

S. No.	Project Title	Start Date	Sanction Total
	<u>RECENTLY COMPLETED R&D PROJECTS IN LAST FIVE YAERS</u>		
1.	Effect Of Characteristics On The Performance Of Dense Medium Cyclones Treating Metallurgical Coal	03 Feb 2014	2134000.00
2.	Stability Analysis Of Roof Rock And Astabilishing Safe Hard Cover For Coal Exploitation Below Ground During Conversion Of Opencast Mine To Underground Mine	04 Feb 2014	1519760.00
3.	To Augment The Research Facilities In The Department Of Applied Mathematics Indian School Of Mines,Dhanbad	31 Jan 2014	3750000.00
4.	Catalytic Partial Oxidation Of Glycerol To Acrylic Acid Over Polymer Bound Immobilised Metal Complexes Under Mild Condition	01 Feb 2014	2440000.00
5.	Synthesis Of Polynuclear Metal Complex From Metalloligands Of Group 14 Elements And Their Catalytic Activities	20 Feb 2014	5280000.00
6.	Augment The Research Facilities In The Determent Of Petroleum Engineering ISM Dhanbad	03 Feb 2014	16000000.00
7.	TO augment the research facilities in the Department of Applied Physics	01 Aug 2014	20101000.00
8.	Design and fabrication of Metal Oxide-Based transperants thin film transistors	07 Feb 2014	2328000.00
9.	Influence Of Chlorine Disinfectant And Natural Organic Matter Gradients On Disinfection By- Product Formation In Drinking Water Of Some Indian Cities	22 Feb 2014	2060000.00
10.	DEVELOPMENT OF HYBRID POLYMER NANOPARTICLE BASED WHILE EMITTING DIODES (Wleds) AND SOLER CELLS	20 Feb 2014	2004000.00
11.	Geotechnical Characterization Of Jharia Coal Area Using Geophysical Techniques	24 Feb 2014	3555000.00
12.	Landslide Risk Analysis Of Road Cut Hill Slopes Near Sonapur, Meghalaya India	31 Jan 2014	2543200.00
13.	Biodegradable Imprinted Nanomaterials A Unique Combination Of Selectivity Sensitivity & Biocompatibility	22 Feb 2014	2318000.00
14.	Development Of Mgb2 Based Conduction Cooled Superconduction Current Leads With High Critical Current For Cryogenic Devices	09 Feb 2014	2664000.00
15.	Establishment Of Centre Of Excellence For Training And Research In Frontier Areas Of Science And Technology (FAST)	02 Feb 2014	40000000.00
16.	Characterization, Quantification And Genesis Of Gas Hydrate In Krishna-Godavari Basin, Bay Of Bengal Using Benthic Foraminiferal, Geochemical And Geophysical Studies	09 Feb 2014	5328040.00
17.	An Integrated Geophysical Approach For Tectonic Study In Moher Main Coal Basin Of Singrauli Coalfield Using 3D Inverse Modeling O Gravity, Magnetic And AMT Data	19 Mar 2015	30190000.00
18.	A Pair Of Fractional Powers Of Bessel Wavelet Transforms And Pseudo-Differential Operators	15 Mar 2015	356000.00
19.	Hy Water Treatment Of Contaminated Drinking Water Using A Hybrid Low Cost Process	07 Mar 2015	3388200.00
20.	Energy Efficient Intruder Detection Schemes For WSN Using Learning Based Techniques	23 Mar 2015	2852000.00
21.	Design Of Reliable And Energy Efficient Transport Layer	07 Mar 2015	2313000.00
22.	Atomistic Simulation Of Boron Nanoduster For Hydrogen Storage And Electro-Optical Application	07 Mar 2015	2523840.00
23.	Vanadium And Copper Catalyst Grafted On Graphene Oxide For Oxidation Of Hydrocarbons And Alcohols	05 Mar 2015	5292000.00
24.	Study Of Various Graph Domination Problems On Restricted Graph Classes	20 Mar 2015	1767200.00
25.	Design And Development Of Circular Polarized Dielectric Resonator Antenna For Wireless Application	11 Mar 2015	2545000.00
