

S.No	Department of Metallurgical and Materials Engineering	Department of Mechanical Engineering	Department of Electrical and Electronics Engineering	Department of Civil Engineering
1	A Case study on Production and economic survey of major Iron and Steel Industry at the time of recession.	A novel approach to the handling and disposal	Investigation on DSTATCOM for power quality improvement	Effect of water cement ratio on concrete for strength & workability considering M20,M25,M30
2	Structural property relationship of Multiphase Steel (DP and TRIP Steels).	"Flow characteristics study of fly ash in pneumatic pipe lines using computational fluid dynamics	Remote Switching Board	Study and Design of four lane highway(Punjipathara to Banjari Road)
3	Wear study of austenitic steel matrix composites.	"Fault diagnosis of mechanical components within rotational machines using infrared thermography method "	Relay Protection in power system using soft computing	Scope of E-Waste Management in India.
4	A Case study on Production and economic survey of major Iron and Steel Industry at the time of recession.	"Vibration based condition monitoring of the process equipments."	Cost effective methods for non conventional energy sources	Comparative study of steel fiber reinforced concrete with fly ash.
5	Structural property relationship of Multiphase Steel (DP and TRIP Steels).	"Design of centre lift mechanism (for bikes)"	Investigation on Smart Grid Techology	Role of soil in treatment of waste water.

6	Mathematical modeling of the machining parameters on cutting speed in Wire Electrical Discharge Machining (WEDM) of austenitic manganese steel.	"Feasibility of PV solar panel installation in OPJU Hostel "	Voice based guiding system for blind people	Assessment of traffic noise and its abatement for national highway-06 passing through Chhattisgarh
7	Wear study of austenitic steel matrix composites.	"Non Destructive test of Weld metal"	Design of Star Delta Starter	A case study on Smart City & building
8	Study of Thermodynamics & Kinetics of low grade Iron ore.	"Study the effect of process parameter of gas metal arc welding."	Small Hydro power generation system	Use of waste tyre coumbms in bitumen for pavement construction
9	Study of Primitive Iron making process.	"Design of farming bot for sustainable cultivation "	Transmission Line Fault Detection	Study of shear strength of soil with waste fibers.
10	Study of formation of clinker in boiler.	"Comparative study of wear properties and corrosion rate of A16061 and A16061 composite "	Induction Motor Protection System	Assessment of Traffic noise and its abatement for national highway-30 passing through Chhattisgarh
11	Development of composite Materials reinforced by dispersion particulates.	"Performance improvement of combined cycle power plant by evapourative cooling of inlet Air"	Home Automation System: An IOT Perspective	Assessment of Traffic noise and its abatement for national highway-130 passing through Chhattisgarh
12	Investigation of red mud addition for the property development of ceramic matrix.	"Study performance of CI Engine using mixture of Diesel and cotton seed oil with blends of ethanol. "	A New sliding mode speed observer of elctric motor drive based on fuzzy logic.	
13	A case study on Jindal Steel plant slag.	"Thermal analysis and optimization of regenerator for a solar stirling engine"	Stability Analysis of synchronous Machine	Construction of road using plastic blended bituminous aggregate

14	A case study on ceramic color development.	" Hardness and wear test of gears."	Speed control of Induction motor	Detail study of ready mix concrete plant and to compare the ordinary concrete mix with RMC
15	Structure property correlation in Rail Steel.	"Performance analysis of gas kit for two wheeler."	Wireless Monitoring of Air & Noise Pollution in plant using Arduino	Seismic analysis and design of multistory residential building using STAD PRO V8i
16	Development of innovative carburization procedure for enhancement of wear in Steels.	"Automatic side stand retrieval system for two wheeler vehicle. "	To Design and development of a Mobile phone signal detector	Drainage and disposal of sewage, its treatment and remedies- a case study Raigarh.
17	Property enrichment studies in medium & high Carbon steels.	"Numerical simulation of composite multilayered wall board using phase change material "	Power quality improvement by using active power quality filter (harmonic reduction method)	Fly ash plastic bricks
18	Effect of heat treatment on wear & corrosion behavior of Al based of composite.	optimum utilization of solar energy using phase change material in solar cell	Smart Adaptive Controller for DC motor speed Control	Study on traffic flow problem related to road geometrics in Raigarh city and give suggestions for improvement in it.
19	Wear and corrosion behavior of Metal matrix composites.	Evaluation of whole body vibration Ride comfort in passenger car	Biomedical signal processing using EEG Signal	Qualitative analysis of ground water of Raigarh town
20	Study on optimizing the heat treatment of Al Metal matrix composite.	Vibration monitoring for defect digonsis on a machine tool a comprehensive case study	Gesture controlled smart system	To determine the various characteristics of soil by using different soil stabilization techniques.
21	Study of High strength low Alloy Steel	Testing and fabrication of Indirect Evaporative cooling system	Mobile Control Robot	Effective internal curing by lightweight aggregate

