

MSc diploma subject proposals 2013/14

Specialization: Teleinformation Networks and Systems

- 1. Solutions analysis of IP over DWDM technology**
- 2. Models of traffic analysis for IP over DWDM technology**
- 3. Laboratory post for the illustration of OpenFlow solutions**
- 4. Modernization of the laboratory VoIP post of the Call-eX system**
- 5. Budgeting of quality parameters in multidomain IMS/NGN networks**
- 6. Scaling up of real time system with distributed architecture within storage space and network interfaces**
- 7. Practical usage of bandwidth management mechanisms in task scheduler considering short/medium/long period**
- 8. The AAA system for SIP protocol based on Open Source implementation**
- 9. Optical resource reservation in ASON/GMPLS architecture**
- 10. Simulation model of IMS/NGN architecture with transport stratum based on the Ethernet technology**
- 11. Simulation model of IMS/NGN architecture with transport stratum based on the Flow-State-Aware (FSA) technology**
- 12. Implementation and research of codes for erasure channels**
- 13. Review, implementation and research of wet paper steganography methods**
- 14. Implementation and research of self-authentication method for color images**
- 15. Review and research of blind steganalysis methods for still images**
- 16. Review and research of Hill cipher modifications improving its security**
- 17. Implementation and research of MLSB steganographic method**
- 18. Modulator and demodulator with Faster-Than-Nyquist signaling**
- 19. Echo cancellation algorithms**
- 20. Sample rate conversion implemented in DFT domain**
- 21. PSK demodulator with variable delay receiving filter**

- 22. Performance measurement of application servers for telecommunication services in NGN**
- 23. Service Overlay Networks in Next Generation Networks**
- 24. Implementation and evaluation of selected Active Queue Management mechanisms in IP networks**
- 25. Implementation of Megaco/H.248**
- 26. Bit clock synchronization on physical layer for Synchronous Ethernet**
- 27. Software analysis of nonlinear distortions and disturbances for telephone channel**
- 28. Analysis of transmission characteristics for symmetrical copper lines in access network**
- 29. Evaluation of Dynamic Spectrum Management (DSM) techniques for VDSL systems**