



- Research & Development Program(RDP)
- Final Year Academic Project(FAP) in Software and Embedded Technologies
- Application Development Program(ADP)



TABLE OF CONTENTS

TECHNOLOGY	PAGE NO
BIGDATA WITH EMBEDDED	4
JAVA WITH EMBEDDED	5
DOTNET WITH EMBEDDED	6
ANDROID WITH EMBEDDED	25
EMBEDDED SYSTEM	7
ARDUINO	7
RASPBERRY PI	8
INTERNET OF THINGS	9
LIFI-LIGHT FIDELITY	10
ROBOTICS	11
RTOS-REAL TIME OPERATING SYSTEM	13
RSSI-RECEIVED SIGNAL STRENGTH INDICATION	14
WIRELESS	15
WIRELESS POWER TRANSFER	16
AUTOMATION	17
MECHANISM	18
GSM&GPS	20

WE CAN ALSO IMPLEMENT YOUR OWN CONCEPT/IDEA

CORPORATE OFFICE: - SPIRO GROUP OF COMPANIES FOR ECE, E&I, E&C MECHANICAL,CIVIL, BIO-MEDICAL CSE, MSC, MCA, BSC(CS), B.COM(CS) #78, 3rd Floor, Usman Road, T.Nagar, Chennai –17, (Upstairs of Hotel SaravanaBhavan) Mobile – 9791 044 044,9962 067 067. E-Mail: info@spiroprojects.com,Website: www.spiroprojects.com Our branches: KOVAI-9176 648 648 NELLAI-9176 617 617 NAMAKKAL – 9962 514 514, VELLORE – 9176 620 620, PONDICHERRY-9176 694 694,MADURAI-9176 419 419.



CONSUMER ELECTRONIC	21
ELECTRICAL	22
BIOMEDICAL	24
VIRTUAL REALITY	25

WWW.Spiroprojects.com



About Spiro

Spiro Group of Companies South India's leading Research & Development Organization. Over a decade, we are furnishing individuals in alltechnologies and domains by fulfilling their desires in Research & Development sector through efficient training methodologies. All our efforts are focused on students to meet industry requirements.

The global presence and reach attained by Spiro is not only substantiated by its presence, but also by the environment provided for the students. Since our environment is encapsulated with doctorates, professionals and other experts. Accordingly, we created a setting which enables student to recover from the existing learning processes and making them to be an intellect.

In our increasing globalization, Spiro moves forward to unite the desires of students and challenges of the future in R & D sector by improving the agility and enabling students to achieve sustainable growth over their rivalry. For future enhancement, industry based knowledge's are provided for students in various levels. To sum up, we are filling student necessities in all possible ways to make career brighter in their desired field.

	BIGDA	ATA WITH EMBEDDED
1.	ITBDE01	RFID-based Production Data Analysis in an IOT-enabled Smart Job-shop
2.	ITBDE02	Health-CPS: Healthcare Cyber-Physical System Assisted by Cloud and Big Data
3.	ITBDE03	Attendance Analysis in Embedded with Big Data
4.	ITBDE04	Smart Parking Data Analysis using Embedded with Big Data
5.	ITBDE05	Detecting and Analyzing Urban Regions with High Impact of Weather data Analysis using Embedded with Big Data
6.	ITBDE06	Distributed Representation of Dish Names in Food Related Web Services for Associative Search and Nutrition Estimation
7.	ITBDE07	Big Health Application System based on Health Internet of Things and Big Data
8.	ITBDE08	Distributed Big Data Management in Smart Grid
9.	ITBDE09	A Value-oriented Model of Big Data-Driven Knowledge Management and Collaborative Services: A Meteorological Service Case
10.	ITBDE010	Human Activity from Smart Home Embedded for Healthcare Applications

