

ONGOING R&D PROJECTS EXECUTED DURING FINANCIAL YEAR 2017-18
(APRIL 2017 to MARCH, 2018)

A. R&D Projects Carried forward from Previous years :						
Sl. No.	Project No.	Title of the Project	Coordinator(s)	Department	Total cost of the project (Rs. in lakhs)	Sponsoring agency
1	MWR(3)/2012-2013/308/ESE	Estimation of Aquifer Potential in Jharia Coal Mining Region with Suitable Techniques to improve the recharge	Dr. P K Singh Assoc. Prof.	Environmental Science & Engg	28.54	MWR
2	DAE(2)/2012-2013/309/AM	Pseudo-differential operators and wavelet transform involving fractional fourier transform on function and distribution spaces	Dr. Akhilesh Prasad Assoc. Prof	Applied Mathematics	10.07	DAE
3	DST(65)/2012-2013/310/ME	To strengthen teaching facilities in the area “Geomatics” and “Underground Space Technology”	Prof P P Bahuguna Dr Dheeraj Kumar	Mining Engineering	257.00	DST
4	DST(66)/2012-2013/311/ECE	Modeling characterization and design of substrate Integrated waveguide based dielectric resonator antenna	Dr. Santanu Dwari Asstt Prof	Electronics Engineering	2.82	DST
5	DST(67)/2012-2013/312/AC	Triplesalen-based metal – organic frameworks (mofs)	Dr. Hari Pada Nayek	Applied Chemistry	25.40	DST

		and investigation on their functional applicability				
6	UGC(76)/2012-2013/313/EE	On line condition monitoring of mine winder motor	Prof T K Chatterjee	Electrical Engineering	9.05	UGC
7	CSIR(11)/2012-2013/314/CSE	Design of machine learning techniques for specialized biological online database-mining	Dr. Haider Banka Assoc. Prof	Computer Science & Engineering	16.05	CSIR
8	DST(68)/2012-2013/315/AC	A photochemical approach to surfactant free metal nanoparticles and nanoclusters and their catalytic applications in organic reactions	Dr. Somnath Yadav Asstt. Prof	Applied Chemistry	27.00	DST
9	UGC(77)/2012-2013/316/CSE	Design and Implementation of group key generation protocols and its applications for secure multicast	Dr. Sachin Tripathi Asstt. Prof	Computer Science & Engineering	10.78	UGC
10.	UGC(78)/2012-2013/317/AGL	Facets of strain and vorticity attributes and their intraplate seismotectonic implication: A study in area around Son valley, Central India	Dr. R K Dubey Assoc. Prof	Applied Geology	11.42	UGC
11.	UGC(79)/2012-2013/318/ESE	Assessment of ground water level fluctuations with respect to changing patterns of rainfall in jharia coal mining region	Dr. P K Singh Assoc. Prof	Applied Chemistry	9.25	UGC

12	UGC(80)/2012-2013/319/AM	Some aspects of mathematical programming problems involving generalized convex functions	Dr. Anurag Jayswal Asstt. Prof.	Applied Mathematics	9.79	UGC
13	UGC(81)/2012-2013/320/HSS	Poetics of tension: contemporary Indian English women's poetry	Dr(Mrs.) Rajni Singh Assoc. Prof	Humanities & Social Sciences	8.55	UGC
14	OIL(1)/2012-2013/321/PE	Studies on interfacial properties, wettability alteration and rheological behaviour of nano particle stabilized micro emulsions for its use in enhanced oil recovery	Dr. Ajay Mandal Assoc. Prof	Petroleum Engineering	24.33	OIL
15	MOES(4)/2012-2013/322/AGP	Estimation of crustal stress and development of geo-mechanical earth models for few oil/gas fields of Eastern India.	Dr(Mrs.) Rima Chatterjee Assoc. Prof	Applied Geophysics	22.80	MOES
16	UGC(82)/2012-2013/323/APH	Synthesis and characterization of nanocomposite thin films for optoelectronic applications	Dr S K Sharma Assoc. Prof	Applied Physics	6.28	UGC
17	DST(69)/2012-2013/324/ECE	Studies on the effect of gaussian size distribution and inter diffusion on the optical absorption spectra of realistic III –V semi	Dr. Subindu Kumar Assoc. Prof	Electronics Engineering	4.32	DST

		conductor quantum dot systems				
18	DST(70)/2012-2013/325/PE	Carbon dioxide sequestration and simultaneous bio-fuel generation using micro-algae in a photo bio-reactor	Dr. Chandan Guria Assoc. Prof.	Petroleum Engineering	14.48	DST
19	CSIR(12)/2012-2013/326	Development of fracturing fluid for high preswure high temperature (HPHT) reservoirs with minimum formation damage	Dr(Mrs.) Keka Ojha Assoc. Prof	Petroleum Engineering	14.00	CSIR
20	CSIRNW(1)/2012-2013/327/ME	Geological and Technological Controls for underground coal gasification	Prof D C Panigrahi Prof A K Varma/AGL Prof V K Saxena/CE	Mining Engineering	91.60	CSIRNW
21	ISRO(1)/2012-2013/328/AM	Stability and chaos in phto gravitational N-Body problem with Solar Wind Drag	Dr. B S Kushvah Asstt. Prof	Applied Mathematics	16.97	ISRO
22	MOM(1)/2012-2013/329/FME	Beneficiation of low-grade iron ore and tailings by selective flocculation	Prof N R Mandre	Fuel & Mineral Engg	25.82	MOM
23	UGC(82)/2013-2014/330/MS	Corporate Entrepreneurship in India : an Explanatory Study	Prof G S Pathak	Management Studies	7.76	UGC

