

Brief information about the project

Title	IRN AP25795975 «Development of adaptive algorithms for filtering and classifying signals in radio systems using neural networks on various platforms».
Relevance	The project is aimed at the development of intelligent adaptive radio systems that are resilient to external influences and capable of real-time signal processing. It is particularly relevant in the context of the growing importance of telecommunications and the Internet of Things (IoT). The need to enhance the accuracy and reliability of communication under resource-constrained conditions calls for new algorithmic solutions.
Goal	The goal of this project is to develop adaptive algorithms for signal filtering and classification in radio systems using neural networks capable of operating under limited computational resources.
Tasks	<ol style="list-style-type: none">1. Analysis of existing methods and technologies.2. Development of basic algorithms.3. Testing on synthetic data.4. Optimization for real-world conditions.5. Integration into IoT devices.6. Final testing and publications.
Expected and Achieved Results	Development of energy-efficient adaptive algorithms. Publication of at least two articles in Q1–Q3 Scopus/Web of Science journals. Creation of a prototype for IoT and industrial applications. Preparation of methodological guidelines and technical documentation.
Names and Surnames of Research Group Members with Their Identifiers (Scopus Author ID, Researcher ID, ORCID, if available) and Links to Corresponding Profiles	<p>Sarmanbetov Sanzhar, MSc, PhD, Research Fellow at Al-Farabi Kazakh National University (KazNU).</p> <p>Researcher ID: rid90827</p> <p>ORCID: 0000-0003-1749-2163</p> <p>Scopus Author ID: 58837577300</p> <p>Role: Project Leader. Overall management, analysis and systematization, report writing.</p> <p>Kozhagulov Yeldos, PhD, Acting Associate Professor at Al-Farabi Kazakh National University (KazNU).</p> <p>ORCID: 0000-0001-5714-832X</p> <p>Scopus Author ID: 57192878535</p> <p>Role: Scientific Advisor. Scientific support for publications, discussion of results</p>

Publications list with links to them	
Patent information	