

MSc diploma subject proposals 2015/16

Specialization: Teleinformation Networks and Systems

- 1. Analysis of the functionality realization of the SDN controller**
- 2. Analysis of the global network solutions based on a Ethernet standard**
- 3. Simulation model of the service system with selfsimilar traffic**
- 4. Generator and the analyser of packages streams of very big rate**
- 5. Methods of the measurement of QoE parameters**
- 6. SDN research by simulation**
- 7. Optical resource reservation in multidomain network based on ASON/GMPLS architecture**
- 8. Convergent telecommunication network based on Platan Proxima, DGT Millenium, Datera Call-Ex telephone exchanges**
- 9. DiffServ domain realization based on algorithms provided by Linux operation system**
- 10. Comparison of data storage systems CEPH and OpenStack**
- 11. Analytical traffic model of a multidomain IMS/NGN including service and transport stratum**
- 12. Simulation traffic model of a multidomain IMS/NGN including service and transport stratum**
- 13. Review and analysis of steganalysis methods using artificial neural networks**
- 14. Implementation and research of codes for erasure channels**
- 15. Review, implementation and research of wet paper steganography methods**
- 16. Digital transmission with Faster-Than-Nyquist signaling**
- 17. Shaping and receiving filter design with DMF method**
- 18. PSK receiver with variable delay receiving filter**
- 19. Multiplierless Farrow structure implementing VFD filter designed with window method**
- 20. Design of VFD filters implemented in DFT domain with meta-heuristic algorithms**

- 21. Variable ratio resampling with by means of variable bandwidth VFD filter**
- 22. Methods of quality evaluation for “triple play” services in copper access network**
- 23. The methods of assessing the suitability of a copper access network for xDSL systems**
- 24. Distribution of television service on access network FITL**
- 25. Bit clock synchronization methods for Synchronous Ethernet**