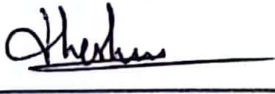


Declaration of Candidate

This is to certify that the work presented in this thesis is the outcome of the analysis and experiments carried out by **Shaikh Faiyaz Karim, Sajid Ahmed Chowdhury, and Md. Shahriar Islam Bhuiyan** under the supervision of **Dr. Md. Sakhawat Hossen**, Associate Professor, Department of Computer Science and Engineering and co-supervision of **Ali Abir Shuvro**, Lecturer, Department of Computer Science and Engineering, Islamic University of Technology, Dhaka, Bangladesh. It is also declared that neither this thesis nor any part of it has been submitted anywhere else for any degree or diploma. Information derived from the published and unpublished work of others have been acknowledged in the text and a list of references is given.




Dr. Md. Sakhawat Hossen
Associate Professor
Department of Computer Science and Engineering
Islamic University of Technology (IUT)
Date: June 04, 2024



Ali Abir Shuvro
Lecturer
Department of Computer Science and Engineering
Islamic University of Technology (IUT)
Date: June 04, 2024



Shaikh Faiyaz Karim
Student ID: 190041116
Date: June 04, 2024



Sajid Ahmed Chowdhury
Student ID: 190041140
Date: June 04, 2024



Md. Shahriar Islam Bhuiyan
Student ID: 190041124
Date: June 04, 2024