UNIVERSITY OF PRISHTINA "HASAN PRISHTINA"

2024 - 2026

SCIENTIFIC RESEARCH STRATEGY

Faculty of Civil Engineering

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Prishtina, 2024

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ABBREVIATIONS

BSc	Bachelor of Science
MSc	Master of Science
CEEPUS	Central European Exchange Program for University Studies
UP	University of Prishtina
IWRM	Integrated Water Resources Management
FCE	Faculty of Civil Engineering
FCEA	Faculty of Civil Engineering and Architecture
HEI	Higher Education Institution
WRA	Water Regulatory Authority
RWC	Regional Water Company
PUT	Polytechnic University of Tirana
ISCCE	International Student Conference of Civil Engineering
ICCE	International Conference of Civil Engineering

1 INTRODUCTION

The Faculty of Civil Engineering is an Academic Unit of the University of Prishtina. The Faculty of Civil Engineering's history begins in the 1960s and is known as the initial institution of technical sciences in our country.

The foundation of the studies in the field of technical sciences, namely Civil Engineering, was laid with the opening of the Higher Technical School of Prishtina, on October 20, 1961, with teaching offered in three technical directions Construction, Electrical Engineering, and Machinery. After four successful years of work at this school, the procedures for the opening of the Technical Faculty of Prishtina began, considering it as a requirement of the time, as there was a great need for schooling of staff of different technical profiles for the country.

November 9, 1965, is known as the opening day of the Technical Faculty, with the newly designated Department of Civil Engineering, whereas the lectures began on December 10, 1965, with a total of 138 students, with an academic staff of five lecturers and five assistants and took place in two classrooms with 40 seats each and an amphitheater with 202 seats.

The "Elders of the Technical Faculty" on October 30, 1967, decided to open two more sections, Machinery and Electrical Engineering. For the opening of the Architecture section, the academic staff of the Technical Faculty decided on May 12, 1977, while the lectures were organized in the academic year 1978/79.

In 1979, the Technical Faculty was formed from several faculties, including the Faculty of Civil Engineering and Architecture (FCEA), consolidating, and expanding the range of programs offered by the faculty. This led to the improvement of infrastructure and study capacities. As an important step towards the improvement and reform of higher education in Kosovo, in 2002, the study programs within the FCEA were reformed to meet the standards of the Bologna declaration. In the 2019-2020 academic year, the Faculty of Civil Engineering and the Faculty of Architecture became separate institutions of higher education, showing their independent development and the increasing importance of the field of construction and architecture in higher education in Kosovo.

The Faculty of Civil Engineering (FCE) has approved its Strategic Plan from 2024 to 2028, aimed at delineating the components, direction, and primary objectives for the faculty's development. These objectives include enhancing the performance of academic staff, improving the quality of student learning, and enhancing the quality and efficiency of services provided to students. The strategy is defined through three main objectives, namely:

1) Raising the quality of teaching and learning,
2) Advancement of Science, Innovation, and Connection with the Labor Market, and
3) Improving the position and role of FCE on the international scene.

The scientific research strategy was developed in alignment with FCE's current strategic plan, particularly its three main objectives. Furthermore, this strategy follows the Strategy of the University of Prishtina, as well as relevant documentation such as the UP Statute and the relevant Regulations. Through this strategy, the continuous growth of scientific research is

intended, which will have an impact on raising the capacities of the staff, fulfilling strategic goals in the field of scientific research, and improving the quality of higher education in general.

The quality of scientific research represents a dynamic concept that meets the generally accepted standards, with the aim of continuous progress of the institution and society. The faculty is obliged to provide appropriate space and equipment for the implementation of the strategic program of scientific research, as well as an appropriate structure of scientists.

2 MISSION AND VISION

In 2023, the Strategic Plan for the period 2024-2028 for FCE was adopted. Within the said strategy, the mission, vision, strategic goals, and objectives of the faculty were defined.

The Faculty of Civil Engineering bases its mission on the Law of Higher Education, as well as on the Statute and Strategy of the University of Prishtina. The mission of the faculty is to educate and improve the academic staff in the field of civil engineering and related technical and natural science disciplines based on the indivisibility of scientific work and higher education. The mission of the faculty is also to work in the wider community to promote the civil engineering profession and raise awareness of the importance and value of this activity for sustainable development while promoting academic principles and values. The faculty operates according to the principles of scientific integrity and professional ethics, academic freedom, social responsibility, and equal opportunities for all staff and students and accepts international quality standards in the evaluation of its work.

The Faculty of Civil Engineering sees itself in the future as an active and internationally recognized factor in the promotion of existing knowledge and the creation of new knowledge in the field of civil engineering and related scientific disciplines through synergy with higher education at all levels, based on learning outcomes and lifelong learning. FCE aims to do research and academic work for academic staff, including the students to support the process of quality teaching. Development and advancement of study programs in the fields of Construction, Geodesy and Geoinformation, Hydrotechnical Engineering, and Environmental Engineering, relying on scientific and educational achievements. On the way to this goal, the faculty will actively cooperate with other faculties and departments of the University on its programs and the programs of the University of Prishtina, especially promoting the competence, creativity, and work and social responsibility of staff and students. Also, the faculty will develop cooperation with public institutions and economic entities and be involved in the national research and higher education area through international cooperation and mobility programs.

3 STRUCTURE, HUMAN RESOURCES AND INFRASTRUCTURE

The Faculty of Civil Engineering has a wide range of study programs for the first cycle of basic studies (Bachelor) and the second cycle of studies (Master). During the undergraduate

(Bachelor) degree program, students acquire fundamental knowledge in their fields of study and prepare to build a solid foundation of engineering knowledge and skills. These are the study programs offered in four departments of the Faculty of Civil Engineering in the Bachelor (BSc) program:

- ✓ The Department of Construction offers study programs at two levels (BSc, and MSc) that are designed to align with the best international standards and meet market demands in the fields of structural and construction engineering.
- ✓ The Department of Hydrotechnical Engineering provides study programs at two levels (BSc, MSc), equipping students with the skills to design and manage water resources and infrastructure, including hydrotechnical facilities, water supply, and sewerage. Starting from the year 2023, with the support of the Swiss Office, the MSc program in Integrated Water Resources Management (IWRM), conducted in English is offered as well.
- ✓ The Department of Geodesy and Geoinformation offers study programs at two levels (BSc, MSc), which are compatible with the study programs of the field at the regional and wider European level. As such, they have been carefully designed through the Tempus project in 2016, where study programs have been updated in similar concepts throughout each accreditation period, and not only.
- ✓ The Department of Environmental Engineering offers a study program at the bachelor level, through which it prepares engineers specialized in environmental engineering and management, including water and wastewater treatment, waste management, air quality assurance, soil quality, and the protection of natural resources.

