

Agreement Form

With great respect, we take an immense amount pleasure in submitting our senior design project report on **Smart Parking Management System**. The following report is prepared as a mandatory submission requirement for a broader understanding of the Capstone Design Project CSE/EEE/ETE 499 A & B (a two semester long senior design course). The course engages multidisciplinary teams of students, who develop, assemble and analyze custom designed systems, components or engineering processes. We would like to humbly request you to accept this report as a partial fulfillment of requirements compulsory for the Bachelor of Science degree under Electrical and Computer Engineering Department of North South University.

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ACKNOWLEDGEMENT

First and foremost, we would like to express our immense gratitude to Dr. Mahdy Rahman Chowdhury sir, our Course instructor & supervisor, for his persistent guidance, endurance, enthusiastic encouragement and valuable critiques and evaluation of our capstone project. Secondly, we would also like to thank Mr. Muhammad Hasan-uz-zaman from Pi-Labs (software firm), for assisting us to the best of his ability and aid us from the inception of the project.

A special thanks to the Stack Overflow community which supported us throughout the duration of the project and additionally all the online resources available that led to its accumulation. This project has taught us a lot in terms of trial and error and working around problems that pop up so frequently in developing a working software.

Lastly, we would like to use this chance to thank for our parents, for their continuous advice and support on this project; along with our friends who were a constant source of inspiration and moral support that was imperative to carve out this project.

ABSTRACT

The idea for the subject of the project formulated from the realization that although parking management software's are exercised abundantly in most institutions and industries, in our country, such software's are attained from international sources in exchange for a substantial amount of money. The objective was to attempt to generate a software addressing all the necessities of a parking management system, which, when produced locally and encompassing particular resolutions to distinctive problems, could therefore be implemented at a much-discounted price. A secondary goal was to formulate the design to be as automated as possible whilst ensuring and maintaining maximum system security; one which we feel the design has managed to achieve to a certain extent. The basis of this project focuses on the entry and exit of vehicles using an RFID card, during which a picture of the vehicle is taken for safety regulations. Ordinary users pay a fare each time when exiting in contrast to the VIP users who pay on a monthly basis. The system hosts an Admin panel that can be conducted from a distant or mobile location and as such requires only one personnel to run the entire system. Our team hopes and believes that projects of such manner will greatly decrease the capital spent on parking systems and consecutively simplify the procedure. This also has the potential to aid in the solution of traffic gridlocks that occur quite recurrently.