



N TECHNOLOGY & RESEARCH CENTRE PVT. LTD.

22/301, Acharya Vihar, Bhubaneswar -13

Ph.: 9040089995/ 0674-2541091

www.ntechnologybbsr.com

SECURITY BASED APPLICATIONS

- Anti-Vehicle Theft Control Using GSM Networks
- Vehicle Speed Monitoring System
- Password Operated Locking System for a Door
- Development of a Microcontroller based Modern Voting System
- Airport Security System for metal detection and staff identification
- Implementation of a real time clock using microcontroller
- Predefined Time operated Home Appliance Control System for power saving
- Prototype Implementation of Solar Tracking System
- Low cost Alcohol Detector for scanning drunk drivers in the traffic
- Microcontroller based Vibration Sensing Alarm System

ROBOTIC PROJECTS

- Fire Fighting Robot
- Floor Cleaning Robot
- Industrial Surveillance Robot for Detecting Fire and Smoke (RF)
- Spying Robot with Wireless Camera
- Pick and Place Robot
- Robotic Model of vehicle to avoid Collision Detection
- Prototype of a Bomb Diffusing Robot
- Slot Detection by a Trolley Robot for Automatic Loading and Unloading
- Line following robot
- IR based Robotic direction control
- Robotic land mines detector (Metal) (IR)
- Password operated wireless robot
- Spying robot tracking Human Beings and Sensing Fire



PIR APPLICATION

- Spying robot tracking Human Beings and Sensing Fire
- PIR sensor based robbery(intrusion) detection system with alarm warning
- Robbery (intrusion)detection system with alert intimation to police through GSM network
- Robbery(intrusion) detection system with alarm warning and visualization through PC from remote place
- PIR based automatic door controller
- Automatic power saver lights for hospital staircases



PC APPLICATION

- Domestic Automation using PC(wire based)
- Wireless PC to LCD display to overcome Voice Announcement Failures
- PC enabled electrical load management from far flung places in a power grid
- PC controlled spying robot from a remote place using wireless communications

RF BASED PROJECTS

- RF based security system for industries
- Health Monitoring System
- Industrial Safeguard Security System with Intimation to Remote Control Room (Fire, Intrusion, Keypad)
- RF communications based operation of a Robotic Wheelchair
- RF based Bidirectional Speed Control of Motor (AC)
- RF based Flash Flood Warning System
- RF based speed control of fan (DC/AC)
- Wireless voice enabled blind stick
- RF based tank water level indicator
- Automated remote data logger using RFID technology
- New generation Polling method using RF
- RF based Accident intimation with vehicular identification

BLUETOOTH BASED PROJECTS

- Wireless Energy Meter with Enhanced Range of Communications
- Vehicular Identification System using RFID & BLUETOOTH
- Wireless Health Monitoring System
- Industrial Parameter Monitoring System with Intimation to Remote Control Room (VIT)
- LABVIEW Based SCADA(Supervisory Control and Acquisition Data)
- Bidirectional Speed Control of Motor using wireless communication
- Smart Traffic Communication to Avoid Jams
- Intrusion Detection System and Intimation System
- Wireless Track Breakage Intimation to Train
- Wireless Water level Indicator System
- Industrial Boiler Temperature Control using Wireless Communication
- Smart Helmet for Operation in Mines with Voice Announcement System
- Secured data transfer for army application
- Blue tooth controlled lightning system
- Blue tooth controlled industrial surveillance Robot
- Wireless Home appliance monitoring and controlling
- RFID enabled wireless security system with enhanced range of communication



- Wireless Employee management and automation in MNC using RFID
- Advanced wireless water pumping system with alert
- Auto voice announcement in train for passenger convenience
- Wireless mouse control using Bluetooth
- Wireless cooling system for chemical laboratories
- Induction motor speed control
- Speed and direction of induction control
- DC motor speed and direction control using H bridge
- Talking touch home (TTH)
- Android based advanced menu display and ordering system for restaurant.
- Android based wheel chair control system

N TECHNOLOGY & RESEARCH CENTRE PVT. LTD.

