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The **Department of Multimedia Informatics** provides a vibrant, interdisciplinary research environment dedicated to advancing foundational and applied knowledge in digital media technologies. Its Master's and PhD-level graduate programmes are designed to actively involve early-stage researchers in high-impact scientific investigations spanning signal processing, machine learning, human–computer interaction, and real-time systems.

Research within the department encompasses a broad spectrum of topics in digital media – from deep learning, audio signal processing, and motion analysis to GPU-accelerated computing, game AI, immersive systems, psychoacoustics, and physical simulation.

The department is host to a number of high-profile research projects funded by national and international agencies. These projects address challenges in immersive audio coding, AR/VR environments, computer vision, generative AI, and cultural heritage, among others. Research activities are supported by specialised facilities equipped for motion capture, audio signal processing, parallel computing, and interactive system prototyping. The department maintains active collaborations with industrial partners and research hubs, including NVIDIA (in support of deep learning research), the METU Technopolis ecosystem, and ATOM – the country's premier game technologies pre-incubator. It also engages in joint research and innovation initiatives with leading institutions across Europe and beyond, and contributes to international standardisation efforts.

The department hosts several dedicated research laboratories, including:

- **METU Spatial Audio Research Group Laboratory (SPARGLab)**, featuring a dedicated acoustics test chamber and a broad inventory of audio hardware, including specialised microphones and microphone arrays, VR systems, and a complete measurement infrastructure;
- **Deep Learning and Computer Vision Group** aims to conduct research on cutting-edge topics in deep learning, transformers, machine learning systems design/deployment, and computer vision.
- **Entertainment Computing and Interactive Systems Laboratory (ECISLab)**, conducting research in video games, serious games, AI in games, virtual and mixed reality, and reinforcement learning.
- **Applied Intelligence Research Laboratory (AIRLab)**, focusing on applied artificial intelligence; conducting interdisciplinary research where engineering problems intersect with deep learning, and contributing to practical AI applications across diverse domains.

We welcome postdoctoral researchers with strong academic credentials and a passion for conducting impactful, collaborative research in multimedia systems. This is an opportunity to join a dynamic, international team addressing key scientific and technological challenges of the next decade.

We are currently seeking applications from researchers active in one or more of the following areas:

- Intelligent audio systems, audio signal processing, immersive audio, microphone arrays, room acoustics, acoustic cultural heritage including applications including applications of both classical signal processing and deep learning on related problems.
- Deep learning-based computer vision systems for real-world environments, including the application of machine learning techniques on embedded and edge-computing platforms, and the study of generative models for structured data, signal interpretation, and simulation-based synthesis.
- Game research, including the use of artificial intelligence in video games, automated game development, extended reality and usability analysis.