EMPLOYMENT OFFER

FRISSBE Senior Researcher
1 ABOUT SLOVENIAN NATIONAL BUILDING AND CIVIL ENGINEERING INSTITUTE

The Slovenian National Building and Civil Engineering Institute, ZAG (www.zag.si/en), is the leading Slovenian Institute in the field of building and civil engineering research. Through high-quality work, it successfully promotes the progress-orientated Slovenian basic and applied science and technical expertise on a global scale. ZAG’s headquarters are located in Ljubljana.

The organization is widely recognized both in Slovenia and in other countries by means of its expertise, top-class equipment and multi-disciplinary work, including life-cycle analyses of different construction materials and other pressing research topics.

ZAG is involved in international co-operation in science and technology with institutions from the EU, the USA and other partnering countries. Over the last 10 years ZAG has participated in more than 80 projects funded by the EU (4th – 7th FP, H2020) and is currently coordinating two H2020 projects and eight other international projects. ZAG’s research and testing sector is divided into six departments:

- Department of Materials,
- Department of Building Physics,
- Department of Structures,
- Department for Research of Fire-safe Sustainable Built Environment,
- Department of Geotechnics and Infrastructure,
- Department for Metrology.

In the field of tasks deriving from the CPR (the Construction Products Regulation) it has two independent services: the Certification Service and the Service for Technical Assessments.

ZAG’s main activities include:

- basic and applied research in the field of building materials and structures,
- development of new methods of testing and measurement,
- certification and attestation of conformity of products, materials and executed works,
- training of research and technical staff in particular technical fields,
- participation in the preparation of technical codes and standards.
2 POSITION OFFERED: Senior Researcher

The position offered is for full time employment for the duration of the ERA Chair FRISSBE project (until December 2026) with the intention of offering prolongation in case of mutual agreement. The expected employment date is in January 2022.

Two (2) Senior Researchers will be hired. The best qualified candidates will be selected.

The Senior Researcher will be expected to conduct experimental, theoretical and/or numerical research in any area of fire safety. Particular emphasis will be given to areas that could have a positive impact in the evolution of fire safety engineering for Slovenia. These areas could include, but are not limited, to material flammability, performance of building systems, fire protection systems and the holistic assessment of infrastructure fire safety.

Some relevant areas of research are:

- numerical methods in fire (multiscale modelling, combustion process modelling, coupled thermal stress analysis),
- hybrid and advanced experimental methods in fire (numerical/experimental coupling, methods for toxicity and ecotoxicity, façade fire),
- emissions, toxicity and ecotoxicity in fire (linking bench-top methods to real scale fires, identifying composition of combustion effluents, biomass burning),
- fire research and structures (timber, geopolymers and composite structural elements in fire, pyrophoric carbonization of structural elements),
- fire research on materials (biobased composites, advanced thermal insulations, geopolymers).

The new unit will have access to brand new research equipment for fire testing purchased through a combination of EU structural, national and own funds. The new lab will be operational in the first quarter of 2022. This equipment consists of furnaces for testing of fire resistance of various planar and 3D large samples as well as a test rig for façade testing, open calorimeter, room corner test and full range of reaction to fire testing equipment, including equipment for chemical analysis of fire effluents. FRISSBE unit will have access also to other state-of-the art research facilities at ZAG, a list is available here.

The FRISSBE team will have allocated funds for meeting attendance and travelling.

The workplace is Logatec, a small town about 35 kilometres southwest of Slovenia’s capital, Ljubljana. ZAG will have two units in Logatec, both placed in the new laboratory and office building.
3 EXPECTATIONS

Three different positions are offered to attract as many candidates as possible, but only the two best qualified candidates will be hired. We would prefer to have two Scientific Councillors as Senior Researchers.

The Senior Researcher applicants for position Scientific Councillor have to fulfill the following conditions:

- meet the criteria of a level R3 (Established Researcher) or R4 (Leading Researcher) Research profile according to the descriptors of the European Framework for Research Careers (https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors),
- have more than 5 years of experience relevant to the technical content of the FRISSBE project (fire related research as described above),
- proof of being in leadership positions (leading a project or a group of researchers or a WP in international project, organizing a conference etc.)
- proof of having published a significant number of papers in SCI indexed journals, and to have an h-index of at least 5 and a competitive citation number;
- proof of mentoring of PhD students or post-doc students;
- proof of leading national and/or international projects and/or research groups;
- proof of having done at least 3 months research work at foreign university or research institute after gaining PhD;
- have excellent written and spoken English;
- have special social skills: leading of small groups, teamwork, ability to motivate co-workers, good communication skills.

The Senior Researcher applicants for position Senior Scientific Associate have to fulfill the following conditions:

- meet the criteria of a level R3 (Established Researcher) or R4 (Leading Researcher) Research profile according to the descriptors of the European Framework for Research Careers (https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors),
have more than 5 years of experience relevant to the technical content of the FRISSBE project (fire related research as described above),

proof of having published a significant number of papers in SCI indexed journals, and to have an h-index of at least 3 and a competitive citation number;

proof of mentoring;

proof of participation in international projects (as WP leader or task leader) or proof of leading a national research project;

proof of having done at least 1 month research work at foreign university or research institute after gaining PhD;

have excellent written and spoken English;

have special social skills: leading of small groups, teamwork, ability to motivate co-workers, good communication skills.

