SKR ENGINEERING COLLEGE

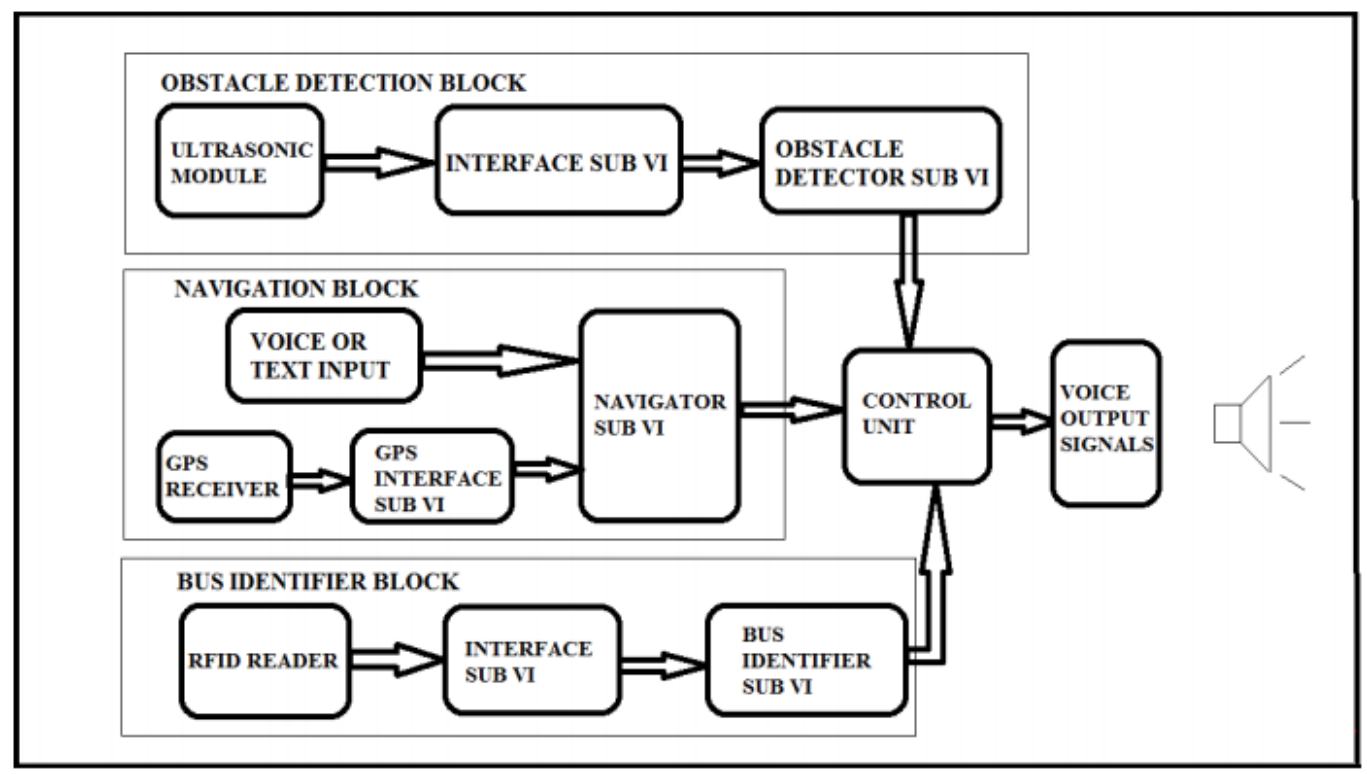
Nazarathpet, Poonamallee, Chennai-600123

Department of Electronics and communication Engineering

PROJECT TITLE	GPS BASED LABVIEW SUPPORTED NAVIGATION FOR VISUALLY CHALLENGED
STUDTENT NAMES	Deepika.K Mekhala.S Naveenkumar.R
SUPERVISOR	Mr.G.Gurumoorthy ,Assistant Professor
OBJECTIVE	The objective of this project is to support the visually challenged people. Features that include ultrasound sensor and RF tag and obstacle detection and also bus identification.
ABSTRACT/IDEA	Navigation aids for the pedestrians are considered new research challenges. The visually challenged people are particularly concerned, because of their need to detect and avoid obstacles, as well as to themselves and known as well as unknown environments. The modeled project guides the visually impaired people to move independently. This prototype acquires he current location of the user (visually impaired person) from the GPS system and the destination is fed to the device by the user. The special of this project include Ultrasonic sensors and RF tags and readers for obstacle detection and MTC bus identification respectively. Thus the three functionalities are integrated under one program.
TECHNOLOGY USED	1. NI LAB VIEW Technology 2. GPS and RFID Technology