3.1 Human resources

The duties of academic staff employed in the Faculty of Civil Engineering typically encompass a variety of responsibilities related to teaching, research, and academic administration. Here is a general outline of their duties:

- Teaching: Academic staff are responsible for delivering lectures, seminars, and practical sessions to undergraduate and graduate students. They develop course materials, design curricula, and assess student performance through assignments, exams, and projects.
- Research: Academic staff engage in scholarly research activities, including conducting experiments, collecting data, writing research papers, and applying for research grants. They may also supervise graduate students' research projects and collaborate with colleagues on interdisciplinary research initiatives.
- Academic Advising: Academic staff provide guidance and support to students regarding their academic progress, course selection, and career development. They offer advice on academic programs, research opportunities, and internship placements.
- Academic Administration: Academic staff participate in various administrative tasks within the faculty, such as serving on committees, contributing to curriculum development, and participating in faculty meetings. They also may undertake

administrative roles such as program coordination, accreditation processes, and academic assessment activities.

- Professional Development: Academic staff engage in ongoing professional development activities to enhance their teaching effectiveness, research productivity, and leadership skills. This may include attending conferences, workshops, and training sessions, as well as pursuing advanced degrees or certifications.

Overall, academic staff play a vital role in advancing the mission of the Faculty of Civil Engineering by fostering excellence in teaching, research, and service to the academic community and society at large.

The academic staff employed in the University of Prishtina and belonging to the Faculty of Civil Engineering is listed in Table 1.

Table 1. The regular contract academic staff of FCE recorded at the end of 2023.

No	*Name and Surname*	*Academic Grade*
1.	Naser Kabashi	Professor Dr.
2.	Laura Kusari	Professor Dr.
3.	Figene Ahmedi	Professor Dr.
4.	Fatos Pllana	Associate Professor
5.	Cenë Krasniqi	Associate Professor
6.	Përparim Ameti	Associate Professor
7.	Arton Dautaj	Associate Professor
8.	Naim Hasani	Associate Professor
9.	Bashkim Idrizi	Associate Professor
10.	Ragip Hadri	Assistant Professor
11.	Florim Grajçevci	Assistant Professor
12.	Hajdar Sadiku	Assistant Professor
13.	Esat Gashi	Assistant Professor
14.	Ymer Kuka	Assistant Professor
15.	Arban Berisha	Assistant Professor
16.	Lavdim Osmanaj	Assistant Professor
17.	Zijadin Guri	Assistant Professor
18.	Milot Muhaxheri	Assistant Professor
19.	Besim Ajvazi	Assistant Professor
20.	Fitore Bajrami - Lubishtani	Assistant Professor
21.	Fidan Salihu	Assistant Professor
22.	Ali Muriqi	Assistant
23.	Vlora Shatri	PhD, Assistant
24.	Labeat Misini	PhD, Assistant
25.	Bajram Shefkiu	Assistant
26.	Burbuqe Shatri	Assistant
27.	Anita Gjukaj	Assistant
28.	Enes Krasniqi	Assistant
29.	Hana Shehu	Assistant
30.	Shkumbin Makolli	Assistant
31.	Valon Veseli	Assistant
32.	Guxim Rrudhani	Assistant
33.	Premton Thaqi	Assistant

34.	Venera Hajdari	Assistant
35.	Vlerë Krasniqi	Assistant
36.	Almedina Rapuca	Assistant
37.	Ilir Canaj	Assistant

The total regular contract academic staff of FCE for 2023, recruited for the academic year 2023/2024 is 37.

