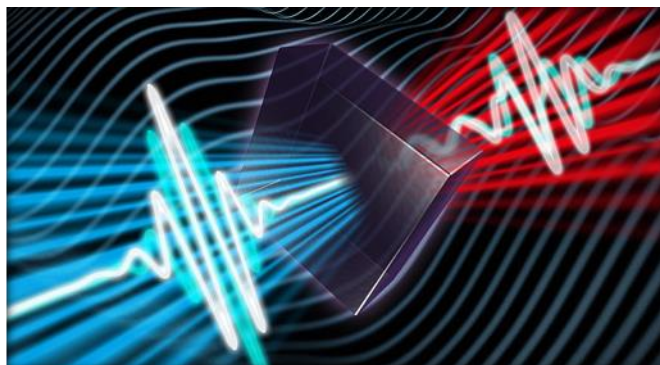


Postdoctoral researcher position in the FIRST TEAM FENG FNP project

Start: 01.09.2026



Position type:	Postdoctoral researcher – research assistant
Number of positions	1
Scientific discipline:	Automatics, Electronics, Electrical engineering and Space Technologies
Type of remuneration:	Employment contract (1/2 full time)
Remuneration:	12 073,00 PLN gross (basic salary 2 413,00 PLN + monthly project allowance 9 660,00 PLN / month)
Position starts on:	1 st September 2026
Period of contract:	01/09/2026 – 31/08/2027 (with the possibility of extension up to 30.09.2028)
Institution:	Wrocław University of Science and Technology; Faculty of Electronics, Photonics and Microsystems (W12); Department of Field Theory, Electronic Circuits and Optoelectronics (K35) Laser & Fiber Electronics Group
Principle investigator	Dr Maciej Kowalczyk
Title of the project:	Ultrastable pulsed lasers covering the spectral range from near to far infrared (Ultrastabilne lasery impulsowe pokrywające zakres spektralny od bliskiej do dalekiej podczerwieni), FENG.02.02-IP.05-0069/23
Description of the project:	<p>The project covers the fields of photonics and electronics: in particular, lasers generating ultrashort pulses and the conversion of their radiation through non-linear optics processes.</p> <p>Within the project we will develop novel stabilised laser sources generating ultra-short pulses in the mid-infrared (3-25 μm) and far-infrared (25-300 μm) spectral range. These sources will be based on chromium solid-state lasers (Cr:ZnS/Se), and the duration of the pulses generated will reach single oscillations of the electric field (sub-10 fs). These pulses will then be converted to the mid-infrared band using non-linear optics techniques [Nature Photonics 16, 512 (2022)].</p> <p>The laser sources we are developing have direct applications in biomedicine. Research is conducted in close cooperation with renowned foreign partners: Ludwig Maximilians University in Munich. The partners will use the results of our research in spectroscopic measurements of human blood for early detection of cancer [Nature 577, 52 (2020)]. During the PhD, the candidate will undertake an</p>

	<p>overseas research internship at the German partners' facilities. The candidate will also conduct research in collaboration with VIGO Photonics with the aim of commercialising the technology under development.</p> <p>The main objective of the project is to develop an ultra-broadband pulsed laser source that will cover the entire bandwidth from near to far infrared (1-300 μm).</p> <p>More details about our research can be found at: https://umir.pwr.edu.pl/</p> <p>The project FENG.02.02-IP.05-0069/23 is co-funded by the European Funds for Smart Economy 2021-2027 (Priority 2) within the FIRST TEAM FENG programme.</p>
Main tasks:	<ol style="list-style-type: none"> 1. Spectral conversion of pulses to the mid- and far-infrared and optimisation of these processes (non-linear optics) 2. Construction of a pulsed laser demonstrator covering the spectral range from near to far infrared 3. Application of the developed radiation sources in work with project partners: Ludwig Maximilians University of Munich and VIGO Photonics.
Formal requirements:	<p>The competition is open to a person who has held a doctoral degree for no longer than 7 years (counting the years from the year following the year of obtaining the degree until 2025). This period is increased by 1 year for each born or adopted child for women, and by 1 year for each child for men, if they have taken advantage of this title during breaks in work lasting continuously for at least 6 months. In addition, the period of extension of this period by 1 year is granted regardless of gender in the event of a break in scientific work lasting continuously for at least 6 months for other reasons.</p>
Profile of candidates (requirements):	<ol style="list-style-type: none"> 1. PhD (preferred disciplines: physics and electronics) 2. Knowledge of optics and nonlinear optics 3. Practical experience in working with pulsed lasers and construction of optical systems 4. Knowledge of English at a minimum level of B2 5. Research enthusiasm, patience and strong motivation for experimental work
Required documents	<ol style="list-style-type: none"> 1. Curriculum vitae (CV) including major achievements and scientific publications, awards, scientific activity. 2. Motivation letter <p>Please highlight your competencies in terms of the tasks performed in the project.</p>
We offer:	<ul style="list-style-type: none"> • A stable and attractive remuneration, • Participation in a very attractive scientific program focused on fundamental research, • Work in a recognized team of researchers, • Possibility for short-term research stays at Ludwig Maximilians University in Munich • Access to unique top-level equipment, • Dissemination of your results in scientific journals • Participation in scholarships, schools, research visits, etc.
Recruitment procedure:	<p>The recruitment committee, consisting of the principal investigator of the project and at least one employee of Wrocław University of Science and Technology who is an expert in the given scientific discipline, will examine the candidates taking into account:</p> <ol style="list-style-type: none"> a) Competences of the candidates, i.e., experience in similar projects, knowledge in fiber optics and laser technology b) research achievements of the candidates (grades obtained during studies, publications, research activities) c) Awards and prizes obtained by the candidates <p>In the second round of recruitment, selected candidates will be invited to an interview with the recruitment committee (online or face-to-face, please inform us in your application about the preferred way).</p> <p>Candidates will be informed via e-mail about the results of the competition.</p>
E-mail for sending applications and inquiries:	maciej.kowalczyk@pwr.edu.pl
Application deadline:	23.06.2026

Interviews deadline:

25.06.2026 – 03.07.2026 (applicants will be informed by email about the exact date of the interviews)

Please include in your application:

“I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended.”



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