

# **NCCT**

**Promise for the Best Projects**

## **IEEE PROJECTS**

**in various Domains**

**Latest Projects, 2009 - 2010**

## **ADVANCED ROBOTICS SOLUTIONS**

### **EMBEDDED SYSTEM PROJECTS**

**Microcontrollers | VLSI | DSP | Matlab | Robotics**

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# **ADVANCED ROBOTICS SOLUTIONS**

- **Intelli Mobile Robot for Multi Specialty Operations**
- **Advanced Robotic Pick and Place Arm and Hand System**
- **Automatic Color Sensing Robot using PC**
- **AI Based Image Capturing and Transferring to PC using Robot**
- **Intelli Robotic Wheel Chair for Specialty Operations & Physically Challenged**
- **Cell Phone Controlled AI based Five Axis Robot for Multi Specialty Operations**
- **Color Identification Robot System**
- **Color Sensor with Conveyor Model - Color Identification Robot**
- **Wireless AI Based Fire Fighting Robot for Relief Operations**
- **Wireless AI Based Intelli Mobile Robot for Materials Handling Operations**
- **Wireless AI Based Intelli Mobile Robot for Multi Specialty Operations with CCD Camera for Wireless Video / Audio Transmission Auto Dialer SMS Facility**
- **Wireless Industrial Security Robot with Motion Detection System with Live Wireless Video / Audio Transmission**
- **Design and Development of Bomb Detecting Robot**

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- Design and Development of Obstacle Sensing and Object Guiding Robot
- Distance Monitoring and Object Detecting Robot By Radio Frequency Technology
- Electronic Nose for Robotics
- Fire Ball for Fire Extinguishing with Robot Model
- Gas Detection Robot for Atomic Power Station
- IVRS Based Robot Control with Response & Feed Back
- Motion Detection, Robotics Guidance & Proximity Sensing using Ultrasonic Technology
- Remote Bomb Detecting Robot
- Smart Tanker Robot for Security Operation in the Protected Area with Wireless Secured Communication – Unmanned & Operative
- SMS Based Controller – Robot Control
- Voice Based Path Control of Robot via the PC using RF Communication Technology
- Voice Control / Speech Recognition Alive Human Detector
- Voice Controlled & Activated Wheel Chair Robot for Physically Challenged
- Walking Robot with Infrared Sensors / Light Sensors / RF Sensor / Tactile Sensors
- Wireless Robotic Vehicle with 2.4 Ghz Camera for Surveillance / Rescue

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- Wall Follower Robot with The Help of Multiple Artificial Eyes
- Wireless Weapon Automation - Smart Tanker Robot – Embedded
- A Modular Cost-Effective Mobile Robot Navigation System Using RFID Technology - 2009
- A multi-Robot coordination system based on RFID technology – 2009
- A Fast Onboard Relative Positioning Module for Multi Robot Systems – 2009
- Wireless communications in networked Robotics – 2009
- Mobile Robots in Mine Rescue and Recovery – 2009
- RFID tag bearing estimation for mobile Robot localization – 2009
- Robust Sensor-Based Navigation for Mobile Robots – 2009
- Real-time audio-visual calls detection system for a Chicken Robot - 2009
- Swarm Robot Synchronization using RFID Tags – 2009
- Speed and position Control of Autonomous Mobile Robot on Variable Trajectory Depending on its Curvature – 2009
- Simple sensors provide inputs for cognitive Robots – 2009
- An Intelligent Mobile Robot Navigation Technique Using RFID Technology – 2008
- Development of a Module based Platform for Mobile Robots – 2008
- Coal Mine Detect and Rescue Robot Design and Research – 2008

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- **A Fuzzy Controller for Autonomous Negotiation of Stairs by a Mobile Robot with Adjustable Tracks – 2008**
- **A novel Robo system for surface inspection and diameter measurement of large size - 2008**
- **A task planner for a dual-arm Robot: A geometric formulation - 2008**
- **A Methodology for Implementation the CPAC Approach to Path Tracking with Six-DOF Robotic Manipulators – 2008**
- **GPS-Based Path Following Control for a Car-Like Wheeled Mobile Robot With Skidding and Slipping - 2008**
- **Hydraulic Simulation and Remote Control System of Field Robot – 2008**
- **Implementation of Obstacle Avoidance and ZigBee Control Functions for Omni Directional Mobile Robot - 2008**
- **Indoor Autonomous Navigation of Blind Persons using RFID Sensing Robots – 2008**
- **Interactive Object Acquisition based on Robot Technology Middleware (RTM) for 3 – Axis Robot – 2008**
- **Path Planning Automated Guided Robot – 2008**
- **Real-time Bluetooth communication system for control of a mobile Robot - 2008**
- **Real-Time Control of a Two-Wheeled Inverted Pendulum Mobile Robot – 2008**
- **Robotic Software Architecture for Multi-sensor Fusion System - 2008**

