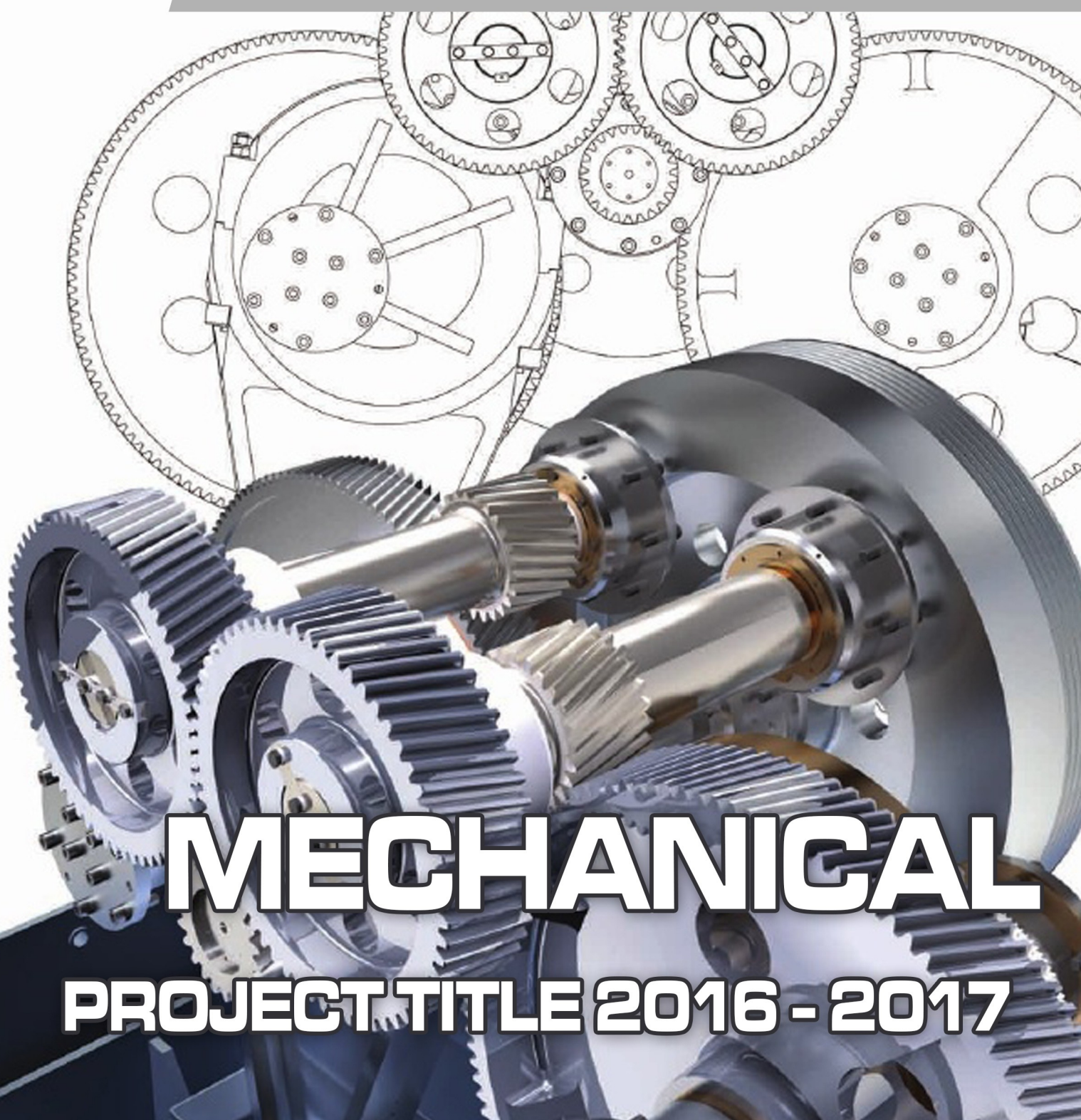




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MECHANICAL

PROJECT TITLE 2016 - 2017



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MECHANICAL-ANALYSIS		
CFD ANALYSIS		
SL.NO	CODE	PROJECT TITLE
1	ICFD01	Analysis of Heat transfer through fins of an IC Engine using CFD
2	ICFD02	CFD analysis of radiator
3	ICFD03	CFD thermal analysis for the optimal design of a marine diesel engine piston head
4	ICFD04	CFD Analysis on Heating and Cooling using Earth Air Heat Exchanger (EAHE)
5	ICFD05	A comparative study of finite journal bearing in laminar and turbulent regimes using CFD
6	ICFD06	Design and Analysis of Keyway Cutting Fixture for Gears by using CFD
7	ICFD07	CFD analysis of tube in tube heat exchanger with fins
8	ICFD08	Shell side flow behavior analysis with in shell and tube heat exchanger using CFD
9	ICFD09	Computational analysis of notched fin array using natural convection

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10	ICFD10	Design &CFD Analysis of Solar Flat Plate Collector
11	ICFD11	Design and CFD Analysis of Centrifugal Pump
12	ICFD12	Intercooler Heat Transfer Based on CFD
13	ICFD13	CFD Analysis of Double Pipe Heat Exchanger
14	ICFD14	Analysis on Fluid Characteristics of Friction Plate in Wet Multi-plate Clutch Based on CFD
15	ICFD15	CFD Based Analysis of Solar Air Heater Having V-Shaped Perforated Blocks on Absorber Plate
STRUCTURAL ANALYSIS		
SL.NO	CODE	PROJECT TITLE
1	ISTA01	Design &Analysis of a Magnetic Gear Box
2	ISTA02	Finite Element Static Analysis of Male and Female Links of a Chain Drive
3	ISTA03	Static Analysis of Bending Stresses on Spur Gear Tooth Profile by using Finite Element Analysis
4	ISTA04	Static Analysis of Parabolic Leaf Spring by Finite Element Analysis Using ANSYS
5	ISTA05	Strength of hollow section in automobile power transmission joint
6	ISTA06	Stress Analysis of Bulk Lever using FEA
7	ISTA07	Structural static analysis of knuckle joint