22/301, Acharya Vihar, Bhubaneswar -13

Ph.: 9040089995/ 0674-2541091

www.ntechnologybbsr.com

GSM AND GPS APPLICATION

- Vehicle Speed and Position Monitoring System using GPS and GSM
- Anti-Vehicle Theft Control System using GPS & GSM
- Person Intrusion Alarm System using GSM at Restricted Areas
- Accident intimation system using GSM technology.
- GSM based electricity billing system
- GSM based speed control of AC fan
- Home security and maintenance using GSM
- GSM based Door calling bell system
- GSM based security with auto image alert through E-mail
- Smart helmet design using GSM technology



RFID PROJECTS

- Airport Security System with Metal Detection for Authorized Entry
- Attendance System in Colleges for Database Management
- Bus Arrival and Voice Announcement System by Identification for passenger convenience.
- RFID based office load management.
- Low cost RFID based employee attendance and automation.
- RFID based authenticated door locking
- RFID based shopping in malls
- RFID based voice enabled route map
- Intelligent parallel parking of a car using RFID



BIOMETRIC PROJECTS

- Voice based operation of door
- Operation of Domestic Electrical Loads using Voice commands
- Automatic audio guidance system in a campus (RFID)
- Gesture based operation of robotic wheel chair.
- Finger print based smart attendance system
- Heartbeat monitoring with analog display on PC using Lab-VIEW
- Design and Development of Modern Voting System with Thumb Identification (provides extreme authentication)
- Office Security System using Optical Finger Print Scanner
- Finger print based Interactive System for obtaining Student Details



MEMS APPLICATION

- Earthquake detection
- Head gesture based wheel chair movement (RF)
- Controlling various loads using MEM Sensor (RF)
- Wireless Robot direction controlling with gestures from a remote place
- MEMS based Fall detection system for patients (RF)

SOCIAL PROJECTS

- Smart integration system
- Wheelchair Operation using PC
- Power Saving System for Traffic Lights (Traffic Density based)
- Drunken Driver Testing with Automatic Intimation.
- E-stick with voice announcement for blind people.(RF)
- Railway level crossing gate control
- Passenger counters in transport to alert the driver for excess entry
- Proximity detector using ultrasonic sensors for industrial applications
- Low cost SMART CARD based ticketing system using RFID (IEEE)
- Bus Detection Device for Blind People using Passive RFID Cards
- Hidden cell phone detection in exam halls using RF with microcontroller
- Auto door operation for shopping malls using ultrasonic sensor
- Entry Exit Counter for vehicles
- Water Sprinkling system based on Fire Detection
- Voice controlled notice board
- Android based audio command based room lightning
- App based home automation
- Android controlled speed control of FAN
- APP base temperature monitoring system

- Water level controller using smart APP
- Patient monitoring system using android
- Android controller floor cleaning robot
- Gun robot for war field using android phone
- Voice command operated robot with Bluetooth interface and APP
- Induction motor speed control using android
- SCADA development using android for industries
- Android based irrigation system
- App based home security system
- Security locker using smart phone
- Boiler control using android (Human Machine Interface)

SIMULATION (Lab-VIEW, PROTEUS)

- Industrial SCADA using Lab-VIEW
- GUI based device controlling and monitoring
- PC based industrial parameter monitoring with Graph indicator
- PC based over voltage relay with report generation
- IVRS based industrial automation
- SMART card based industrial security system with virtual instrumentation
- Security camera with auto door operation and image sending through E-mail
- Speed control of DC motor using Fuzzy logic(Lab-VIEW)
- Buck Boost converter using Proteus SW
- Speed control of CHOPPER using MOSFET (Proteus)
- DC motor speed control using LabVIEW
- PLC using microcontroller (Proteus)
- Measuring QOS of machine for quality test (Proteus)
- Speed control of motor with V/F control
- Substation monitoring using HMI
- Power shading using ATM (Auto/Timed/Manual) operation
- Temperature dependent speed regulation of DC motor using FUZZY LOGIC
- Industrial parameter based IVR system



- Graphical VIEW of VIT with voice feed back
- Implementation of OLTC with graphical display
- Improving security and automation in industries using RFID card
- Hybrid PLC with RS232 Link
- Wireless Hybrid PLC with RF

N TECHNOLOGY & RESEARCH CENTRE PVT. LTD.

