companies. The key systems operated by CITS and used by students and faculty staff include the following systems:

- STAG a study programme management system,
- iFIS an economic information system, which includes modules such as economic management, a filing system, a public procurement management system and a register of contracts,
- VERSO an information system with modules: management information system, IPOS internal
 enquiry and ordering system, orders, liquidation lists, contract register, grants and projects,
 travel orders and room reservations,
- OBD an information system including a module for recording publication activity and an internal grant competition module.

All students and employees of the university also have the opportunity to use Microsoft Office 365 cloud services within the framework of the Microsoft Campus Agreement. They have a complete suite

of Office applications at their disposal including Word, Excel, PowerPoint, OneNote, Outlook, Teams, Access and Publisher. An internet connection and services of the national e-infrastructure for science, research and education CESNET are provided. Students and employees can also use the Eduroam wireless data network which is available throughout the campus.

In the current period, the Faculty of Chemical Technology also has more than 250 software licenses which entitle it to use software in various areas of its teaching and scientific research activities.

8 QUALITY ASSURANCE AND EVALUATION OF IMPLEMENTED ACTIVITIES

8.1 Internal system of control and evaluation

Control and evaluation of activities is performed on a regular basis at the FChT, both on the level of the faculty and also on the level of individual departments. This includes areas of educational and research activities as well as the third role of the faculty. The faculty's own operational activities are also subject to internal control and evaluation. Internal control and evaluation activities were also performed in 2024, mainly in the following areas.

Control and evaluation of academic staff

All academic staff at the faculty were subjected to an annual evaluation from the point of view of the following criteria:

Teaching activities:

- teaching: lectures exercises seminars laboratory work,
- supervision of diploma and bachelor theses, supervision of doctoral students,
- developed teaching aids, curricula, laboratory tasks, laboratory building,
- teaching positions at other universities (faculties),

Research activities:

- publications published in the past year,
- participation in conferences,
- grants, technology projects, complementary activities,
- foreign stays and trips,
- positions and membership in scientific and professional boards and committees,

Other activities:

- organisational activity,
- enhancing qualifications,
- promotion, popularisation of science and research, education and cooperation with the world of work,
- other activity worthy of consideration.

Control and evaluation of the quality of educational activities

Pedagogical issues are regularly discussed by the Board of Study Programme of the FChT and this was also the case in 2024. Evaluation of teaching was also performed by students via the IS STP, which was organised on a university-wide platform.

Control and evaluation of excellence

Evaluation was also performed in 2024 of excellent scientific teams in basic and applied research, in particular with regard to:

- implementation of research projects,
- publishing activity,

- recognition by the international community,
- management of the research team,
- resolution of specialist problems in applied research,
- commercialisation of the results of applied research.

In all cases, emphasis was placed on the quality of activities, e.g. taking into account the results of evaluation of research organisations.

8.2 External control

The most important element of external control of the University of Pardubice and its Faculty of Chemical Technology is undoubtedly evaluation performed by the National Accreditation Bureau for Higher Education within the framework of application for institutional accreditation of the University of Pardubice, which took place in 2018. The Faculty of Chemical Technology actively participated in preparation of institutional accreditation for the fields of education Chemistry, Economics and Health Studies. On 7 September 2018, the decision granting the University of Pardubice institutional accreditation for 10 years came into force for:

- the field of education Transport and within the framework of this, bachelor's, master's and doctoral degree programmes,
- the field of education Economics and within the framework of this, bachelor's, master's and doctoral degree programmes,
- the field of education Historical Sciences and within the framework of this, bachelor's, master's and doctoral degree programmes,
- the field of education Chemistry and within the framework of this, bachelor's, master's and doctoral degree programmes,
- the field of education Information Technology and within the framework of this, bachelor's, master's and doctoral degree programmes,
- the field of education Health Studies and within the framework of this, bachelor's and master's degree programmes.