	JAV	A WITH EMBEDDED
1.	ITJEM01	VitalLogger: An Adaptable Wearable
		Physiology and Body-Area Ambiance Data
		Logger for Mobile Applications
2.	ITJEM02	Java Enterprise Wide Application for Clinical
		Databases
3.	ITJEM03	Integrated Battery-Electric Vehicle Model and
		Its Optimal Speed Control Application
4.	ITJEM04	Development of an Automotive Scanner for
		Educational Application
5.	ITJEM05	Fog Computing Micro Datacenter Based
		Dynamic Resource Estimation and Pricing
		Model for IoT
6.	ITJEM06	Development of a Credible and Integrated
		Electronic Voting Machine Based on
		Contactless IC Cards, Biometric Fingerprint
		Credentials and POS Printer
7.	ITJEM07	On the Use of Radio Frequency Identification
		for Continuous Biomedical Monitoring
8.	ITJEM08	Developing a Java based RFID application to
		automate student attendance monitoring
9.	ITJEM09	Big Health Application System based on
		Health Internet of Things and Big Data
10.	ITJEM10	Controlling Children-Toy TanK by Using
		Image Processing Technique



	DOTN	ET WITH EMBEDDE	D
1.	ITDEM01	Homecare Kit Platform supporting Multiple	2017
		Bio-signals Acquisition and Analysis in Daily-	
		life Localization of Health Center Assets	
		Through an IOT Environment (LOCATE)	
2.	ITDEM02	IOT base smart home appliances by using	2017
		Cloud Intelligent Tetris Switch	
3.	ITDEM03	A navigation and reservation based smart	2017
		parking platform using genetic optimization	
		for smart cities	
4.	ITDEM04	Low-Cost Wireless Monitoring and Decision	2017
		Support for Water Saving in Agriculture	
5.	ITDEM05	IOT based smart garbage alert system using	2017
		Arduino UNO	
6.	ITDEM06	An integrated system of applying the use of	2017
		Internet of Things, RFID and Cloud	
		Computing:	
7.	ITDEM07	A case study of logistic management of	2017
		Electricity Generation Authority of Thailand	
	N	(ÈGAT) Mae Mao Lignite Coal Mining,	
		Lamping, Thailand	
8.	ITDEM08	Library management system	2017
9.	ITDEM09	Design and Implementation of an RFID-Based	2017
		Customer Shopping Behavior Mining System	
10.	ITDEM10	On the Use of Radio Frequency Identification	2017
		for Continuous Biomedical Monitoring	
11.	ITDEM11	Development of an Automotive Scanner for	2017
		Educational Application	
12.	ITDEM12	Integrated Battery-Electric Vehicle Model and	2017

CORPORATE OFFICE: - SPIRO GROUP OF COMPANIES FOR ECE, E&I, E&C MECHANICAL,CIVIL, BIO-MEDICAL CSE, MSC, MCA, BSC(CS), B.COM(CS) #78, 3rd Floor, Usman Road, T.Nagar, Chennai -17, (Upstairs of Hotel SaravanaBhavan) Mobile - 9791 044 044,9962 067 067. E-Mail: info@spiroprojects.com,Website: www.spiroprojects.com Our branches: KOVAI-9176 648 648 NELLAI-9176 617 617 NAMAKKAL - 9962 514 514, VELLORE - 9176 620 620, PONDICHERRY-9176 694 694,MADURAI-9176 419 419.



		Its Optimal Speed Control Application	
13.	ITDEM13	Multibank System	2017
14.	ITDEM14	Smart Home System	2017
15.	ITDEM15	Attendance Management	2017

EMBEDDED			
		ARDUINO	
1.	ITAUR01	Mine Detecting Robot Prototyping	2017
2.	ITAUR02	The Development of a Multi-legged Robot Using Eight-bar Linkages as Leg Mechanisms with Switchable Modes for Walking and Stair Climbing	2017
3.	ITAUR03	Internet of Vehicles (10 V) forTraffic Management	2017
4.	ITAUR04	Real Time Health Monitoring of Industrial Machine Using Multiclass SupportVector Machine	2017
5.	ITAUR05	RFID Technology: Beyond Cash-Based Methods in Vending Machine	2017
6.	ITAUR06	Smart Home Automation System Using Bluetooth Technology	2017
7.	ITAUR07	Child Safety Wearable Device	2017
8.	ITAUR08	Performance Enhancement and IoT Based Monitoringfor Smart Home	2017
9.	ITAUR09	Direct and Indirect Sensing two-axis Solar Tracking System	2017
10.	ITAUR10	A Design of a Remote Weather Factors Monitoring System	2017
11.	ITAUR11	A Real-Time Flood Alert System for Parking Lots	2017
12.	ITAUR12	Jol-Shinchon: Design and Development of a Sensor Based Intelligent Auto Irrigation System	2017
13.	ITAUR13	Intelligent Home Automation System using BitVoicer	2017



