

## **PREFACE**

As a part of the M.Sc. programme and to gain knowledge and develop my skills in the field of research I have chosen the topic ‘Detecting Spatio-Temporal Change in Climatic Variables Over Amazon Basin Using GIS Based Integrated Approach’ as my study.

The main aim of my study was to find out the best General Circulation Model to accurately assess the future climatic scenario between SSP 2.4-5 and SSP 5.8-5. I have taken ten important models to perform the analysis from NASA Centre for Climate Simulation. This study holds importance as the Amazon ecosystem is one of the most vital components in maintaining the climatic balance of the Earth. Almost 59% of the world’s climate is controlled by the Amazon basin.

Hence, it is important to understand the future scenario over this basin and how the different climatic variables change over a period of 110 years (1990-2100). Any major change in these climatic variables poses a serious threat to the region and the world as a whole.