24	UGC(83)/2013-2014/ 331/MS	System Dynamics based decision support system for Indian micro-finance institutions	Prof Chandan Bhar	Management Studies	6.44	UGC
25	UGC(84)/2013-2014/ 332/MS	Developing an accounting system for small and micro enterprises of Jharkhand	Prof J K Pattanayak	Management Studies	5.38	UGC
26	UGC(85)/2013-2014/ 333/MS	A framework of entrepreneur success among aspiring entrepreneurs of micro enterprises in Jharkhand region	Dr. Niladri Das Asstt. Prof.	Management Studies	6.57	UGC
27	UGC(86)/2013-2014/ 334/PE	Functionalization of nano fly ash for drilling fluid applications	Prof A K Pathak	Petroleum Engineering	13.04	UGC
28	UGC(87)/2013-2014/ 335/PE	Development of Nanoparticle induced chemicals and consolidating loose formation to improve oil production	Dr(Mrs.) Keka Ojha Assoc. Prof	Petroleum Engineering	13.23	UGC
29	UGC(88)/2013-2014/ 336/PE	Selective catalytic oxidation of Karanja Oil : An alternative source of Petrochemical products	Dr. Chandan Guria Assoc. Prof	Petroleum Engineering	14.54	UGC
30	UGC(89)/2013-2014/ 337/AM	Modeling the spatiotemporal complexity of ecoepidemiological systems: A dynamical system approach.	Prof R K Upadhyay	Applied Mathematics	3.49	UGC
31	UGC(90)/2013-2014/ 338/MS	Testing theory in Process Industry Transformation Systems Using Case Studies	Dr. K S Thyagaraj Asstt. Prof	Management Studies	9.15	UGC

32	DST(71)/2013-2014/ 339/ME&MME	To augment the research facilities in the department of Mechanical Engg, Indian School of Mines, Dhanbad	Prof P S Mukherjee	Mechanical Engineering	50.00	DST
33	UGC(91)/2013-2014/ 340/PE	Experimental and Modeling Studies of Flow of Paraffinic Crude Oil through a Complex Flow Loop	Dr. T K Naiya Asstt. Prof	Petroleum Engineering	13.78	UGC
34	UGC(92)/2013-2014/ 341/ECE	Design and Characterization of Compact, High Performance Patch Antennas Loaded with Matamaterials	Dr. Santanu Dwari Asstt. Prof	Electronics Engineering	7.20	UGC
35	UGC(93)/2013-2014/ 342/ECE	Implementation of Spectrum Sensing for Cognitive Radio	Prof Debjani Mitra	Electronics Engineering	9.99	UGC
36	UGC(94)/2013-2014/ 343/ECE	Real-time Implementation of Speech Coders”	Prof S. Bhattacharya	Electronics Engineering	7.58	UGC
37	DST(72)/2013-2014/ 344/ECE	To augment the research facilities in the deptt of Electronics Engineering, ISM, Dhanbad	Dr. Sushrut Das Asstt. Prof.	Electronics Engineering	120.00	DST
38	UGC(95)/2013-2014/ 345/EE	Development of hybrid off-grid power supply system for remote areas	Dr. Nitai Pal Assoc. Prof	Electrical Engineering	7.16	UGC
39	UGC(96)/2013-2014/ 346/EE	Development of a load frequency control system with A PID controller designed through A Frequency Domain Matching Method	Prof S Pan	Electrical Engineering	9.33	UGC
40	UGC(96)/2013-2014/ 347/EE	Simulation and real-time implementation of smart	Dr. Vivekanand Mukhopadhyay	Electrical Engineering	5.55	UGC