14.	ITAUR14	An Approach to Establishment of Cars to Road Management System	2017
15.	ITAUR15	Design of Bus Tracking and Fuel Monitoring System	2017
16.	ITAUR16	A Performance Oriented Novel Design of Hexapod Robots	2017
17.	ITAUR17	Automatic toll e-ticketing system for transportation systems	2016
18.	ITAUR18	Smart Lighting: Developing a Smarter Control Mechanism for Park Trail Lighting	2016
19.	ITAUR19	Smart Real-Time Healthcare Monitoring and Tracking System using GSM/GPS Technologies	2016
20.	ITAUR20	Embedded System Design of a Real time Parking Guidance System	2016
21.	ITAUR21	Any Climb: A New Wall-Climbing Robotic Platform for Various Curvatures	2016
22.	ITAUR22	A Novel Approach for Communication among Blind, Deaf and Dumb People	2016
		RASPBERRY PI	
1.	ITRAP01	IOT based vehicle parking manager	2017
2.	ITRAP02	Multiple Motion Control System of Robotic Car Based on IoT to Produce Cloud Service	2017
3.	ITRAP03	Vehicle Seat Vacancy Identification using ImageProcessing Technique	2017
4.	ITRAP04	An application of movement direction control for the three wheeled mobile robots using visual information	2017
5.	ITRAP05	Driving Event Detection and Driving Style Classification using ArtificialNeural Networks	2017
6.	ITRAP06	Performance Enhancement and IoT Based Monitoringfor Smart Home	2017
7.	ITRAP07	Improving Smart Home Security; Integrating Logical Sensing into Smart Home	2017



		A T.T. 1 1 T' A1 ' 1	
8.	ITRAP08	An IoT based Fire Alarming and AuthenticationSystem for Workhouse using Raspberry Pi 3	2017
9.	ITRAP09	Vehicle Detection on a Pint-Sized Computer	2017
10.	ITRAP10	Road Sign Recognition System on Raspberry Pi	2016
11.	ITRAP11	A Computationally Low Cost Vision Based Tracking Algorithm for HumanFollowing Robot	2016
12.	ITRAP12	Open-Source Smart Home Modules	2016
13.	ITRAP13	Traffic Sensing Through Accelerometers	2016
14.	ITRAP14	An Intelligent System for Monitoring and Controllingof Street Light using GSM Technology	2016
15.	ITRAP15	Healthcare based on loT using Raspberry Pi	2016
		INTERNET OF THINGS	
1.	ITIOT01	Room Temperature Control and Fire Alarm/Suppression IoT Service Using MQTT on AWS	2017
2.	ITIOT02	Analysis of Three IoT-Based Wireless Sensors for Environmental Monitoring	2017
3.	ITIOT03	Agricultural Crop Monitoringusing IOT- A Study	2017
4.	ITIOT04	Health Care Monitoring System in Internet of Things (loT) by Using RFID	2017
5.	ITIOT05	Wake-up Stroke Prediction through IoT and its Possibilities	2017
6.	ITIOT06	Real-Time Signal Quality-Aware ECG TelemetrySystem for IoT-Based Health Care Monitoring	2017
7.	ITIOT07	Renewable Micro-grid State Estimation using	2017