26.	Design And Fabrication Of Ultrasensitive Optical Biosensors Based On Surface Plasmon Modes In Gold Nanostructures	11 Mar 2015	2180000.00
27.	Preparation And Charaction Of Lanthanides For Multifunctional Applications	17 Mar 2015	2535840.00
28.	"Information Security Education And Awareness Project Phase-II"	28 Mar 2015	14810000.00

	Constructing Structure On Backfilled Open Cast Coal Mines: An Attempt To Suggest Viable Methodologies	28 Mar 2015	31093857.00
30.	Unified Geological-Morphometrical -Geotechnical Study For Prediction And Mitigation Of Landslides Along Road-Cut Hills Of Rishikesh Route, Kumaon Himalaya	02 Mar 2015	3800000.00
31.	Delineation Of Blind Faults And Its Geometry Around Kishanganj Via Bayesian Neural Network Inversion Of Gravity Data	11 Mar 2015	3856700.00
32.	Origin And Evaluation Crust In The NE Part Of The Singhbhum Craton: Constraints From Geochemistry And Geochronolgy Of Granitoids	26 Mar 2015	2489200.00
33.	Rockfall Hazard Assessment Along The Road Cut Slopes On NH-44A Between Aizwal City And Lengpui Airport, Aizwal, Mizoram, India	25 Mar 2015	3418140.00
34.	Assessment And Prediction Of Land Surface Deformation Due To Underground Metal Mining In Northern Aravali Range Of Hill Using Microwave Remote Sensing Data Sets And Ground Based Observations	28 Mar 2015	4500000.00
35.	Synthesis And Extraction Of Surfactants From Natural Resources And Their Characterization For Application In Enhanced Oil Recovery	15 Mar 2015	2261600.00
36.	Development Of Guideline For Prevention And Mitigation Of Explosion Hazard By Risk Assessment And Determination Of Explosibility Of Indian Coal Incorporating Risk Based Mine Emergency Evacuation And Re-Entry Protocol - CIMFR, Dhanbad, ISM, And CIL, Kolkata	09 Apr 2016	161707000.00
37.	Studies On The Use Of Coal And Petcoke Ash Fuel In The Cement Industry In India	05 Jul 2016	43128000.00
38.	Multiple Layer Trial Blasting For Better Recovery With Less Diluted Coal	17 Apr 2016	43124000.00
39.	Development Of A Selection Methodology For Roadheader And Tunnel Boring Machine In Different Geological Conditions For Rapid Tunnelling	12 Apr 2016	11700000.00
40.	Upconverting Luminescent Materials In Display Devices And Security Purposes	10 Apr 2016	2036000.00
41.	Mathematical Study Of Solute Transport In Porous Formations	20 May 2016	1696000.00
42.	Numerical Comupuation Of Load Carrying Mechanism In Tilted Pad Slider Bearing Lubrication	26 Apr 2016	1696000.00
43.	Development Of A New Control Methodology To Improve The Fault Ride Through Capability Of Doubly Fed Induction Generator (DFIG)	31 Mar 2016	2176000.00
44.	Meter Scale Granite Block-Smectite Clay Barriers Experiment And Associated TMH Modelling For Indian	29 Apr 2016	3088900.00
45.	Node Mobility Techniques For Tactical IP Networks	26 Apr 2016	900000.00
46.	Establishment Of Hybrid Micromachining Technology Using Micro Electro-Chemical Machining And Micro Electro-Discharge Machining Processes For Aerospace Materials	28 Oct 2016	5928000.00
47.	Development Of Hybrid Nanocomposite Based Wide Band Radar Absorbing Materials (1-12 Gh2)	26 Apr 2016	3290000.00
48.	Geospatial Fusion Of Parameters Controlling Orogenic Gold Mineralization And Delineation Of Gold Prospective Zones Within Chandil Formation North Singhbhum & Mobile Belt, Eastern Indian Craton - A Regional Scale Analytical Approach Through The Integrated Applications Of GIS, SPS And Remote Sensing Technology.	15 Jan 2016	3850000.00