		grid	Asstt. Prof			
41	DST(73)/2013-2014/ 348/AC	High Performance Multifunctional Modified Guar Gum for Wastewater and Industrial Effluent Treatment	Dr. Sagar Pal Assoc. Prof	Applied Chemistry	24.94	DST
42	DST(74)/2013-2014/ 349/ME&MME	Experimental Investigation on flow induced vibration of elastically mounted bluff bodies	Dr. L A Kumar Swamydash	Mining Machinery Engineering	17.40	DST
43	DST(75)/2013-2014/ 350/PE	Development of Foam based Drilling Fluid for CBM Wells	Dr(Mrs.) Keka Ojha Assoc. Prof	Petroleum Engineering	16.16	DST
44	DST(76)/2013-2014/ 351/AGL	Geodynamics and Structural Evolution of Kachchh Province	Prof S Mohanty	Applied Geology	32.21	DST
45	DST(77)/2013-2014/ 352/AGP	Geodynamic Modeling of the Eastern Subduction Margin of India	Dr. P K Khan Assoc. Prof.	Applied Geophysics	28.44	DST
46	UGC(98)/2013-2014/ 353/Mech	Critical Analysis of Heat distribution in submerged arc welding process	Dr.Somnath Chattopadhyay Assoc. Prof	Mechanical Engineering	10.21	UGC
47	UGC(99)/2013-2014/ 354/Mech	Wear and Friction study of nano composites	Dr. K K Singh Asstt. Prof	Mechanical Engineering	6.85	UGC
48	ICSSR(2)/2013- 2014/355/MS	Evaluating the efficacy of financial inclusion in Jharkhand	Dr. Niladri Das Asstt. Prof	Management Studies	3.00	ICSSR
49	DST(78)/2013-2014/ 356/AC	Mesoporous mixed oxide supported gold nanoparticles catalysts for oxidant free dehydrogenation reaction of alcohol	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	48.96	DST

50	MOES(5)/2013-2014/357/AGP	Seismic Hazard Estimation for Bihar-Jharkhand Using GPS strain, seismicity and seismic study	Dr. P N Singha Roy Assoc. Prof.	Applied Geophysics	139.78	MOES
51	DST(79)/2013-2014/358/AGL	Petrological and Tectonic Significance of Archaean Banded Iron Formation (BIF) from parts of the Palghat Couvery Shear Zone (PCSz) of South India	Dr(Ms) Upama Dutta Asstt. Prof	Applied Geology	9.00	DST
52	DST(80)/2013-2014/359/APH	Density Functional theory of freezing transitions and properties of inhomogeneous systems	Dr. Pankaj Mishra Asstt. Prof.	Applied Physics	15.46	DST
53	DST(81)/2013-2014/360/MECH	Diagnosis of a vibrating Structural failure through modal analysis	Mr. M L Chandravanshi Asstt. Prof	Mechanical Engineering	17.03	DST
54	DST(82)/2013-2014/361/AGL	To augment the research facilities in the Deptt of Applied Geology, ISM, Dhanbad	Prof A K Varma	Applied Geology	238.00	DST
55	CSIR(12)/2013-2014/362/AM	Study of torsional wave in anisotropic and non-homogeneous media	Prof S Gupta	Applied Mathematics	10.92	CSIR
56	DST(83)/2013-2014/363/CE	Dynamic Instability of Elastic Structural Elements under Deterministic Loading	Dr. Sarat Kumar Panda Asstt. Prof.	Civil Engineering	16.80	DST
57	DST(84)/2013-2014/364/AGP	Magnetotelluric Investigations in the Geothermal Province of	Prof Shalivahan	Applied Geophysics	19.10	DST

		Bakreshwar, West Bengal				
58	DST(85)/2013-2014/ 365/AGP	Seismic & Resistivity imaging for detection of subsurface cavities associated with coal working	Prof P R Mohanty	Applied Geophysics	15.62	DST
59	DST(86)/2013-2014/ 366/AM	Generalized convexity and its applications to mathematical programming problems	Dr. Anurag Jayswal Asstt. Prof	Applied Mathematics	11.64	DST
60	IPEM(1)/2013- 2014/367/INST	International Project India 4EUII under Erasmus Mundus	Prof V M S R Murthy AD(IR&AA)	Institutional Project	2.47	Erasmus Mundas
61	DST(87)/2013-2014/ 368/Mech	Synthesis and characterization of dental polymeric nanocomposite materials	Dr. Ashis Mallick Assoc. Prof	Mechanical Engineering	54.00	DST
62	CSIR(13)/2013-2014/369/PE	Experimental and Modeling Studies of Chemically Enhanced Water Alternating Gas (CEWAG) Injection for Enhanced Oil Recovery	Dr. Ajay Mandal Assoc. Prof	Petroleum Engineering	17.97	CSIR
63	DST(88)/2013-2014/ 370/AC	Synthesis and Functionalization of graphene for controlled dispersion of polymer blends"	Dr. G C Nayak Asstt. Prof.	Applied Chemistry	23.60	DST
64	CSIR(14)/2013- 2014/371/AC	Catalytic transformation of Glycerol to Acrolein Over Mesoporous Silica Supported acid Functionalized Transition	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	16.92	CSIR