		theInternet of Things Communication Network	
		Towards Safer Roads through Cooperative	
8.	ITIOT08	HazardAwareness and Avoidance in	2017
		Connected Vehicles	
		Design and Implementation of Real Time	
9.	ITIOT09	Transformer Health Monitoring System Using	2017
		GSM Technology	
		Cloud of Things in Smart Agriculture:	<u> </u>
10.	ITIOT10	Intelligent Irrigation Monitoring by Thermal	2017
		Imaging	
		The comparison of soil sensors for integrated	
11.	ITIOT11	creation of IOT based Wetting front detector	2017
11.	morn	(WFD) with an efficient irrigation system to	2017
		support precision farming	
12.	ITIOT12	Multiple Motion Control System of Robotic	2017
12.	1110112	Car Based on IoT to Produce Cloud Service	2017
13.	ITIOT13	Secure IoT Platform for Industrial Control	2017
		Systems	
		Design and Implementation of Interoperable	
14.	ITIOT14	IoT	2016
		Healthcare System Based on International	
		Standards Let 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
15.	ITIOT15	Interoperability of IoT Wireless Technologies	2016
	31	inAmbient Assisted Living Environments	
		Improving the Security of Wireless	
16.	ITIOT16	SensorNetworks in an IoT Environmental	2016
		Monitoring System	
		System Intuitive IoT-based H2U Healthcare System	
17.	ITIOT17	-	2016
18.	ITIOT18	forElderly People Point-n-Press: An Intelligent Universal Remote	2016
10.	1110110	1 ome-11-1 ress. An internigent Universal Kennote	2010

CORPORATE OFFICE: - SPIRO GROUP OF COMPANIES FOR ECE, EEE, E&I, E&C MECHANICAL,CIVIL, BIO-MEDICAL CSE, MSC, MCA, BSC(CS), B.COM(CS) #78, 3rd Floor, Usman Road, T.Nagar, Chennai –17, (Upstairs of Hotel SaravanaBhavan) Mobile – 9791 044 044,9962 067 067. E-Mail: info@spiroprojects.com,Website: www.spiroprojects.com Our branches: KOVAI-9176 648 648 NELLAI-9176 617 617 NAMAKKAL – 9962 514 514, VELLORE – 9176 620 620, PONDICHERRY-9176 694 694,MADURAI-9176 419 419.



	T		
		Control System for Home Appliances	
19.	ITIOT19	Smart Parking System for Internet of Things	2016
20.	ITIOT20	Water Level Meter for Alerting Population aboutFloods	2016
		LIFI-LIGHT FIDELITY	
1.	ITLI01	Current Challenges for Visible Light Communications Usage in Vehicle Applications: A Survey	2017
2.	ITLI02	Optical Wireless Data Transmission with Enhanced Substitution Caesar Cipher Wheel Encryption	2017
3.	ITLI03	Lookup: Robust and Accurate Indoor Localization Using Visible Light Communication	2017
4.	ITLI04	A Superimposed Relaying Strategy and Power Allocation for Outdoor Visible LightCommunications	2017
5.	ITLI05	Cooperative Visible Light Communications with Full-Duplex Relaying	2017
6.	ITLI06	Eco-friendly data transmission in visible light communication	2016
7.	ITLI07	Smart Home Technologies using Visible Light Communication	2016
8.	ITLI08	Impact of VLC on Light Emission Quality of White LED	2016
9.	ITLI09	Stereo Audio Streaming via Visible Light	2016
10.	ITLI10	Uncoordinated Multiple Access Scheme for VLC Systems with Positioning Capability	2016
ROBOTICS			
1.	ITROB01	A Zigbee–Based Framework for	2017
L	1		