49.	Early Detection Of Bearing Fault And Fatigue Crack In A Rotor System	13 Apr 2016	3133599.00
50.	Investigation On Hydrokinetic Turbine Performance Corresponds Variable Rotor Shape And Surface Velocity Using Different Augmentation Techniques.	10 Apr 2016	2062000.00
51.	Geochemical Characterization Of Malangtoli Volcanics And Emplacement Mechanism Over Singhbhum Granite In And Around Kendujhar District Odisha	06 Apr 2016	2573560.00
52.	Sensorless Speed Control Of Brushless Doubly-Fed Reluctance Motor Drive Utilizing Model Reference Adaptive Controller	10 Apr 2016	3084750.00

	Experimental Investigations On Characteristic Behaviour Of Two Nearby Embedded Shallow Foundations	08 Apr 2016	1800000.00
54.	"Low-Cost Sustainable Approach Of Improving Lateral Load Resisting Capacity Of Unreinforced Masonry Structures."	11 Apr 2016	2376000.00
55.	Arsenic Removal From Groundwater Using Nano Adsorbents	17 Apr 2016	550000.00
56.	Photocatalytic Construction Of C-C And C-X (X= N, O, S, Etc.) Bonds Via Visible Light Mediated Cross-Coupling Reactions: Synthesis Of N-Heterocycles.	22 Apr 2016	3300000.00
57.	Development Of A Point-Of-Care Assay System For Qualitative And Quantitative Analysis Of Food Allergens Using Artificial Antibodies	04 Apr 2016	4549600.00
58.	Impact Of Emulsified Drop On A Heated Substrate	26 Apr 2016	2948000.00
59.	Medicinal Aspects Of Supramolecular Chemistry Anion Recognition	13 Dec 2016	3669600.00
60.	Studies On Characteristics And Dissociation Behavior Of Natural Gas Hydrate In Sediments Under Subsurface Mimic Conditions	13 Apr 2016	4417335.00
61.	On The Reductions Of Airfoil Turbulence Noise By Wavy Edges	11 Apr 2016	3344000.00
62.	Study Of Surface Wave Propagation In Elastic Solids Involving Piezoelectric Material	19 Apr 2016	1502600.00
63.	Investigation Of Heat Transfer Enhancement In Some Novel Geometries Using Nanofluids For Electronic Cooling Application	24 Apr 2016	3322300.00
64.	Coupled Three Dimensional Non-Linear Finite Element Analysis Of Geocell Reinforced Railway Tracks With Mine Waste	11 Apr 2016	3287500.00
65.	Linear And Cyclic Codes Over Finite Local Rings	19 Apr 2016	1502600.00
66.	Study Of Nanomechanical And Nanotribological Interaction Of Particle-Particle And Particle-Surface Contact	30 Apr 2016	1226810.00
67.	Radon Exhalation And Its Control In Indian Underground Uranium Mines	25 Apr 2016	4621070.00
68.	Design And Development Of Series-Parallel Hydraulic Hybrid Energy Efficient Excavator Having Displacement Controlled Actuators	31 Mar 2016	2220000.00
69.	Development Of An Efficient Pd-Cu Bimetallic Catalyst For The Catalytic CO2 Hydrogenation For Methanol Production	31 Mar 2016	2215000.00
70.	Stable And Radiogenic Isotope, Geochemical, Geochronological, And Fluid Inclusion Studies Of Granite-Gneiss Hosted Gold Deposits Of The Eastern Dharwar Craton, Chigarguntha (South KGF) And Jonnagiri, Andhra Pradesh, India"	30 Apr 2016	5082000.00
71.	Development Of An Intelligent Helmet For Safety And Communication Of Underground Miners	04 Apr 2016	3303048.00
72.	Integrated Remote Sensing And Geophysical Approach For Mineral Mapping Over Parts Of Dharwar Craton	27 Apr 2016	3023000.00
