

**The Building Research Institute is seeking a person for the position of
POSTDOCTORAL RESEARCHER
in the Fire Research Department**

Ref. NZP/7/X/2026

Place of work: **Warsaw**

This is a full-time postdoctoral position within research project No. 2025/56/Q/ST8/00425, entitled “**SCaFire - Fire dynamics of high-power electrical network and multiscale smart risk evaluation model for new-energy buildings**”,

funded by the National Science Centre (NCN) under the bilateral Polish-Chinese Funding Initiative SHENG 4.

The project is being carried out in international collaboration with The Hong Kong Polytechnic University (Shenzhen) and the research team led by Professor Xinyan Huang.

Link: [SCaFire - ITB](#)

Job description and responsibilities:

The successful candidate will be involved in both the experimental and modelling components of the project. They will conduct research into the flammability and fire behaviour of cables, using experimental test rigs at different scales. The research is expected to result in a comprehensive relational database enabling relationships to be established between cable design, installation configuration and fire behaviour.

The postdoctoral researcher will work with the Building Research Institute's (ITB) laboratory equipment, including a cone calorimeter. They will also undertake Computational Fluid Dynamics (CFD) modelling using ANSYS, with a particular focus on developing surrogate models for cable-tray fires. The final scope of responsibilities and the balance between experimental and modelling work will be agreed with the successful candidate, considering their expertise, skills and aptitude.

The postdoctoral researcher will be responsible for the quantitative and qualitative analysis of experimental results, including the development of Python scripts.

In addition to carrying out the core experimental programme, the postdoctoral researcher's responsibilities will include:

- calibrating research and laboratory equipment;
- preparing experimental test rigs and equipment;
- collecting, processing and analysing experimental data;
- developing scripts and User-Defined Functions (UDFs) for use in ANSYS;
- conducting CFD simulations in ANSYS;
- collaborating with the Principal Investigator (PI) on the preparation of scientific publications arising from the research, including two research papers presenting the project results for publication in leading peer-reviewed journals, as well as one paper providing an overall synthesis of the findings.

In addition to their research activities, the successful candidate will be required to fulfill the duties applicable to employees of the ITB, including:

- attending required training and complying with any resulting instructions and procedures, particularly those relating to the operation and handling of research equipment used in an accredited laboratory;
- carrying out preparatory work for wind-tunnel testing (configuring the experimental set-up for tests conducted as part of the project);

- maintaining appropriate records of their work to enable the preparation of the documentation required for project reporting and financial settlement.

Before the interview, candidates will be provided with the relevant descriptive section of the project proposal, enabling them to familiarise themselves in detail with the research programme and the experimental work planned within the project.

Requirements:

- experience in numerical calculations, data acquisition and the analysis of experimental measurement data (preferably using Python scripts);
- experience in fire safety engineering and/or the properties and behaviour of combustion products, for example:
 - practical experience in the design of smoke and heat control systems;
 - experience in conducting CFD simulations using ANSYS;
 - experience in hot-smoke testing;
 - experience in conducting research into the optical properties of smoke;
- a high level of computer literacy, including Microsoft Office;
- strong communication skills and the ability to write scientific papers in English.

Formal requirements:

- candidates must have been awarded a doctoral degree in a technical or engineering discipline by an institution other than the Building Research Institute no more than 12 years before 1 January 2027 (no earlier than 1 January 2015);
- for the duration of their employment and receipt of a full-time salary under the SCaFire project, the postdoctoral researcher may not receive any other remuneration from funds awarded as direct costs under research projects funded by the National Science Centre;
- for the duration of their employment and receipt of a full-time salary under the SCaFire project, the postdoctoral researcher may not be employed by another employer under an employment contract, including by an employer based outside Poland.

What we offer:

- full-time employment under an employment contract as a postdoctoral researcher, starting on 1 January 2027, for a minimum period of 16 months;
- a total monthly employment cost of PLN 17,500, including the employer's non-wage employment costs (a gross monthly salary of approximately PLN 14,600);*
- opportunities for professional and academic development;
- interesting and varied work in Warsaw, at the ITB headquarters at ul. Ksawerów 21, as well as at the ITB Fire Testing Laboratory in Pionki (ul. Przemysłowa 2, Pionki);
- a comprehensive employee benefits package (including the MyBenefit cafeteria benefits scheme, private medical care and group life insurance);
- an enhanced employer contribution to the Employee Capital Plans (PPK);
- free on-site parking at the Institute;
- a friendly and supportive working environment.

Candidates interested in the position are requested to submit the following documents by **30 October 2026**:

1. Curriculum vitae (CV).
2. A cover letter outlining the candidate's research experience and career objectives (1–2 pages).
3. A list of the candidate's three most significant publications, accompanied by a brief description of their individual contribution to each publication.
4. A copy of the doctoral degree certificate, or a declaration confirming that the candidate will have successfully defended their doctoral thesis before the intended start date.
5. A signed declaration confirming that ITB will be the candidate's sole employer for the duration of their employment in this position.

Applications should be sent by **30 October 2026** by email to: praca@itb.pl

Please note that only shortlisted candidates will be contacted.

- *The Building Research Institute (ITB), as the data controller, hereby informs candidates that the personal data contained in their CVs and cover letters will be processed for the purpose of conducting the recruitment process for the position specified above. The privacy notice concerning the processing of personal data is available on the ITB website <http://www.itb.pl/klauzula-obowiazek-informacyjny.html>.*
- *The legal basis for providing personal data is Article 22¹ § 1 of the Act – Polish Labour Code of 16 May 2018 (Dz. U. /Journal of Laws/ 2019, item 1040, as amended).*
- *Where a candidate provides personal data beyond the scope 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, previous employment history, the CV and cover letter should include the following consent statement: "Pursuant to Article 6(1)(a) of Regulation (EU) 2016/679 (GDPR), I hereby consent to the processing by the Building Research Institute (Instytut Techniki Budowlanej), with its registered office at ul. Filtrowa 1, Warsaw, of the personal data contained in this CV and cover letter for the purpose of conducting the recruitment process."*
- *Candidates have the right to withdraw their consent at any time.*

** In accordance with Appendix 2 to Resolution No. 18/2026 of the Council of the National Science Centre (NCN), dated 12 February 2026, amending the Regulations on the allocation of funds for activities financed by the National Science Centre within the framework of research projects, "Costs in Research Projects".*