

## **List Of Projects 2012-13**

### **Department of Civil Engineering**

1. Analysis for evolution of Self Compacting Concrete
2. Applications of Retrofitting Chemicals.
3. Comparative Study of Residual Energy over Labyrinth Weir
4. Comparative Study of Strength Characteristics of Geopolymer Concrete
5. Influence of GGBS on Concrete with and without steel fibers with different aspect ratio
6. LEED Certification for Greener India. Effect of lime & lime mixed coir on black cotton soil
7. Pavement Management System
8. Seismic Analysis and Design of Retaining Wall
9. Seismic Analysis of Bridge
10. Seismic Analysis of unbraced and braced RCC Frame Building
11. Seismic analysis of Flat Slabs in buildings.
12. Soil Stabilization using used tyres and additives
13. Study of Compressive Strength of Rice Husk Ash Concrete
14. Testing of Concrete using NDT for Steel Fiber and Fly Ash of M20 grade.
15. Pervious Concrete Pavement.
16. Influence of RHA on Concrete with & without fiber reinforcement.
17. Analysis of High rise Steel Building
18. Comparative Study of Concrete with poly- propylene fiber with plain concrete.
19. Crumb Rubber Concrete.
20. Development of GPS Assisted Surveying
21. Effect of Stabilizers on Soil
22. Enhancing Concrete Properties by using GGBS and Steel Fibers
23. Metro in Nagpur: Case Study
24. Rain Water Harvesting of GHRCE Building
25. Renovation and Rehabilitation of Building
26. Seismic analysis & design of steel foot over bridge.
27. Study of Zero Energy Building
28. Transforming from Intermittent to 24 x 7 Water Supply
29. Use of Fly Ash in Concrete

## Department of Computer Science & Engineering

1. Agri-Community Helpdesk
2. An Extended Visual Cryptography: An approach to Pixel Expansion Problem
3. Android based application (Persistent Sys)
4. Biometrics: Facial Recognition and Authentication
5. Composite Mail Server
6. Cybernetics Protector
7. Enterprise Resource Planning
8. Image forgery Detection
9. Implementation of image edge detection for some application
10. Implementation of Secured Cloud Communication for Data Centre
11. Intranet Server for Mailing and proxy Authentication
12. Multi-Machine, Multi-Core Parallel Architecture for DNA sequence comparison, using Tiling Mechanism
13. Multitask Enhancer for Human
14. Online Storage and Multimedia Streaming
15. Personality Recognition Through handwriting
16. Reporting on Congestion router and delay
17. Smart App. For GHRCE
18. Video Encryption using Chaotic Cryptography
19. Video Morphing Using Advanced Imaging API
20. Voice Recognition System
21. Wireless Electronic Notice Board
22. Automated toll tax
23. Automation of Nagpur RTO system.
24. Autovox alert Intelligent Transportation System
25. Comparing and analyzing wireless networking protocol.
26. Designing Vehicle accident prevention system.
27. Disk Reorganization of disc space for access time minimization.
28. Dynamic Balance on Two Wheels
29. e-Attendance system using Image Processing
30. Error detection in peer-to-peer network.
31. Extending Boundaries of NP-Class problem under supercomputing architecture.
32. Gestural Inferred system
33. GSM controlled power supply for GHRCE
34. Live project: on web technology Greedy routing with antvoid daversay for wireless sensor networks
35. Load Balancing in wireless networks using cell breathing technique
36. Online Assessment System for Handheld Devices
37. Program Execution Visualizer
38. Secured and Energy Efficient Resource Management of PC Through LAN
39. Sniffer Implementation using port scanning.
40. Tracking of Infrared Light Source using Wii Remote
41. Virtual task Management, scheduling & Alert notification system for faculties.

