



**Senior Design Project**

**AR based NSU 3D Model**

**CSE499 Project Report (GROUP-4)**

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**Faculty Advisor:**

**Dr. Shahnewaz Siqqique**

**Assistant Professor**

**ECE Department**

**Summer, 2020**

## **Acknowledgement**

We would like to begin with our gratitude towards North South University's Department of Electrical Engineering and Computer Science for providing us with the platform to showcase our design capabilities, troubleshooting ability and implementation of theoretical knowledge fed to us through the core courses designed in the program and ultimately leading to the completion of senior design project.

Our most sincere gratefulness is to our project supervisor Dr. Shahnewaz Siqqique, Assistant Professor for his relentless support and motivation throughout the project term for which we shall remain indebted forever. The completion of this project would have been impossible with his support and supervision. Last, but not the least, we would like to thank our family members, friends, fellow classmates and all other personal, to whom we might have caused any inconvenience to, during the project term, for their understanding and support.

## DECLARATION

This is to certify that this Project is our original work and no part of this report or the project has been previously submitted elsewhere for the fulfillment of any other degree or program. Any material reproduced in this project has been properly acknowledged.

### Students' name & Signature

1.       .....  
**Ezab Quader**
  
2.       .....  
**Durjoy Das**
  
3.       .....  
**Minhajul Imaj**
  
4.       .....  
**Irin Sultana**

## Approval

Ezab Quader (ID #1512081642), Durjoy Das (ID #1611057042), Minhajul Imaj (ID #1511412642) and Irin Sultana (ID #1610343042) from Electrical and Computer Engineering Department of North South University, have worked on the Senior Design Project titled “**AR based NSU 3D Model**” under the supervision of Dr. Shahnewaz Siqqique partial fulfillment of the requirement for the degree of Bachelors of Science in Engineering and has been accepted as satisfactory.

**Supervisor’s Signature**

**Department Chair’s Signature**

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**Dr. Shahnewaz Siqqique**

**Dr. Mohammad Rezaul Bari**

**Associate Professor  
ECE Department  
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**Associate Professor & Chair  
ECE Department  
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## **ABSTRACT**

Augmented Reality is a technology where we can create a virtual platform to make things easier and efficient. Here we can integrate 3-D models and create a real 3-D environment in real time. Nowadays AR technology is the most demanded ones in Technology world. We are going to use the AR technology and create a virtual platform which helps people to understand the complex thing. Our research aim is to build environment where we can use the AR technology easily and make thing efficient. Our main focuses are to integrate a 3-D model of North South University and create a real time environment of North South University. We are also going to implement 2-D to 3-D AR conversion, 3-D Newspaper, 3-D AR Visiting card etc. We created the 3D models on the SketchUp and imported to Blender. With Android Studio we created a AR mobile app in which it uses the phone's camera to detect the surface to generated 3D model on it.