Postdoctoral Research Positions in AI-Driven MRI at the Technion

Technion's campus

Technion's MRI research center

The **Medical AI & MRI Lab**, led by Dr. Efrat Shimron at the Technion – Israel Institute of Technology, invites applications for postdoctoral research fellowships in computational Magnetic Resonance imaging (MRI). The lab offers a dynamic interdisciplinary environment at a leading university; the Technion is consistently ranked as one of Europe's top-10 research institutes in AI. The lab has access to a state-of-the-art 3T MRI system and ample computational resources. It also has many international collaborations with academic research groups and hospitals worldwide.

The research focuses on developing computational techniques to transform MRI into a faster, more accessible, and robust imaging modality. This includes developing

- AI algorithms for motion-robust, accelerated MRI.
- Deep learning frameworks for personalized imaging.
- Novel strategies for sampling and real-time motion correction.
- AI methods tailored for low-field MRI.
- New theories and methods for solving inverse problems without high-quality data.

The research has wide applications, ranging from fetal and pediatric body MRI to aging and personalized healthcare.

Qualifications: Applicants should hold a Ph.D. in related fields, such as electrical engineering, biomedical engineering, computer science, and medical physics. Strong programming skills (Python, PyTorch/TensorFlow), background in signal/image processing, and experience in machine learning are expected. Prior experience with MRI reconstruction, inverse problems, or low-field imaging is highly desirable.

How to apply: Applicants should contact Dr. Efrat Shimron at efrat.s@technion.ac.il and include a CV, academic grades transcript, and a brief statement describing relevant experience in computer vision biomedical imaging.

The positions are available immediately and versatile funding resources are available. The position is offered for a minimum duration of one year with a possibility of extension.