



SPIRO

Solutions Pvt. Ltd



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

PROJECT TITLES GUIDE
2017-2018

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About Spiro

Spiro Group of Companies South India's leading Research & Development Organization. Over a decade, we are furnishing individuals in all technologies 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.

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MECHANICAL			
THERMAL ENGINEERING			
S. NO	CODE	PROJECT TITLES	APPLICATION
1	ITMT01	Cycloneseparatorwith blower	Industry
2	ITMT02	Fabrication of miniatureboiler	Industry
3	ITMT03	Solarstill usingPCM materials	Houses
4	ITMT04	Fabrication ofthreein one air-conditioner	Houses
5	ITMT05	Automated outdoormist control system	Environment
6	ITMT06	Fabrication and performance analysis of solarwaterheater	Houses &industry
7	ITMT07	Solar aided portablevacuum desalination system	Houses
8	ITMT08	Solarpoweredwaterlifterusing giant wheel method	Agriculture
9	ITMT09	Multi stageHydroelectricpowerplant	PowerPlant
10	ITMT10	Swingelectricitypowergeneration system	Powergenerati on
11	ITMT11	Fabrication ofshell and tubeheat exchanger	Exchanger
12	ITMT12	Designand fabrication ofmini wind mill	PowerGenerati on
13	ITMT13	Steam powerplant	PowerGenerati on

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14	ITMT14	Fabrication of Reactor for converting Plastic into useful Fuel	Fuel System
15	ITMT15	Seawave Power generation System	Power Generation
AUTOMOBILE ENGINEERING			
16	ITMA01	Fabrication of Treadmill Bicycle	Vehicle
17	ITMA02	Three Axis Modern Pneumatic Trailers	Vehicle
18	ITMA03	Automatic braking and bumpers system for automobiles	Vehicle
19	ITMA04	Neodymium Magnetic Shock Absorber for automotive	Vehicle
20	ITMA05	Automatic Tyre Pressure Inflation System for automotive	Vehicle
21	ITMA06	Fabrication Of Solar Powered Wheel Chair For Disable Person	Human
22	ITMA07	Exhaust gas heat recovery for Power generation and Braking	Vehicle
23	ITMA08	Sensor operated electromagnetic clutch and braking system	Vehicle
24	ITMA09	Design and Fabrication of chainless bicycle	Vehicle
25	ITMA10	Easy folding mobile cycle	Vehicle
26	ITMA11	Fabrication of Solar Powered battery cycle	Vehicle
27	ITMA12	Performance of a Radiator with Water and Nanofluid	Cooling System
28	ITMA13	Hydrogen Engine	Vehicle
29	ITMA14	Production of Electric Power through Shock Absorber	Power Generation

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30	ITMA15	On Board Diagnostic Control For Automobile Engine	Engine Condition
FABRICATION AND MANUFACTURING			
31	ITMF01	Solar Tracking System In Manual Rice Trans Planter	Agriculture
32	ITMF02	Semi-automatic Ironing Machine	Industry
33	ITMF03	Four Way Hacksaw	Industry
34	ITMF04	Pepper Separating Machine	Industry
35	ITMF05	Manually operated Road Cleaner	Environment
36	ITMF06	Design & fabrication of Vertical and Horizontal axis wind mill for low end power generation	Industry
37	ITMF07	Glass Cleaning Robot Using Scissor Lift Mechanism	Industry
38	ITMF08	Sand Cleaner Robot Using Vibrating Mechanism	Industry
39	ITMF09	Multi Spindle drill Head	Industry
40	ITMF10	Automatic Vegetable cutting Machine	Hotel
41	ITMF11	Fabrication of Exoskeleton Hydraulics support (Chairless chair)	Human
42	ITMF12	Fabrication of Mechanical Spider	Sewage
43	ITMF13	Fabrication of both cutting punching and grinding machine by electric power	Industry