		Metal				
65	DST(89)/2013-2014/ 372/AC	To augment the research facilities in the Department of Applied Chemistry	Prof G. Udayabhanu	Applied Chemistry	150.00	DST
66	DST(90)/2013-2014 / 373/APH	Studies on rare-earth ions doped upconversion nano-phosphors as optical sensors	Dr. Kaushal Kumar Asstt. Prof	Applied Physics	23.28	DST
67	DST(91)/2013-2014/ 374/AC	Design of Novel bifunctional gold Ti and Fe-modified zeolite functional materials for the catalytic oxidation of hydrocarbons	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	35.96	DST
68	DAE(3)/2013-2014/ 375/AGL	Characterization of argillite rocks of Vindhyan and Cuddapah super-groups in assessing their suitability as host rock for deep geological repository for high level radioactive waste disposal	Dr. R K Dubey Assoc. Prof	Applied Geology	28.50	DAE
69	DST(92)/2013-2014/ 376/APH	To Augment the Research Facilities in the Department of Applied Physics, Indian School of Mines, Dhanbad	Prof A K Nirala	Applied Physics	185.00	DST
70	OIL(2)/2013-2014/ 377/PE	Study of Organic Solid Deposition in the Petroleum Reservoir Rock	Dr. Vikas Mahto Assoc. Prof	Petroleum Engg	8.58	OIL
71	DST(93)/2013-2014/ 378/APH	Design and fabrication of metal oxide-based transparent thin film transistors	Dr. R Thangavel Asstt. Prof	Applied Physics	23.28	DST
72	DST(94)/2013-2014/ 379/APH	Development of MgB ₂ based conduction cooled	Dr. P M Sarun Asstt. Prof	Applied Physics	26.14	DST

		superconducting current leads with high critical current for cryogenic devices				
73	CSIR(15)/2013-2014/380/APH	Development of Rare earths doped upconversion phosphor particles for fingerprint detection and sensors	Dr. Kaushal Kumar Asstt. Prof	Applied Physics	12.25	CSIR
74	DST(95)/2013-2014/381/ESE	Influence of chlorine disinfectant and natural organic matter gradients on disinfection by-product formation in drinking water of some Indian cities	Dr. Brijesh Mishra Asstt. Prof	Environmental Science & Engineering	20.60	DST
75	DST(96)/2013-2014/382/APH	Tuning of Schottky barrier height	Dr. Achamma Bobby	Applied Physics	20.60	DST
76	DST(97)/2013-2014/383/APH	Development of Hybrid Polymer-Nanoparticle Based White Light Emitting Diodes (WLEDs) and Solar Cells	Dr. Prashant Kumar Sharma Asstt. Prof	Applied Physics	20.04	DST
77	DST(98)/2014-2015/384/AGP	Geotechnical Characterization of Jharia Coal Field Area Using Geophysical Techniques	Dr. S K Pal Asstt Prof	Applied Geophysics	31.59	DST
78	DST(99)/2014-2015/385/APH	Investigation of electron scattering phenomena in biological and environment	Dr. B K Antony Assoc. Prof	Applied Physics	26.56	DST

		sensitive molecules				
79	DAE(4)/2014-2015/386/APH	Synthesis and Assembly of Hybrid Nanostructured Materials for Explosives, Narcotics and Harmful Chemical Detection	Dr. P K Sharma Asstt. Prof	Applied Physics	24.71	DAE
80	DST(100)/2014-2015/387/AC	Biodegradable imprinted nanomaterials: A unique combination of selectivity sensitivity & biocompatibility	Dr.(Mrs.) Rashmi Madhuri Asstt. Prof	Applied Chemistry	23.18	DST
81	DST(101)/2014-2015/388/AC	A Study of Polymeric Layer on Efficiency Enhancement of Upconversion Nanoparticles for Biomedical Applications	Dr. Sumanta Kumar Sahu Asstt Prof	Applied Chemistry	24.80	DST
82	DST(102)/2014-2015/389/FME	Effect of feed characteristics on the performance of dense medium cyclones treating metallurgical coal	Mr. Anand Anupam Asstt. Prof	Fuel & Mineral Engineering	21.34	DST
83	DST(103)/2014-2015/390/APH	Development of multicolour long lasting phosphors based on colour conversion process”	Prof Jairam Manam	Applied Physics	46.19	DST
84	DST(104)/2014-2015/391/ME	Stability analysis of roof rock and establishing safe hard cover for coal exploitation below ground during conversion of opencast mine to underground mine	Dr. A K Verma Asstt. Prof	Mining Engineering	8.76	DST
85	DST(105)/2014-	Kinetics and Mechanistic	Dr. Sumanta	Applied Chemistry	25.00	DST

	2015/392/AC	Approach towards Water Splitting by Ruthenium Complexes having Polypyridyl Ligands	Kumar Padhi Asstt Prof			
86	DST(106)/2014-2015/393/AM(FIST)	To Augment the Research Facilities in the Department of Applied Mathematics, Indian School of Mines, Dhanbad	Dr. S P Tiwari Assoc. Prof Dr. B S Kushwaha Asstt Prof (Co-PI)	Applied Mathematics	37.50	DST
87	DST(107)/2014-2015/394/AC	Catalytic partial oxidation of glycerol to acrylic acid over polymer-bound immobilised metal complexes under mild condition	Dr. Chanchal Halder Asstt. Prof	Applied Chemistry	24.40	DST
88	DST(108)/2014-2015/395/MS	Developing a framework of critical indicators for entrepreneurial success of Science and Technology (S&T) graduates in Eastern India	Dr. Niladri Das Asstt. Prof	Management Studies	10.72	DST
89	MoEs(6)/2014-2015/396/ESE	Phosphorus fractionation in surface sediments: An Implication in Restoration and Conservation of Govind Balabah Pant Sagar, Singrauli, MP	Dr. Anshumali Asstt Prof	Environmental Science & Engg	32.46	MoES
90	UGC(100)/2014-2015/397/ME	UGC-BSR Research Start-Up-Grant for newly recruited faculty at Assistant Professors level in Science Department	Dr. A K Verma Asstt. Prof	Mining Engineering	6.00	UGC
91	DST(109)/2014-	Synthesis of polynuclear	Dr. H P Nayek	Applied Chemistry	52.80	DST