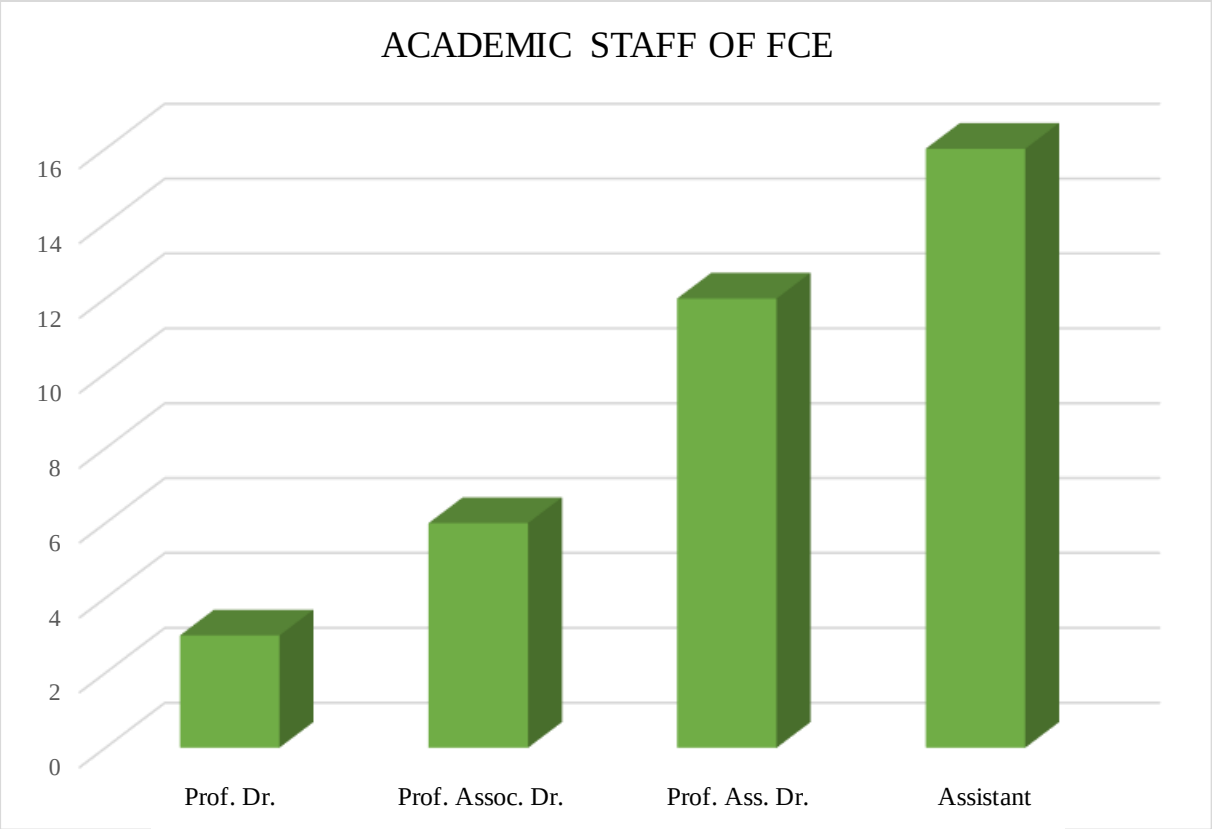

Figure 1. Regular contract academic staff of FCE – 2023/24

The academic staff engaged in the Faculty of Civil Engineering for the academic year 2023/2024, according to the conducted competition and completed procedures by the Faculty Council, are as follows according to these statistics:

Table 2. Engaged, honorary academic staff for the academic year 2023/2024 of FCE.

No	Name and Surname	Academic title
1.	Ardian Kadiri	Engaged Assistant
2.	Armend Mujaj	Engaged Assistant
3.	Festina Sadiku	Engaged Assistant
4.	Fisnik Loshi	Engaged Assistant
5.	Liron Morina	Engaged Assistant
6.	Milaim Sylka	Engaged Assistant
7.	Valon Azizi	Engaged Assistant
8.	Ylli Murati	Engaged Assistant
9.	Ardita Ibishi	Lecturer
10.	Ilir Rodiqi	Engaged Professor
11.	Islam Fejza	Engaged Professor

12.	Ismail Kabashi	Engaged Professor

Table 3. Engaged, retired academic staff of FCE for the 2023/2024 academic year.

No	Name and Surname	Academic title
1.	Fevzi Berisha	Engaged Professor
2.	Abdullah Zejnullahu	Engaged Professor
3.	Misin Misini	Engaged Professor

Table 4. Engaged academic staff from other academic units of UP for the academic year of 2023/2024.

No	Name and Surname	Academic title	The Academic Unit of UP
1.	Arta Basha Jakupi	Engaged Professor	FA
2.	Violeta Nushi	Engaged Professor	FA
3.	Mimoza Dugolli	Engaged Professor	FA
4.	Dukagjin Hasimja	Engaged Professor	FA
5.	Dashnor Kadiri	Engaged Assistant	FA
6.	Rrona Berisha	Engaged Assistant	FA
7.	Kaltrina Spahiu	Engaged Assistant	FA
8.	Bekim Gashi	Engaged Professor	FNMS
9.	Bukurije Hoxha	Engaged Assistant	FME
10.	Rexhep Selimaj	Engaged Professor	FME
11.	Jeton Halili	Engaged Professor	FNMS
12.	Halil Ibrahimi	Engaged Professor	FNMS
13.	Idriz Vehapi	Engaged Professor	FNMS
14.	Naim Jerliu	Engaged Professor	FM
15.	Sefer Avdijaj	Engaged Professor	FNMS
16.	Zeqë Tolaj	Engaged Assistant	FNMS

Table 5. Visiting Professors for the academic year of 2023/2024 at FCE.

No	Name and Surname	Academic title	HEI
1.	Neritan Shkodrani	Engaged Professor	FCE - PTU, Albania
2.	Oltion Marko	Engaged Professor	FCE - PTU, Albania
3.	Lars Ribe	Engaged Professor	FA – Cologna, Germany
4.	Sudeh Dejnavi	Engaged Professor	FA – Cologna, Germany
5.	Xhesika Hoxha	Researcher	FA – Cologna, Germany
6.	Vlado Spiridonov	Engaged Professor	K&M, Skopje, RNM
7.	Cvetanka Popovska	Engaged Professor	K&M, Skopje, RNM
8.	Mimoza Hyseni Spahiu	Engaged Professor	UP, Haxhi Zeka, Pejë

The total number of academic staff engaged in the teaching process at the Faculty of Civil Engineering for the academic year 2023/2024 is 76. As a result of comparing the ratio of the number of students to one lecturer, it is 1159/76 = 15.26 students per lecturer.