42. Web spam detection using link based ant colony optimization.

### **Department Electrical Engineering**

1. Advanced Substation Monitoring
2. Application of STATCOM in AC traction system
3. Application of ultra capacitor in hoist for energy saving
4. Automatic back up protection to avoid accident at railway station.
5. Automatic Protection of Three phase devices
6. Closed Loop Controller for Static VAR system.
7. Comparative study of ultra capacitor & fly wheel for process machine
8. Conservation of Energy in wastewater and its efficient utilization with reference to High rise building.
9. Design/Fabrication of an Electric energy storage gadget
10. Estimation of available transfer capability under normal & contingency condition in deregulated electricity market
11. Exploring role of ultracapacitors in 2 wheelers
12. Flashlight using supercapacitor
13. Generation of electricity from vibration of un-notice human activity
14. High Voltage Cable Tester
15. Microcontroller based control of multiple single phase induction motor.
16. Motor control panel with multi protection system
17. Multipoint temperature layer & controller using zigbee module
18. Smart Farming
19. Solar tracking system And Intelligent street Light Control.
20. Speed control and monitoring of DC motor by online.
21. Stabilization & control of electromagnetic suspension system using state feedback method.
22. Application of shunt FACTS devices for improvement of power system performance
23. Computer aided system controller
24. Control of conveyor using PLC
25. Control system & automation of power grid
26. Design of Non-Conventional Electric Car
27. Efficient fault management using remote fault passage indicator
28. Electrical appliances control & monitoring system
29. Embedded monitoring & speed control of 3 phase Induction motor
30. Energy Conservative green building
31. Energy meter with inbuilt billing facility
32. Generation & Testing of SPWM with variable frequency & variable amplitude
33. Generation of electricity from moving train using air pressure
34. Low cost automatic energy efficient emergency lamp using pulse width modulation
35. MATLAB simulation of Hybrid power system
36. Protection of power transformer using microcontroller based relay

37. Simulation & Fabrication of series combination of battery & super capacitor for starting / overloading of motor
38. Solar laptop charger
39. Static on load tap changer using thyristor control for discrete level voltage control using ternary proportion winding
40. To design multi functioning ammeter
41. Wireless Electricity
42. WSN based power monitoring & theft detection

### **Department of ETC**

1. Active call information with voice feedback
2. Automatic car parking system
3. AVR Based Wireless PowerPoint Presentation
4. Design of Autonomous Navigation System for Fire Extinguishing with Water Jet Spray using Simultaneous Localization and Mapping (SLAM) techniques
5. Design of RF Tunable Oscillator
6. Error detection by object determination using PLC
7. Evidence collection system with intra vehicular application
8. Human Iris Security system
9. Implementation of MIMO OFDM for WiMax
10. Mouse Control Robotic Arm using VHDL
11. Performance analysis of wifi based privet branch exchange
12. Power line communication based Energy Meter Automation
13. Real time cognitive Assistance to Visually Impaired
14. Real Time Eye Tracking System for drowsy Driver
15. Removal of noise from image using Wavelet Thresholding method
16. Security system for forest visitors
17. Smart Vehicle Using Signal Analyzer using AVR
18. Tactical combat ground Vehicle
19. Zigbee based Intelligent Driver Assistance System
20. Forehead stress Recognition in Real Time Monitoring System
21. RFID Based Advanced contactless payment system
22. Biometric based security system
23. Breakdown Indication of Transformer in rural area using GSM Network
24. Combining gesture graphical element for collaboration using surface computing
25. Design and Implementation of Floating Point ALU
26. Design of CAN based event data Recorder
27. DSP Implementation of LMS Predictor for noise cancelation
28. Electric bike
29. Electricity generation using mobile tower radiation
30. Electronic weaponry robot for military application
31. Handheld(miniature) spectrum Analyzer
32. Palm print Recognition with Multiple Correlation Filters Using Edge Detection
33. Vision controlled machine

34. Web based Temperature Monitoring System
35. Wireless Accelerometer based wheel chair
36. Wireless Electrical Battery Charger
37. Wireless Touch screen Based Controlled Robomapper
38. WSN (Zigbee) Based Monitor and control