		ApproximatingSensor Range and Bearing	
		Design of smart modular variable stiffness	
2.	ITROB02	actuators for robotic assistive devices	2017
		A Soft-Robotic Gripper with Enhanced Object	
3.	ITROB03	Adaptation and Grasping Reliability	2017
		Managing Robot Kinematics Based on	-01-
4.	ITROB04	Arduino Controllers Using a Unity System	2017
	ITD ODOS	A Novel 6-Axis Force/Torque Sensor for	2017
5.	ITROB05	RoboticApplications	2017
		A design of Gesture controlled mobile robot	
6.	ITROB06	with	2017
		robotic arm for nuclear environment	
7.	ITROB07	Low-Cost, Real-Time Obstacle Avoidance for	2017
, .		Mobile Robots	2017
8.	ITROB08	Lyapunov Based Driverless Vehicle in	2017
		Obstacle Free Environment	
9.	ITROB09	Wireless power transfer for electric vehicle	2017
9.		using an adaptive robot	
		Combined Mobile Robots Motion Control	
1.0	ITROB10	UsingInformation as Voice and Gesture	2015
10.		Commands from Audio and Thermal Visual	2017
		Sensors	
1 1	ITDOD11	Design and Implementation of a Lightweight	2017
11.	ITROB11	Tele presence Robot For Medical Assistance	2017
12.	ITROB12	Based on MEMS Sensors Man-Machine	2017
12.	TIKODIZ	Interfacefor Mechatronic Objects Control	2017
		Selective Motion Control of a Crawling	
13.	ITROB13	Magnetic Robot System for Wireless Self-	2017
		Expandable Stent Delivery in Narrowed	
		Tubular Environments	
14.	ITROB14	Embedded and Real Time System Design: A	2017

CORPORATE OFFICE: - SPIRO GROUP OF COMPANIES FOR ECE, EEE, E&I, E&C MECHANICAL,CIVIL, BIO-MEDICAL CSE, MSC, MCA, BSC(CS), B.COM(CS) #78, 3rd Floor, Usman Road, T.Nagar, Chennai –17, (Upstairs of Hotel SaravanaBhavan) Mobile – 9791 044 044,9962 067 067. E-Mail: info@spiroprojects.com,Website: www.spiroprojects.com Our branches: KOVAI-9176 648 648 NELLAI-9176 617 617 NAMAKKAL – 9962 514 514, VELLORE – 9176 620 620, PONDICHERRY-9176 694 694,MADURAI-9176 419 419.



		CaseStudy Fire Fighting Robot	
		Analysis of Modular Biped Wall climbing	
15.	ITROB15	Robot with High Mobility and Effective	2017
		Transit Mechanism	
		Approach Towards Achieving Interoperability	
16.	ITROB16	between Military Land Vehicle and Robotic	2017
		Systems	
17.	ITROB17	Mine Detecting Robot Prototyping	2016
18.	ITROB18	A Lightweight Robotic Arm with Pneumatic	2016
10.	TIKODIO	Muscles for Robot Learning	2010
19.	ITROB19	Mobile Robot for Retail Inventory Using RFID	2016
		A Dataset for Improved RGBD-based Object	
20.	ITROB20	Detection and Pose Estimation for Warehouse	2016
		Pick-and-Place	
21.	ITROB21	A Compact and Compliant External	2016
21.	11ROB21	Pipe-Crawling Robot	2010
22.	ITROB22	Fall Detection and Prevention Control Using	2016
22.		Walking-Aid Cane Robot	
		Auto Calibrated Head Orientation Controller	
23.	ITROB23	for	2016
23.		Robotic Wheelchair Using MEMS Sensors and	2010
		Embedded Technologies	
24.	ITROB24	Line Detecting and Tracking of a Mobile	2016
		Robot with Multiple RGB-D Cameras	2010
25.	ITROB25	Design and Manufacture of Bio-mimic Robotic	2016
	11110220	Fish	2010
	RTOS	-REAL TIME OPERATING SYSTEM	
1.	ITRTOS01	A Real Time Street Lighting Control System	2017
		Road Sense: Smartphone Application to	
2.	ITRTOS02	EstimateRoad Conditions using Accelerometer	2017
		andGyroscope	
3.	ITRTOS03	A Real-Time Flood Alert System for Parking	2017



