To

Coordinator TEQIP-III

Through: HOD (IT)

Submission of Report after Attending the Short Term Course at IIT Roorkee.

Name of Event:

Short Term Course (under SPARC) on *"Recent Advancements in Software Intensive Systems: Machine Learning and Cyber Security Perspectives"*

Date and Venue of Event:
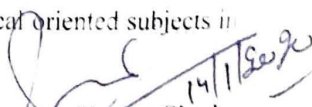
23 – 27 December. 2019 at Indian Institute of Technology (IIT). Roorkee

Course Contents:

From data theft to Data manipulation. new challenges in cyber security. Cyber Security skills in the year 2023. Feature driven ontology and classification of systems of systems. Basics of Machine Learning in Cyber Security. Introduction to data science and machine learning related to cyber security. Introduction of deep learning. Software Security. Software Engineering and Agile Software Development.

Expected Benefits and how it will be benefited to the college:

The contents of the course were informative, practical oriented and multidisciplinary in nature. The sessions of the course were equipped with a lot of knowledge about the applications of machine learning in software development and cyber security. The sessions on software engineering and agile software development by Dr. Sandeep Kumar Garg are really explicit and informative and these will indirectly help to our students as currently. I am teaching software engineering and testing subject to 3rd year students of IT. Although all the sessions were very explicit and informative. but the session on "Machine Learning" by Dr Dharmendra Singh was fantastic. crisp and insightful. The contents of the "Machine Learning". may be fruitful to our students as well as faculty members as it has the capability of gathering huge and mottled information from the diverse sources in and around the world Machine Learning has also been introduced as one of the subjects of M.Tech (IT) and one of the electives subjects in B.Tech (IT) (2018 study scheme) in our department. starting from this session onwards. In addition to this. the machine learning tools to extract the information are really fruitful for the thesis work. project work and different practical oriented subjects in our department.

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