

## Job Description: Senior Researcher in Computer/Data Science (4 positions)

<b>Faculty/Centre:</b>	<i>HET Systems Centre</i>
<b>Salary:</b>	<i>From 2864 Euros per month (before taxes)</i>
<b>Hours of work:</b>	<i>Full time</i>
<b>Number of positions:</b>	<i>4</i>
<b>Contract:</b>	<i>1-Year fixed-term, leading to a 5-years long-term contract and permanent employment thereafter based on performance.</i>
<b>Location:</b>	<i>Vilnius, Lithuania</i>

<b>Introduction</b>	<p><a href="#">Mykolas Romeris University</a> (MRU), established in 1990 after the restoration of the country's independence, is the youngest public institution of higher education in Lithuania, and the largest delivering research and education in social science and humanities. Located in <a href="#">Vilnius</a>, the country's capital, MRU is today a modern, open, dynamic and international university that welcomes learners and scholars from around the world.</p> <p>The Human-Environment-Technology (HET) Systems Centre, led by Dr Sergio Jofre, is a newly established academic unit at MRU that reflects on the university's long-term strategic plan to enhance the internationalization and interdisciplinarity of research and education. The Centre's research focuses on the cross-disciplinary exploration of complex systems defined by the interaction, interdependency, and co-evolution of human, environmental, and technological factors. Examples of HET systems include energy systems, transport, food systems, health, smart cities, autonomous vehicles, and more.</p>
<b>Background information</b>	<p>As a member of the HET Systems Centre at MRU, you will join a small, but active international team of colleagues conducting world-class inter- and cross-disciplinary research in areas such as for example cyber security and resilience of critical infrastructure, trustworthy AI by design, autonomous vehicles, Industry 4.0, and digital transformation of the circular economy. The Centre already counts with a strong network of partners and collaborations within and beyond Europe, offering interesting opportunities for research and mobility.</p> <p>You will work alongside the Centre's Director and other researchers to further develop existent and new research lines within the overall theme of the Centre and your own interest. As the development of the Centre progresses over time, each researcher will have the opportunity and support to form and lead research lines aligned with their career goals.</p> <p>In general, you will be expected to have a proactive and independent role on the Centre's scientific production, dissemination of research outcomes, attraction of external research funding, and networking. Although the position focuses on research, a minor but decisive participation in education activities will be encouraged (e.g., supervision of students' research projects, curricular development, or teaching in relevant subjects).</p>

	<p>In addition to the base salary, researchers at MRU, who participate in externally funded research projects, are entitled to an additional bonus commensurate to their workload in the project.</p> <p>We are seeking to employ four senior researchers to work and develop high-quality research in one of these areas:</p> <p>Position 1: Cyber Physical Systems and Cyber Security Position 2: Internet of Things and Automation Position 3: Digital Twin Development and Implementation Position 4: Data Science and/or Data Analytics</p> <p>Although the posts target senior researchers (Established Researcher, R3 level), applications from candidates with higher or lower qualifications will be considered, if a strong match with the vision and objectives of the Centre are identified.</p> <p>Informal enquiries are welcome and should be directed to:</p> <p>Dr Sergio Jofre, Head of HET Systems Centre, <a href="mailto:s.jofre@mruni.eu">s.jofre@mruni.eu</a></p> <p>or</p> <p>Dr Giedre Sabaliauskaite, Professor in Cyber Security, <a href="mailto:giedre.s@mruni.eu">giedre.s@mruni.eu</a></p> <p>Please Indicate in the <u>subject</u>: "Job application HET Centre, Senior Researcher"</p>
<b>Main Purpose of Post</b>	<ol style="list-style-type: none"> <li>1. <u>Research Outputs and Activity</u>: Play a significant role in the strategic direction and development of the research area, sustain a track record of research outputs and their dissemination in high quality publications or other media.</li> <li>2. <u>Research Projects and Grants</u>: Obtain research funding or other resources to underpin research with responsibility for developing and leading a major programme of individual or collaborative research.</li> <li>3. <u>Esteem</u>: Achieve external recognition as an established authority within the discipline, contributing to the wider academic or professional community.</li> </ol>
<b>Management</b>	<ol style="list-style-type: none"> <li>4. <u>Contributing to Centre's Activities</u>: Take part in formulating Centre decisions and contributing to activities beyond the immediate research, teaching or scholarship commitments.</li> <li>5. <u>Participating in Professional Activities</u>: Engage with professional activities related to the discipline through networking at conferences or involvement in external groups.</li> <li>6. <u>Managing Self and Others</u>: Support and enable the development of colleagues, students and/or yourself.</li> </ol>