		Lots	
		A localization and an identification system of	
4.	ITRTOS04	personnel in areas at risk using a wireless	2017
		sensornetwork	
5.	ITRTOS05	RTOS Based Vehicle Tracking System	2017
6.	ITRTOS06	Attendance generating system	2016
		using RFID and GSM	
7.	ITRTOS07	Flexible Non-Constrained RF Wrist Pulse	2016
		Detection Sensor Based on Array Resonators	
		Modelling and Experimental Investigation of	
8.	ITRTOS08	the Maximum Stresses Due to Bending in a	2016
		Tubular-Shaped Artificial Skin Sensor	
0	ITDTOCOO	An IoT-based Scheme for Real Time Indoor	2016
9.	ITRTOS09	Personal Exposure Assessment	2016
		Real-Time Charging Station Recommendation	
10.	ITRTOS10	System for Electric Vehicle Taxis	2016
]	RSSI-RECE	IVED SIGNAL STRENGTH INDICATI	ON
		Indoor Localization Using Wi-Fi Method	
1.	ITRSSI01	Based on	2017
		Fingerprinting Technique	
2.	ITRSSI02	Adaptive Locally Linear Embedding for Node	2017
2.	111055102	Localization in Sensor Networks	2017
3.	ITRSSI03	Passive Acoustic Methods of Small Boat	2017
٥.	11105105	Detection, Tracking, and Classification	2017
4.	ITRSSI04	Using Wireless Link Dynamics to Extract a	2017
7.	TITODIOT	Secret Key in Vehicular Scenarios	2017
5.	ITRSSI05	Child Safety Wearable Device	2017
		Sensing Activities and Locations of Senior	
6.	ITRSSI06	Citizens toward Automatic Day-care Report	2017
		Generation	



7.	ITRSSI07	RSSI based Bluetooth Smart Indoor Positioning	2016
8.	ITRSSI08	A Robust Multi-cue Blending-based Approach forFloor Detection	2016
9.	ITRSSI09	A Robot Localization System Combining RSSI and Phase Shift in UHF-RFID Signals	2016
10.	ITRSSI10	RSSI-Based Maximum Likelihood Localization of Passive RFID Tags Using a Mobile Cart	2016
		WIRELESS	
1.	ITWI01	Reliable Wireless Communication and Positioningenabling Mobile Control and Safety Applications in Industrial Environments	2017
2.	ITWI02	Interleaved DC/DC Charger for Wireless PowerTransfer	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.	ITW106	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	2017



		Network	
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
	V	VIRELESS POWER TRANSFER	
1.	ITWT01	Impedance Matching in Magnetic-Coupling- Resonance Wireless Power Transfer for Small Implantable Devices	2017
2.	ITWT02	Acoustic Wireless Power Transfer with ReceiverArray for Enhanced Performance	2017
3.	ITWT03	On the Use of Eddy Currents to Facilitate WirelessPower 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	2017



		Transfer	
6.	ITWT06	The wireless power transfer systems using the	2017
0.		Class E push-pull inverter for industrial robots	2017
7	ITWT07	Low-cost Wake-up Receiver for RF Energy	2017
7.		Harvesting Wireless Sensor Networks	2017
8.	ITWT08	wireless power transmission for a traveling	2016
0.	11 W 108	mobility scooter	2010
		Analysis and Design of Capacitive Power	
9.	ITWT09	Transmission System Employing Out-of-band	2016
		Wireless Feedback Link	
		Wireless Power Transmission for Multiple	
10.	ITWT10	Devices Tower Transmission for Available	2016
		Devices	
		AUTOMATION	
		Real Time Health Monitoring of Industrial	
1.	ITAM01	Machine Using Multiclass Support Vector	2017
		Machine	
2.	ITAM02	Bi-Directional Passing People Counting	2017
2.		Systembased on IR-UWB Radar Sensors	2017
3.	ITAM03	Design of an IOT based autonomous vehicle	2017
		with the aid of computer vision	2017
4.	ITAM04	Home Automation and Personalization	2017
		ThroughIndividual Location Determination	
	AN	Novel Tire Inflating System using Extreme	
5.	ITAM05	Learning Machine Algorithm for Efficient Tire	2017
		Identification	
	TO 13.50.5	Wind Measurement Based on MEMS Micro-	2017
6.	ITAM06	Anemometer With High Accuracy Using ANN	2017
		Technique Technique	
7.	ITAM07	Earliest Sensor Detection Opportunity for Left	2017
0		Turn Across Path Opposite Direction Crashes	2016
8.	ITAM08	Anomaly Behaviour Analysis for Building	2016



