

Fire Testing Department – Building Research Institute (ITB)

POST-DOCTORAL RESEARCHER POSITION

Ref. no. NZP/5/XII/2025

Location: **Warsaw, Poland**

A full-time postdoctoral position as part of the project: “Methodology for Predicting Visibility – the new generation of smoke visibility models in buildings”

Project no. 2020/39/I/ST8/03159 (OPUS 20+LAP – NCN), Financed by the National Science Centre

Job description:

The employee in the post-doc position will be involved in the implementation of the experimental part of the project, i.e. in conducting research on visibility in smoke using the full-scale test facility being developed at ITB. These studies are unique on a global scale and are intended to lead to a change in the paradigm for determining visibility conditions in smoke, which constitute the basis for the design of almost every building in which fire safety engineering is used.

An external person – an observer – will participate in the tests. Objects displayed on the visual wall of the chamber, under smoke conditions, will be presented to the observer. The Post-Doc will be the operator in these experiments, and with help of scripts and automation will perform tasks:

- display combinations of signs / letters / digits on the visual wall of the facility through standard visual interfaces (HDMI) using an interface developed in the Python language,
- measure the environmental conditions in the chamber at the moment of conducting the test (densitometers, LED images), using an interface developed in the Python language,
- conduct an interview with the observer during the test and record the observer's responses,
- collect the data and catalogue it, and subsequently process it.

The simultaneity of operation will be achieved through the extensive use of scripts in the Python programming language developed by the PI in cooperation with the Post-doc.

In addition to the basic experiments indicated above, the duties of the Post-doc will include:

- work related to the calibration of the research apparatus,
- preparation of the facility for the tests to be carried out,
- collection and processing of data obtained during the tests,
- cooperation with the PI in preparing scientific publications from the conducted research – 2 scientific publications in prestigious journals concerning the test results, as well as 1 publication summarising the results obtained.

In addition to the duties arising from the performance of the research work, the employee is also obliged to perform the duties of ITB employees, including:

- participating in training; fulfilling post-training recommendations, in particular those concerning the handling of research apparatus belonging to the equipment of the accredited laboratory;
- carrying out preparatory work for experiments in the wind tunnel (configuration of the device for experimental tests within the project);
- documenting the work in a way that makes it possible to prepare documents for project settlement.

Persons interested in the position will receive the descriptive part of the project before the interview, which will allow them to familiarise themselves in detail with the research programme planned in the project.

Requirements:

- experience related to calculations, data acquisition, and analysis of experimental measurement results (preferably using scripts in the Python programming language),
- experience related to fire safety engineering or optical properties of aerosols (e.g. experience in practical design of smoke ventilation systems, conducting CFD simulations or tests using the hot-smoke method, conducting research on the optical properties of smoke);
- formal requirement: obtaining a doctoral degree in technical sciences at an institution other than the Building Research Institute (ITB), not earlier than 7 years before the year of employment in the project;
- during the period of receiving this remuneration, it will not be possible to receive any other remuneration from funds awarded as direct costs of research projects financed under NCN calls;
- during the period of receiving this remuneration, it will not be possible to receive remuneration from another employer on the basis of an employment contract, including an employer located outside the territory of Poland;
- excellent computer skills, including the MS Office suite;
- well-developed communication skills and the ability to write scientific papers in English.

We offer:

- Full-time employment under an employment contract in the post-doc position starting from 01.02.2026 for at least 6 months, but not longer than until 17.10.2026.
- Monthly remuneration in the amount of 17,500.00 PLN including non-wage employment costs (i.e. approximately 14,580 PLN gross).
- Research conducted in Warsaw, at the ITB headquarters at Ksawerów 21.
- A comprehensive social benefits package.
- A friendly working atmosphere.

Candidates interested in our offer are requested to submit, by 31 December 2025, the following documents:

1. Professional résumé (CV).
2. A cover letter presenting the candidate's scientific experience and career objectives (1–2 pages).
3. A list of the 3 most important publications with a brief description of the candidate's own contribution to their preparation.
4. A copy of the doctoral diploma or a statement that the doctorate will be defended before the planned employment date.
5. A signed declaration stating that ITB will be the sole place of employment during the period of employment in this position.

by e-mail to praca@itb.pl with a note in the subject: Competition for the position of a POST-DOC

We will contact only candidates chosen for the further stages of the recruitment process.

Project information:

https://projekty.ncn.gov.pl/index.php?projekt_id=499178

<https://projekty.ncn.gov.pl/opisy/499178-pl.pdf>

<https://www.itb.pl/nextvis/>

- *The Building Research Institute (Instytut Techniki Budowlanej), as the data administrator, informs you that your personal data contained in the CV and cover letter will be processed for the purpose of conducting the recruitment process for the above-mentioned position. The information clause regarding the processing of personal data is provided on the website: <http://www.itb.pl/klauzula-obowiazek-informacyjny.html>*
- *The legal basis for providing the data is Article 22¹ § 1 of the Labour Code Act of 16 May 2018 (Journal of Laws 2019, item 1040, as amended).*
- *In the case of providing a broader scope of data than that specified in Article 22¹ § 1 of the Labour Code (i.e. first name(s) and surname, parents' names, date of birth, place of residence (correspondence address), education, employment history), the CV and cover letter should be accompanied by the following clause: "Pursuant to Article 6(1)(a)*

of Regulation (EU) 2016/679 (GDPR), I hereby consent to the processing by the Building Research Institute, with its registered office in Warsaw, ul. Filtrowa 1, of my personal data contained in this CV and cover letter for the purpose of conducting the recruitment process.”

- *You have the right to withdraw this consent at any time.*