**Term Project Task “Secure Bitcoin”**

**CMSE-353 “Security of Software Systems”**

**Fall-2021, posted 31.10.2021**

1. The Term Project concerns developing a distributed crypto-currency system having actors: Clients, Miners, and System Administrator. The system developed shall follow [1].
2. Term project will be made by the teams established for Labs.
3. Implement solution of your problem as a distributed (at least for two computers) software application using any appropriate tools. You may reuse your Lab codes.
4. Conduct tests with your application to validate its correctness
5. Prepare (in Word) a **report** on your assignment having:
* Cover page
* outline,
* problem definition,
* description of work breakdown and task distribution between team members,
* description of algorithm for solving your problem,
* description of database structure designed
* description of tools you used for implementation of your problem and the details of their installation and preparation for usage
* description of the developed program (parts of the program, ways of interaction, synchronization, etc.)
* user guide (how to use your program – what and where should be installed, launched, how it should be interpreted)
* description of conducted tests and their results with screenshots of the runs
* conclusion
* references on used sources (books, articles, web-sites, etc.)
1. Supply the report with a Winrar archive having all the Term Project-related materials: doc-file with your report, sources and executables of your application, results of your tests, and instructions how to use your program
2. Submit the report to the Lab Coordınator and be ready to show your application working at least on two computers, and to give necessary explanations about it. Reports shall be submitted latest by 10**.01.2022, Monday, 16.00. Exact place for submission will be specified later by Lab Coordinator Selin Acan. Later submission will be penalized (2 points/day).**
3. Presentation of your working applications will be held in the period 11.01-13.01.2022. Presentation time will be specified on the report submission. The report will be assessed out of 8 points, and 12 points – for presentation of the working application and its explanation

References

* 1. S, Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System, <https://bitcoin.org/bitcoin.pdf>