Sri Lanka Institute of Information Technology

Modern Topics in IT (IT4020)

Assignment 04 - Augmented Reality

Group: MTIT-003

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1. Introduction

Augmented reality (AR) has garnered significant attention over the past few years, and it is currently experiencing a renewed focus and consideration with the introduction of products like "Google Glass." This technology leverages computer vision-based recognition algorithms to enhance various sensory inputs, such as sound, video, graphics, and other sensor-based data, by overlaying them onto real-world objects using the camera of a user's device. By seamlessly integrating virtual elements with the physical environment, AR provides an interactive and immersive way to present real-world information.

In the context of the modern topics in information technology module and specifically for Augmented Reality Assignment 04, we have developed simple AR applications centered around the SLIIT Main building and the Dupath area. These applications utilize AR technology to render virtual elements and seamlessly incorporate them into the real-world environment. By leveraging the camera capabilities of your device, these applications can recognize and track specific markers or objects, allowing for the accurate placement and alignment of virtual content.

Overall, these AR applications showcase the potential of augmented reality technology in rendering real-world information and presenting it in an interactive and captivating way. By seamlessly blending the virtual and physical worlds, users can experience a heightened level of engagement and exploration, making AR a promising tool for various domains, including education, tourism, and entertainment.

2. Screenshots

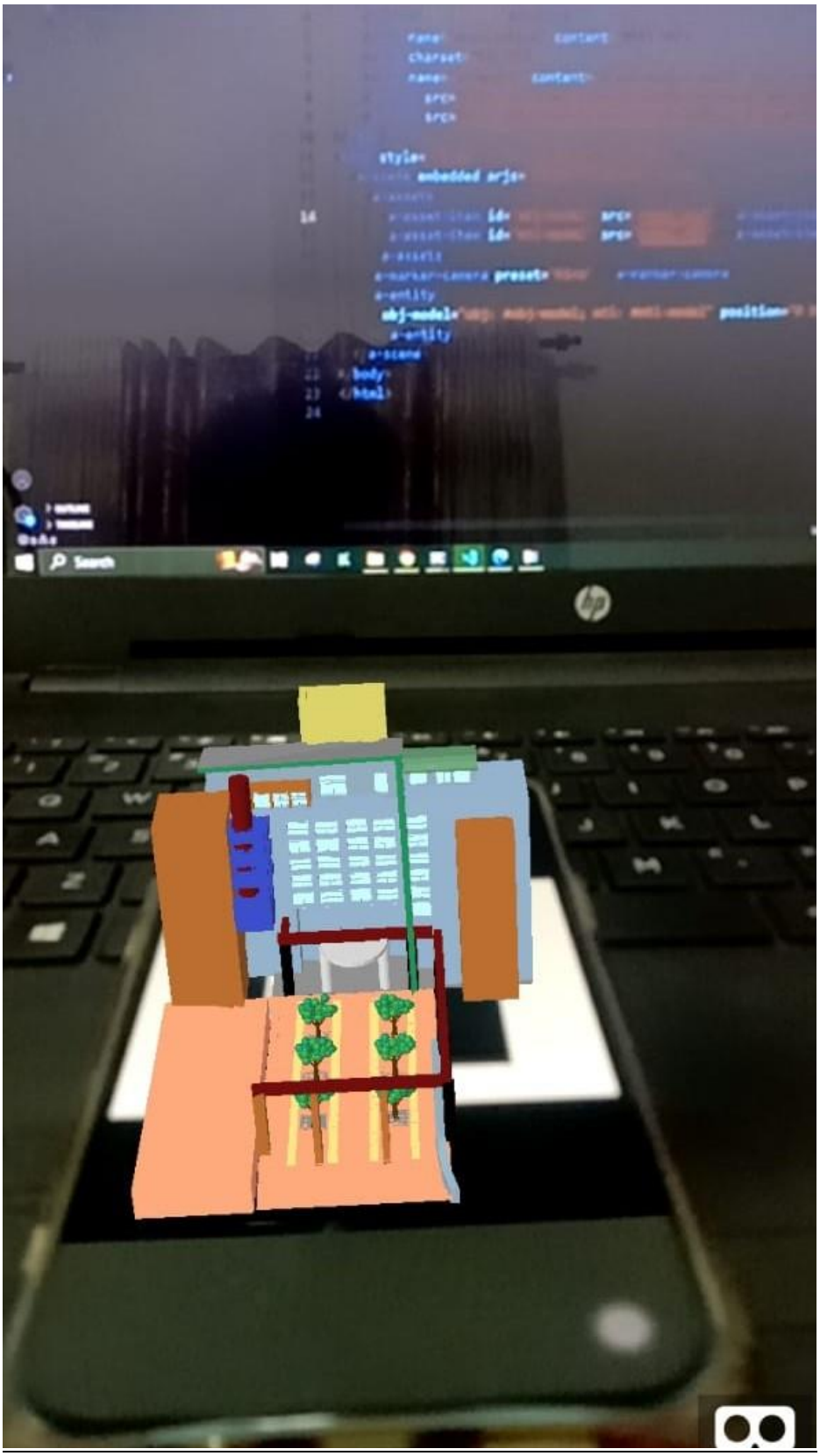
Marker

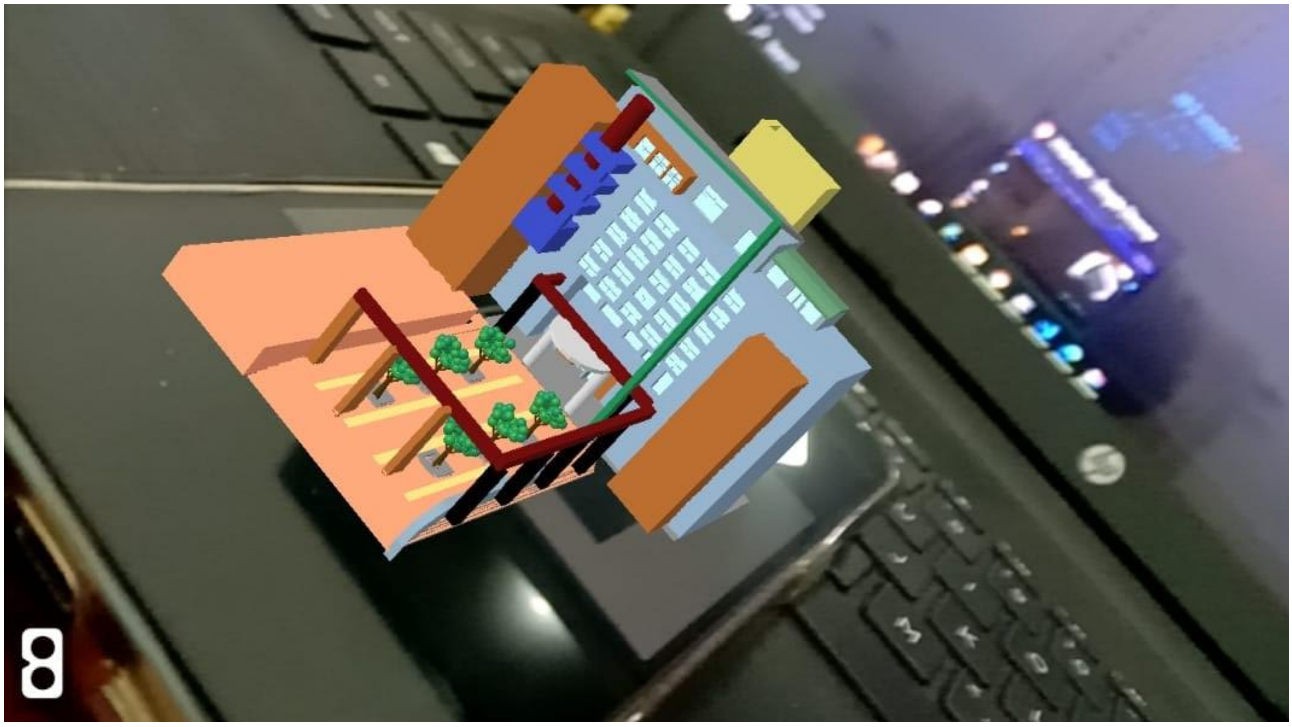
Code

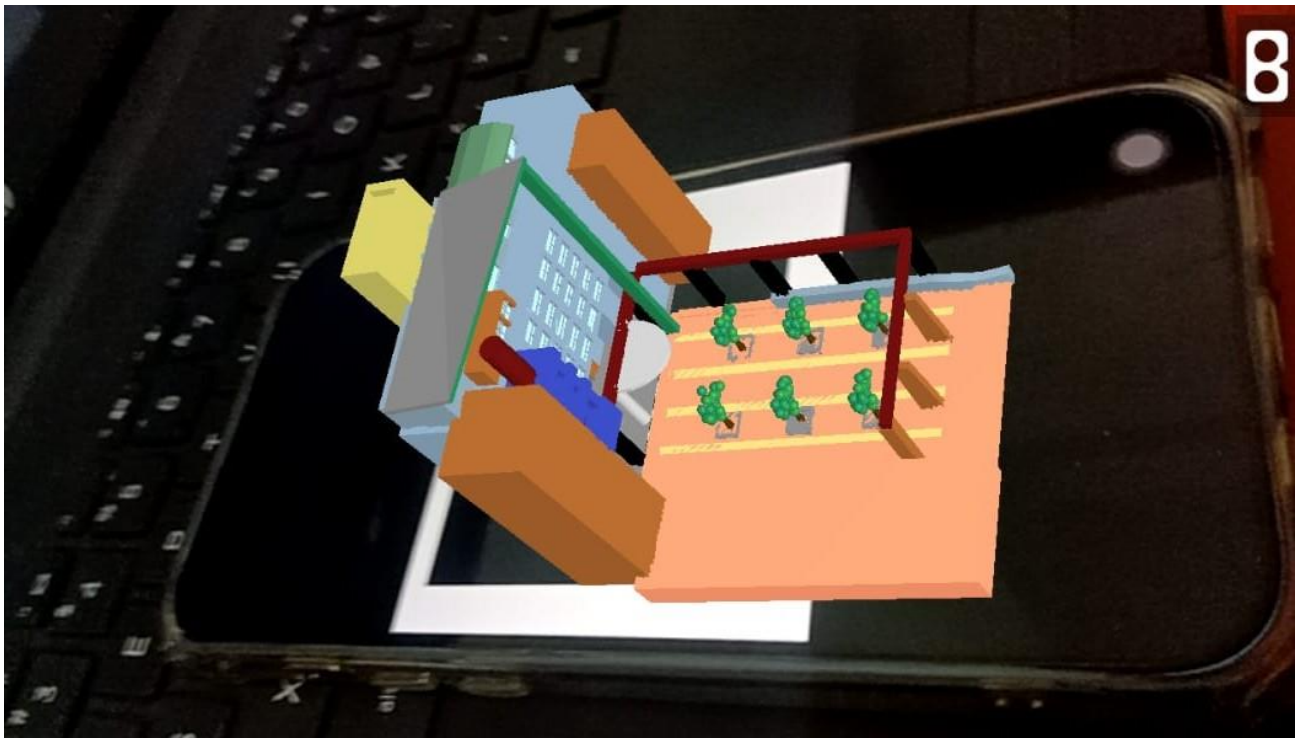
index.html > ...

```
<!DOCTYPE html>
<html>
<head>
    <title>MTIT Project</title>
    <meta name="description" content="MTIT AR">
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0">
    <script src="https://aframe.io/releases/0.7.1/aframe.min.js"></script>
    <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-ar.js"></script>
</head>
<body style='margin : 0px; overflow: hidden;'>
  <a-scene embedded arjs="debugUIEnabled: false;">
    <a-assets>
      <a-asset-item id="obj-model" src="model.obj"></a-asset-item>
      <a-asset-item id="mtl-model" src="model.mtl"></a-asset-item>
    </a-assets>
    <a-marker-camera preset='hiro'></a-marker-camera>
    <a-entity
      obj-model="obj: #obj-model; mtl: #mtl-model" position="0 0 0" rotation="0 0 0" scale="0.03 0.03 0.03"
    ></a-entity>
  </a-scene>
</body>
</html>
```

Output







3. GitHub Code Link

https://github.com/raviKaushan/MTIT_003_Assignment_04.git