BSc diploma subject proposals 2014/15

Profile: Teleinformation Networks

1. **Analysis of service scenarios in a multidomain IMS/NGN architecture**

2. **Analysis of standards regarding quality parameters for IMS/NGN architecture**

3. **Computational tools for the service systems of selfsimilar streams**

4. **Realization methods of the WFQ system**

5. **Software for designing the package network**

6. **Self-similarity of packets streams in the IP network**

7. **SDN Software Defined Networks**

8. **OMNET++ as simulation environment for SDN research**

9. **Resource load calculation of different protocol stacks**

10. **Resource media gateway design**

11. **SWIFT object storage architecture**

12. **Packet queuing using DPDK library**

13. **Software analyser of statistical properties of elements of JPEG files from the point of view of steganalysis**

14. **Software classifier of image data for the use in steganalysis**

15. **Software realisation and testing BS-Hillcast method of encryption and JFD**

16. **Review and software implementation of methods of statistical features extraction from JPEG images for steganalysis**

17. **Expansion of application demonstrating modifications of linear block codes**

18. **The application demonstrating arithmetic coding**

19. **The application demonstrating dynamic Huffman coding**

20. **Software analyzis of phase fluctuation for interface E1 signals**

21. **Software analysis of transmission delay variation for data transmitted between computers on IP network**

22. **Software analysis of nonlinear distortions and quantization effects for telephone channels**

23. **Selective measurement of signal level by using of data from digital oscilloscope**