

Orientation for PhD students

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Vice-dean for R&D and PhDs studies

Doctoral studies

- Represents the highest level of university education;
- For those, who are interested in broadening their own knowledge in a selected area;
- For those, who are ambitious to contribute to that area their by innovative attitude and own R&D activities.

Rights and Duties of PhD students

- Study and Examination Rules of BUT
- Rules for organization of studies at the Faculty of electrical engineering and communication, BUT
 - Dean's directive No. 1/2025
- Scientific Identifiers
 - Directive No. 5/2018
 - Unfortunately, still just in Czech (contact your supervisor!)
- Other study regulations and support documents
 - https://www.fekt.vut.cz/en/students/study_regulations

PhD student activities during studies

- Teaching experience
- R&D activities
 - Publications (at least 1 Jimp @ 50+% or dominant authorship)
 - Products
 - Patents
- Study domain
 - Studying courses within the study program at BUT or abroad
- International internship
 - at least 1 month, or active participation in a international R&D project

Individual Study Plan – fast check in IS Apollo

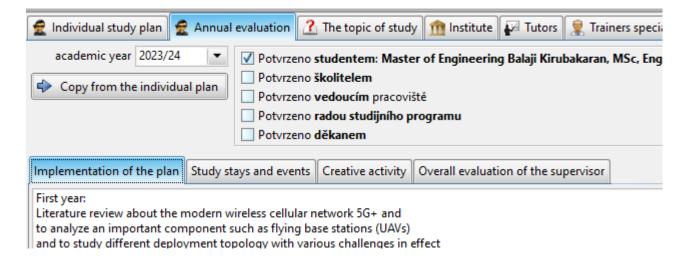
Detail: : Přehled hodnocení a kontroly studia	
👮 The individual study plan 🥷 Annual evaluation 🔝 The	topic of study 🐽 Institute 🗗 Tutors 🧝 Trainers specialists 🎬 Subjects 🔳 Pedagogic practice 🕕 The Diploma Supplement 🔛 Summary of evaluations ar
Overall rating:	
the total number of points 2	The general point conditions (26 pts) condition of the minimum boundary for the enrollment to 2nd year of study (57 pts) condition of the min. boundaries for filing the application for the state PhD exams (89 pts) condition of the min. boundary for enrollment to 4th year of the study (113 pts) condition of min. boundary at the deadline of submission of the dissertation thesis in (123 pts) condition of min. boundary for the dissertation thesis defence and termination of DS
Evaluation of study results	
of points for completion of courses the total number of points 0	Point conditions for study results (8 pts) condition of the minimum boundaries for courses or internship for enrollment to 2nd year of the (16 pts) condition of the minimum boundary for the courses or an intership and eng. language for the (22 pts) condition of min. boundary at the deadline of submission of the dissertation thesis in draft
Further of the made and another	
evaluation of the pedagogic practice: of points for the pedagogic practice 0	Point conditions for pedagogical practice (36 pts max.) (8 pts) condition of the minimum boundary for the enrollment to 2nd year of study (16 pts) condition of the min. boundaries for filing the application for the state PhD (28 pts) condition of the min. boundary for enrollment to 4th year of the study condition of a min. boundary of (36 pts) at the deadline for submission of in draft dissertation thesis
Evaluation of the scientific-research activities:	dissertation (resis
number of points for R <u>D</u> activity 2 Display and edit	Score conditions for research-development activity (8 pts) condition of the minimum boundary for the enrollment to 2nd year of study (20 pts) condition of the min. boundaries for filing the application for the state PhD exams (40 pts) condition of the min. boundary for enrollment to 4th year of the study
	 (50 pts) condition of min. boundary at the deadline of submission of the dissertation thesis in (60 pts) condition of min. boundary for the dissertation thesis defence and termination of DS

Individual Study Plan – Annual Evaluation (1/3)

- Report on activity results/update of ISP (in IS Apollo)
- Milestones (MSs):
 - MS 1: Enrolment into 2nd year (by Sept. 1/Feb. 1)
 - MS 2: Enrolment into 3rd year (by Sept. 1/Feb. 1)
 - MS 3: Enrollment into 4th year (by Sept. 1/Feb. 1)
 - MS 4: Submitting semi-finished doctoral thesis (end of 7th term;
 February)
 - MS 5: Submitting application for doctoral thesis defense

