

Preface

The present report, titled "Integrated Sewerage Pipeline System for Sustainable Wastewater Management using GIS Technology: The ‘Modelling of Daily Stock and A Study of ‘Ambaranath MIDC: A Case Study result of the collective case study research and analysis process undertaken as partial requirement for the M. time at Symbiosis Institute of Geoinformatics (SIG) holding a degree in geoinformatics. This research focuses on a significant problem that has arisen due to rapid industrialization and the management of wastewater in the Ambaranath MIDC. Over the years the industrial activities in the Ambaranath MIDC area and its surroundings has grown and with this there has been a concomitant increase in the discharge of wastewater. The existing sewerage structure in the area does not pose the required quality hence contributes to environmental pollution which in turn becomes a threat to people’s health. Being aware of the demographics need for environmental solution in developmental areas this project suggest the design of an integrated sewerage pipeline namely Geo graphic information system (GIS) survey as well as Differential Global position system survey.

The declaration of purpose is based on this preface which provides the reader with information on why this study was undertaken alongside the approaches used. The use of G.I.S technology because of harmonized data between locational and non-locational data is well suited to assessing and planning well founded sewerage pipeline systems. This work, therefore laid out its objective to design a sound and effective wastewater management system through spatial analysis and mapping of the elevation and terrain of the site using DGPS. It would be important to note that the implications of this study reach beyond the protection of the environment and the promotion of the health of the overall public. It also seeks to encourage proper compliance with the set legal requirements as well as the correct sustainable industrial development. In addition to the specific suggestions made in this study, its methodologies and outcomes can be employed to address other industrial zones with comparable issues. The contents of this work start with an introduction, review of literature, study area and objectives, materials and methodology, results and discussion and lastly; conclusions. Using that conception it is easy to notice that each chapter is devoted to the description of the different aspects of the study and every piece of the proposal contains information that full-pictures the proposed solution. I want to acknowledge all those who have personally supported me and mentored me as I undertook this research work. The advice and inputs that I have received from my two experts have been even more crucial in the direction and conclusion of this paper

Nonetheless, it is my pleasure to note that this report will not only be beneficial to the academic fraternity but also be a guide to management and authorities handling the issue of wastewater management in industries.