

## **Innovative Bio-medical Final projects list**

- SET-641.** Genetic-Based Biometric Security System for Wireless Sensor-based Health Care Systems (2012)
- SET-597.** A Reliable Transmission Protocol for ZigBee-Based Wireless Patient Monitoring (2012)
- SET-609.** Wireless Sensor Network Based Home Monitoring System for Wellness Determination of Elderly (2012)
- SET-631.** The Monitoring System design Of Harmful Gas inside Special Vehicle (2012)
- SET-639.** Accelerometer-based Body Sensing for Healthy Aging (2012)
- SET-640.** An Indoor Navigation Approach to Aid the Physically Disabled People (2012)
- SET-642.** Fall Detection by Built-In Tri-Accelerometer of Smart phone (2012)
- SET-643.** A design of a prototypic Hand-Talk Assistive Technology for the Dumb
- SET-647.** Selective Device Activation for Power Reduction in Accelerometer-Based Wearable Guidance Systems for the Blind (2012)
- SET-649.** A Distributed Wireless Body Area Network for Medical Supervision (2012)
- SET-648.** A Zigbee-Based Wearable Physiological Parameters Monitoring System (2012)
- SET-625.** Automatic ambulance rescue system (2012)
- SET-588.** Robot to rescue of a child in a borehole
- SET-590.** An Accelerometer-Based Digital Pen with a Trajectory Recognition Algorithm for Handwritten Digit and Gesture Recognition (2012).
- SET-591.** MEMS Accelerometer Based Nonspecific-User Hand Gesture Recognition (2012)
- SET-600.** Human Postures Recognition Based on D-S Evidence Theory and Multi-sensor Data Fusion
- SET-602.** A Novel Cost-Effective Portable Electronic Nose for Indoor-/In-Car Air Quality Monitoring (2012)
- SET-612.** A Low-Cost Hand Gesture Human-Computer Interaction System (2012)
- SET-650.** Centralized Heart Rate Monitoring Telemetry System Using ZigBee Wireless Sensor Network (2012)
- SET-651.** Ultrasonic Spectacles and Waist-belt for Visually Impaired and Blind Person (2012)
- SET-652.** A Cardiac Signal Monitoring and Processing System. (IEEE-2011)

**SET-573.**An Intelligent Blind Rod and Navigation Platform Based on ZigBee Technology (IEEE-2011)

**SET-494.** MATLAB GUI controlled Home/Industrial Automation

**SET-496.** Heart beat signal monitoring on PC using MATLAB.

**SET-514.** Implementation of PC based Biological System

**SET-525.** Biometric Voting Machine

**SET-541.**Intruder Tracking Using Wireless Sensor Networks

**SET-545.**RFID based blind navigation system with voice alert system

**SET-549.**User independent voice commands based robot control with remote voice and image transmission

**SET-550.**Zigbee based helmet design for coal mines

**SET-556.**Advanced and Intelligent wheel chair control system for leg amputees using Joystick

**SET-562.**Artificial vision systems for the blind using ultrasonic wave

**SET-563.**Image based Calling system for heart beat patients with Heart beat monitoring

**SET-570.**Warmer for Blood Infusion

**SET-573.**An Intelligent Blind Rod and Navigation Platform

**SET-578.**Embedded based Wireless Neuron-Muscular Stimulator with Intensity Control

**SET-493.** Wireless Talking Touch Home

**SET-486.** PC controlling wirelessly using tongue motion

**SET-488.** Real-time pantry information system using ZigBee

**SET-489.** Tongue driven speaking wheel chair with wireless device control

**SET-462.** Design and construction of voice operated mobile phone for people with no hands.

**SET-68.** Electronic eye-dial-up.

**SET-469.** Tongue controlled speaking robot for paralyzed/physically handicapped persons.

**SET-364.** Gestures controlled Intelligent Wheel chair with device switching

**SET-368.** MEMS Accelerometer based Head movement controlled Firefight iRobot

**SET-359.** Home Security with Voice Alerts & Virtual Keypad Authentication

**SET-02.** Design and construction of MEMS based tilt operated touch free mobile phone useful for physically challenged/paralyzed persons.

- SET-08.** Head movement based voice enabled wireless device switching for physically challenged
- SET-09.** Touch screen and Zigbee based wireless communication assistant for Dumb and illiterates in Airlines
- SET-346.** Wheel chair movement control using tongue
- SET-386.** Wireless device switching using user independent voice commands for blind persons.
- SET-258.** Obstacle Avoidance and Manhole detection Electronic travel aid Robot for blind
- SET-191.** Voice actuated hospital bed control system and Heart Beat monitoring and alerting system
- SET-17.** GPS and GSM based Real-time Human Health Monitoring and Alert System for Cardiac patients.
- SET-158.** Voice commands based wheel chair for physically challenged.
- SET-480.** Design and development of mobile phone for multipurpose applications
- SET-460.** Hand held device to control the home appliances and voice command announcements for dumb/Illiterates using one input pin of micro controller.
- SET-459.** Stimulation of paralyzed muscle using IR with intensity varying features.
- SET-421.** Pedestrian Navigation System with Fall Detection and Energy Expenditure Calculation.
- SET-458.** Remote patient monitoring system with GPRS Sooxma website.
- SET-435.** Advanced BMI Calculator with under and over weight alerts.
- SET-423.** Computing Technology Used in Retrieval of Patient's Record.
- SET-420.** Heart-rate analyzer on color GLCD using ARM cortex.
- SET-440.** Activity monitoring system using Dynamic Time Warping for the elderly and disabled people.
- SET-437.** Ethernet based medical parameters monitoring system.
- SET-376.** Body movement recognition and alerting system based on Flex sensor
- SET-372.** Wireless control of powered devices with tongue motion
- SET-360.** Indoor wireless person tracking and voice enabled announcement system
- SET-422.** Blood pressure blood glucose level monitoring on LCD.
- SET-412.** WiFi based Wireless Heart rate monitoring and alerting system