22	Heat Treatment of Steel by QPT term	Analysis of performance characteristics of variable compression ratio diesel engine using sun flower oil with diesel.	Automatic power supply control	
23	Head hardning of Rail Steel	Optimization of machining parameters in turing operation to minimize surface roughness and tool wear.	AC motor speed controller wirelessly using Arduino with GSM	
24	Utilization of low grade coal for powder generation	optimization of plasma ARC cutting process parameters"	Solar power LED street light with auto intensity control	
25	Study of Welding of dissimilar Metals & Testing	Design and manufacturing of steering controlled movable headlight system in automobile.	Digital watermarking using matlab	
26	Corrosion and Wear study of an Aluminium Metal Matrix Composite (AMMC)	Design and fabrication of Agro Drone sprayer	Design of non isolated bi-directional DC-DC converter & drive for hybrid vehicle	
27	Experimental Investigations on microstructures -mechanical behavior of AMMC	Design and fabrication pipe inspection Robot.	Digital Control of an electromagnetic levitation system(EMLS) using piecewise linearization	
28	Synthesis and Study of Cobalt-Ferrite Spinel	Synthesis and mechanical characterization of aluminium based metal matrix compositerein forced with particulate egg shell powder.	FACTS applications in power system usng matlab simulation	
29	Study the Micro-Alloy development of new structures and corelation with property	Comparative analysis of temprature distribution of drilling tool by thermography and FEM	Design of Inverter with back up system for fuel cells	

30	Study the Microstructural properties of hard Steel and try to compare the it properties with other Steel	Application of heat pipe heat exchange for dumidification	Speech recognition based Security System	
31	Effect of carburization on the properties of Mild Steel	Effect of joint geometries on welding of mild steel	Supervisory Control and Data Acquisition System (SCADA) using GSM	
32	Characterization and compassion study of two different Rail steel	"Effective utilization of solar energy using PCM to purify water"	Channel Estimation in Wireless Communication	
33		"Design of modified double slope stills using phase changing material.	Controlling an A.C. induction motor by technique of sine wave-weighted Pulse Width Modulation	
34		"Effect of silt on hydro turbines and its economical aspects.	Induction-Motor control using Microcontroller	
35		"Reduction of CO ₂ emmission by addition of ultra super critical technology	Speed control of DC/AC motor using Microcontroller	
36		Models of brushless excitation and performance of its components.	Fault identification in transmission towers	
37		Smart grid integration of solar /wind energy conversion system	Digital Phase Selector	
38		Study of effect of condenser vaccum on performance of 4x250(MW) Coal , based thermal power plant.	Design of Controller for unstable systems using MATLAB	

39		Estimation of power generation potential of biomass and coal in india	Wireless sensor network for industrial applications	
40		Exergy analysis of Pulverized coal fired ultra super critical power plant.	speed control of dc motor using PWM method.	
41		Condenser tube fouling ,its effects and cleaning method		
42		Performance and design of double fed induction generator		
43		Effect of flow pattern and particles size in pulveriser ducting		
		Thermal Analysis of Boiler Tube Using Finite Element Approach .		
		Productivity Enhancement of Rolling mill at Nalwa Steel and Power Ltd by Reducing Setup Change and Adjustment Time		
		Cause and Effects of Boiler Tube Failuer at Jindal Power Ltd Tamnar		