22/301, Acharya Vihar, Bhubaneswar -13

Ph.: 9040089995/ 0674-2541091

www.ntechnologybbsr.com

SOLAR PROJECTS

- Design of Solar Inverter Circuit for Homes
- Implementation of Solar Battery Charger Circuit
- Maximum Power Point Tracking for Low Power Photovoltaic Solar Panels
- Solar Powered Auto Irrigation System
- Solar Powered LED Street Light with Auto Intensity Control
- Design of Solar Powered Night Lamp Circuit
- Solar Energy Measurement System
- Farmer Friendly Solar Based Electric Fence for Rural Agriculture
- Development of Dual-Axis Solar Tracking using microcontroller
- Solar Based Advanced Weather Monitoring System Using Wireless Sensor Network
- Solar Powered Automatic Rain Operated Wiper
- Forest Fire Detection Using Optimized Solar Powered Wireless Sensor Networks
- Design of Simple Solar Charger Circuit for Mobiles
- A Hybrid Wind-Solar Energy System
- Solar Based Wireless Power Transfer
- Solar powered Induction Motor Driven Water Pump Operating on a Desert Well



- Solar Powered Line Following Vehicle
- Lead-Acid-Battery Regulator For Solar Panel Systems
- Auto control of light using solar panel (Day Night)
- Intensity controlled street light using solar power
- Solar powered earthquake detection

N TECHNOLOGY & RESEARCH CENTRE PVT. LTD.

22/301, Acharya Vihar, Bhubaneswar -13

Ph.: 9040089995/ 0674-2541091

www.ntechnologybbsr.com

MATLAB

- Solar DC to DC converter using Buck, Boost, Buck-boost with MATLAB (simulink)
- DCT based Image compression
- Image steganography using LSB
- Geographical image enhancement using MATLAB
- Image enhancement using bilateral filtering
- Brightness Preserving dynamic fuzzy histogram equalization
- Salt and pepper noise removal using adaptive median filter
- BDND for random valued impulse noise reduction
- Image clustering using Fuzzy C-means algorithm
- K means algorithm for image clustering
- Level set method for MRI bias correction
- Image compression by sparse approximation
- Character recognition by matlab
- Motion detection by background subtraction and morphological operation
- Kalman filter for object tracking
- Face recognition using MATLAB
- Image mixing and separation using ICA
- Image compression using Vector quantization
- Comparative study on adaptive signal processing algorithms

- System identification using LMS, RLS and NLMS
- Speaker identification using feature extracted MFCC
- Unbalanced data mining using SMOTE algorithm
- Machine learning using KNN algorithm
- Echo cancellation using adaptive filters
- Adaptive equalizer for SISO system using modified LMS algorithm
- Comparative study on GSA and PSO optimization
- PAPR reduction techniques in OFDM
- WSN optimization using LEACH and modified LEACH algorithm
- Economic Load Dispatch using Firefly algorithm
- Fuzzy logic based AGC (Automatic Generation Controller) 2 area system
- Hammersmith pulled to sit neurological exam of infants using Kalman filter
- Fault modeling and classification in three phase system
- Solar MPPT using P&O algorithm
- Solar inverter with SPWM technique
- Grid integrated solar system
- Hybrid solar and wind system modelling
- THD reduction using Shunt Active Power Filter (APF)
- Flexible manufacturing system using PSO algorithm
- Solar MPPT under partial shedding condition
- Soft switching boost converter with auxiliary HI resonant circuit
- Multi robot task allocation using PSO and GSA

- Dynamic robot path planning using Potential field method
- Multi robot task allocation using PSO and GSA
- Dynamic robot path planning using Potential field method
- Vector controlled induction motor drive
- Economic Load Dispatch using PSO algorithm
- Economic Load Dispatch using GSA algorithm
- Transformer Inrush and internal fault modeling using Fuzzy logic
- VSC controlled HVDC system
- DC motor speed control using PWM
- Armature controlled DC motor drive
- Three level inverter
- Five level inverter
- Seven level inverter
- Single phase to Three phase converter
- Sinusoidal PWM based inverted design
- Power factor correction using active filtering technique
- Boost converter with PID controller
- Buck Boost modeling using Simulink
- Advanced buck boost converter using H bridge

Customized projects are most welcome on any domain

N TECHNOLOGY & RESEARCH CENTRE PVT. LTD.

22/301, Acharya Vihar, Bhubaneswar -13

Ph.: 9040089995/ 0674-2541091

www.ntechnologybbsr.com