73.	Thermal Anomaly Reduction And Monitoring Of Coal Fir In The Gondwana Coal Fields And Coal Fire Induced Land Subsidence Using Remote Sensing And Ground Based Techniques	28 Apr 2016	1939000.00
74.	Investigation On Crustal Stress, Seismic Velocity And Porosity In Rock And Deformation Modeling	13 Apr 2016	2001400.00
75.	Experimental Investigation On The Heat Transfer Enhancement Of Hybrid Nano Fluids In A Plate Heat Exchanger	02 May 2017	2053500.00
76.	Design Of Cost Effective Process Flowsheet For Improved Washing Efficiency Of Indian Coking & Non Coking Coals	14 May 2017	121298000.00
77.	High Ash Coal Gasification And Associated Upstream And Downtream Processes (Coal To Chemicals - Ctc)	19 May 2017	187200700.00
78.	Mathematical Modeling Of Dynamical Diseases In The Human Brain	25 May 2017	1696000.00
79.	Study On Some Solution Methods Of Vector Optimization Problems	26 May 2017	1696000.00
80.	WSN Based Disaster And Environmental Monitoring System For Safety Of Miners Working In Underground Coal Mines	15 May 2017	1546000.00
81.	"Study Of Wave Propagation Aspects In Piezoelectric,Piezomagnetic And Functionally Graded Piezoelectric Composite Structures".	27 Apr 2017	587667.00
82.	"Titanate Nanosheet/Cationically Modified Dextrin Through In-Situ Exfoliation:Development And Application Towards Enhanced Dye Adsorption And Photodegradation Property"	03 May 2017	1100000.00
83.	Design And Implementation Of Multiple Strategies To Identity Handwritten Forgery Activities In Legal Documents	22 May 2017	1425580.00

	Investigation On Ultra-Thin Conformal Metamaterials Absorbers For Multiband Application.	13 May 2017	4656410.00
85.	Extraction Of Pour Point Depressants From Fruits And Its Use Crude Oil Transportation	01 May 2017	3339000.00
86.	Energy Efficient Trajectory Design For Space Missions.	20 May 2017	2385020.00
87.	Building Crustal Models Nad The Delineation Of Potential Concealed Mineralized Zones In The North Singhbhum Mobile Belt (Nsmb) Eastern Indian Craton Through Integrated Geophysical Studies.	09 May 2017	4018200.00
88.	Financial Support Under National Post Doctoral Fellowship To Dr. Punita Mourya.	07 May 2017	1920000.00
89.	"Mathematical Study On Wave Propagation Aspects In Piezoelectric Composite Structure With Complexities."	21 May 2017	1469460.00
90.	"An Investigation Into The Effects Of Intrinsic Properties Of Indian Coals On Spontaneous Combustion Process And Coal Mine Fires".	22 May 2017	2145000.00
91.	"Static Stability Analysis Of Carbon Nanotube Reinforced Laminated Composite Plate Subjected To Axial Compressive Loading".	30 Apr 2017	2985400.00
92.	Development Of New Strategy To Enhance Cylindrical Wire Electrical Discharge Turning Process	03 Jun 2017	3361600.00
93.	Precision Agriculture Model To Increase Crop Productivity In India Using Big Data	03 Jun 2017	1813900.00
94.	Design And Development Of Full Solar Spectrum Enriched Photocatalyst For Sustainable Water Treatment	15 Feb 2017	1540000.00
95.	Dynamic Crack Kinking From Aggregate Mortar Interface Of Concrete Sub-Structural System	23 Jun 2017	2870450.00
96.	A Seismic Transect Across Northeastern India Beneath The Shillong Plateau	28 Jun 2017	4305000.00
97.	Mathematical Modelling Of Seismic Wave Propagation In Composite Layered Structures	30 May 2017	1519100.00
98.	Development Of Modular Type High Speed Ultra-Precision Machining Center	30 Jun 2017	3516100.00
