

## **2.1 Introduction**

This chapter will discuss the current method of maintenance used in protecting cultural and historical architectures, as well as briefly give an explanation on the two machine learning algorithms; Decision Tree and Support Vector Machines. It will also discuss the importance of maintaining these cultural and historical architectures and describe the problems that these architectures face.

## **2.2 Current Preservation Methods**

The current method of preserving these cultural and historical architectures relies on repairing these architectures after the damage has already been done. (Guzman et al., 2020) mentions that the current heritage conservation methods are reactive. Often due to this method, cultural and historical architectures have been lost to the elements. Hence a more active measure is needed to ensure the safety of these cultural and historical architectures.

## **2.x Machine Learning Algorithms**

In this research, the proposed solution to the problem requires using machine learning algorithms. In order to do so, an understanding of these algorithms is required. The two machine learning algorithms that will be studied is the Decision Tree algorithm and the Support Vector Machines Algorithm.

### **2.x.1 Decision Tree Algorithm**

### **2.x.2 Support Vector Machines Algorithm**

## **2.x Proposed Solution**

## **2.x Conclusion**