## DECLARATION

We hereby certify that the work which is presented in the Major Project-II entitled, "<u>Dual Stage Network Intrusion Detection Systems through Feature Reduction</u>" in fulfilment of the requirement for the award of the Degree of Bachelor of Technology in <u>Mathematics and Computing</u> and submitted to the Department of <u>Mathematics</u>, Delhi Technological University, Delhi is an authentic record of our own, carried out during a period from January to May 2020, under the supervision of Dr. <u>H.C. Taneja</u>, <u>Professor in Applied Mahtematics</u>, <u>Delhi Technological University</u>, <u>Delhi</u>.

The matter presented in this report has not been submitted by us for the award of any other degree of this or any other Institute/University. The work has been published and presented in Scopus indexed journal and Scopus indexed conference with the following details:

1. Title of the Paper: "Building a NIDS using a Two-Stage Classifier and Feature Reduction through Statistical Methods"

Author names (in sequence as per research paper): Raghuvansh Raj, Somya Gupta, Manan Lohia, HC Taneja WSEAS TRANSACTIONS on SYSTEMS and CONTROL DOI: 10.37394/23203.2020.15.12

2. "Dual Stage Network Intrusion Detection System Through Feature Reduction" presented at 4th International Conference on Mathematical Models and Computational Techniques in Science and Engineering / World Scientific and Engineering Academy and Society transactions on Systems and Control, held on 22 – 24 February, 2020 – London, UK

Have you registered for the conference (Yes/No)?: Yes already attended and presented!

Status of papers (Accepted/Published/Communicated): One published in a journal and another presented in conference.

Date of paper communication for conference: 30 December, 2019

Date of paper acceptance for presentation in conference: 10 January, 2020

Date of paper publication in journal: 2 April 2020

Manan Lohia (2K16/MC/049)

Raghuvansh Raj (2K16/MC/062)

Somya Gupta (2K16/MC/079)

Student(s) Roll No., Name and Signature

## SUPERVISOR CERTIFICATE

To the best of my knowledge, the above work has not been submitted in part or full for any Degree or Diploma to this University or elsewhere. I, further certify that the publication and indexing information given by the students is correct.

Place: De/bi

Date: 25 May, 2020

Supervisor Name and Signature

(H. C. TANEJA)
Professor in Applied Make.

D. T. U. Delhi,