MSc diploma subject proposals 2014/15

Specialization: Teleinformation Networks and Systems

1. **Models of traffic analysis for IP over DWDM technology with classes of packet services**
2. **Analytical model of IMS/NGN architecture with transport stratum based on the Ethernet technology**
3. **Simulation model of IMS/NGN architecture with transport stratum based on the Flow-State-Aware (FSA) technology**
4. **The risks elimination of the Internet network by using GPGPU at high bitrate stream filtering**
5. **Dynamic controlling demonstration of the data transmission based on the SDN controller and application**
6. **The project implementation of the SBC for the telecommunications system basing on the SIP protocol**
7. **Implementation analysis of SDN conception**
8. **Implementation and research of codes for erasure channels**
9. **Review, implementation and research of wet paper steganography methods**
10. **Implementation and research of self-authentication method for color images**
11. **Review and research of Hill cipher modifications improving its security**
12. **Implementation and research of MLSB steganographic method**
13. **Digital transmission with Faster-Than-Nyquist signaling**
14. **Shaping and receiving filter design with DMF method**
15. **PSF receiver with variable delay receiving filter**
16. **Multiplierless Farrow structure implementing VFD filter designed with offset window method**
17. **Design of VFD filters implemented in DFT domain with meta-heuristic algorithms**
18. **Resampling with variable ratio by means of variable bandwidth VFD filter**
19. **Quality evaluation of “triple play” services for copper access network**
20. **Distribution of television service on access network FITL**

21. **Software analysis of nonlinear distortions and disturbances in analogue channel**
22. **Software analysis of the variability of packet propagation delay in IP networks**
23. **The methods of assessing the suitability of a copper access network for xDSL systems**