**.Assignment 1 – Review paper on Distributed Systems**

**Marks allocated – 20**

**Note: This is a group assignment. Maximum group size is 4.**

You have to write a 6-8 page (excluding the references) review paper on a current research topic in Distributed Systems. Some of the possible topics (please note that this is not an exhaustive list) are given below. You may form a group of four members in writing the review paper. If you prefer, you can be do an individual submission. Marking standard will be the same for both the individual and group submissions.

Following are some broad research areas under Distributed Systems that you may look into in selecting a topic. Note that these are broad areas and the actual topic of the review may have a narrower scope. Examples of topics are ‘Load Balancing in the Microservices Architecture’, ‘Security threats in Vehicle networks’ or ‘Applications of Blockchain in Healthcare’.

Note: Following are the research areas that you can look at. Note that the topic should be more specific (like the ones given above).

1. Cloud computing

2. IoT

3. Peer to peer systems

4. Distributed system security

5. Load balancing

6. Microservices

7. Clock synchronization

8. Service oriented architecture

9. Blockchain

10. Cloud security

11. Autoscaling in clouds

12. Sensor networks

13. Mobile ad-hoc networks

14. Progressive web applications

15. IoT security

16. Vehicle networks

17. Fault tolerance

18. Voluntary computing

In writing the review paper, you should refer at least 10 recent (published after 2017) papers (the more the better) related to the selected topic. The writing style should be argumentative (with words such as ‘however’, ‘therefore’, ‘but’) and not essay like, and should highlight the gaps in the existing literature. A list of references should be added at the end of the paper in IEEE referencing format.

You may follow the IEEE conference format in writing the review paper.

<https://www.ieee.org/conferences/publishing/templates.html>

**All submissions will be submitted to turnitin for plagiarism checking (similarity index of the paper should be less than 20% to be accepted).**

You have to upload the paper in pdf format. The file names should have your SLIIT registration numbers separated by an underscore. In addition, the names and registration numbers of the submitting author should be mentioned at the top of the review paper.

e.g. ITXXXXXX.pdf

**Note: If there’re multiple authors only one author needs to submit. The names of all authors, their ids and contact emails could be included at the top of the paper under affiliations.**

**Note that late submissions are allowed till one week after the stipulated deadline. No submissions will be accepted after the late submission deadline. Late submission penalty will be 25% of the mark.**

**Marking Rubric**

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| --- | --- | --- | --- |
|  | Good (10-7) | Average (6-4) | Poor (3-0) |
| Comprehensiveness of the review |  |  |  |
| Critically reviewing the existing work |  |  |  |
| Highlighting the research gaps |  |  |  |
| Quality of language, referencing and formatting |  |  |  |