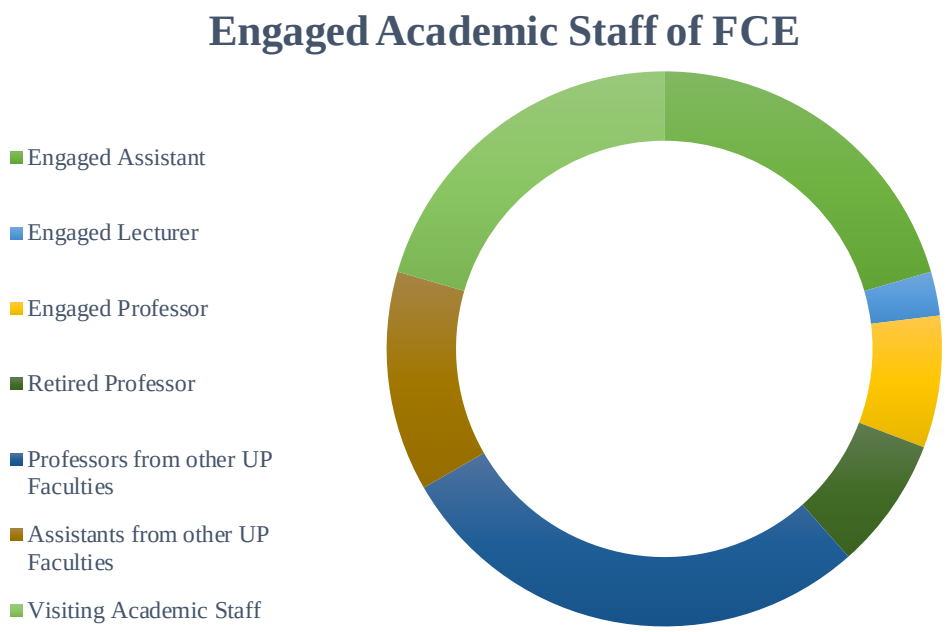

Figure 2. Total engaged academic staff number per category for 2023/2024

3.2 Infrastructure

The faculty is equipped with various facilities tailored for teaching, analysis, research, and administrative purposes. These include classrooms, amphitheaters, laboratories, and office spaces. Both the laboratory facilities and equipment are assets owned by the University of Prishtina, ensuring accessibility for academic endeavors. Additionally, the Faculty of Civil Engineering also benefits from the usage license of servers and software provided by the University of Prishtina.

Within FCE, essential servers include the database server, a product of the "InWaterSense" project grant, and a dedicated server catering to the needs of the geodesy and geoinformation department. Furthermore, an array of specialized software is available for academic use, enhancing research capabilities across various domains. This software suite encompasses tools such as ArcGIS for Geographic Information System (GIS) analysis, Erdas Imagine for satellite image processing, and TTC for GNSS measurement processing and analysis. Other notable software includes HEC RAS for modeling water flow in natural rivers and channels, HEC SSP for statistical analysis of hydrological data, and WaterCAD for hydraulic modeling of water distribution systems. Complementing these are additional software solutions like Sewer CAD, Flow Master, HBV, Mod FLOW, and SWAT, catering to diverse research needs within civil engineering and related fields.

3.2.1 Institute of FCE

Within the Faculty of Civil Engineering, an integral component supporting both teaching and scientific research is the Institute. This Institute boasts a robust organizational framework comprising key entities such as the council, directorship, and a dedicated secretary, all

collaboratively engaged with the entire academic faculty. Together, they diligently execute the imperative responsibilities pertaining to both educational delivery and research endeavors. Central to the Institute's infrastructure are state-of-the-art laboratories, meticulously equipped with cutting-edge technologies and apparatuses relevant to the field of civil engineering. These facilities serve as vital hubs for hands-on experimentation, empirical validation, and innovation. They offer students and researchers alike unparalleled opportunities to engage in practical exploration, conduct experiments, and push the boundaries of knowledge in diverse areas of civil engineering.

Some of the specialized laboratories housed within the Institute include:

1) Laboratory of Materials
2) Laboratory of Construction
3) Laboratory of Geomechanics
4) Laboratory of Geodesy and Geoinformation
5) Laboratory of Asphalt
6) Laboratory of Stone
7) Laboratory of Hydrotechnics
8) Laboratory of Environmental Engineering

Laboratories are used to carry out analyses and scientific research related to:

- ✓ Materials used in construction, including dissolution, hardness testing, and their performance under different conditions.
- ✓ Construction structures and their testing in different conditions.
- ✓ Ground stability and the design of structures on them.
- ✓ Analysis and testing of materials used in road construction, including asphalt and other materials related to roads.
- ✓ Control and rectification of geodetic measurement equipment.
- ✓ Analysis of satellite images, as well as analysis of geospatial information.
- ✓ Modelling and simulation of dams, rivers, and artificial reservoirs, calculation of water and power losses in the utility system, and more.
- ✓ Monitoring and analysis of weather and climate patterns, water quantity and quality, as well as water and wastewater treatment.

These laboratories, equipped with the latest technologies and staffed by experienced faculty members, constitute indispensable assets within the Institute. They serve to enhance academic inquiry, innovation, and collaboration, fostering the advancement of knowledge and the development of solutions to real-world challenges in civil engineering.

4 MAIN RESEARCH TOPICS OF THE FACULTY

Academic staff at the faculty have gathered around some key research areas that are significant research themes, with the aim of translating research results into decision-making policy, new products, and processes. The results will be reflected in numerous publications, international

research projects, research theses, scientific conferences held, and new jobs within the faculty's research infrastructure. Over the years, the following research priorities of the faculty have emerged:

1) Assessment of the capacity of existing structures: (i) analysis for monitoring existing structures - conducting field and laboratory tests, (ii) identification of parameters and loads on structures through experimentation, (iii) separation and identification of the influence of different parameters responsible for the very complex and stochastic behavior of concrete under different loads, (iv) evaluation of the state of structures and methods following exceptional actions with particular emphasis on seismic actions, v) analysis of the properties of asphalt mixtures and asphalt pavement structures, vi) laboratory studies of properties of materials in landslides, (vii) laboratory tests in the development of innovation concepts.

2) Design and organization areas: (i) application of soft computing tools in modelling of key project parameters - project cost and time, (ii) development of single and multi-dimensional regression models based on time-cost models, iii) exploring the possibilities of applying the agile approach in the processes of construction project management, iv) exploring the process of managing the maintenance of public buildings in the education system.

3) Water, Environment, and Climate Nexus: (i) climate change and its impacts on the occurrence of natural hazards, (ii) flooding and draught research to develop climate change risk mitigation and prevention measures, (iii) application of remote sensing methods in weather pattern research and monitoring, (iv) preparation of hazard and risk maps, (v) hydrological analyses and projections of climate change impacts on water resources, (vi) hydrological-hydraulic analyses of sustainable stormwater drainage systems, (vii) environmental risk reduction through monitoring, (viii) water and wastewater treatment and quality testing.

5 STRATEGIC OBJECTIVES AND ACTIVITIES

The scientific research strategy in the following period (2024-2026) is based on the current position and starting points at national, university, and institutional levels.