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8	ISTA08	Design & analysis of disc for hydraulic braking
9	ISTA09	Design and analysis of automobile leaf spring
10	ISTA10	Design of Fitness Multi Station FMS-TD 01 Part I Construction and deformation study using on finite element method (FEM)
11	ISTA11	Finite Element Analysis of a Portal Axle Gear Train using Metallic and Composite Spur Gears
12	ISTA12	Strength analysis of a ventilated brake disc-hub assembly for a multiutility vehicle.
13	ISTA13	Static Analysis of Motor Flange
14	ISTA14	Finite element analysis of thermally induced residual stresses for stainless steel 303grade using GMAW process
15	ISTA15	Analysis and Optimization of Water Treatment Plant Rotating Truss

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MECHANICAL-FABRICATION			
THERMAL ENGINEERING			
S.NO	PROJECT CODE	PROJECT TITLES	APPLICATION
1	ITMT01	Energy Conservation Using Solar Panels With Water Immersion System	Industry
2	ITMT02	Cyclone separator with blower	Industry
3	ITMT03	Fabrication of miniature boiler	Industry
4	ITMT04	Fabrication of plate freezer	Hotels
5	ITMT05	Solar still using PCM materials	Houses
6	ITMT06	Design & fabrication of micro hydro turbine for power generation	Industry
7	ITMT07	Fabrication of solar air dryer	Industry(tea)
8	ITMT08	Fabrication of three in one air-conditioner	Houses
9	ITMT09	Automated outdoor mist control system	Agriculture
10	ITMT10	Fabrication and performance analysis of solar water heater using porous medium and agitator	Houses & industry
11	ITMT11	Solar aided portable vacuum desalination system	Houses
12	ITMT12	Fuel efficiency improvement in a petrol engine using water injection	Vehicle
13	ITMT13	Design and Performance Evaluation of Basin Type Solar Distillation Unit	Vehicle
14	ITMT14	Solar powered water lifter using giant wheel method	Vehicle
15	ITMT15	Solar operated spray pump	Vehicle
16	ITMT16	Thermo acoustic refrigeration	Houses
17	ITMT17	Multi stage Hydro electric power plant	Power Plant
18	ITMT18	Swing electricity power generation system	Power generation

