

## HEALTH TELEMATICS SCIENCE INSTITUTE

Department	Job position	Part of FTE	Study field	Required competences and experience
Health Telematics Science Institute, Laboratory of Technology for Measurement of Industrial and Biophysical Processes and Forecast	Chief Researcher	1,0	T001 Electrical and Electronics Engineering T010 Measurement Engineering	<p><b>Doctor of Science:</b> in the field of Electrical and Electronics Engineering (T001).</p> <p><b>Experience of supervision of the students' theses:</b> supervision or at least one thesis (first or second study cycle).</p> <p><b>Experience of research activities:</b> at least 10 years of project activities in the research area of brain neuroprotection technologies, including the international projects funded by the European Commission, management of at least one project; at least 10 years of experience of participation in international conferences presenting the results of research and technological development; at least 5 years of experience of preparation of high-level scientific publications in Q1-Q2 journals with impact factor; experience of preparation of proposals for external funding for tenders.</p> <p><b>Knowledge of specific technologies:</b> at least 10 years of theoretical and practical knowledge of Doppler sonography, human brain autoregulation, knowledge of the principles of operational technology of the transcranial Doppler devices by various manufacturers (Viasonix, Verasonics, Delica, Sonomed, Spencer Technologies), knowledge of the principles of operational technology of the ultrasonic medical scanners by various manufacturers (Philips, Mindray, Verasonics), knowledge of non-invasive cerebral blood flow autoregulation monitoring technologies.</p> <p><b>Work experience with specific equipment:</b> at least 10 years of experience of experimental research in the laboratory and clinical environment: at the intensive care, neurology, ophthalmology units using the transcranial Doppler device, ultrasonic medical scanner, near-infrared light spectroscopy device and cerebral blood flow autoregulation monitoring device via the transorbital and transtemporal acoustic windows.</p> <p><b>Additional required experience and competences:</b> general knowledge of electronics or measurement engineering, biomedical signal processing and analysis using the respective software packages, statistical data processing and analysis using SPSS and MedCalc software packages, general knowledge in the areas of neurobiology and human anatomy.</p>
Health Telematics Science Institute, Laboratory of Technology for Measurement of Industrial and Biophysical Processes and Forecast	Senior Researcher	1,0	T001 Electrical and Electronics Engineering T010 Measurement Engineering	<p><b>Doctor of Science:</b> in the field of Electrical and Electronics Engineering (T001).</p> <p><b>Experience of research activities:</b> at least 10 years of implemented project activities in the research area of neuroprotection, including the international projects funded by the European Commission; at least 10 years of experience of participation in international conferences presenting the results of research and technological development; at least 5 years of experience of preparation of high-level scientific publications in Q1-Q2 journals with impact factor, experience of preparation of proposals for external funding for tenders.</p> <p><b>Knowledge of specific technologies:</b> knowledge of the principles of operational technology of the transcranial Doppler devices by various manufacturers (Viasonix, Verasonics, Delica, Sonomed, Spencer Technologies), knowledge of the principles of operational technology of the ultrasonic medical scanners by various manufacturers (Philips, Mindray, Verasonics), knowledge of non-invasive cerebral blood flow autoregulation monitoring technologies.</p> <p><b>Work experience with specific equipment:</b> at least 10 years of experience of experimental research in the laboratory environment and clinical studies at the intensive care, neurology, ophthalmology units using the transcranial Doppler device, ultrasonic medical scanner and cerebral blood flow autoregulation monitoring device via the transorbital and transtemporal acoustic windows.</p> <p><b>Additional required experience and competences:</b> biomedical signal processing and analysis using MATLAB software package, statistical data processing and analysis using SPSS and MedCalc software packages, general knowledge in the areas of neurobiology and human anatomy.</p>

<p>Health Telematics Science Institute, Laboratory of Technology for Measurement of Industrial and Biophysical Processes and Forecast</p>	<p>Researcher</p>	<p>1,0</p>	<p>T001 Electrical and Electronics Engineering T010 Measurement Engineering</p>	<p><b>Doctor of Science:</b> in the field of Electrical and Electronics Engineering (T001).  <b>Experience of research activities:</b> at least 5 years of implemented project activities in the research area of neuroprotection, including the international projects funded by the European Commission.  <b>Knowledge of specific technologies:</b> knowledge of the principles of operational technology of the transcranial Doppler devices by various (Verasonics, Delica, Sonomed, Spencer Technologies, etc.), knowledge of the principles of operational technology of the ultrasonic medical scanners by various manufacturers (Philips, Mindray, Verasonics), knowledge of non-invasive cerebral blood flow autoregulation monitoring technologies. Theoretical and practical knowledge of transcranial Doppler sonography, ability to control a transcranial Doppler device adapted for non-invasive intracranial pressure measurements. Ability to work with ultrasonic medical scanners via a transorbital acoustic window.  <b>Work experience with specific equipment:</b> at least 5 years of experience of experimental research in the laboratory environment using the transcranial Doppler device, ultrasonic medical scanner and cerebral blood flow autoregulation monitoring device via the transorbital and transtemporal acoustic windows.</p>
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