

## DECLARATION

I hereby declare that this thesis entitled "**PHOTOVOLTAIC THERMOELECTRIC COOLING SYSTEM FOR OFF-GRID VACCINE REFRIGERATOR : AN EXPERIMENTAL STUDY**" is an authentic report of 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 **Dr. Md. Hamidur Rahman, 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.

Nazia  
17.05.22

---

**Nazia Rodoshi Khan**

170011002

Tasnuva  
17.05.22

---

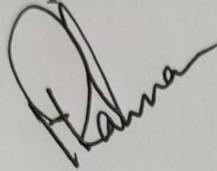
**Tasnuva Sharmin**

170011037

## **CERTIFICATE OF RESEARCH**

*This thesis titled "PHOTOVOLTAIC THERMOELECTRIC COOLING SYSTEM FOR OFF-GRID VACCINE REFRIGERATOR : AN EXPERIMENTAL STUDY" submitted by NAZIA RODOSHI KHAN (170011002) and TASNUVA SHARMIN (170011037) has been accepted as satisfactory in partial fulfillment of the requirement for the Degree of Bachelor of Science in Mechanical Engineering.*

**Supervisor**

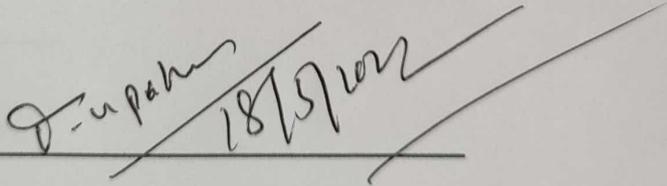


---

**Prof. Dr. Md. Hamidur Rahman**

*Professor*

**Head of the Department**



---

**Prof. Dr. Md. Anayet Ullah Patwari**

*Professor*

Department of Mechanical and Production Engineering (MPE)  
Islamic University of Technology (IUT)