99.	Designing A Model For Measuring Entrepreneurial Drive Of Active And Prospective Entrepreneurs With Science & Technology (S&T) Background In Jharkhand	20 May 2017	1815550.00
100.	4 Day Training Programma On Application For Numerical Simulation For Slope Stability Risk Mitigation And Management	05 May 2017	450000.00
101.	Assessment Of Groundwater Quality And Zonation Of Kadiri Watershed In The Drought Prone Areas Of Anatapur Region	16 May 2017	2876000.00
102.	Development Of Ternary Nanocomposite Hydrogel Derived From Functionalized Biopolymer Amylose/Tio2-Agnps And Its Potential Application Towards Treatment Of Wastewater	01 May 2017	2390520.00
103.	Design & Development Of Multi Brand Circularly Polarized Compact Meta Material Antenna For Mobile/WLAN/Wimax Applications	18 May 2017	5126000.00
104.	Study Of Linear Advection Dispersion Equation And Their Application	19 May 2017	2345000.00
105.	Development Of Polymer Nano-Composite Hydrogel Systems For Water Control In Oil/Gas Wells Completed In Harsh Environment	04 May 2017	4540000.00
106.	Design And Development Of Substrate Integrated Waveguide (SIW) Based Circular Polarized High Gain Slot Array Antenna For Satellite Communication	17 May 2017	1820000.00
107.	"A Compact Low Volume Deilectric Resonator Antenna Loaded With Metamaterial Structure For Small Satellite Application"	04 May 2017	2010000.00
108.	Estimation Of Surface Deformation In Response To Fluid Extraction And Surface Coal Fires Using SAR Interferometric Techniques.	11 May 2017	2268000.00
109.	Predicting Reliability And Optimal Release Time Of Various Categories Software System	09 May 2017	1648000.00

110.	Remediation Of Ground Water Contaminated With Hexavalent Chromium In Sukhina Valley, Odisha, Using Nano Zero Valent Iron (Nzvi) Technology	03 Mar 2017	2480800.00
111.	Development And Characterization Of Efficient Drilling Fluid System To Explore Naturalgas Hydrate Resource In The Offshore Of India	08 May 2017	4277200.00
112.	Mathematical Modeling Of Elastic Wave Propagation In Highly Anisotropic And Heterogeneous Media	30 May 2017	1438600.00
113.	Behavioral And Cultural Causalities Affecting Mgnrega Implementation At Local Governmental Bodies: A Critical Assessment In Jharkhand".	14 May 2017	1093400.00
114.	Design And Stability Of Pillars/Arrays Of Pillars For Different Mining Methods In Coal Mine Workings	10 Jun 2018	21100000.00
115.	Apex-Predator Algorithm To Invert Potential Field Data Sets	11 Jun 2018	225500.00
116.	Perception Informed By Navigation For Search And Rescue	14 Jun 2018	2734000.00
117.	Critical Investigation Into The Cracking Related To Stress Corrosion In Maraging Steel Weldment	04 Nov 2018	997100.00
118.	Nano Lubricating Fluids (NLF) And Thermally Conducting Fluids (TCF): Study Of Microstructural Changes In IC Engine Components And Thermal Property Evaluation	28 Mar 2018	950000.00
119.	Approach For The Processing Of Data Of Vibro Seismic Records And Theretical Investigations On Seismic Waves	07 Mar 2018	1522400.00
120.	Scientific Study Of Ultimate Slope Of Pit And Dumping Slope Stability Of Working Of Jambad OCP, Kajora Area, ECL.	22 Jun 2018	826000.00
121.	Audio-Magnetotelluric Investigations Over Low Dominance Aeromagnetic Map In Parts Of Sikar District, Rajasthan.	10 Jun 2018	990000.00
122.	Development Of Approach And Methodology For Environmental Performance Rating Index (EPRI) For Coal Mines Of Coal India Ltd. With Reference To Air Quality	20 Jun 2018	1118000.00