		Automation Systems	
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
		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	2017
).	TTEMO	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
		Diffraction-Compensating Coded Aperture for	
15.	ITEM15	Inspection in Manufacturing (PIPE	2017
		CRAWLING)	
16.	ITEM16	Row Guidance Agriculture Robot	2017
17.	ITEM17	Vehicle Side Stand Alert System	2017
18.	ITEM19	Machine vision technique for find out defect in	2017
16.	ITEM18	orange	2017
19.	ITEM19	Control of a Snake Robot for Ascending and	2017
1).	TILIVITY	Descending Steps	2017
20.	ITEM20	Power Generation for Street Light Using Speed	2017
20.	11120120	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
		Online High-Precision Probabilistic	
24.	ITEM24	Localization of Robotic Fish Using Visual and	2017
		Inertial Cues	
25.	ITEM25	Automatic Welding Mechanism System	2017
26.	ITEM26	Energy Exchange between Electric Vehicle	2017
20.	11121120	Load and Wind Generating Utilities	2017
27.	ITEM27	Advanced Power Window Motor using	2017
21.	11121112/	Permanent Magnet DC Motor	
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	
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 LocatedEnergy Meter Monitoring with Load Control andMobile 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 SoundFeedback	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	2016



		Public Transportation Decision Support	
		System	
13.	ITGP13	Smart vehicle security system for defending	2016
		against collaborative attacks by malware	
14.	ITGP14	Smartphone-based Human Fall	2016
		DetectionSystem	
		SenSpeed: Sensing Driving Conditions	2016
15.	ITGP15	toEstimate Vehicle Speed in Urban	
		Environments	Y
		CONSUMER ELECTRONIC	
1.	ITCE01	Design of a Portable Smart Connected Solar	2017
1.	TICEOI	Powered Charger for Consumer Electronics	2017
2	ITCE02	Detection and Tracking of Overtaking Vehicle	2017
2.	11CE02	in Blind Spot Area at Night Time	2017
3.	ITCE03	IoT Smart Bell Notification System:Design	2017
3.	11CEU3	and Implementation	2017
		A Speed Compensation Algorithm for a Head	
4.	ITCE04	TiltsController Used for Wheelchairs and	2017
		Rehabilitation Applications	
		Fingerprints in the Air: Unique Identification	
5.	ITCE05	of Wireless Devices using RF RSS	2017
	٨,	Fingerprints	
		A Wireless Sensor Network Based Low Cost	
6.	ITCE06	andEnergy Efficient Frame Work for	2017
		PrecisionAgriculture	
7	ITCE07	Anti-theft Protection of Vehicle by GSM &	2017
7.	ITCE07	GPS with Fingerprint Verification	<i>2</i> 01 /
8.	ITCE08	Advance Automatic Toll Collection & Vehicle	2017
0.	TICEUO	Detection During Collision using RFID	2017
0	ITCEOO	Real-Time Obstacles Detection and Status	2017
9.	ITCE09	Classification for Collision Warning in a	2017



		Vehicle Active Safety System	
10.	ITCE10	Secure House: A Home Security System Based onSmartphone 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	
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	2017



		individual possibilities for the Application of Electric vehicles	
6.	ITEEE06	Power Line Carrier Communication Based LowCost 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 OptimalControl Scheme for Energy Storage Systems WithSolar 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	
1.	ITBIO01	A Low Cost Automated Fluid Control Device using Smart Phone for Medical Application	2017
2.	ITBIO02	An IoT Based Remote HRV Monitoring Systemfor Hypertensive Patients	2017
3.	ITBIO03	Implementation of Energy Efficient/LightweightEneryption Algorithm for Wireless Body AreaNetworks	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 WaveSleep 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 ModernHealthcare 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 forThyroid Monitoring through the IoT	2016			
	EMBEDDED WITH ANDROID					
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.	ANÉB04	IOT Based Smart Garbage alert system using Arduino UNO	2017			
5.	ANEB05	Real-time Face Detection and Tracking on MobilePhones for Criminal Detection	2017			
6.	ANEB06	Blind Aid Stick: Hurdle Recognition, SimulatedPerception, Android Integrated Voice BasedCooperation via GPS Along With Panic Alert System.	2017			
7.	ANEB07	An Android-Based Mechanism for Energy	2017			



