

**The LabVIEW™ program modules Record  
Generator and Transmitter/Receiver for  
Input Output Device Simulator project of  
the NICA-MPD-PLATFORM**

**Subject 7**

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# Theoretical Part

- LabVIEW™ basics
- LabVIEW™ programming architectures
- Conceptual Design Report of the Input Output Device Simulator (IODS) project
- Client/Server architecture explanation and terms related with it (LAN, WAN, Web Server, Web Services, REST and SOAP web services APIs, XML, JASON, UDP, TCP, IP, TCP/IP)

## Practical Part

- Exercises in LabVIEW™ programming
- The development of the Simulated Data Record for the IODS in LabVIEW™ environment
- LabVIEW™ coding of the module which transmits and receives the Simulated Record via Ethernet applying the Finite State Machine architecture (one of the fundamental architectures in LabVIEW™)
- Testing the Simulated Record by sending it over the LAN between two computers
- Documentation of the program
- Preparation of the final presentation

## Skills Acquired During Internships

- LabVIEW™ basics
- Understanding the ISO OSI Model (ISO Open Systems Interconnection Reference Model)
- Rules of technical documentation writing
- Rules for preparing presentations