The strategic objectives are based on the monitoring of global research trends and the further development of the institution's research priorities, the research work in the laboratories, the linking of defined individual objectives of the organizational units and the pursuit of multidisciplinary research, the strengthening of links with industry, the application for new research projects and the participation of staff from different organizational units of the faculty and components of the University, the strengthening of visibility, internationalization and intensive mobility of researchers. The synergy of these objectives will be reflected in the recognition of the faculty in scientific circles, the sustainability of all scientific research, the development of new technologies and innovations in construction, and the strengthening of the organizational structure of the faculty. The faculty will continue to promote and reward success in scientific research and continuously participate in the popularization of science and the construction profession.

The strategic policy is defined through seven objectives, as detailed below.

OBJECTIVE 1: Increasing scientific productivity.

The academic staff of the faculty will be encouraged and supported to increase the number of published papers. This is aimed to be achieved indirectly by participating in projects, developing scientific collaboration, and promoting mobility, but also by rewarding the number and quality of published papers in journals, published scientific books, and annual financing of scientific papers by the University. This approach creates a conducive environment for scientific progress, where the academic staff are motivated to collaborate, innovate, and share their findings with the wider community.

Increasing scientific productivity can be achieved through several approaches:

- ***Effective Time Management***, researchers should prioritize tasks, set achievable goals, and allocate time efficiently to ensure maximum productivity.
- ***Continuous Learning***, and staying updated with the latest advancements in the fields of civil engineering through seminars, workshops, and conferences can inspire new research ideas and methodologies.
- ***Utilizing Technology***, leveraging technology tools such as reference management software, data analysis platforms, and collaboration platforms can streamline research processes and enhance productivity.
- ***Networking, and*** building a strong professional network can provide opportunities for collaboration, mentorship, and access to resources, all of which can contribute to increased scientific productivity.
- ***Effective Communication,*** clearly communicating research findings through publications, presentations, and discussions can enhance visibility and impact in the scientific community, leading to increased productivity.
- ***Balancing Workload,*** maintaining a healthy work-life balance is crucial for sustained productivity. Allocating time for relaxation, exercise, and personal interests can prevent burnout and enhance overall well-being, thereby boosting productivity in the long run.
- ***Setting Clear Objectives, and*** establishing clear research objectives and milestones can provide direction and motivation, enabling researchers to stay focused and productive throughout their projects.

OBJECTIVE 2: Increase the number of projects.

To achieve the set objective, active monitoring of open calls and project proposals in collaboration with partner institutions and business entities will be encouraged. Institutional support will be provided for the implementation of these activities. The achievement of the set objective will strengthen the staff structure and enable the employment of academic staff, including researchers.

Increasing the number of research projects can be achieved through various approaches:

- ***Identify Funding Sources, and*** actively seek out funding opportunities from government agencies, private foundations, industry partners, and civil engineering organizations that support research in your field. Regularly monitor funding databases,

subscribe to funding newsletters, and network with funding agencies to stay informed about available opportunities.

- ***Collaborating with Other Researchers,*** collaborating with other researchers, both within and outside your institution, can lead to joint research projects. Look for opportunities to collaborate on interdisciplinary projects or join research consortia to broaden your scope and access additional resources.
- ***Publish High-Quality Research,*** producing high-quality research publications can enhance your reputation and attract funding opportunities. Publish your findings in reputable journals, present your work at conferences, and participate in scientific symposia to showcase your expertise and attract collaborators.
- ***Apply for Competitive Grants,*** regularly apply for competitive research grants and fellowships offered by government agencies, foundations, and professional societies. Develop strong grant proposals that clearly articulate your research objectives, methodology, and potential impact to increase your chances of success.
- ***Cultivate Industry Partnerships, and*** establish partnerships with industry stakeholders, including companies, organizations, and startups, to develop collaborative research projects. Industry partners may provide funding, access to data and resources, and real-world applications for your research.
- ***Seek Institutional Support, and*** engage with your institution's research office or department to explore internal funding opportunities, seed grants, and research development programs. These resources can provide initial funding and support for pilot projects, which may lead to larger external grants in the future.
- ***Explore International Collaboration,*** Explore opportunities for regional and overall international collaboration through research exchange programs, joint initiatives, and collaborative projects with researchers from other countries. International partnerships can broaden your research network, access new perspectives, and increase your project portfolio.
- ***Invest in Research Infrastructure,*** invest in research infrastructure, such as laboratory equipment, computing resources, and specialized facilities, to support your research activities. Access to state-of-the-art facilities can enhance the quality and scope of your research projects, making them more competitive for funding.

OBJECTIVE 3: Organization of national and international scientific conferences.

The faculty will be active in the organization and co-organization of national and international scientific conferences, student conferences, and workshops on current topics and problems in the fields of civil engineering, through which the academic staff and students will be indirectly motivated to increase scientific research activities.

Organizing national and international scientific conferences can be an effective strategy for increasing research activity. Additional approaches include:

- ***Knowledge Exchange,*** Conferences provide a platform for researchers to present their work, share insights, and exchange ideas with peers from around the world. By

facilitating knowledge exchange, conferences can stimulate new research collaborations and inspire innovative approaches to scientific inquiry.

- ***Networking Opportunities and*** Conferences bring together researchers, scholars, and practitioners from diverse backgrounds and disciplines. Attendees can network, establish professional connections, and forge collaborations that can lead to joint research projects, funding opportunities, and publication partnerships.
- ***Promotion of research Findings,*** presenting research findings at conferences allows researchers to disseminate their work to a broader audience and receive feedback from experts in their field. This exposure can enhance the visibility and impact of their research, leading to increased citations and recognition within the academic community.
- ***Publication Opportunities,*** many scientific conferences offer opportunities for researchers to publish their work in conference proceedings, special journal issues, or edited volumes. Publishing research findings from conferences can contribute to the dissemination of knowledge and facilitate scholarly communication.
- ***Professional Development,*** Conferences often feature keynote lectures, workshops, and panel discussions on emerging trends, methodologies, and best practices in various fields. Researchers can enhance their professional development by attending these sessions, acquiring new skills, and staying updated on the latest advancements in their field.
- ***Collaborative Projects,*** Conferences provide a conducive environment for initiating collaborative projects and interdisciplinary research endeavors. Researchers can identify potential collaborators, explore common research interests, and develop joint proposals for future research projects during conference interactions.
- ***International Visibility,*** Hosting or participating in international conferences can raise the profile of research institutions, academic departments, and individual researchers on the global stage. It demonstrates institutional excellence, fosters international partnerships, and attracts talented researchers and students from around the world.
- ***Funding Opportunities,*** Conferences can serve as a platform for showcasing research initiatives and attracting funding from government agencies, philanthropic organizations, industry partners, and international funding bodies. Researchers can use conference presentations and networking opportunities to seek potential funding sources for their projects.