Individual Study Plan – Annual Evaluation (2/3)

- Summary of what "was" and/or "was not (and why)" done
- To be approved by your supervisor, dept. head, ..., dean



Individual Study Plan – Annual Evaluation (3/3)

- Presentation and Discussion with Evaluation Committee
- 2/2 of June
- Evaluation Outline
 - What I did during all my study period so far
 - What I did during the last year
 - Plans for the remaining study period (expecting to finish in 4 years)
 - Plans for the next year in more detail
 - Justification why I did not follow my own study plan, if this is the case

Study domain

Specialized (track-specific) DS course completed with an exam	4				
General DS course completed with an exam	2				
DS course attended abroad and completed with an expert discussion at FEEC	6				
Internship or study abroad (one co. or uni.)/international project participation	5				
English course completed with an exam	4				
Aims of the doctoral thesis*	4				
Semi-finished doctoral thesis**	0 - 4				
Recommended minimum after 1st year	8				
Recommended minimum after 2nd year (incl. passed internship or study abroad, English course)	16				
Recommended minimum when submitting semi-finished thesis					

- * Points for "Doctoral thesis Aims" are recorded by FEEC SciDept (Jana Kasparova) after successfully passing the State Doctoral Exam (hold for students, who must pass State Doctoral Exam)
- ** Points for "Semi-finished doctoral thesis" are recorded by the supervisor after submitting Semi-finished doctoral thesis

Teaching experience

Teaching (one period a week, in-semester)*					
Supervising semester project or Bachelor's/Master's thesis; per academic year**	4				
Teaching materials***	4				
Recommended minimum after 1st year	8				
Recommended minimum after 2nd year					
Recommended minimum after 3rd year					
Recommended minimum when submitting semi-finished doctoral thesis					

^{*} Within teaching (numerical, computer, and laboratory practicals), not more than 28 points can be granted

^{**} As regards students' projects or theses (semester project, Bachelor's or Master's theses), not more than 8 points are available.

^{***} Producing at least 20 pages of instructional and teaching materials (classes handbook; participating in the completion of textbooks); designing a laboratory tool; completing a training program.

R&D activities

Original paper in a journal with IF indexed by WoS (Jimp); Patent	30
Original paper in a journal indexed by SCOPUS (Jsc) or ERIH; book	20
Original paper at an international conference (D)	10
Submitting a project proposal to receive a grant	2
Receiving a foreign grant	20
Receiving a Czech Republic grant	5
Applied research and science results (semi-industrial installation and pilot production; validated technology; prototype; applied methodology; functional sample; authorized software; utility model)	5
Recommended minimum after 1st year	8
Recommended minimum after 2nd year	20
Recommended minimum after 3rd year	40
Recommended minimum when submitting semi-finished doctoral thesis	50
Recommended minimum when submitting application for doctoral thesis defense	60

Overall evaluation – recommended limits

MS 1	Total recommended score at the end of the 1st year	26
MS 2	Total recommended score at the end of 2nd year	57
MS 3	Total recommended score at the end of the 3rd year	89
MS 4	Total recommended score when submitting semi-finished doctoral thesis	113
MS 5	Total recommended score when submitting application for doctoral thesis defense	123

Publication - classification

- Journal paper J
 - Jimp Journal with Impact Factor (IF) resp. Article Influence Score (AIS) indexed by Web of Science (=Web of Knowledge, WoS)
 - Jsc Journal indexed by SCOPUS
 - Jost other
- Conference proceedings paper D
 - Paper/Conference is indexed by WoS, SCOPUS, IEEExplore
 - Conference organizer is/is not from Czech Republic

- Paper in journal with IF/AIS indexed in Web of Science Jimp
 - -A102
 - http://apps.webofknowledge.com/
- Paper in peer-reviewed journal indexed in SCOPUS or ERIH J_{sc}
 - A103
 - www.scopus.com
 - http://ieeexplore.ieee.org