The Senior Researcher applicants for position **Scientific Associate** have to fulfill the following conditions:

- meet the criteria of a level R3 (Established Researcher) or R4 (Leading Researcher) Research profile according to the descriptors of the European Framework for Research Careers ([https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors](https://euraxess.ec.europa.eu/europe/career-development/training-researchers/research-profiles-descriptors)),

- have more than 5 years of experience relevant to the technical content of the FRISSBE project (fire related research as described above),

- proof of having published papers in SCI indexed journals that have been cited

- proof of participation in research projects;

- have excellent written and spoken English;

- have special social skills: leading of small groups, teamwork, ability to motivate co-workers, good communication skills.
4 RIGHTS AND DUTIES

The Senior Researcher will have the following rights and duties:

- management of the research projects;
- applying for research projects on national and international level;
- preparation of scientific papers;
- preparation of research programme for PhD and research projects;
- coordination with other research teams within the organization, the FRISSBE interactive ecosystem, and wider on national and international level;
- contribute towards financial stability during and after the end of this project – sustaining the ERA Chair at ZAG;
- cooperation with national authorities and decision makers;
- IP management together with IP and technology transfer expert;
- co-deciding about infrastructure and research equipment investments on the institutional level.

Research activities should correlate or give added value to current ZAG research activities, ZAG’s research programmes (Core Research Group P2-0273 Building structures and materials and Infrastructure group I0-0032 Testing of materials and structures) and will provide on a yearly basis at least 120 k€ for financing of ZAG’s part of joint research topics between ERA Chair and the researchers involved.

5 REMUNERATION PACKAGE

ZAG is offering an attractive remuneration package to the Senior Researcher. A more detailed overview can be provided once the hiring level and the candidate’s work experience is known. There are also other financial benefits that depend on performance and company/national regulations. Health and dental insurance, social charges and pension contribution as well as taxes are included.

ZAG can provide administrative support concerning housing, spouse’s employment, legal/immigration issues, kindergarten/schooling.
6 SHORTLY ABOUT THE FRISSBE PROJECT

The FRISSBE project will implement new practices at the Slovenian National Building and Civil Engineering Institute, ZAG, by attracting and maintaining high quality human resources under the direction of the ERA Chair holder. The project will lead to lasting, sustainable structural changes to achieve excellence at ZAG and spread excellence in the region. Designed structural changes aim to achieve excellence in the field of fire-safe sustainable built environments, modify ZAG’s research and innovation landscape, intensify strong cooperation with industry and result in enhanced competitiveness in attaining projects. Changes will be tested in a new autonomous unit, the FRISSBE ERA Chair, and transferable to ZAG as a whole. Structural and dissemination measures are balanced with testing and improving the concept. Structural measures involve improving the workflow, focusing on project preparation and quality management, building a network with stakeholders, and intensifying cooperation with industry. The concept will be tested on a few levels: testing the research enhancement process, building capacity in applying for competitive funds, and building sustainable relationships with industry. Dissemination activities focusing on two-way cooperation with identified stakeholders will enhance ZAGs network and positively contribute to its attractiveness. FRISSBE will have regional impacts in terms of research, education, and engineering. The team will build a strong interactive ecosystem with the InnoRenew CoE and the University of Primorska, as well as other supporters of the project. Added value of the project is amplifying the capacities of the Fire laboratory co-financed with ERDF funds, ensuring conditions to foster excellent research. The project will yield completed at least 3 PhD studies and 6 postdoctoral researchers. The long-term sustainability of the ERA Chair will be achieved by combining national and EU research and innovation funding with industry funded research and development.

The main objective of the FRISSBE project is to establish an ERA Chair for fire-safe sustainable built environments at ZAG, where cutting edge research infrastructure for fire testing is being established. The combination of the new research infrastructure and the ERA Chair will create the appropriate conditions for high-quality outstanding researchers and research managers to move and engage with the beneficiary, aiming to achieve excellence in the scientific field of fire-safe sustainable built environments and modify their research and innovation landscape. With adequate institutional support, outstanding researcher, the ERA chair holder will have a decisive and positive impact on the culture and performance of the beneficiary, which will result in:

1. wide-ranging advancement in the scientific excellence of the beneficiary in the addressed scientific field and in general,
2. creation of an internationally recognised autonomous unit at the beneficiary,
3. making the beneficiary an attractive institution for foreign researchers,
4. capacity building of the beneficiary in the area of competitive funding, project management, utilisation of infrastructure, and scientific performance,
5. creation of a sustainable interactive inter-institutional ecosystem, consisting of the FRISSBE ERA Chair and partnering with the InnoRenew CoE and University of Primorska (UP) in Koper, Slovenia that will enable transfer of new knowledge to students, their early engagement in research activities of the ERA Chair team, and creation of partnerships with students’ future employers, and
6. increase the innovation activities of the beneficiary in collaboration with regional and international industrial stakeholders.
7 APPLICATION

The job offer for the Senior Researcher position will be open October 17th 2021 – November 29th 2021.

Applications should contain (in the same order):

1. Cover letter;
2. Copy of a document which shows the candidate to hold the required qualification;
3. CV; that includes
   a. Evidence of fulfilling our expectations:
   b. research record,
   c. experiences in research funding activities,
   d. list of publications, including h-index and citations;
4. Motivation letter (2 pages maximum) that describes the vision of the applicant on how to successfully cooperate with the ERA Chair holder;
5. A vision (1 page maximum)
6. Other materials considered relevant by the candidate (e.g. recommendation letters).

Applications should be in English and sent to the following e-mail address: kadri@zag.si

Additional information is available here: www.frissbe.eu and from the FRISSBE team and the ERA Chair Holder Grunde Jomaas by email (frissbe@zag.si)

The selection will be done in two rounds; a shortlist will be formed and then there will be interviews (planned for December 2021).

ZAG is committed to employment equality, in particular, as set in the national legislation and the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. We welcome applications from all qualified candidates, who fulfil the requirements specified in the announcement.