By organizing and participating in national and international scientific conferences, research institutions, academic societies, and individual researchers can contribute to the advancement of knowledge, foster collaboration, and promote research excellence on a global scale.

OBJECTIVE 4: Strengthen internationalization.

By prioritizing internationalization efforts and implementing these strategies, research institutions can create a vibrant and globally connected research ecosystem that fosters innovation, collaboration, and excellence in scientific inquiry. Strengthening internationalization is crucial for improving and expanding research activity. Strengthening

research topics within European and world trends, participating in international projects, and publishing in collaboration with foreign scientists will contribute greatly to international recognition. One of the strategic goals is the conclusion of new, but also the activation of existing agreements for cooperation with international institutions through Heras, Erasmus, and other forms of cooperation. Additional approaches include:

- ***Establish Collaborative Partnerships,*** Foster collaborations with international universities, research institutions, and industry partners. Joint research projects, exchange programs for researchers and students, and collaborative funding initiatives can enhance research outcomes and facilitate knowledge exchange.
- ***Promote International Networks,*** Engage with international research networks, consortia, and alliances relevant to your field of study. Participation in these networks provides access to resources, expertise, and funding opportunities, while also promoting visibility and collaboration on a global scale.
- ***Host International conferences and Workshops,*** encourage faculty, academic staff, researchers, and students to participate in international mobility programs such as exchange visits, study abroad programs, and research internships. Exposure to diverse research environments and cultural perspectives fosters creativity, collaboration, and cross-disciplinary learning.
- ***Host International Conferences and Workshops,*** Organize or co-host international conferences, symposia, and workshops to bring together researchers from around the world. These events provide platforms for sharing research findings, networking, and fostering collaborations that can lead to joint research projects and publications.
- ***Facilitate Training and Language Support,*** provide academic and research training and language support services such as translation and editing assistance to researchers who wish to publish their work in international journals or present at conferences conducted in languages other than their own. Language barriers should not hinder participation in global research initiatives.
- ***Enhance Research Infrastructure,*** invest in state-of-the-art research infrastructure and facilities to attract international researchers and collaborators. Access to cutting-edge equipment, laboratories, and technology platforms can significantly enhance the quality and impact of research outcomes.
- ***Promote International Funding Opportunities,*** facilitate access to international funding sources, grants, and scholarships available for collaborative research projects, mobility programs, and capacity-building initiatives. Provide support and guidance to researchers in navigating the application process for international funding opportunities.
- ***Encourage Cross-Cultural,*** Foster a culture of diversity, inclusion, and cross-cultural competence within the research community. Provide training and resources to support researchers in developing intercultural communication skills, respecting cultural differences, and working effectively in multicultural teams.
- ***Support Open Access and Data Sharing,*** embrace principles of open science by promoting open access publishing, data sharing, and collaboration on research outputs.

Encourage researchers to make their findings freely available to the global research community, thereby maximizing the impact and visibility of their work.

- ***Evaluate and monitor progress,*** regularly evaluate and monitor the impact of internationalization efforts on research activity, collaboration outcomes, and institutional performance. Collect feedback from stakeholders and adjust strategies as needed to optimize the effectiveness of internationalization initiatives.

OBJECTIVE 5: Strengthen interdisciplinary research.

Strengthening interdisciplinary research can significantly enhance research institutional activity. Over the life of the strategy, work will be undertaken to increase the level of interdisciplinarity in all segments of the faculty's activities. The presentation and promotion of such activities will encourage interdisciplinary research and the publication of work by scholars from a variety of academic fields and areas. The goal is to increase the number of interdisciplinary projects and diploma theses produced in the comments of teachers with a selection in various fields and areas of science. Approaches include:

- ***Establish Interdisciplinary Research Centre – research Institute,*** create dedicated interdisciplinary research centers or institutes that bring together faculty, researchers, and students from different disciplines to collaborate on common research themes or grand challenges. These centers can serve as hubs for interdisciplinary collaboration, providing resources, infrastructure, and administrative support for interdisciplinary research projects.
- ***Promote Collaborative Research Projects,*** encourage interdisciplinary collaboration through funding incentives, grants, and seed funding opportunities for collaborative research projects that span multiple disciplines. Facilitate interdisciplinary research teams by providing networking events, matchmaking platforms, and project management support.
- ***Cross-departmental and cross-school Initiatives,*** Foster collaboration across departments, schools, and faculties within the institution by promoting joint research initiatives, interdisciplinary seminars, and shared research facilities. Break down silos and promote knowledge exchange among diverse academic units.
- ***Interdisciplinary Curriculum Development,*** develop interdisciplinary academic programs, courses, and workshops that integrate knowledge and methodologies from multiple disciplines. Encourage students to pursue interdisciplinary studies and research projects that address complex real-world problems from diverse perspectives.
- ***Support Interdisciplinary Training and Professional Development,*** provide training and professional development opportunities for faculty, researchers, and students to enhance their interdisciplinary research skills, communication abilities, and collaborative competencies. Offer workshops, and seminars focused on interdisciplinary research methodologies, teamwork, and project management.
- ***Facilitate Cross-Disciplinary Networking and Collaboration,*** organize interdisciplinary research forums, colloquia, and symposia where researchers can present their work, share ideas, and forge new collaborations across disciplinary

boundaries. Create online platforms and networking events that connect researchers with complementary expertise and research interests.