- Paper in journal approved by Research, Development and Innovation Council of Czech Republic - Jost
 - A302
 - May also be in Czech language (irrelevant for EN programes)
 - http://www.vyzkum.cz/storage/att/B824F2CAD362169FB3F3287B0C 4B6D7A/Seznam%20%C4%8Dasopisu%20pro%20rok%202015.pdf

- Other journal papers Jost
 - A108 Original paper in international, foreign journal
 - A309 Original paper published in Czech or Slovak journal
- Other publications B/C
 - A101 Research book written in internationally recognized language
 - A301 Research book written in Czech

- Paper in conference proceedings indexed in WoS and/or SCOPUS - D
 - -A104
- Paper in conference proceedings (international) Dost
 - -A105
- Paper in conference proceedings (Czech or Slovak) Dost
 - -A304

Other R&D results/activitites in IS Apollo (valid for PhD students only)

- Applied research results
 - A107, A306, A307 Patents
 - A305 semi-industrial installation and pilot production; validated technology; prototype; applied methodology; functional sample; authorized software; utility mode
- Projects
 - B301 submitting project application
 - B108, B109, B213, B214 Project lead/co-lead of a Czech/Foreign grant (not only project team member)

Possible Journals (not only)

- Journal with IF/AIS (A102)
 - IEEE Access (ISSN 2169-3536)
 - Sensors* (ISSN 1424-8220)
 - AEU International Journal of Electronics and Communications (ISSN 1434-8411)
 - Symmetry* (ISSN 2073-8994)
 - Applied Science Basel* (ISSN 2076-3417)
 - Electronics* (ISSN 2079-9292)
 - Optics Express (ISSN 1094-4087)

^{*}MDPI Publisher – try to diversify, where you publish your results (more info from your supervisor)

Possible Journals (not only)

- Journals in SCOPUS (A103)
 - Axioms (ISSN 2075-1680)

Always discuss suitable Journal/Conference to publish in with your supervisor!

Financial support for your R&D papers

- Budget of the project led by your supervisor
- After discussion with your department's head
- Fond Open Access VUT
 - https://www.vutbr.cz/uk/openaccess/fond
 - Check eligibility rules, before you submit the manuscript

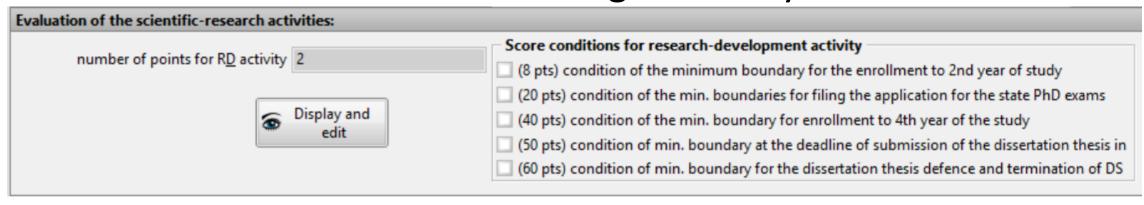


Duty to create Scientific Identifier

- Author of any R&D results has a duty to create ORCID account/identifier ("My Card" in BUT Intraportal); <u>Directive No. 5/2018</u>
- Creating also ResearcherID and Scopus Author ID is volutary but highly recommended
- Guidelines
 - https://www.vutbr.cz/en/uk/scientific-publishing/author-identifiers
 - https://www.vutbr.cz/en/uk/scientific-publishing/author-identifiers/orcid
 - https://www.vutbr.cz/uk/podpora-publikovani/identifikatory/researcherid
 - https://www.vutbr.cz/uk/podpora-publikovani/identifikatory/scopus-author-id

Publish, because...

Follow recommended limits for regular study cross-checks



- Extra scholarship proportional to reached score
- Tool to address future R&D partner
 - Join publications
 - Study internship

"What is my gain?!"