		Efficient Localization Depending on				
		Indoor/Outdoor Context				
8.	ANEB08	Motion Analysis in Vocalized Surprise Expressions and Motion Generation in AndroidRobots	2017			
9.	ANEB09	Flow Anomaly Based Intrusion Detection System for Android Mobile Devices	2017			
10.	ANEB10	On Ad Library Updates in AndroidApps	2017			
11.	ANEB11	Ubiquitous Tracking Using Motion and LocationSensor With Application to Smartphone	2016			
12.	ANEB12	Campus Sense - A Smart Vehicle Parking Monitoring and Management System using ANPRCameras and Android Phones	2016			
13.	ANEB13	An RFID based Smartphone Proximity AbsenceAlert 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 ParkingMonitoring and Management System using ANPR Cameras and Android Phones	2016			
VIRTUAL REALITY						
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				
WWW.Spiroproject							













Technologies and Domain used:

IEEE 2017, Java, J2ee, Android, Bigdata, Dot net, Arduino, Raspberry pi, IOT, Renewable, PHP, Embedded, Vlsi, Matlab, VB, Net working, Data Mining, Image Processing, Cloud Computing, Mobile Computing, Multimedia, Network Security, Soft Engg, Grid Computing, Automation, Robotics, Communication, RF, Zigbee, Blue tooth, GSM/GPS/GPRS, Power Electronics & Systems, Electrical, DSP, RTOS, Bio metrics, Civil, Analysis, Fabrication, Mechanical, CFD, FEA, etc.

Features

- Latest 2017 IEEE, Science Direct, ACM based project concept and solutions.
- State of the art infrastructure, Innovative Project training methods.
- All our efforts are focused on students to meet industry requirements.
- Our environment is encapsulated with doctorates, professionals and other experts.
- Excellent Placements through our Spiro HR Management Consultants (SMC) Pvt Ltd.

Branches:

VELLORE

#257, Sapthagiri Complex, 2nd Floor Katpadi Main Road, Vellore - 632 007

(Opp. Reliance Pertol Bunk)

Mobile: 9176 620 620

Email: vellore@spiroprojects.com

NAMAKKAL

No: 62/136, Thillaipuram Main Road,

Paramathi Road, Namakkal

Mobile: 9962 514 514

Email: nkl@spiroprojects.com

TIRUNELVELI

991/1A3, 2nd Floor,

M.G.Raaj Trade Park, South bye bass road,

Nellai-627005. (Near New Bus Stand)

Mobile: 9176 617 617

Email: nellai@spiroprojects.com

MADURAI

#178, 2nd Floor, Vakil New Street,

Simmakal, Madurai - 625 001

Mobile: 9176 419 419

Email: madurai@spiroprojects.com

PONDICHERY

20, 1st Floor, 2nd Cross, Natesan Nagar, Pondichery - 05. (Indra Gandhi Square)

Mobile: 9176 694 694.

Email: pondy@spiroprojects.com

COIMBATORE

#93, 1st Floor, Nehru Street,

(Opp. to Senthil Kumaran Theaters)

Ram Nagar, Coimbatore- 641 009

Mobile: 9176 648 648

Email : cbe@spiroprojects.com

Corporate Office: SPIRO Solutions Pvt. Ltd #78, 3rd Floor, Usman Road, T. Nagar, Chennai-17. (Upstair Hotel Saravana Bhavan) Tamilnadu, India.

For ECE, EEE, E&I, E&C, Mechanical, Civil, Bio-Medical:

Mobile: +91-9962 067 067, +91-9176 499 499

mail: info@spiroprojects.com

For IT, CSE, MSC, MCA, BSC(CS), B.COM(cs):

Mobile: +91-9791 044 044, +91-9176 644 044

E-Mail: info1@spiroprojects.com,

Website: www.spiroprojects.com.