SPIRO
SOLUTIONS PVT LTD

EMBEDDED
(WIRELESS)
PROJECT TITLE 2017 - 2018

WIRELESS

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITWI01	Reliable Wireless Communication and Positioning enabling Mobile Control and Safety Applications in Industrial Environments	2017
2	ITWI02	Interleaved DC/DC Charger for Wireless Power Transfer	2017
3	ITWI03	Study of the positioning of wireless sensors for communication at 2.4 GHz inside the train	2017
4	ITWI04	Design and Simulation of 2*1 and 4*1 Array Antenna for Detection System of Objects or Living Things in motion	2017
5	ITWI05	Real-Time Traffic State Estimation With Connected Vehicles	2017
6	ITWI06	Self-Powered Zigbee Wireless Sensor Nodes for Railway Condition Monitoring	2017
7	ITWI07	A Design of a Remote Weather Factors Monitoring System	2017
8	ITWI08	A Wireless Sensor System for Real-Time Monitoring and Fault Detection of Motor Arrays	2017
9	ITWI09	Design of Greenhouse Environment Monitoring System Based on Wireless Sensor Network	2017
10	ITWI10	EMACS: Design and implementation of indoor environment monitoring and control system	2017
11	ITWI11	Wireless Stethoscope for Recording Heart and Lung Sound	2016
12	ITWI12	The Design of Building Fire Monitoring System Based on ZigBee-WiFi Networks	2016

13	ITWI13	A Blind Zone Alert System Based on Intra-Vehicular Wireless Sensor Networks	2016
14	ITWI14	Wireless Power Transmission for Multiple Devices	2016
15	ITWI15	A mobile Zigbee module in a traffic control system	2016

WIRELESS POWER TRANSFER

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITWT01	Impedance Matching in Magnetic-Coupling-Resonance Wireless Power Transfer for Small Implantable Devices	2017
2	ITWT02	Acoustic Wireless Power Transfer with Receiver Array for Enhanced Performance	2017
3	ITWT03	On the Use of Eddy Currents to Facilitate Wireless Power Transfer Through Metallic Surfaces	2017
4	ITWT04	Standards and Methods of Power Control for Variable Power Bidirectional Wireless Power Transfer	2017
5	ITWT05	Design Considerations For An Active Rectifier Circuit for Bidirectional Wireless Power Transfer	2017
6	ITWT06	The wireless power transfer systems using the Class E push-pull inverter for industrial robots	2017
7	ITWT07	Low-cost Wake-up Receiver for RF Energy Harvesting Wireless Sensor Networks	2017
8	ITWT08	wireless power transmission for a traveling mobility scooter	2016
9	ITWT09	Analysis and Design of Capacitive Power Transmission System Employing Out-of-band Wireless Feedback Link	2016
10	ITWT10	Wireless Power Transmission for Multiple Devices	2016

AUTOMATION

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITAM01	Real Time Health Monitoring of Industrial Machine Using Multiclass Support Vector Machine	2017
2	ITAM02	Bi-Directional Passing People Counting System based on IR-UWB Radar Sensors	2017
3	ITAM03	Design of an IOT based autonomous vehicle with the aid of computer vision	2017
4	ITAM04	Home Automation and Personalization Through Individual Location Determination	2017
5	ITAM05	Novel Tire Inflating System using Extreme Learning Machine Algorithm for Efficient Tire Identification	2017
6	ITAM06	Wind Measurement Based on MEMS Micro-Anemometer With High Accuracy Using ANN Technique	2017
7	ITAM07	Earliest Sensor Detection Opportunity for Left Turn Across Path Opposite Direction Crashes	2017
8	ITAM08	Anomaly Behaviour Analysis for Building Automation Systems	2016
9	ITAM09	A Model for Smart Agriculture Using IoT	2016
10	ITAM10	Robotic System for Automation of Water Quality Monitoring and Feeding in Aquaculture Shade house	2016
11	ITAM11	MAGIC: Model-Based Actuation for Ground Irrigation Control	2016
12	ITAM12	Mixed Time-triggered and Event-triggered Controller For Industrial IoT Applications	2016