	2015/398/AC	metal complexes from metalloligands of group 14 elements and their catalytic activities	Asstt. Prof			
92	IPEM(2)/2014-2015/399/INST	International Project AREAS+ under Erasmus Mundus”	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	2.40	Partnership Agreement
93	ISRO(2)/2014-2015/400/ECE	Photonic Microwave Arbitrary Waveform Generation with adjustable Chirp parameter based on remote sensing applications	Dr. S K Raghuwanshi Asstt Prof	Electronics Engg	14.62	ISRO
94	DRDO(1)/2014-2015/401/ECE	Studies on Multi-Element Multi-Segment Dielectric Resonator Antenna for Wireless Application	Dr. R K Gangwar Asstt. Prof	Electronics Engg	17.00	DRDO
95	MHRD(CoE)/RE/2014-2015/402/INST	Establishment of Centre of Excellence for Training and Research in Frontier Areas of Science and Technology (FAST) in Renewable Energy	Dr. Mukul Das Dr. R Thangavel Dr. Biswajit Chowdhury Dr. Jitendra Kumar DR. Tanmoy Maity	ECE, APH, AC, MME	400.00	MHRD For Establishing Centre of Excellence in Renewable Energy
96	DST(110)/2014-2015/403/PE(FIST)	To Augment the Research Facilities in the Department of Petroleum Engineering, Indian School of Mines, Dhanbad	Dr.(Mrs) Keka Ojha Assoc. Prof	Petroleum Engg	160.00	DST(FIST)
97	DST(111)/2014-2015/404/AGL	“Landslide risk analysis of road cut hill slopes near Sonapur, Meghalaya, India”	Dr. Kripamoy Sarkar Asstt Prof	Applied Geology	22.63	DST

98	DST(112)/2014-2015/405/MECH	Active Modal Vibration Control of Composite Structure”	Dr. Prashanta Kumar Mahato Asstt Prof	Mechanical Engg	27.10	DST
99	CSIR(16)/2014-2015/406/FME	Characterization and Beneficiation Studies on Low Grade Graphites from the state of Arunachal Pradesh,	Prof Nikkam Suresh	Fuel & Mineral Engineering	14.72	CSIR
100	MoES(6)/2014-2015/407/AGL	Characterization, quantification and genesis of gas hydrate in Krishna-Godavari Basin, Bay of Bengal using benthic foraminiferal, geochemical and geophysical studies”	Dr. A K Bhaumik Asstt. Prof	Applied Geology	64.92	MoES
101	ICPR(1)/2014-2015/408/HSS	Traversing the Territory of Comparative Philosophy	Dr. Gyan Prakash/HSS	ICPR	2.00	ICPR
102	DST(113)/2014-2015/409/AGL	“Geochemistry and Petrogenesis of different granitoid suites associated with the Tsundupalle Greenstone Belt, Eastern Dharwar Craton (EDC), South India: Implications for crustal evolution during Archaean”	Dr Jinia Nandi, Applied Geology	DST	31.70	DST
103	CIL(3)/2014-2015/410/AGP	An integrated geo-physical approach for tectonic study in Moher main coal basin of Singrauli coalfield using 3D inverse modeling of Gravity, Magnetic and AMT data”	Dr. U K Singh, AGP	CIL	289.70	CIL

104.	UGC(101)/2015-2016/411/PE	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Petroleum Engineering, ISM for upgradation/continuation from DRS-II to DRS-III	Prof S Laik	Petroleum Engineering	106.00	UGC
105.	UGC(102)/2015-2016/412/APH	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Applied Physics, ISM for upgradation/continuation from DRS-I to DRS-II	Prof A K Nirala	Applied Physics	125.70	UGC
106.	UGC(103)/2015-2016/413/FME	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Fuel & Mineral Engineering, ISM for upgradation/continuation from DRS-II to DRS-III	Prof R Venugopal	Fuel & Mineral Engg	150.00	UGC
107.	ICSSR(3)/2015-2016/414/MS	Green Consumption Behaviour of Urban Consumers in Rajasthan – An Empirical Study on FMCG Products	Dr. Bibhas Chandra Assistant Professor	Management Studies	3.18	ICSSR
108	DST(114)/2015-	Novel modified biopolymer	Dr. Sagar Pal	Applied Chemistry	35.26	DST