- ***Encourage Interdisciplinary Publication and Dissemination,*** promote interdisciplinary publishing by supporting open-access journals, conference proceedings, and edited volumes that showcase interdisciplinary research findings. Encourage researchers to publish in interdisciplinary journals and present their work at interdisciplinary conferences to reach diverse audiences.
- ***Evaluate and Reward Interdisciplinary Research,*** Recognize and reward interdisciplinary research achievements through institutional awards, honors, and tenure and promotion criteria that value interdisciplinary collaboration, innovation, and impact. Incorporate interdisciplinary research contributions into performance evaluations and research assessment exercises.
- ***Engage External Partners and stakeholders,*** collaborate with external partners, industry stakeholders, government agencies, and community organizations to address interdisciplinary research challenges and co-create solutions. Forge strategic partnerships that leverage external expertise, resources, and funding to support interdisciplinary research initiatives.
- ***Promote a Culture of Interdisciplinarity,*** foster a culture of interdisciplinarity within the research institution by celebrating interdisciplinary achievements, fostering a spirit of curiosity and creativity, and promoting an inclusive and supportive research environment that values diverse perspectives and interdisciplinary collaboration.

OBJECTIVE 6: Intra-institutional and inter-institutional collaboration.

By fostering a culture of collaboration and creating mechanisms to support and incentivize intra-institutional and inter-institutional collaboration, research institutions can enhance research institutional activity, accelerate innovation, and address complex societal challenges more effectively. Intra-institutional and inter-institutional collaboration plays a crucial role in increasing research institutional activity. The specific goal of the faculty is to network in research, paper publishing, and submitting project proposals, which involve scientists from different faculty organizational units. The aim is to connect with academic staff from other faculties and departments of the University, as well as with researchers from other institutions in the country and abroad. The research and teaching activities will be realized through the established as well as new cooperation agreements, and within the framework of the postgraduate university study.

- ***Establish Research Consortia,*** Form research consortia within the institution by bringing together researchers from different departments, schools, and disciplines to collaborate on shared research goals. Encourage interdisciplinary teams to work together on multidisciplinary research projects that address complex challenges.
- ***Promote Cross-Departmental Collaboration,*** Foster collaboration between departments and research centers within the institution by organizing interdisciplinary seminars, research symposia, and networking events. Create opportunities for

researchers to share their expertise, exchange ideas, and identify common research interests.

- ***Encourage Interdisciplinary Research Initiatives,*** encourage faculty members to collaborate across disciplinary boundaries by providing seed funding, grants, and incentives for interdisciplinary research initiatives. Support interdisciplinary research clusters or thematic groups focused on emerging research areas or societal challenges.
- ***Facilitate Resource Sharing,*** Facilitate the sharing of research resources, facilities, and infrastructure within the institution to maximize efficiency and productivity. Establish centralized research support services, core facilities, and data repositories that are accessible to all researchers.
- ***Promote Joint Research Projects,*** Encourage joint research projects between faculty members from different departments or research centers within the institution. Support collaborative research proposals and provide administrative assistance for grant applications and project management.
- ***Create Interdisciplinary Research Spaces,*** Designate physical spaces within the institution for interdisciplinary collaboration, such as collaborative research labs, innovation hubs, or interdisciplinary research centers. Foster a culture of openness, creativity, and knowledge exchange in these shared spaces.
- ***Forge Inter-Institutional Partnerships,*** strengthen collaboration with external research institutions, universities, and industry partners to expand research opportunities and access additional expertise and resources. Foster strategic partnerships through joint research projects, collaborative initiatives, and exchange programs.
- ***Participate in Research Networks and Consortia,*** engage with regional, national, and international research networks, consortia, and alliances to enhance collaboration, visibility, and impact. Join collaborative research programs, consortia, and funding initiatives focused on shared research priorities.
- ***Support Collaborative Funding Opportunities,*** provide support and guidance to researchers seeking collaborative funding opportunities, such as joint grant applications, consortia grants, and collaborative research programs. Offer workshops, seminars, and training sessions on grant writing and research funding strategies.
- ***Evaluate and Reward Collaboration,*** Recognize and reward collaborative research efforts through institutional awards, honors, and performance evaluations. Incorporate collaboration and teamwork into tenure and promotion criteria to incentivize and acknowledge collaborative research contributions.

OBJECTIVE 7: Increased cooperation with the business community.

By fostering closer collaboration with the business community, academic institutions can accelerate innovation, enhance research impact, and drive economic growth while addressing societal challenges and advancing knowledge creation and dissemination. Increased

cooperation with the business community can significantly contribute to research achievements. The application of research in the profession will take place through joint project proposals with industry and the development of research topics of interest to regional development. Collaborators from the economy will be actively involved in changes to the study program. Collaboration with industry will be strengthened through the recognition of laboratory research. The strategic goal includes making new and activating existing cooperation agreements with the economy and community.

- ***Industry-Academia Partnership,*** Foster strategic partnerships and collaborative projects between academic researchers and industry stakeholders. Encourage joint research initiatives, technology transfer agreements, and knowledge exchange programs that address industry needs and leverage academic expertise.
- ***Collaborative Research Projects,*** facilitate collaborative research projects between academic institutions and businesses to tackle real-world challenges, develop innovative solutions, and drive technological advancements. Establish industry-sponsored research centers, consortia, and collaborative platforms to support joint research efforts.
- ***Industry-driven Research Agenda,*** align research priorities and agendas with industry needs and market demands. Engage with industry partners to identify key research areas, emerging trends, and technological innovations that can drive economic growth, competitiveness, and societal impact.
- ***Technology Transfer and Commercialization,*** promote technology transfer and commercialization of research outcomes by facilitating partnerships between academic researchers and industry stakeholders. Support the development of intellectual property, patents, and spin-off companies based on university research discoveries and innovations.
- ***Entrepreneurship and Innovation Ecosystem,*** cultivate an entrepreneurial and innovation ecosystem within the academic institution to support startups, spin-offs, and technology ventures. Provide incubation, acceleration, and mentoring programs for student entrepreneurs, faculty innovators, and research-driven startups.
- ***Joint Funding Opportunities,*** collaborate with industry partners to secure joint funding opportunities for research projects, innovation grants, and technology development initiatives. Explore public-private partnerships, industry consortia, and collaborative funding schemes to leverage resources and expertise.
- ***Industry Engagement and Advisory Boards,*** industry advisory boards, councils, or forums comprised of business leaders, industry experts, and academic researchers provide guidance, feedback, and strategic input on research priorities, curriculum development, and workforce needs.
- ***Work-based Learning and Internships*** promote work-based learning opportunities, internships, and co-op programs that provide students with hands-on experience, industry exposure, and practical skills development. Forge partnerships with companies to offer industry placements, research internships, and collaborative projects.