13	ITAM13	Robust Multi rate On-Road Vehicle Localization for Autonomous Highway Driving Vehicles	2016
14	ITAM14	Analysis of influence on driver behaviour while using in-vehicle traffic lights with application of head-up display	2016
15	ITAM15	A Fuzzy-Based Building Automation Control System	2016

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
		MECHANISM	
1	ITEM01	Three Way Conveyers for Cool Drinks Industry	2017
2	ITEM02	The Amphibious vehicle for sea and seashore monitoring	2017
3	ITEM03	Automatic Control of Voice Gear Mechanism	2017
4	ITEM04	Automatic glass cleaning robot Servant for Software Company	2017
5	ITEM05	Automatic Car Parking In Shopping Mall	2017
6	ITEM06	Automatic Multi level Car Parking System	2017
7	ITEM07	Coconut Climbing Robot	2017
8	ITEM08	Automatic Shoe polishing Machine	2017
9	ITEM09	Hand-Motion Crane Control Using Radio Frequency real-Time Location Systems	2017
10	ITEM10	Automatic Oil dissipation system	2017
11	ITEM11	Hover Craft in Army	2017
12	ITEM12	Zigbee Vehicle in Army	2017
13	ITEM13	Automatic Multilevel Car Parking System	2017
14	ITEM14	Automatic Wall Painting Robot	2017
15	ITEM15	Diffraction-Compensating Coded Aperture for Inspection in Manufacturing (PIPE CRAWLING)	2017
16	ITEM16	Row Guidance Agriculture Robot	2017
17	ITEM17	Vehicle Side Stand Alert System	2017
18	ITEM18	Machine vision technique for find out defect in orange	2017

19	ITEM19	Control of a Snake Robot for Ascending and Descending Steps	2017
20	ITEM20	Power Generation for Street Light Using Speed Breaker	2017
21	ITEM21	Vehicle Traffic Control by a Traffic Robot	2017
22	ITEM22	Two Way Conveyor Machine	2017
23	ITEM23	Intelligent Umbrella For Future Hotels	2017
24	ITEM24	Online High-Precision Probabilistic Localization of Robotic Fish Using Visual and Inertial Cues	2017
25	ITEM25	Automatic Welding Mechanism System	2017
26	ITEM26	Energy Exchange between Electric Vehicle Load and Wind Generating Utilities	2017
27	ITEM27	Advanced Power Window Motor using Permanent Magnet DC Motor	2017
28	ITEM28	Wall Climbing Robot for Rescue	2017
29	ITEM29	Automated Anesthesia Analyzing System Based On Microcontroller	2017
30	ITEM30	Heat exchanger mechanism	2017

		GSM&GPS	
S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITGP01	Electrical Appliances Control Prototype by Using GSM Module and Arduino	2017
2	ITGP02	Design of Bus Tracking and Fuel Monitoring System	2017
3	ITGP03	Microcontroller based Digital Meter with Alert System using GSM	2017
4	ITGP04	E-health Acquisition, Transmission &Monitoring System	2017
5	ITGP05	Wearable Fall Detection System	2017
6	ITGP06	Anti-theft Protection of Vehicle by GSM & GPS with Fingerprint Verification	2017
7	ITGP07	The Development of a Remotely Controlled Home Automation System for Energy Saving	2017
8	ITGP08	Design and Implementation of Remotely Located Energy Meter Monitoring with Load Control and Mobile Billing System through GSM	2017
9	ITGP09	Design and Implementation of Real Time Transformer Health Monitoring System Using GSM Technology	2017
10	ITGP10	Visual Impairment Aid Using Haptic And Sound Feedback	2017
11	ITGP11	Automatic Oil Tank Truck Alarm System from Illegal Fuel Hoarding with Microcontroller and GSM Module Based System	2016
12	ITGP12	Real-time and Predictive Analytics for Smart Public Transportation Decision Support System	2016
13	ITGP13	Smart vehicle security system for defending against collaborative attacks by malware	2016

14	ITGP14	Smartphone-based Human Fall Detection System	2016
15	ITGP15	SenSpeed: Sensing Driving Conditions to Estimate Vehicle Speed in Urban Environments	2016

