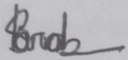


Declaration

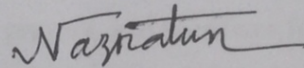
We hereby declare that the undergraduate research work reported in this thesis has been performed by Md. Sharmon Hossain Arnob and Nazratun Nawar under the supervision of Professor Dr. Md. Rezaul Karim and this work has not been submitted elsewhere for any purpose (except for publication).

May, 2022



Md. Sharmon Hossain Arnob

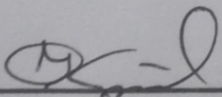
Student ID: 170051064



Nazratun Nawar

Student ID: 170051083

Supervisor:



Prof. Dr. Md. Rezaul Karim

Professor,

Department of Civil & Environmental Engineering

Islamic University of Technology (IUT)

Gazipur, Bangladesh.