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44	ITMF14	Fabrication of Painting Machine using rack and Pinion Mechanism	Painting
45	ITMF15	Multi Axis Conveyors	Industry
HYDRAULICS AND PNEUMATICS SYSTEM			
46	ITMH01	Compressed Air Vehicle	Vehicle
47	ITMH02	Automatic Load Carry Robot For Industries Using Pneumatic	Industry
48	ITMH03	Automatic Sensor Operated Pneumatic Braking System	Vehicle
49	ITMH04	Pneumatic mobile crane	Industry
50	ITMH05	Multi axis welding mechanism	Industry
51	ITMH06	Design and fabrication of pneumatic tricycle	Human
52	ITMH07	Zigzag pneumatic lift	Industry
53	ITMH08	Design and fabrication of both cutting, punching and grinding	Industry
54	ITMH09	Easy handled handicapped	Disabled
55	ITMH10	Design and fabrication of pneumatic engine	Automobile
56	ITMH11	Pneumatic Injection moulding Machine	Industry
57	ITMH12	Compressed air production and driven Bicycle	Vehicle
58	ITMH13	Pneumatic Inbuilt Jack using Rack and Pinion	Vehicle
59	ITMH14	Fabrication of Pneumatic Engine	Vehicle
60	ITMH15	Pneumatic multi axis Material handling End Effector	Industry
MECHANICAL ENGINEERING			
61	ITMM01	Pick And Place Robot Using Conveyor Line Follower Mechanism	Industry

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62	ITMM02	Fabrication of overspeed indication and automated braking system for automobiles	Vehicle
63	ITMM03	Vehicle ignition using face recognition system	Vehicle
64	ITMM04	Automatic work piece counting with belt	Industry
65	ITMM05	Automatic paint spraying robot using Scissor lift	Industry
66	ITMM06	Automatic Brake Failure And	Vehicle
67	ITMM07	Remote control wheelchair cum bed	Human
68	ITMM08	Automatic board cleaner	Seminar Hall
69	ITMM09	Poor Quality rejection	Industry
70	ITMM10	Automatic water spraying machine	Agricultural
71	ITMM11	Automatic Pipe Crawling Robot for Inspection	Oil Industry
72	ITMM12	Drainage Cleaning Robot	Sewage
73	ITMM13	Automatic Farm Genesis Robotics system	Agricultural
74	ITMM14	Robotic Arm for various Material	Industry
75	ITMM15	Automatic garbage Separation system	Municipal
AGRICULTURAL			
76	ITAG01	Design and Fabrication of Grass cutter for agricultural	Agriculture
77	ITAG02	Solar Agricultural water pumping system	Agriculture
78	ITAG03	Solar operated sprayer for agricultural purpose	Agriculture
79	ITAG04	Hydro pump for agricultural application	Agriculture
80	ITAG05	Fabrication of pedal power ram type water pumping machine	Irrigation
81	ITAG06	Manual operated seeding machine	Agricultural
82	ITAG07	Sugarcane bud chipper	Agricultural
83	ITAG08	Coconut tree climbing and cutting machine	Agricultural
84	ITAG09	Solar grass cutter with linear blades	Horticulture
85	ITAG10	Agricultural Farm Vehicle	Agricultural

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CIVIL		
SNO	PROJECT CODE	PROJECT TITLE
1	ITCIC01	Experimental study on self compacting concrete using GGBS and flyash
2	ITCIC02	Experimental investigation on recycled aggregate concrete
3	ITCIC03	A study on effects of light weight aggregates on compressive and flexural strength of concrete
4	ITCIC04	Strength Characteristics of Self curing concrete
5	ITCIC05	Experimental Study on Utilization of Blast Furnace Slag in Concrete
6	ITCIC06	Study On Strength Behavior Of Concrete Using Foundry Dust In Fine Aggregate
7	ITCIC07	Behavior of concrete beams with coconut shell as coarse aggregates
8	ITCIC08	Experimental studies on the influence of the size of the aggregate in the compressive strength of concrete
9	ITCIC09	Study on Behavior Of Concrete Partially Replacing Quartz Sand As Fine Aggregate
10	ITCIC10	Project on Partial Replacement of Cement with Marble Powder
11	ITCIC11	Concrete Aggregates From Discarded Tyre Rubber
12	ITCIC12	River Bed Uncrushed Aggregates For Concrete
13	ITCIC13	Effect Of Different Curing Methods On The Compressive Strength Of Concrete
14	ITCIC14	Experimental Investigation In Developing Low Cost Concrete From Paper Industry Waste
15	ITCIC15	Partial replacement of beach sand as fine aggregate for concrete

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CONCRETE		
16	ITCIC16	Project on Partial Replacement of Cement with Brick Powder
17	ITCIC17	Compressive behavior of steel fibre reinforced concrete at high temperatures
18	ITCIC18	Effect of partial replacement of sand with municipal solid waste ash on the strength of concrete
19	ITCIC19	Compressive strength development of blended cement concretes containing Portland cement, fly ash and metakaolin
20	ITCIC20	An experimental investigation on the strength properties of bacterial concrete with fly ash

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Education Partners:



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.**

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