

Industrial partners, workplace and internship opportunities

In relation to the subject area, the HVT department maintains good professional relations with many companies. The companies welcome interested students for professional internships, independent laboratory topics and thesis planning, or they also offer jobs to our graduate students later on.

Some examples:



Instructor: **Dr. Sella Rudolf**

Laboratory of Microwave Remote Sensing

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High Frequency System Techniques (HVT) Specialization: *Intelligent Communication* BSc Electrical Engineering Faculty

Department information: May 9, 2024, 4:00 p.m V1-501-502.

Goals

The aim of the course is to gain a systematic understanding of modern telecommunications and remote sensing systems. In addition to the general description of the systems, it details the role and tasks of the system elements down to the depth of the design.

Within the scope of the subject, students acquire skill-level knowledge in the field of design and application of wired and wireless telecom systems and microwave system components. Students of the subject will be aware of the basic operation and construction of radio networks and remote sensing systems, and will be able to design the basic elements of these systems.

Subjects:

High Frequency Systems [VIHVAC08](#)

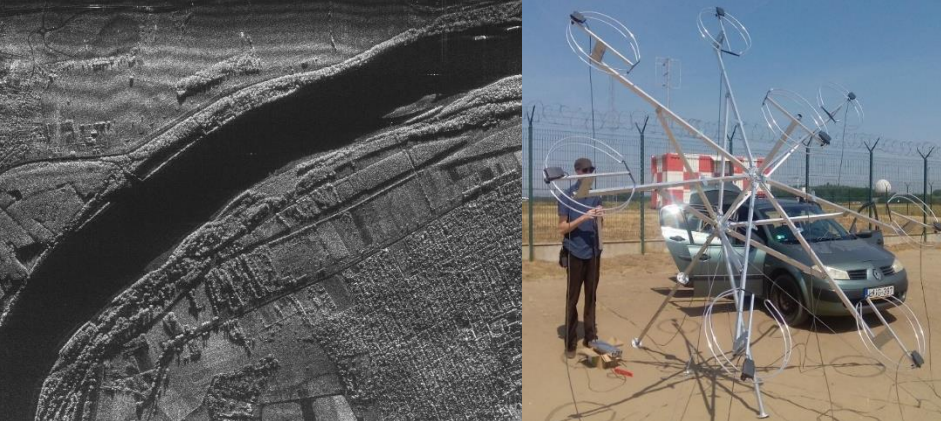
High Frequency Systems Laboratory [VIHVAC09](#)



High Frequency System Techniques

Within the scope of the High Frequency Systems and Applications subjects, they were primarily introduced to the approach that is of fundamental importance for all radio frequency design engineers.

You will learn about the building blocks of high-speed analog and digital communication systems, and the effects of these devices on each other (Electromagnetic Compatibility, EMC). In the sector, you can choose from a number of forward-looking communications-related topics, with the knowledge of which you can easily find a job in industry and the R&D sector.



Relevant subject areas

- Analog and digital radio links
- Noise description of telecom systems, LNA
- Optimal receiver
- Spread spectrum modulation
- Antenna systems
- Digital beamforming
- Adaptive interference cancellation
- Adaptive direction finding
- Microwave remote sensing
- Active and passive radars
- Imaging radars
- Radio astronomy