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- **Visual Servo Control of a Three Degree of Freedom Robotic Arm System – 2008**
- **Walking Hexapod Robot in Disaster Recovery: Developing Algorithm for Terrain Negotiation and Navigation – 2008**
- **Voice Command Control for Mobile Robots – 2007**
- **An autonomous surveillance and security Robot team - 2007**
- **Develop a Multiple Interface Based Fire Fighting Robot – 2007**
- **Development of Autonomous Robotic Wheelchair Controller Using Embedded – 2007**
- **Development of a Person Following Mobile Robot in Complicated Background by Using Distance and Color Information – 2007**
- **Using AC Motors in Robotics – 2007**
- **The design and implementation of an autonomous campus patrol Robot – 2007**
- **Design and Implementation of Internet Based Healthcare Robot System - 2007**
- **Remote-controlled Home Robot Server with Zigbee Sensor Network – 2007**
- **NCCU Security Warrior: An Intelligent Security Robot System - 2007**
- **Fuzzy Controller Designed by GA for Two-Wheeled Mobile Robots – 2007**
- **The WURDE Robotics Middleware and RIDE Multi-Robot Tele-Operation Interface – 2006**

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- **Modular Sensor Processing for Robotics based Security in Hazardous Environments – 2006**
- **MERMAID – Multiple Robot Middleware for Intelligent Decision-Making – 2006**
- **Development of a Multimode Navigation System for an Assistive Robotics Project – 2006**
- **Semi-Autonomous Teleoperation of Multiple Cooperative Robots for Human-Robot lunar Exploration – 2006**
- **Security Service Robot in ubiquitous Environment based on Cognitive Robotic Engine – 2006**
- **RoboCup Rescue – Robot league team IUB Rescue, Germany – 2006**
- **The Future of Robot-Assisted Learning in the Home – 2006**
- **Conveyor Visual Tracking using Robot Vision – 2006**
- **A Humanoid Robot to Prevent Children Accidents – 2005**
- **A Voice Guiding System for Autonomous Robots- 2005**
- **Development of Autonomous Robotic Wheelchair System – 2005**
- **Neuro Fuzzy Controllers and Application to Autonomous Robots – 2005**
- **The Omni Tread Serpentine Robot for Industrial Inspection and surveillance – 2005**
- **A Tele-Operated Humanoid Robot Drives a Lift Truck**
- **A Test Bed for Voice based Robot Control**

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- **An Autonomous Assistant Robot for Book manipulation in a Library**
- **An Exoskeletal Robot Manipulator for Lower Limbs Rehabilitation**
- **BlueBot: Asset tracking via ROBOtic location Crawling**
- **Vision Control of a Robotic Hand**
- **Deriving and Matching Image Fingerprint Sequences fro Mobile Robot Localization**
- **Design and Implementation of an Open Autonomous Mobile Robot System**
- **Designing a Secure and Robust Mobile Interacting Robot for the Long Term**
- **Detection of Abnormal Movement of Industrial Robots using Image Sequence**
- **Fusion of Voice, Gesture, and human-Computer Interface Controls for Remotely Operated Robot**
- **Firebot: Design of an Autonomous Fire Fighting Robot**
- **Hybrid Control of Semi-Autonomous Robots**
- **Implementing Multiple Robot Architectures using Mobile Agents**
- **Navigation of Mobile Robot using Global Positioning System (GPS) and Obstacle Avoidance System with Commanded**
- **Obstacle Avoidance of Mobile Robots using Ordinal structure Model of Fuzzy Reasoning Approach**

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- **RoboCart: Toward Robot-Assisted Navigation of Grocery Stores by the Visually Impaired**
- **TeleRobotics: Through-The-Internet Teleoperation of the ABB IRB 2000 Industrial Robot**
- **Control and Monitoring of Mobile Robot system using Bluetooth**
- **Control of a Simple DC Motor Robot Equipped with Ultrasonic Sensors via a Field Programmable Gate Array and a**
- **Custom Architecture for Fuzzy and Neural Networks Controllers**
- **Dual functional reconfigurable mobile Robot – IEEE**

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