CONSUMER ELECTRONIC

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITCE01	Design of a Portable Smart Connected Solar Powered Charger for Consumer Electronics	2017
2	ITCE02	Detection and Tracking of Overtaking Vehicle in Blind Spot Area at Night Time	2017
3	ITCE03	IoT Smart Bell Notification System: Design and Implementation	2017
4	ITCE04	A Speed Compensation Algorithm for a Head Tilts Controller Used for Wheelchairs and Rehabilitation Applications	2017
5	ITCE05	Fingerprints in the Air: Unique Identification of Wireless Devices using RF RSS Fingerprints	2017
6	ITCE06	A Wireless Sensor Network Based Low Cost and Energy Efficient Frame Work for Precision Agriculture	2017
7	ITCE07	Anti-theft Protection of Vehicle by GSM & GPS with Fingerprint Verification	2017
8	ITCE08	Advance Automatic Toll Collection & Vehicle Detection During Collision using RFID	2017
9	ITCE09	Real-Time Obstacles Detection and Status Classification for Collision Warning in a Vehicle Active Safety System	2017
10	ITCE10	Secure House: A Home Security System Based on Smartphone Sensors	2017
11	ITCE11	Abnormal Moving Vehicle Detection for Driver Assistance System in Night time Driving	2016
12	ITCE12	A mobile robot which can follow and lead human by detecting user and behavior wearable devices	2016

13	ITCE13	Blind User Wearable Audio As Assistance for Indoor Navigation Based on Visual Markers and Ultrasonic Obstacle Detection	2016
14	ITCE14	An Efficient Energy Monitoring Method Based on Bluetooth Low Energy	2016
15	ITCE15	Performance and Interoperability Evaluation of Radiofrequency Home Automation Protocols and Bluetooth Low Energy for Smart Grid and Smart Home Applications	2016

ELECTRICAL

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITEEE01	An Intelligent Load Management System with Renewable Energy Integration for Smart Homes	2017
2	ITEEE02	Development of Embedded System for Making Plugs Smart	2017
3	ITEEE03	A Smart Meter Design and Implementation Using Zigbee Based Wireless Sensor Network in Smart Grid	2017
4	ITEEE04	Power Line Fault Detection and Localization using High Frequency Impedance Measurement	2017
5	ITEEE05	Smartphone Application to Evaluate the individual possibilities for the Application of Electric vehicles	2017
6	ITEEE06	Power Line Carrier Communication Based Low Cost Power Monitoring and Management System	2017
7	ITEEE07	A Wireless Sensor System for Real-Time Monitoring and Fault Detection of Motor Arrays	2017
8	ITEEE08	Massive Internet of Things for Industrial Applications	2017
9	ITEEE09	Efficient Solar Power Management System for Self-Powered IoT Node	2017
10	ITEEE10	An Innovative Two-Level Model for Electric Vehicle Parking Lots in Distribution Systems with Renewable Energy	2017
11	ITEEE11	Adaptive Dynamic Programming-Based Optimal Control Scheme for Energy Storage Systems With Solar Renewable Energy	2017
12	ITEEE12	Impact of Power Electronic Sources on Transmission Line Ground Fault Protection	2017

13	ITEEE13	An Overview of Demand Response Applications under Smart Grid Concept	2017
14	ITEEE14	Emerging Power Quality Challenges Due to Integration of Renewable Energy Sources	2017
15	ITEEE15	A Smart Meter Design and Implementation Using Zigbee Based Wireless Sensor Network in Smart Grid	2017
16	ITEEE16	Performance Comparison of Mirror Reflected Solar Panel with Tracking and Cooling	2016
17	ITEEE17	Peak-Aware Online Economic Dispatching for Micro grids	2016
18	ITEEE18	Energy storage system and demand response program effects on stochastic energy procurement of large consumers considering renewable generation	2016
19	ITEEE29	Design and Implementation of Low-Cost SMS Based Monitoring System of Distribution Transformers	2016
20	ITEEE20	Power quality monitoring using GSM technology	2016