- SET-411.** Intensive Care Unit (ICU) patients monitoring system with immediate action in emergencies using speech recognition and Zigbee technologies
- SET-408.** Hand talk using flex sensor
- SET-405.** TV remote based Attender calling system
- SET-401.**Speech recognition based Wheel chair with elevated features
- SET-400.** RFID based patient data monitoring
- SET-393.** RFID based bus name announcement system
- SET-392.** Tongue controlled speaking micro controller
- SET-389.**Highly sensitive ear
- SET-388.**DTMF 3-phase irrigation Control with Feedback
- SET-387.** I-Button & keypad based DC motor door lock system
- SET-384.** Braille Reader
- SET-383.** Development of vision system to a humanoid Robot
- SET-382.** Contemporary traveling system with voice alert
- SET-380.** MEMS based Step Counter.
- SET-353.** Gesture controlled wireless spy Robo with video capture
- SET-10.** Zigbee based wireless Voice to Text translator in Airlines/Hospital assistant system for blind/Illiterates.
- SET-16.** Cardiac Sentinel: A smart GSM based embedded solution for continuous remote monitoring of cardiac patients.
- SET-157.** Speech recognition based password enabled device switching for blind and physically challenged.
- SET-159.** MEMS Accelerometer controlled PC.
- SET-22.** Wearable Technology based secure access control system with motion based password.
- SET-198.** Speech recognition based wheel chair operation and wireless home devices control system
- SET-29.** Touch screen based wheel chair control system.
- SET-30.** Image based password authentication for Illiterates with Touch screen.
- SET-31.** Touch screen based Nurse/attendant calling system for physically impaired.
- SET-32.** Touch screen based Digital Slate for next generation elementary school children.

- SET-596.** Safe Driving Using Mobile Phone (2012)
- SET-59.** Medical parameters monitoring on live website [www.sooxma.com](http://www.sooxma.com).
- SET-60.** Student data logging system into college website based on RFID.
- SET-62.** GSM based school children security system based on RFID.
- SET-165.** Gas leakage detector & auto dialing controller system
- SET-75.** Home security System based on LPG gas, Smoke and Fire Sensors with SMS based alerts
- SET-77.** GSM based digital Notice board with display on PC Monitor.
- SET-78.** GSM based digital Notice board with display on Scrolling LED Display.
- SET-79.** GSM based SCADA (Supervisory Control and Data Acquisition) implementation.
- SET-85.** Microcontroller Based Thermometer and SMS based alerts.
- SET-86.** Security Integrated system based on wireless access protocol for industrial applications with SMS alert system using GSM modem
- SET-497.** Material handling robot controlling through wireless Zigbee from MATLAB.
- SET-110.** RFID based animal tracking system.
- SET-112.** RFID based medical information system.
- SET-113.** Innovative Congestion Control System for Ambulance Using ZIGBEE
- SET-121.** Wireless Heartbeat Monitoring and Alert system
- SET-131.** Child/Blind tracking system & alerts to our hand held device.
- SET-143.** ROBO leg for physically challenged.
- SET-144.** Hand Gestures controlled Intelligent Wheelchair.
- SET-198.** Speech recognition based wheel chair operation and wireless home devices control system
- SET-96.** RFID and 2GB SD/MMC card based patient data monitoring system with PC interface.
- SET-121.** Wireless Heartbeat Monitoring and Alert system.
- SET-252.** Heart beat monitoring with display on LCD.
- SET-93.** Microcontroller based Heartbeat Monitor with Display on pc.
- SET-193.** Wireless touch screen based heartbeat monitoring of multiple patients

## **MEMS accelerometer projects**

- SET-08.** Head movement based voice enabled wireless device switching for physically challenged
- SET-160.** Automatic fall detection and activity monitoring for elderly.
- SET-200.** MEMS Accelerometer based digital photo frame with automatic position/view adjustment system (similar to digital cameras)
- SET-02.** Design and construction of MEMS based tilt operated touch free mobile phone.
- SET-159.** MEMS Accelerometer controlled PC.
- SET-22.** Wearable Technology based secure access control system with motion based password.
- SET-230.** Wearable technology for wireless gadgets control
- SET-117.** Wireless vibration monitoring system of industrial equipments (Also useful for bridges monitoring).
- SET-139.** MEMS Accelerometer based Hands Gesture controlled Robot
- SET-145.** MEMS controlled robot with wireless video camera mounted on it.
- SET-144.** Hand Gestures controlled Intelligent Wheelchair.
- SET-152.** Micro Electro Mechanical Sensor (MEMS) Accelerometer based self-balancing robot.
- SET-200.** MEMS Accelerometer based digital photo frame with automatic position/view adjustment system (similar to digital cameras)