123.	Proterozoic Gold Mineralising System In North Singhbhum Mobile Belt	08 Jun 2018	225000.00
124.	Geological Field Excursion To The Jharia Coal Field: A Tribute To Sir Cyril Sidney Fox (A Legacy Of 125 Years Of Indian Mining And Mineral Industry.	08 Jun 2018	250000.00
125.	Formulating Marketing Strategy For Technological Products In North-East Region	26 Jun 2018	265000.00
126.	Feasibility Of Using Nanoparticles For Enhanced Oil Recovery In Fields Of ONGC	23 Jul 2018	3935200.00
127.	A Novel Mach Zehnder Modulator Based Integrated Photonic Highly Steerable Beam-Forming Beam-Forming System For Broad Band Satellite Communication Link	22 Jun 2018	2000000.00
128.	Improving Fracture Resistance Of Rock Through Adhesive Bonding For Underground Mining Application.	29 Jun 2018	1473467.00

	Study Of Living And Working Condition Of Artists Of Tribal Paintings Of Jharkhand	10 Jun 2018	1192400.00
130.	A Reality Check	28 Jun 2018	220000.00
131.	Benefits Of Composite Cement Over OPC And PSC In Terms Of Strength And Durability	11 Jun 2018	600000.00
132.	CHALLENGES FACED BY FINANCIAL INSTITUTION IN GRANTING CREDIT TO Smes AND DEVELOPING A CREDIT RATING MODE	04 Jun 2018	306328.00
133.	Scientific Study Of Red Shale From Fujairah (UAE) As A Sustainable Brick Making Material	18 Jun 2018	2596000.00
134.	Development Of Quantum Dots Based Chemical Additives For Petroleum Industries	05 Jun 2018	540000.00
135.	Assessing And Promoting Inclusion Of The Differently-Abled In Educational Institutions In Eastern India - With Special Reference To The Chemical Science Community.	02 Nov 2018	411869.48
136.	Scientific Study On Impact Of Iron Ore Mining In Hydrological Behavior Of Aquifers In Nadidih Iron & Mn. Mines In Tehsil Koira, Dist.: Sundargarh, Odisha Of M/S Feegrade & Co.(P) Ltd. And M/S Bonai Industrial Co. Ltd.	03 Jun 2018	1180000.00
137.	Monitoring Of Air Quality And Analysis Of Water Samples At Different Points Of Jitpur Colliery.	25 Jun 2018	495600.00
138.	Scientific Study Into Various Aspects Regarding Dumping Of Fly Ash In The External And Internal Dumps Of Dipka Expansion Project Of M/S. South Eastern Coalfields Limited (A Running Mine)	14 Jun 2018	2891000.00
139.	Uba (Unnat Bharat Abhiyan)	03 Jun 2018	175000.00
140.	Health, Safety And Environmental Risk Assessment	26 Jun 2018	885000.00
141.	Identification Of Optimum Blending Ratio Of Two Coals For Santaldih Thermal Power Station	31 Jul 2018	472000.00
142.	Comparative Assessment Of Coal Combustion Characteristics	19 Dec 2018	460200.00
143.	Laboratory Testing Of Samples Of Construction Materials.	29 Jul 2019	873200.00
144.	Scientific Study Regarding Blast Induced Ground Vibration, Control Of Flying Fragment And Blasting In The Vicinity Of Inhabited Area Of Surface Coal And Bauxite Mines	22 Aug 2019	544615.00
145.	Environmental Management, Engineering Sciences	30 Apr 2019	371667.00
146.	Biogeochemical Appraisal Of The Groundwater Nitrate Pollution Due To Agriculture Activities In Son River Basin, India	15 Nov 2019	400000.00
147.	Scientific Study On Ultimate Pit Slope, Dump Slope And Monitoring Of Slope Stability At Dalurband O.C.P, Pandaveswar Areas Of Eastern Coalfield Limited (ECL)	14 Aug 2019	1740500.00
148.	Mix Design Of M25 And M30 Concrete	22 Aug 2019	117985.84