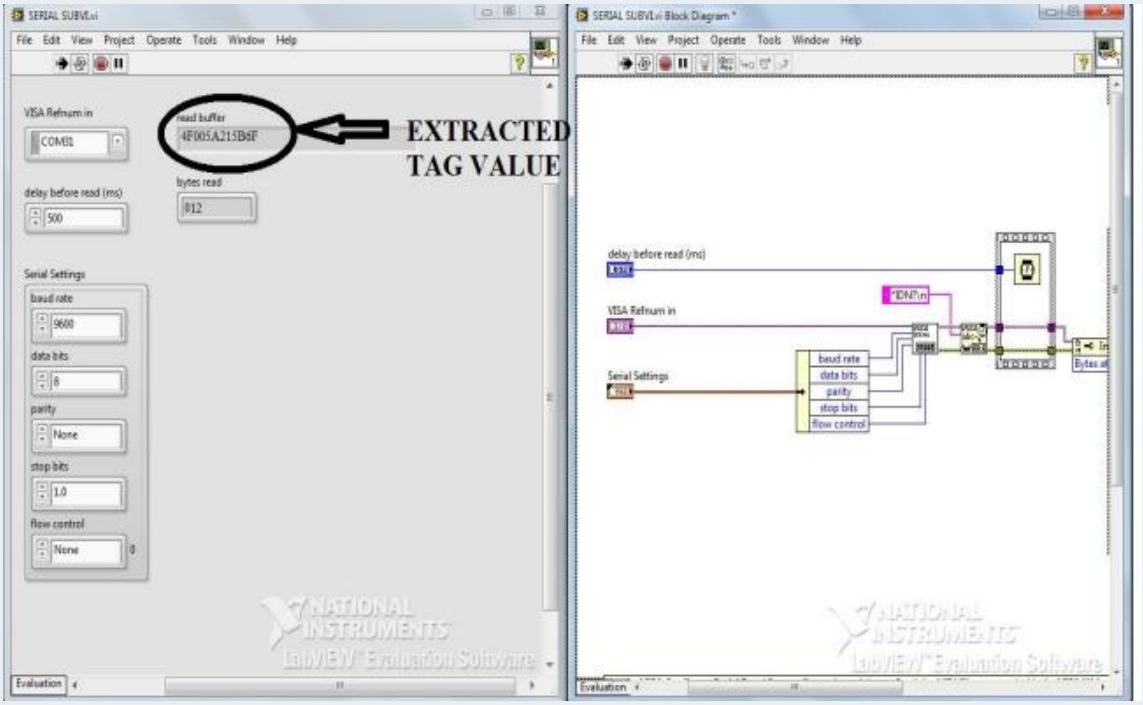
WORKING STEPS	1. Obstacle detection 2. Navigation 3. MTC bus identification
REQUIREMENTS	1.Obstacle detector 2.Navigation sub system 3. NI LAB VIEW

SYSTEM ARCHITECTURE



BENIFITS	Easy programming, Less time consumption, Easy Interfacing, Fast Code compilation, Availability of Large libraries, Code re-use, Parallel programming, Ecosystem, User community

SCREEN SHOTS


SERIAL SUBVI.vi
File Edit View Project Operate Tools Window Help
VISA Refnum in
COM31
read buffer
4F005A215B8F
EXTRACTED TAG VALUE
bytes read
12
delay before read (ms)
500
Serial Settings
baud rate
9600
data bits
8
parity
None
stop bits
1.0
flow control
None
Evaluation
SERIAL SUBVI.vi Block Diagram *
File Edit View Project Operate Tools Window Help
delay before read (ms)
VISA Refnum in
*IDN?\n
Serial Settings
baud rate
data bits
parity
stop bits
flow control
Evaluation