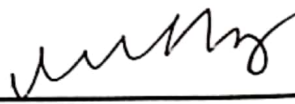


## CERTIFICATE OF RESEARCH

*This thesis titled "ANALYSIS OF DIFFERENT METAMATERIALS BASED ON LOW FREQUENCY SOUND TRANSMISSION LOSS USING COMSOL MULTIPHYSICS" submitted by JUNAYED BIN ZAKIR (170011065) and S. M. MUSTAFIZUR RAHMAN (170011055) has been accepted as satisfactory in partial fulfillment of the requirement for the Degree of Bachelor of Science in Mechanical Engineering.*

### ***Supervisor***

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# DECLARATION

*I hereby declare that this thesis entitled "ANALYSIS OF DIFFERENT METAMATERIALS BASED ON LOW FREQUENCY SOUND TRANSMISSION LOSS USING COMSOL MULTIPHYSICS" is an authentic report of our study carried out as requirement for the award of degree B.Sc. (Mechanical Engineering) at Islamic University of Technology, Gazipur, Dhaka, under the supervision of  
Mr.Nagib Mehfuz,  
Assistant professor, MPE, IUT in the year 2022*

*The matter embodied in this thesis has not been submitted in part or full to any other institute  
for  
award of any degree.*

  
26.05.2022

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