- ***Continuing Education and Professional Development,*** collaborate with industry partners to develop customized training programs, workshops, and continuing education courses that address industry-specific skills gaps, professional development needs, and workforce training requirements.
- ***Joint Marketing and Branding Initiatives,*** enhance visibility, reputation, and branding through joint marketing, promotional activities, and public relations campaigns highlighting successful collaborations, research partnerships, and industry-academic achievements.

6 IMPLEMENTATION INDICATORS

Indicators that monitor the realization of the defined objectives of the faculty are presented in the table below. The target values represent the target value for the full period of the Strategy (2024 – 2026) unless otherwise stated.

Objective	*Indicator / Target value*
1. Increasing scientific productivity	a. Number of published papers / 16 b. Number of books / editorial books / 2
2. Increase the number of projects	a. Number of applications for projects / 4
3. Organization of national and international scientific conferences	a. Number of organized conferences / 2
4. Strengthen internationalization	a. Number of active cooperation agreements with international institutions (Erasmus, CEEPUS, and others) / 6 b. Number of outgoing and incoming teacher and student mobility / 10 c. Number of participations in conference / 20
5. Strengthen interdisciplinary research	a. Number of scientific papers co-authored by scientists from different scientific fields / 3 b. Number of active interdisciplinary projects / 2 c. Number of selected diploma thesis supervised by faculty teachers elected in different scientific fields / 20
6. Intra-institutional and inter-institutional collaboration	a. Number of submitted project proposals or papers published from different faculty organizational units / 3
7. Increased cooperation with the market economy	a. Number of active research projects involving enterprises or community stakeholders / 2

To achieve objectives 1 to 7, the Faculty of Civil Engineering management, academic staff, students, and with the support of the administration develop their activities, creating opportunities for all participants to be beneficiaries.

Achieving HEI cooperation agreements with subjects, local institutions, and the labor market creates the opportunity to find research projects by offering academic services to the concrete

demands of daily institutional needs. There are many agreements that FCE has reached with the subjects, respectively the institutions of the country, among which the last agreements from 2023 and the beginning of 2024 can be distinguished, with the subjects:

WRA, RWC Prishtina, RWC Hidroregjioni Jugor, Ibër Lepenci, NPB Prishtina, Municipality of Prishtina, Ministry of Environment, Spatial Planning and Infrastructure, Ministry of Youth, Culture and Sports, Archives of the Municipality of Prishtina, etc.

The implementation of international agreements with Universities and Institutions, joint international projects, and the implementation of student and academic staff mobility are considered as support and the possibility of increasing research in special fields and disciplines.

The organization of international conferences in the field of civil engineering is a measurable indicator of the performance of HEI, regarding the academic staff and students. In 2023, a joint conference was organized between FCE, UP, and FCE, PUT, in which the measurable indicators are 50 scientific papers addressed and published by FCE, UP, and keynote speakers from Japan, Italy, Austria, Greece, the Czech Republic, Portugal, Poland showed the weight of the conference to qualify as international.

In the year 2024, conferences have been announced that aid the academic staff and students to be active in research, scientific works, and the creation of international direct academic relations.

According to the agenda and preparations, ISCCE will be organized in April 2024 in cooperation with FCE and PUT in Tirana. 8 keynotes have been assigned from Europe and the region, 120 abstracts submitted, and the possibility of publishing has been negotiated for the best research papers presented.

The 4th International Conference of Ecological and Environmental Engineering creates a new platform to jointly generate new discussions for a common and better science in the future. The idea of organizing this cyclical conference arose from the well-established cooperation between eight Polish Universities: The University of Life Science in Lublin, University of Agriculture in Kraków, Wrocław University of Environmental and Life Science, Poznań University of Life Science, Warsaw University of Life Sciences, University of Warmia and Mazury in Olsztyn, Gdańsk University of Technology, and Rzeszów University of Technology with Polytechnic Institute of Beja (Portugal). Recently the following institutions have joined the cooperation in the organization of the conference Polytechnic University of Catalonia (Spain), Czech University of Life Sciences Prague (Czech Republic), Henan Agricultural University (China), University of Prishtina (Kosovo), Technical University of Crete (Greece), Lublin University of Technology (Poland), Warsaw University of Technology (Poland) as well as three Polytechnic Institutes in Portugal (Coimbra, Setúbal, Viana do Castelo). At this conference, scientific works, part of the research achieved by the academic staff of FCE, were submitted.

In October - November 2024, a scientific conference of international proportions is planned as an FCE tradition following the first scientific conference, the 1st Kosovo Seminar on Polymers

in Concrete 'KSPC 2013'. This organization will mobilize academic staff and students to present the latest achievements in the fields of polymers, concrete, and concrete structures.

The third ICCE 2026 conference, planned to be organized by FCE in cooperation with FCE, PUT and with a commitment to the involvement of Institutions in the region will be the next opportunity for the involvement of academic staff and students in scientific research and the achievement of works in the fields of construction engineering.

7 MONITORING AND IMPLEMENTATION

By decision of the Council of the Faculty of Civil Engineering, the Committee for Monitoring and Implementation of the Scientific Research Strategy 2024 – 2026 is established. The Committee is responsible for evaluating the implementation of the Strategy and reporting on targets reached. An Action Plan is to be drafted according to requirements set by the Strategy.

UNIVERSITY OF PRISHTINA “HASAN PRISHTINA”

Prishtina 2024