<b>Teaching and Training</b>	<p>7. <u>Teaching Delivery</u>: Contribution to teaching will be encouraged and it might include preparation of course content and materials, and delivery of courses in computer/data science related subjects.</p> <p>8. <u>Mentoring of Students</u>: Engage with mentoring of students at different levels of education (e.g., supervising final year projects, thesis, etc.).</p> <p>9. <u>Delivery of Training</u>: Contribute to delivery of training to different stakeholders in related areas of expertise.</p>
<b>General Duties</b>	<p>10. Promote equality and diversity in working practices and maintain positive and collaborative working relationships.</p> <p>11. Conduct the job role and all activities in accordance with safety, health and sustainability policies and management systems, to reduce risks and impacts arising from the work activity.</p> <p>12. Ensure that risk management is an integral part of any decision-making process, by ensuring compliance with the University's Risk Management Policy.</p>

Person Specification Criteria, General to ALL Positions (1-4)	Typically evidenced by:
<b>Qualifications</b>	
1. A PhD in a relevant subject area or closely related field.	<i>Application/CV</i>
<b>Research</b>	
2. A sustained track record of research outputs in high quality publications or other media showing a continuing upward trajectory in the quality of research outputs.	<i>At least three internationally excellent outputs in the last five years.</i>
3. Success in obtaining funding or other resources to underpin original research, with responsibility for developing and leading a major programme of individual or collaborative research.	<i>A successful track record of attracting external grant funding as a Principal Investigator.</i>
4. External recognition as an established authority within the discipline, contributing to the wider academic or professional community.	<i>Evidence of international peer recognition over the last 5 years.</i> <i>A record of sustained conference participation, membership in scientific communities, editorial and review activities, etc.</i>
<b>Teaching</b>	
5. Evidence of or ability to undertake effective delivery of teaching and assessment of modules and/or supervision of student projects.	<i>Positive student or peer feedback, acting as an effective tutor or student project supervisor with successful outcomes.</i>
<b>Management</b>	
6. Taking an active part in decisions and activities in an academic unit or institution, beyond own research and/or teaching commitments.	<i>Examples showing personal contribution and impact.</i>

Specific Criteria for Position 1: Cyber Physical Systems and Cyber Security
Must Have
P1-1. Expertise and experience in Computer Science or closely related field
P1-2. Experience/skills in ethical hacking and/or security testing
P1-3. Advanced programming skills
Desirable
P1-4. Knowledge and/or experience in cyber physical systems, e.g., robots, automated vehicles, critical infrastructure
P1-5. Knowledge and/or experience in threat analysis and risk assessment
P1-6. Knowledge and/or experience in applying cyber security standards
P1-7. Experience with or understanding about Industry 4.0
P1-8. Skills, knowledge, experience or interest in development and/or application of AI
P1-9. Experience/skills in relevant entrepreneurial/innovation ventures

