

## **Optical Communication Systems and Applications**

### **Organizer:**

Dr. Lecturer N. Ozlem Unverdi

Yildiz Technical University

Department of Electronics and Communication Engineering [unverdi@yildiz.edu.tr](mailto:unverdi@yildiz.edu.tr)

### **Call for Papers**

In the Oral Special Session on Optical Communication Systems and Applications, optical communication will be evaluated in terms of electromagnetism, systems, circuit elements, and project planning.

Optical communication systems, whose usage is becoming increasingly widespread, are utilized in many fields such as data transmission, telephone networks, cable television systems, integrated optical devices, transportation, medicine, and military applications. With the proliferation of optical networks, data transmission speed and channel capacity increase, ensuring secure communication. In today's technology, optical communication systems are preferred over other communication systems due to several advantages, including the abundant natural availability of silicon, which is the raw material of optical waveguides, strong insulation, compact structure, immunity to electromagnetic interference, reliability, cost-effectiveness, compatibility with previously established communication systems, and particularly, the large bandwidth providing high capacity and low transmission loss.

The main topics to be addressed in the Oral Special Session on Optical Communication Systems and Applications are as follows:

- Optical Communication Systems Used on Land
- Optical Communication Systems Used in Maritime
- Optical Communication Systems Used in Aviation
- Passive Optical Networks
- Active Optical Networks
- FTTX Technique Applications
- Optical Circuit Elements
- Project Planning of Optical Communication Systems
- Integration of Optical Communication Systems with Other Communication Technologies
- Electromagnetic Wave Propagation in Optical Communication Systems

As part of the 33rd IEEE Signal Processing and Communication Applications Symposium (SIU 2025), to be held in Şile - Istanbul between June 25-28, 2025, the Oral Special Session on Optical Communication Systems and Applications is expected to shed light on both academicians and industry professionals by presenting papers on the technology of today and the future. I invite experts and researchers working on optical communication in both academic and industrial fields to submit their papers for this session.