- Satisfaction
- Scholarship and something more, "if I want"
- "Other"
 - Critical thinking and evaluation of own steps
 - Responsibility for own decisions
 - Communication skills, presentation and defense of my ideas
 - Another university diploma

(Guaranteed) Doctoral income – HOT TOPIC

- Determined as 1.2 * minimal salary (MS)
 - Netto income
 - DI = 24,960 CZK @2025/2026 (MS 20,800 CZK)
 - DI = 27,360 CZK @2026/2027 (MS 22,800 CZK)
- Application needed to become eligible = bureaucracy for all

At FEEC DI is guaranteed without application Discuss with Dept. Head

...something more, "if I want"

- Participate in projects (supervisor, department, faculty)
 - GA ČR Czech Science Foundation
 - MV ČR Ministry of Interior
 - MPO Ministry of Industry and Trade
 - TA ČR Technology Agency of the Czech Republic
 - International projects (Horizon Europe, NSF-USA, COST Action...)
- Participate in cooperation with industry
 - Contract research
 - Results of such research may fall into R&D activities (prototype, software, patent...)

...something more, "if I want"

- PhD Talent 2025
 - Scholarship 120 kCZK/year for 3 years (paid directly by JCMM)
 - Call deadline: Sept. 23, 2025 (call open Sept. 4, 2025)
- Junior Inter-faculty project BUT
 - One "year" (=10 months) student project (max total budget 200 kCZK)
 - Project call opening: Dec. 2025 Jan. 2026
 - https://www.vutbr.cz/vav/specificky-vyzkum
- PhD Talent FEKT 2026
 - Scholarship 75 kCZK for 2 talented freshmen
 - Call opening: approx. 2/2 June 2026
- Fulbright scholarships
 - Calls open during April 2026
 - Kryštof Novotný

Study/research internships

Erasmus+ programme

- Internships within EU
- Financed by EU (study internships approx. 420-520 EUR/month, research internships 600-700 EUR/month, depends on destination)

Freemovers

- Internships mainly outside EU (Argentina, China, South Korea,...)
- Financed from Czech budget (max 30 kCZK/month)
- Support of International mobility of BUT students
 - BUT Institutional plan (ask your Dept. head)
 - Support 30 kCZK/month
- IAESTE Czech Republic
- DZS <u>Czech National Agency for International Education and Research</u>
 <u>https://www.fekt.vut.cz/en/students/going_abroad</u>

Dept. of Science and International Relations FEEC

Jana Kašparová

Doctoral study agenda

Mgr. Marta Průdková

International mobilities

Mgr. Michaela Macečková

R&D results







Office hours

Mo: 9:00-11:00; We: 9:00-11:00, 13:00-15:00; Th: 9:00-11:00, 13:00-14:00

Write an e-mail before your visit

https://www.fekt.vut.cz/en/faculty/structures/dek_vo

More People Good-to-Know at FEEC

prof. Vladimír Aubrecht Dr. Stanislav Klusáček

Faculty Dean

Vice-dean for Internationalization

Ing. Jiří Dvořáček

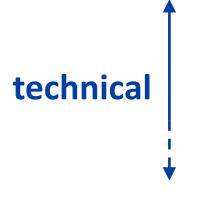
Students' Chamber of the Faculty
Senate Chairman







If there is an issue...



PhD student

Student supervisor

Doctoral board chairman

Department Head

VO – doctoral studies

VO head

Vice-dean for R&D

Dean

Vice-rector for studies and student affairs

Rector

administrative

...expect the most misunderstandings between...



Supervisor's codex

- Guarantees PhD student's professional development
- Provides regular personal consultations
- Supervises PhD student's continuing education, including the development of pedagogical competencies
- Helps the student to establish professional contacts and integration into the professional community
- Helps the student to manage internship
- Helps the student to present reached R&D results
- Makes the student aware of code of ethics for researechers

Students' codex

- Fulfills responsibly and on time obligations and follow planned study schedule
- Communicates actively with the supervisor, informs about progress, obstacles and difficulties
- Aims for creativity and originality in research work
- Publishes original research results, maintains research documentation
- Takes an interest in own professional and expect development
- Is part of the community of the workplace

What to do now?

- In cooperation with supervisor prepare and finalize Individual Study Plan in IS Apollo
 - Planned study activities
 - Teaching
 - R&D activities
 - Internship (1 month minimum)
- Check/update bank account information in your "profile"
- Create sci. identifier(s) ORCID, ResearcherID, Scopus Author ID
- Be seen!!