BIOMEDICAL

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITBIO01	A Low Cost Automated Fluid Control Device using Smart Phone for Medical Application	2017
2	ITBIO02	An IoT Based Remote HRV Monitoring System for Hypertensive Patients	2017
3	ITBIO03	Implementation of Energy Efficient/Lightweight Encryption Algorithm for Wireless Body Area Networks	2017
4	ITBIO04	Wearable Flexible Sensors: A Review	2017
5	ITBIO05	Body and Fall Detection System with Heart Rate Monitoring	2017
6	ITBIO06	Federated Internet of Things and Cloud Computing Pervasive Patient Health Monitoring System	2017
7	ITBIO07	Wearable Device for Increasing the Slow Wave Sleep Stage by Electro cutaneous Stimulation	2017
8	ITBIO08	A wireless continuous patient monitoring system for dengue:Wi-mon	2017
9	ITBIO09	A Speed Compensation Algorithm for a Head Tilts Controller Used for Wheelchairs and rehabilitation Applications	2017
10	ITBIO10	Elder Tracking and Fall Detection System using Smart Tiles	2017
11	ITBIO11	Auto Dietary: A Wearable Acoustic Sensor System for Food Intake Recognition in Daily Life	2016
12	ITBIO12	BSN-Care: A Secure IoT-based Modern Healthcare System Using Body Sensor Network	2016

13	ITBIO13	Sensing Method of Patient's Body Movement Without Attaching Sensors on the Patient's Body	2016
14	ITBIO14	Estimation of Circadian Body Temperature Rhythm based on Heart Rate in Healthy, Ambulatory Subjects	2016
15	ITBIO15	An Energy Efficient Sensor for Thyroid Monitoring through the IoT	2016

EMBEDDED WITH ANDROID

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ANEB01	A modular approach for smart home system architectures based on Android applications	2017
2	ANEB02	I-Am: Implicitly Authenticate Me Person Authentication on Mobile Devices Through Ear Shape and Arm Gesture	2017
3	ANEB03	Mine Detecting Robot Prototyping	2017
4	ANEB04	IOT Based Smart Garbage alert system using Arduino UNO	2017
5	ANEB05	Real-time Face Detection and Tracking on Mobile Phones for Criminal Detection	2017
6	ANEB06	Blind Aid Stick: Hurdle Recognition, Simulated Perception, Android Integrated Voice Based Cooperation via GPS Along With Panic Alert System.	2017
7	ANEB07	An Android-Based Mechanism for Energy Efficient Localization Depending on Indoor/Outdoor Context	2017
8	ANEB08	Motion Analysis in Vocalized Surprise Expressions and Motion Generation in Android Robots	2017
9	ANEB09	Flow Anomaly Based Intrusion Detection System for Android Mobile Devices	2017
10	ANEB10	On Ad Library Updates in Android Apps	2017
11	ANEB11	Ubiquitous Tracking Using Motion and Location Sensor With Application to Smartphone	2016
12	ANEB12	Campus Sense - A Smart Vehicle Parking Monitoring and Management System using ANPR Cameras and Android Phones	2016

13	ANEB13	An RFID based Smartphone Proximity Absence Alert System	2016
14	ANEB14	The Use of Mobile Technology on the Example of Health and Sports Statistics Application	2016
15	ANEB15	Campus Sense - A Smart Vehicle Parking Monitoring and Management System using ANPR Cameras and Android Phones	2016

VIRTUAL REALITY

S.NO	PROJECT CODE	PROJECT TITLES	YEAR
1	ITVRT01	Virtual Body Swap: A New Feasible Tool to be Explored in Health and Education	2017
2	ITVRT02	Automatic Speed Adjustment for Travel through Immersive Virtual Environments based on Viewpoint Quality	2017
3	ITVRT03	Cognitive Load Measurement in a Virtual Reality-based Driving System for Autism Intervention	2017
4	ITVRT04	Virtual Hand-Button Interaction in a Generic Virtual Reality Flight Simulator	2017
5	ITVRT05	Design of Mobile Robot Teleportation System Based on Virtual Reality	2017
6	ITVRT06	A Sensor-Based Dual-Arm Tele-Robotic System	2017
7	ITVRT07	An Adaptive Virtual-Reality User-Interface for Patient Access to the "Personal Electronic Medical Record"	2017
8	ITVRT08	virtual reality based search and analysis of victims trapped beneath the surface	2017