

Leibniz Institute for Information Infrastructure

FIZnews

Cyber security in healthcare: FIZ Karlsruhe involved in BMFTR project "SecureNeuroAI"

Karlsruhe, 31 July 2025 — Artificial intelligence (AI) is set to help detect medical emergencies in real time in the future - but the use of such technologies brings with it new security risks. To address these, the Federal Ministry of Research, Transfer and Space (BMFTR) is funding the "SecureNeuroAI" project with almost 2.5 million euros over the next three years. Project partners are the University of Bonn, Bonn University Hospital and FIZ Karlsruhe.

The aim of the project is to develop cyber-secure, Al-supported methods for detecting epileptic seizures based on multimodal data - including vital data from wearables and clinical measurements. The information obtained will be analyzed by tamper-proof AI models to ensure patient safety and system reliability.

The University of Bonn is contributing extensive expertise in the fields of AI and IT security. The University Hospital Bonn is responsible for the clinical validation of the models and provides realistic data for development.

FIZ Karlsruhe is playing a central role in the legal assessment: the Intellectual Property Rights (IGR) research unit headed by Prof. Dr. Franziska Boehm is investigating the data protection and regulatory framework conditions for the use of AI in medical practice. The aim is to derive specific recommendations for the legally compliant use of digital health applications and the protection of sensitive patient data.

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The results of "SecureNeuroAI" will be applied far beyond the field of epilepsy detection - and contribute to strengthening cybersecurity in the healthcare sector in the long term.

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Read more about the project at

https://www.fiz-karlsruhe.de/en/projekte/secureneuroai

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