Study schedule example (aka I can make it)

Study	Milesto	Study Area	Point	Points	Teaching experience	Point	Points	R&D activitites	Point	Points	Poits total	Min points
year	ne		S	(cum.)		S	(cum.)		s	(cum.)	(cum.)	req. (cum.)
1/W		Technical course 1	4	. 4	PC/num/labs (4 hour/week)	8	8					
		General course 1	2	. 6								
1/S		Technical course 2	4	10	PC/num/labs (4 hour/week)	8	16	Conf. paper (co-author - 20%)	2	2		
		General course 2	2	. 12				Conf. paper (main author - 60%)	6	8		
	MS 1	(min limit is 8)		12	(min limit is 8)		16	(min limit is 8)		8	36	26
2/W		Technical course 3	4	16	PC/num/labs (4 hour/week)	8	24	Project proposal (main investigator)	2	10		
								Indexed journal paper (co-author - 20%)	6	16		
2/S		English (DxX-JA6 or DxX-QJA)	4	20	PC/num/labs (2 hour/week)	4	28	Conf paper (main author - 60%)	6	22		
					Supervisor of 2 bc/mgr theses (4 p./	8	36					
	MS 2	(min limit is 16)		20	(min limit is 16)		36	(min limit is 20)		22	78	57
		PhD proposal/aims	4	· 24								
3/W		Internship	5	29				Indexed journal paper (co-author - 30%)	9	31		
3/S								Indexed journal paper (main author - 50	15	46		
	MS 3	(min limit not defined)		29	(min limit is 28)		36	(min limit is 40)		46	111	89
4/W		Semi-finished thesis (0 to 4 p.)	4	. 33				Conf paper (main author - 60%)	6	52		
	MS 4	(min limit is 22)		33	(min limit is 36)		36	(min limit is 50)		52	121	113
4/S								Indexed journal paper (main author - 50	15	67		
	MS 5	(min limit not defined)		33	(min limit not defined)		36	(min limit is 60)		67	136	123