	2016/415/AC	based hydrogels and nanogels: synthesis, characterization and application	Associate Professor			
109	MoES(7)/2015-2016/416/AGP	Delineation of blind faults and its geometry around Kishanganj vis Bayesian neural network inversion of gravity date	Dr. Saumen Maiti Assistant Professor	Applied Geophysics	38.56	MoES
110	MOM(2)/2015-2016/417/ME	Development of Low Density Emulsion Explosives for Energy Efficient Blasting in Environmentally Sensitive Areas	Prof A K Mishra	Mining Engineering	29.13	MoM
111	DST(115)/2015-2016/418/AC	Metal Free Oxidative C-N Bond Formation: Synthesis of N-Heterocycles	Dr Soumitra Maity Assistant Professor	Applied Chemistry	35.00	DST
112	MCIT(3)/2015-2016/419/CSE	Information Security Education and Awareness (ISEA) Phase-II	Dr. Sachin Tripathi Assistant Professor	Computer Science & Engineering	148.10	MCIT
113	DST(116)/2015-2016/420/CSE	Design of Reliable and Energy Efficient Transport Layer Protocols for Ad-hoc and Sensor Network	Dr. Sachin Tripathi Assistant Professor	Computer Science & Engineering	33.13	DST
114	DST(117)/2015-2016/421/APH	Atomistic simulations of boron nanoclusters for hydrogen storage and electro-optical applications	Dr. Sridhar Sahu Assistant Professor	Applied Physics	25.23	DST
115	DST(118)/2015-2016/422/AC	Vanadium and Copper Catalyst Grafted on	Dr. Chanchal Halder	Applied Chemistry	52.92	DST

		Graphene Oxide For Oxidation of Hydrocarbons and Alcohols	Assistant Professor			
116	DST(119)/2015-2016/423/AGL	Integrated Geological-Geotechnical approach for prediction and mitigation measures of landslides along road-cut slopes of area around Gangtok-Mangan, Teesta Valley, Sikkim	Dr. R K Dubey Associate Professor	Applied Geology	22.18	DST
117	MoES(8)/2015-2016/424/AGL	Origin and evolution of crust in the NE part of the Singhbhum craton: constraints from geochemistry and geochronology of granitoids”	Dr. Sukanta Dey Associate Professor	Ministry of Earth Sciences	24.89	MoES
118	MoES(9)/2015-2016/425/ME	Rockfall hazard assessment along the Road Cut Slopes on NH-44A between Aizawl city and Lengpui Airport, Aizawl, Mizoram, India	Dr. A K Verma Asstt Professor/ME & Dr. K Sarkar Asstt Professor/AGL	Ministry of Earth Sciences	34.18	MoES
119	MoES(10)/2015-2016/426/AGL	Unified Geological-Morphometrical-Geotechnical Study for Prediction and Mitigation of Landslides along Road-cut Hills of Rishikesh-Joshimath route, Kumaon Himalaya	Dr. R K Dubey Associate Professor	Applied Geology	38.00	MoES
120	DST(120)/15-16/427/AM	“Study of various graph domination problems on	Dr. Dinabandhu Pradhan	Applied Mathematics	17.67	DST

		restricted graph classes”	Asstt. Professor			
121	OIL(3)/2015-2016/428/PE	Synthesis and extraction of surfactants from natural resources and their characterization for application in enhanced oil recovery	Dr Ajay Mandal, Associate Professor	Petroleum Engineering	22.61	OIL
122	DST(121)/2015-2016/429/ESE	Geochemical investigation of Heavy metals and REEs in Water and Surface Sediments: An Implication in Restoration and Conservation of Ken and Betwa Rivers	Dr. Anshumali, Assistant Professor	Environmental Science & Engg.	24.50	DST
123	CSIR(17)/2015-2016/430/AM	A PAIR OF FRACTIONAL POWERS OF BESSEL WAVELET TRANSFORMS AND PSEUDO-DIFFERENTIAL OPERATORS	Dr. Akhilesh Prasad, Associate Professor	Applied Mathematics	15.00	CSIR
124	DRDO(2)/2015-2016/431/CSE	Energy Efficient Intruder Detection Schemes for WSN using Learning Based Techniques	Dr. Chiranjeev Kumar, Associate Professor	Computer Science & Engg	28.52	DRDO
125	DST(122)/2015-2016/432/APH	Preparation and characterization of lanthanides doped materials for multifunctional applications	Dr. Vineet Kumar Rai, Assoc. Professor	Applied Physics	25.35	DST
126	DST(123)/2015-2016/432(A)/ECE	Design and Development of Circularly Polarized Dielectric Resonator	Dr. R K Gangwar, Assistant Professor	Electronics Engineering	25.45	DST

		Antenna for Wireless Application				
127	DST(124)/2015-2016/433/APH	Design and Fabrication of Ultrasensitive Optical Biosensors based on Surface Plasmon Models in Gold Nanostructures	Dr. M R Singh, Assistant Professor	Applied Physics	21.80	DST
128	ICHR(1)/2015-2016/434/HSS	An Introductory Study to the History and Evolution of Comic Art in India	Dr. Aju Aravind, Assistant Professor	Humanities & Social Sciences	4.00	ICHR
129	HUDCO(1)/2015-2016/436/CE	Investigation on Mechanical and Durability Properties of Self Compacted Concrete Prepared with Recycle Coarse Aggregate from C&D Waste	Dr. S K Panda, Assistant Professor	Civil Engineering	16.41	HUDCO
130	DRDO/(3)/2015-2016/437/Mech Engg.	Design and Fabrication of an Experimental Facility for Measurement of Acoustic Impedance Afterburner Screech Liner	Dr. Rabindra Nath Hota, Associate Professor	Mechanical Engg	99.50	DRDO
131	MHRD/(FDC)/2015-2016/438/INST	“(PMMMNTT) Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching	Prof. A.K.Nirala, Dept. of Applied Physics Prof. P C Pal, Dept. of App. Math, Dr. Mahendra Yadav, Dept. of Applied	Applied Physics	200.69	MHRD