Institutional accreditation within the framework of the above-mentioned fields of education enables the University of Pardubice, via the Internal Evaluation Board (IAB) of the University of Pardubice, to implement internal processes leading to the acquisition, extension or renewal of accreditation. The Faculty of Chemical Technology was represented in the IAB in 2024 by prof. Ing. Petra Šulcová, Ph.D. The IAB has three expert committees: the Technical and Science Committee, the Economic and Health Studies Committee and the Humanities and Arts Committee. The FChT was represented in 2024 in the Technical and Science Committee by its Chair (prof. Ing. Petra Šulcová, Ph.D.) and its members (doc. Ing. Pavel Čičmanec, Ph.D., prof. Ing. Miloš Sedlák, DrSc.). Prof. Ing. Liběna Tetřevová, Ph.D. and Ing. Jan Vávra, Ph.D. represented the FChT in the IAB Economic Committee in 2024. The representative of the faculty in the Health, Humanities, and Arts Committee of the Internal Evaluation Board in 2024 was Associate Professor RNDr. Tomáš Roušar, Ph.D.

In addition to this, the professional guarantee of the course and quality of studies in doctoral study programmes is monitored and evaluated by specialist boards which are established for each doctoral study programme separately.

With regard to the external evaluation of scientific and research results, the Evaluation of Research Organizations and the assessment of purpose-tied Research, Development, and Innovation Support Programmes according to the M17+ Methodology is fully applied. The methodology used by the Research, Development, and Innovation Council for evaluations is available at: http://www.vyzkum.cz, and the evaluation results can be found at: https://hodnoceni.rvvi.cz

ABBREVIATIONS USED

ACA Academics

AIS Article Influence Score

Bc. Bachelor's degree programme, title
BUT Brno University of Technology

CAS Czech Academy of Sciences

CCFE Classification of core fields of education

CEEPUS Central European Exchange Programme for University Studies

CEMNAT Centre of Materials and Nanotechnologies

CITS Centre for information technologies and services

CR Czech Republic

CU Charles University in Prague

DAICh Department of Analytical Chemistry

DBBS Department of Biological and Biochemical Sciences

DEMCh Department of Economics and Management of Chemical and Food Industry

DGAP Department of Graphic Arts and Photophysics
DGInCh Department of General and Inorganic Chemistry

DINT Department of Inorganic Technology
DPCh Department of Physical Chemistry
ECTS European Credit Transfer System

EEA European Economic Area
ERC European Research Council

EU European Union

f Foreigner – foreign student
FChT Faculty of Chemical Technology

FORD Fields of Research and Development

GACR Czech Science Foundation

IEB Internal Evaluation Board

IAPM Institute of Applied Physics and Mathematics

IChTMM Institute of Chemistry and Technology of Macromolecular Materials

IEnM Institute of Energetic Materials

IEnviChE Institute of Environmental and Chemical Engineering

iFIS Economic information systemINP Individual national project

IOChT Institute of Organic Chemistry and Technology

IS STP Information system for management of study programmes

JEPU J. E. Purkyně University in Ústí nad Labem
JLAM Joint Laboratory of Applied Medical Science

JLAP Joint Laboratory of Analysis and Evaluation of Polymers

JLMP Joint Laboratory of Membrane Processes

JLSSCh Joint Laboratory of Solid State Chemistry

MA Ministry of Agriculture
MF Ministry of Finance

MIT Ministry of Industry and Trade

MEYS Ministry of Education, Youth and Sports

MI Ministry of the Interior
MH Ministry of Health

Mgr. Master's degree programme

OBD Information system including a module for recording publication activity and an internal grant

competition module

OP JAK Operational Programme Jan Amos Komenský

OP RDE Operation Programme Research, Development and Education

PCR Police of the Czech Republic

Ph.D. Doctoral degree programme, title

p.r.i. Public research institution

R&D&I Research, experimental development and innovation

RES Researchers

SGC Student grant competition

SP Study programme

SRD Scientific, research and development (staff)
SRPA Student Research and Professional Activities

STP see IS STP

TACR Technology Agency of the Czech Republic

TBU Tomáš Baťa University in Zlín
TUO Technical University of Ostrava
U3A University of the Third Age

UCHT University of Chemistry and Technology in Prague

UPCE University of Pardubice

USSChP Upper Secondary School of Chemistry Pardubice

VERSO Information system

VS Higher Education Institution

WoS Web of Science



The Annual Activity Report of the Faculty of Chemical Technology at the University of Pardubice was approved by the Academic Senate of the Faculty of Chemical Technology on 15 May 2025.