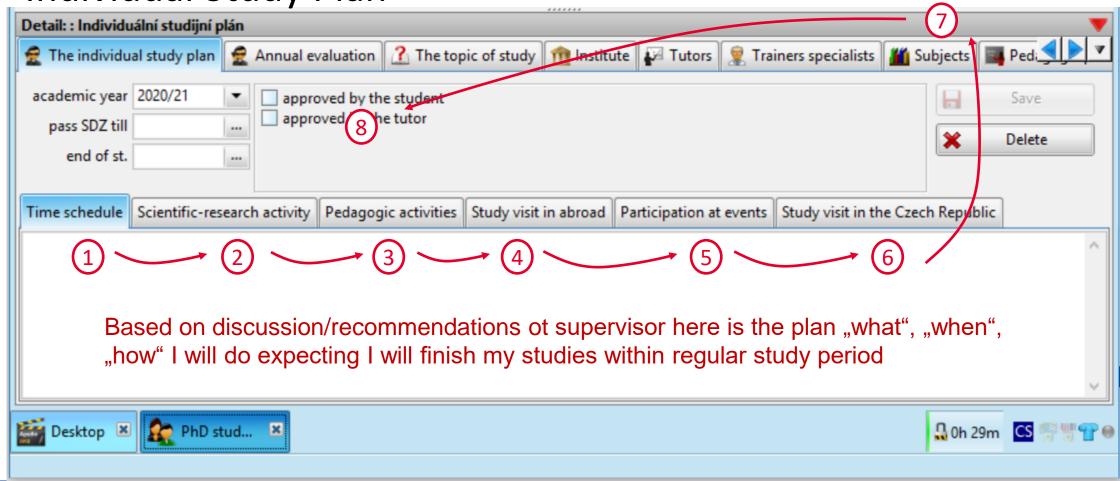
IS Apollo – fast intro

Installation - https://www.vut.cz/is



To switch to EN: after login: Soubor → Language: English

Individual Study Plan

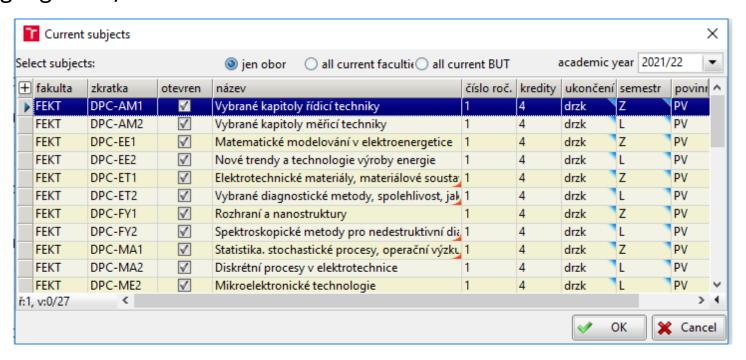




- Individual study plan → Time schedule
 - 1st year
 - Literature survey, first results to publish,...,following study duties,...
 - Submitting a review based on my own survey
 - 2nd year
 - Proposal of the student's own solutions and approaches, their validation by simulations/experiments, evaluation and publication of results, method optimizations,..., following study duties,..., communication with university XX, XY XZ to plan internship,...
 - Submitting a conference/journal paper dealing with...
 - 3rd year
 - Further optimization, proposal of new methods/algorithms,..., publication of results,..., critical comparison of "my" and "their" solutions, running the internship at XX, XY or XZ,...
 - Submitting J_{imp} paper with my authorship of more than 50%,...
 - 4th year
 - Continue in further development of proposed methods, submitting submitting semi-finished doctoral thesis,..., publication of results, finalization of dissertation thesis and its defense

- Individual study plan \rightarrow Scientific research activities
 - List of planned activities in current academic year
 - Study/development/analysis/optimization of methods based on..., preparing papers for publication in journals XX, XY,
 XZ...
 - Individual study plan → Pedagogic activities
 - List of planned activities in current academic year (if relevant)
 - Lecturing laboratory/numerical/PC exercises of courses...
 - Individual study plan → Study visit in abroad
 - List of planned activities in current academic year
 - Get in contact with colleagues from universities XX, XY, XZ... and dealing possible dates of my internship...
 - Internship at XY university/R&D organization
 - Individual study plan → Participation at events
 - List of planned activities in current academic year
 - Active participation at XX, XY, XZ conferences/events...
 - Individual study plan → Study visit in the Czech Republic
 - List of planned activities in current academic year

- 7
- Subjects → Add
 - Valid courses are those abbreviated as DPC/DKC-xxx or DPA/DKA-xxx
 - English language DPX/DKX-JA6



!!Courses that you select become compulsory!!



- Individual study plan
 - Approved by student
 - Approved by supervisor/tutor
 - Apporved by the dept. head
 - Approved by scientific board by Oct. 15
 - Approved by dean

- Správnost a úplnost potvrzena studentem
 Správnost a úplnost potvrzena školitelem
 Odsouhlaseno vedoucím pracoviště
 Odsouhlaseno oborovou radou
 Schváleno děkanem
- !Check inside Dept. (and program Sci. Board) about the "Approved by student" deadline
- "Approved by dean" will be handled by Faculty SciDept.

The ISP is printed only twice during your studies!!

- for State Doctoral Exam
- for Dissertation thesis defense

Courses to Select

- Technical courses (4 points each)
 - Each dept. offers two courses, the most close to your study field
 - English for post-graduates (Dxx-JA6)
- General courses (2 points each)
 - Scientific publishing A to Z (Dxx-EIZ)
 - Quotations in a research work (Dxx-CVP)
 - Solving of innovative tasks (Dxx-RIZ)
- Selected course becomes compulsory. If not passed you must
 - Apply this course next year and must pass!
 - Justify not passing the course and propose another (Annual Evaluation)

Courses to Select

- Other Technical/General courses
 - Passed during your training schools/internships
 - University PhD School (by BUT CVP), Sept. 19-Dec. 12
 - Course on the basics of scientific work (by AV ČR), Oct. 6-9, Nov. 24-27

Applied! From research to business (by JIC)

To better become part of our community (TB²PC)

- Welcome presentations at your department
- PhD Talent FEKT 2025 October 8
 - Presentations of 2nd year PhD students
- Open Science Day November 6
 - What do we do, if we don't teach
- Evaluation of R&D in the Czech Republic (and the World)
 - Scheduled for November
- Publishing of R&D results
 - Scheduled for December

Good luck in your study and R&D efforts!