			Chemistry			
132	UGC(104)/2015-2016/439/ME	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Mining Engineering, Indian School of Mines for upgradation/continuation from CAS III to CAS IV	Prof D.C.Panigrahi	Deptt of Mining Engineering	300.00	UGC
133	DBT(1)/2015-2016/440/FME	HyWATER – Treatment of Contaminated drinking water using a hybrid low-cost process	Dr. Barun Kumar Nandi, Assistant Professor	FME	33.88	DBT
134	MOC(1)/2015-2016/441/ME	Techno-economic Evaluation and Performance Behaviour of Self Advancing (Mobile) Goaf Edge Supports (SAGES) (Phase – II)	Prof. U.K.Singh	Mining Engineering	33.04	MOC
135	DST(125)/2015-2016/442/ECE	Special Lecture Tour Programme (Exploratory Exchange)	Dr. Subindu Kumar, Asstt. Professor	ECE	1.88	DST
136	MoEF(1)2015-16/443/ESE	Remediation of Ground Water Contaminated with Hexavalent Chromium in Sukhina Valley, Odisha, using Nano Zero Valent Iron (nZVI) Technology	Dr. Alok Sinha, Asstt. Professor/ESE	ESE	24.80	MoEF
137	DRDO(4)/2015-16/444/Mech. Engg.	Study, Investigation and Development of Machining	Dr. A.K.Das, Asstt. Professor	Mech. Engineering	9.7	DRDO

		Parameters of FRP Composites using a Laser to Maintain Better Surface Integrity				
138	DST(126)/2015-16/445/ ME	Training cum field workshop for Numerical Simulation of Landslide Studies	Dr. A.K.Verma, Asstt. Professor	Mining Engineering	3.65	DST
139	DST/SERB(127)/2015 – 16/446/MME	Design and Development of Series-Parallel Hydraulic Hybrid Energy Efficient Excavator having Displacement Controlled Actuators	Dr. Jayanta Das, Asstt. Professor	MME	22.20	DST
140	DST(128)/2015-16/447/ AGL	Geospatial Fusion of Parameters Controlling Urogenic 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	Dr. Sahendra Singh, Asstt. Professor	AGL	38.50	DST
141	DST/SERB(129)/2015-16/448/Chem. Engg.	Development of an Efficient Pd-Cu Bimetallic Catalyst for the Catalytic CO ₂ Hydrogenation for Methanol	Dr. Siddhartha Sengupta, Asstt. Professor	Chemical Engg.	22.15	DST

		Production				
142	MOC(2)/2015-2016/449/Civil Engg.	Constructing Structure on Backfilled Opencast Coal Mines: An Attempt to Suggest Viable Methodologies	Prof. S.C.Dutta,	Department of CE	304.12	MOC
143	MOM(16)2015-16/450/ME	Assessment and Prediction of Land Surface Deformation due to Underground Metal Mining in Northern Aravali Range of Hills using Microwave Remote Sensing Data sets and Ground Based Observations	Prof. Dheeraj Kumar Md. (Dr) Soyeb Alam	Department of ME	45.00	MoM
144	ICPR/2015-16/451/HSS	Ethical Leadership: A Study on Macintyre and Levins	Dr. Sarita Kar, Asstt. Professor	Department of HSS	3.00	ICPR
145	DST/SERB(130)/2015-16/452/AGL	Stable and Radiogenic Isotope Geochemical, Geochronological, and Fluid Inclusion Studies of Granite – Gneiss hosted Gold Deposits of the Eastern Dharwar Craton at Chigarguntha (South KGF) and Jonnagiri, Andhra Pradesh India	Dr. S. Sarangi, Associate Professor	Department of AGL	50.82	DST
146	MDWS/2015-16/453/ESE	Control of Disinfection By-products Formation in Drinking Water Supplies of India	Dr. S. K. Gupta, Associate Professor	Department of ESE	25.20	MDWS