Specific Criteria for Position 2: Internet of Things and Automation
Must Have
P2-1. Expertise and experience in relevant field of Engineering or Science
P2-2. Knowledge and experience in IoT and automation
P2-3. Experience in Cloud Computing and/or Networks (including 5G)
P2-4. Knowledge and/or experience in Industry 4.0
Desirable
P2-5. Experience working in industry or developing solutions for industry partners/clients
P2-6. Knowledge or experience in Smart Systems/Smart Industry/Smart Cities
P2-7. Knowledge and/or experience in critical infrastructure
P2-8. Experience or interest in developing or applying AI solutions
P2-9. Experience/skills in relevant entrepreneurial/innovation ventures

Specific Criteria for Position 3: Digital Twin Development and Implementation
Must Have
P3-1. Expertise and experience in relevant field of Engineering or Science
P3-2. Relevant experience in development/implementation of digital twins
P3-3. Knowledge and experience in process and system modelling and excellent mathematical skills (e.g., calculus, algebra, 3D geometry)
P3-4. Excellent programming skills (e.g., Python, C++, Rust)

<b>Desirable</b>
P3-5. Experience with Human-Computer Interaction (HCI)
P3-6. Experience or interest on modelling/visualization of complex systems
P3-7. Experience and skills in Metaverse (e.g. XR, MR, VR, AR)
P3-8. Skills in AI and ML
P3-9. Experience with or understanding about Industry 4.0
P3-10. Experience/skills in relevant entrepreneurial/innovation ventures

<b>Specific Criterial for Position 4: Data Science and/or Data Analytics</b>
<b>Must Have</b>
P4-1. Expertise and experience in Data Science or closely related field of Engineering or Science
P4-2. Working experience as data scientist or data analyst in academia and/or industry
P4-3. Solid skills and competences in programming (e.g., Python, R, Java, Scala, SQL, SAS, etc.)
P4-4. Experience developing/training AI models
P4-5. Experience with ML libraries and frameworks
<b>Desirable</b>
P4-6. Experience working with Big Data
P4-7. Experience developing algorithms and data models to forecast outcomes
P4-8. Experience working with Cloud platforms
P4-9. Knowledge, experience or interest in Environmental Information Systems
P4-10. Experience/skills in relevant entrepreneurial/innovation ventures

### How to Apply:

**Important:** Before to prepare and submit your application, please make sure you are eligible to live and work in Lithuania. For further information on this matter please follow the following links:

[General Information on work permits](#)

[How to apply for a work permit/visa](#)

### For all applicants:

To apply, please prepare and send the following documents:

1. A **cover letter**: up to two sides of A4 explaining how you meet each of the selection criteria for your role (both general and specific), clearly indicating the position you are applying for and where did you find about the vacancy.

2. A **CV** of a maximum of 3 sides of A4. Please do not include publications, but indicate your ORCID or Google Scholar ID instead. At the end of your CV, please provide the name and contact details of TWO relevant persons willing to be contacted to provide references of your previous work (please do not include any written letter of reference in your application).
3. A description of **research experience and interests**, including a brief explanation of your intended work at and contribution to the Centre: up to three sides of A4.
4. Summary of relevant **teaching experience** and interests of a maximum of 1 side of A4.
5. A complete **list of your publications**, including any forthcoming (submitted or under review) and/or intended (pipeline) publications, if any.

For all your documents, please use a minimum font size of 11pt.

Please organize and submit the documents as ONE single application package (PDF file).

You can apply to more than one position, but you must submit each application separately (one application package per position).

For shortlisted applicants, two samples of writing (published or unpublished) and copies of relevant qualifications (officially translated to English if issued in other languages) will be required ahead of the interview. Please be aware that referees listed in your CV might be contacted at this point of the selection process.

Interviews will take place in person or remotely, in the week commencing Month, Day.

If you have any special requirement regarding the interview (e.g., due to impairment or disability) please notify the contact person indicated in this description in advance.

#### **Application deadline:**

2025-08-31

#### **APPLY:**

Please send your application package to: [akademini.ai.konkursai@mruni.eu](mailto:akademini.ai.konkursai@mruni.eu)

Indicating in the subject: **Job application HET Centre: Senior Researcher Position (position number 1-4)**