### **Department of Electronics Engineering**

1. Alcohol detection & speed control of vehicle
2. Automatic electronic billing system under Mall Automation
3. Design & Implementation of Braille mechanism for blind people
4. Design of colour image enhancement by virtual histogram
5. Design of EEG system & Mind Control Application
6. Design of land slide warning system
7. Design of library automation using RFID
8. Design of MP3 player using FPGA
9. Design of precise temperature control for incubator for pre born child growth used in hospital
10. Design of trajectory pathfinder using MEMS accelerometer
11. Design of voice controlled unmanned system for ground vehicle surveillance
12. Development of embedded system for Skin Cancer detection
13. FPGA based Implementation of I2C bus controller for LED and LCD display drivers.
14. Implementation of multiplier using vedic algorithm
15. Modelling the suitability & applicability of ultracapacitor on regenerative braking & powering of electric cars
16. Real time vehicle (bus) monitoring & passenger information system
17. To design two axis servomotor control using PLC
18. Ultra low power MSP430 microcontroller based control system for composting process
19. Zigbee based monitoring & controlling security energy meter
20. Design and Implementation of X-Y Router Using VHDL
21. Design of Humanoid Imitation of Robotic arm using image processing
22. Design of Low power reconfigurable multiplier with re-ordering of partial product
23. A design of fuzzy Controller for Autonomous navigation of unmanned vehicle
24. Cell Based Home Automation
25. Design for animal tracking using wireless network
26. Design of Automatic vehicle Maneuvering and Navigation System
27. Design of Electronics toll tax collection
28. Design of Interactive SMS management system for college automation
29. Design of MIMO OFDM broad band wireless communication system
30. Design of Scheduler Controller for Industrial automation Using GSM Technology
31. Design of sewage cleaning System
32. Design of Vehicle Identification system for visually Impaired
33. High speed data acquisition system for velocity of detonation measurement

34. Implementation of Automated colour sorting embedded system
35. Low power wireless communication system for Bio signal transmission MSP430
36. Modified car that drives automatically between lanes and avoid forward collision
37. Unmanned Aerial vehicle Quadcopter
38. Unmanned Ground Vehicle for obstacle detection

### **Department of Information Technology**

1. Advanced monitoring and attendance system for industrial plants
2. Analysis of agriculture soil data classification
3. Data integrity proofs in cloud storage (Cloud Computing)
4. Document reader software using NLP & Speech synthesis.
5. Developing IDS using genetic algorithm for adhoc network
6. Feature based image metamorphosis implementation with morphing algorithm
7. Hiding messages in MIDI songs
8. Implementing virtualization in cloud computing
9. Mobile Spy
10. Mouse / Mobile controlled robotic arm for material handling (Interdepartmental project)
11. Network Communicator
12. OMR software
13. Persistent Group : Smart learning System
14. Rich internet application for weekly automatic college time-table generation
15. Scheduling in RTOS
16. Traffic monitoring speed surveillance & alert systems (IEDC PROJECT)
17. Virtualization in Linux [RHEL6] with an aspect of cloud

### **Department of Mechanical Engineering**

1. Automatic car parking based on micro controller
2. Design and development of anti-collision device for vehicles
3. Design and development of economic seed sowing
4. Design and development of machine for plastic component
5. Design and fabrication of Portable vaccine cold storage
6. Design and fabrication of aqua silencer
7. Design and fabrication of automated material handling equipment
8. Design and fabrication of single sided swing arm in two wheelers
9. Design of Die-set to eliminate alignment factor
10. Design, development and fabrication of Fan without blades
11. Design, development and fabrication of lightweight and long range pesticide sprayer
12. Drainage cleaning machine
13. Footstep electricity generation
14. Furniture testing machine
15. In built automatic hydraulic jack for cars.
16. Mouse control robotic arm for material handling

17. Production and fabrication of Algae-Breeding extraction system
18. Reducing medical waste by heating on conveyer belt
19. Air lift eductor
20. Automatic tyre inflation system
21. Automation of Rethreading of machine components
22. Design and fabrication of Mechanized Agriculture equipment Accessories
23. Design and fabrication of recuperator as waste heat recovery system
24. Design and Fabrication of road deduster for four wheeler.
25. Design of chasis for light compact vehicle
26. Design, simulation and analysis of brake caliper
27. Design & Dev. of modified air cooler
28. Designing and development of stare case climbing wheel chair
29. Designing and fabrication of solar operated desert cooler
30. Development of water cooler cum air conditioner
31. Electricity generation and water pumping through trade mill.
32. Increasing the efficiency of existing IC Engine
33. Mixed mode solar dryer
34. Nitro Suspension System
35. Rail road breakdown vehicle
36. Solar power scarecrow
37. Tesla Turbine
38. Use of waste products to produce energy & fertilizer