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19	ITMT19	Automatic temperature controller with cooling system	House
20	ITMT20	Thermoelectric refrigeration	Houses

AUTOMOBILE ENGINEERING			
S.NO	PROJECT CODE	PROJECT TITLES	APPLICATION
1.	ITMA01	Exhaust Gas Air Braking For Automotive	Vehicle
2.	ITMA02	Electricity Generation from Speed Breakers	Industry
3.	ITMA03	Air conditioning system by using vehicles suspension	Vehicle
4.	ITMA04	Three Axis Modern Pneumatic Trailers	Vehicle
5.	ITMA05	Auto clutch for automobiles	Vehicle
6.	ITMA06	Button operated gear shifting system for two wheeler	Vehicle
7.	ITMA07	Automatic 2-wheeler side stand	Vehicle
8.	ITMA08	Automatic braking and bumper system for automobiles	Vehicle
9.	ITMA09	Neodymium Magnetic Shock Absorber for automotive	Vehicle
10.	ITMA10	Automatic Tyre Pressure Inflation System for automotive	Vehicle
11.	ITMA11	Aqua Silencer for automobiles	Vehicle
12.	ITMA12	Reverse locking differential mechanism	Industry
13.	ITMA13	Automatic Rotating Mechanism For Car Seats	vehicle
14.	ITMA14	Fabrication Of Solar Powered Wheel Chair For Disable Person	Human
15.	ITMA15	Exhaust gas heat recovery for IC engines	Vehicle
16.	ITMA16	Automatic electro-magnetic gear shifting system	Vehicle
17.	ITMA17	Automatic gear changing	Vehicle
18.	ITMA18	Sensor operated electromagnetic clutch and braking	Vehicle

18.	ITMA18	Sensor operated electromagnetic clutch and braking system	Vehicle
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19.	ITMA19	Design and Fabrication of chainless bicycle	Vehicle
20.	ITMA20	Kinetic energy recovery system in bicycle	Vehicle

FABRICATION AND MANUFACTURING

S.NO	PROJECT CODE	PROJECT TITLES	APPLICATION
1.	ITMF01	Solar Tracking System In Manual Rice Trans Planter	Agriculture
2.	ITMF02	Screw Type Tunnel Boring	Industry
3.	ITMF03	Development of non-conventional portable abrasive jet machine	Industry
4.	ITMF04	Coconut tree climbing and cutting machine	Agriculture
5.	ITMF05	Magnetic Pump	Houses
6.	ITMF06	Peddalling dress washing machine	Houses
7.	ITMF07	Four Way Hacksaw	Industry
8.	ITMF08	Pepper Separating Machine	Industry
9.	ITMF09	Design and fabrication of Moto autor	Houses
10.	ITMF10	Solar grass cutter with linear blades by using scotch yoke mechanism	Agriculture
11.	ITMF11	Development of solar Fresnel reflector and its tracking stand using local material	Industry& Houses
12.	ITMF12	Design & fabrication of low cost vertical axis wind mill for low end power generation	Industry
13.	ITMF13	Automatic Load Carry robot Using Screw type scissor Mechanism	Industry
14.	ITMF14	Glass Cleaning Robot Using Scissor Lift Mechanism	Industry
15.	ITMF15	Sand Cleaner Robot Using Vibrating Mechanism	Industry

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16.	ITMF16	Design and Fabrication of cylindrical Tapping machine	Industry
17.	ITMF17	Quick lifting jack with gear arrangement	Industry
18.	ITMF18	Milling attachment fixture for lathe	Industry
19.	ITMF19	Tool post grinding machine	Industry
20.	ITMF20	Pedal operated cell phone charger	House

HYDRAULICS AND PNEUMATICS SYSTEMS

S.NO	PROJECT CODE	PROJECT TITLE	APPLICATION
1	ITMH01	Fabrication of Pneumatic belt conveyor	Industry
2	ITMH02	Pneumatic reciprocating water pumping system	Industry
3	ITMH03	Air compressor using crank and slotted link mechanism	Industry
4	ITMH04	Automatic Load Carry Robot For Industries Using Pneumatic Scissor Lift Mechanism	Industry
5	ITMH05	Hydro- Pneumatic vice with pressure booster	Industry
6	ITMH06	Automatic Sensor Operated Pneumatic Braking System	Vehicle
7	ITMH07	Pneumatic mobile crane	Industry
8	ITMH08	Pneumatic auto gear changer	Industry
9	ITMH09	Multi axis welding mechanism	Vehicle
10	ITMH10	Automatic hydro-pneumatic lubrication system	Vehicle
11	ITMH11	Design and fabrication of pneumatic tricycle	Human
12	ITMH12	Automatic bottle washing machine	Industry
13	ITMH13	Auto Indexing gear cutting attachment for pneumatic shaper machine	Industry
14	ITMH14	Pneumatic auto-feed drilling machine	Industry
15	ITMH15	Automatic pneumatic vice and jack	Industry

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16	ITMH16	Design and Fabrication of Pneumatic forging machine	Industry
17	ITMH17	Pneumatic multipurpose machine	Industry
18	ITMH18	Fabrication of unconventional compressor for heavy truck	Industry
19	ITMH19	Pneumatic paper cup making	Vehicle
20	ITMH20	Hydraulic Grease gun	Industry

AUTOMATION AND MECHATRONICS

S.NO	PROJECT CODE	PROJECT TITLES	APPLICATION
1.	ITMM01	Automated bottle filling system	Robert
2.	ITMM02	Pick And Place Robot Using Conveyor Line Follower Mechanism	Industry
3.	ITMM03	Real time fuel mileage indicator for motorbikes	Vehicle
4.	ITMM04	Automatic rain operated wiper and headlight dim and dip controller	Vehicle
5.	ITMM05	Accident avoiding system for punching machine	Industry
6.	ITMM06	Fabrication of over speed indication and automated braking system for automotives	Vehicle
7.	ITMM07	Vehicle ignition using Face Recognition systems	Vehicle
8.	ITMM08	Automatic work piece counting with belt conveyor	Industry
9.	ITMM09	Automatic double axis welding machine	Industry
10.	ITMM10	Automatic railway gate control	Industry
11.	ITMM11	Automatic paint spraying robot	Industry
12.	ITMM12	Fabrication of automatic railway track crack detection robot	Vehicle
13.	ITMM13	Automatic fault egg sorting machine	Industry

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14.	ITMM14	Automatic Brake Failure And Engine Overheating Alarm	Vehicle
15.	ITMM15	Remote control wheel chair cum bed	Human
16.	ITMM16	Sensor operated ramming machine	Industry
17.	ITMM17	Automatic scrap collecting vehicle	Industry
18.	ITMM18	Automatic board cleaner	Seminar Hall
19.	ITMM19	Poor Quality rejection using Conveyor automation	Industry
20.	ITMM20	Automatic wood crusher with conveyor belt	Industry

AGRICULTURE MECHANICAL PROJECT

S.NO	PROJECT CODE	PROJECT TITLES
1.	ITAG01	Design and Fabrication of Grass cutter for agricultural application
2.	ITAG02	Solar Agricultural water pumping system
3.	ITAG03	Solar operated sprayer for agricultural purpose
4.	ITAG04	Manually operated biogas filling machine
5.	ITAG05	Hydro pump for agricultural application

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Education Partners:



Technologies and Domain used:

IEEE 2016, Java, J2ee, Android, Dot net, 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, etc.

Features

- Latest 2016 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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