147	DST(SERB)(131)/2015-16/454/MECH. ENGG	Investigation on Hydrokinetic Turbine Performance Corresponds Variable Rotor Shape and Surface Velocity using Different Augmentation Techniques	Dr. Shibayan Sarkar, Asstt. Professor	Department of MECH. ENGG	20.62	DST
148	DST(SERB)(132)/2015-16/455/MECH. ENGG	Early Detection of Bearing Fault and Fatigue Crack in a Rotor System	Dr. Sachin Kr. Singh, Asstt. Professor	Department of MECH. ENGG.	31.33	DST
149	MoES(11)/2015-16/456/AGP	Investigation on Crustal Stress, Seismic Velocity and Porosity in Rock and Deformation Modelling	Prof. Rima Chatterjee,	Department of AGP	20.01	MoES
150	DST(SERB)(133)/2015-16/457/AGL	Geochemical Characterization of Malangtoli Volcanics and Emplacement Mechanism over Singhbhum Granite in and around Kendujhar District, Odisha	Dr. Pranab Das, Asstt. Professor	Department of AGL	25.73	DST
151	DST(SERB)(134)/2015-16/458/Electrical Engg.	Sensorless Speed Control of Brushless Doubly Fed Reluctance Motor Drive Utilizing Model Reference Adaptive Controller	Dr. Sukanta Das, Asstt. Professor	Department of Electrical Engg.	30.84	DST
152	DST(SERB)(135)/2015-16/459/CE.	Experimental Investigation on Characteristic Behaviour of Two Nearby Embedded Shallow Foundations	Dr. Lohitkumar Nainegali, Asstt. Professor	Department of CE	18.00	DST
153	DST(SERB)(136)/2015-16/460/CE	Low-cost Sustainable Approach of Improving	Dr. Sanket Nayak, Asstt. Professor	Department of CE	23.76	DST

		lateral load resisting capacity of unreinforced masonry structures				
154	CIL (4)/2015-16/461/ Mining Engg.	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, Dhanbad and CIL, Kolkata.	Prof. D. C. Panigrahi	Department of Mining Engg.	833.57	CIL
155	DST(SERB)(137)/2016-17/462/ESE	Arsenic Removal from Groundwater using Nano-adsorbents	Dr. S. R. Samadder, Asstt. Professor	Dept. of Environmental Sc. & Engg.	5.50	DST
156	DST/(138)2016-17/463/ME	Landslide Stability Analysis in Subzero Environment in and around Rohtang Pass or Kasang Hydroelectric Project of Himachal Pradesh, India.	Dr. A. K. Verma, Asstt. Professor	Dept. of Mining Engg.	49.73	DST
157	DRDO/(5)/2016-17/464/ CSE	Node Mobility Techniques for Tactical IP Networks	Dr. Chiranjeet Kumar, Assoc. Professor	Dept. of CSE	9.00	DRDO
158	Tata Steel & ISM(MoU)/2016-17/465/Instt.	Detailed Characterization and Analysis of Commercial Flocculants for Flocculation of Iron Ore	Dr. Sagar Pal, Assoc. Professor	Dept. of Applied Physics	8.00	Tata Steel & ISM(MoU)
159	DST(SERB)(139)/2016-2017/466/CE	Coupled Three Dimensional Non-linear Finite Element	Sowmiya Chawla, Asstt. Professor	Dept. of Civil Engineering	24.68	DST(SERB)

		Analysis of Geocell Reinforced Railway Tracks with Mine Waste				
160	CSIR(18)/2016-2017/467/APH	Upconverting Luminescent Materials in Display Devices and Security Purposes	Dr. Vineet Kumar Rai, Associate Professor	Dept. of Applied Physics.	20.36	CSIR
161	CSIR(19)/2016-2017/468/App. Math	Mathematical Study of Solute Transport in Porous Formations	Dr. M. K. Singh, Associate Professor	Dept. of Applied Mathematics	16.79	CSIR
162	CSIR(20)/2016-2017/469/App. Math	Numerical Computation of Pressure Generation Mechanism in Tilted Pad Slider Bearing Lubrication	Dr. P.S.Rao, Asstt. Professor	Dept. of Applied Mathematics	16.96	CSIR
163	CSIR(21)/2016-2017/470/EE	Development of New Control Methodology to Improve the Fault Ride Through Capability of Doubly Fed Induction Generator (DFIG)	Dr. Kalyan Chatterjee, Associate Professor	Dept of EE	21.76	CSIR
164	DST(FIST) /(140)/2016-2017/ 471/ESE	To Augment the Post-graduate Teaching and Research Facilities in the Department of Environmental Science & Engineering, Indian School of Mines, Dhanbad	Dr. Chiranjib Banerjee, Inspire Faculty	Dept. of ESE	144.00	DST(FIST)
165	MHRD(Namami Gange)/2016-2017/ 472/ISM	Prime Minister's Namami Gange – for conducting the survey to stop open defecation free status,	Prof. I. M. Mishra	Dept. of Chemical Engg	5.0	MHRD(Namami Gange)

		complete treatment of solid and liquid waste, total sanitation and having clean/green banks of Ganga				
166	DAE(5)/2016-2017/ 473/ME	Meter Scale Granite Block-Smectite Clay Barriers Experiment and associated TMH modeling for Indian	Dr. A. K. Verma, Assistant Professor	Dept. of Mining Engineering	30.88	DAE
167	CIL(5)/2016-2017 / 474/CHEMICAL ENGG	Studies on the use of Coal and Petcoke as Fuel in the Cement Industry in India	Prof. I. M. Mishra	Dept. of Chemical Engineering	431.28	CIL
168	DST(SERB) /(141)/2016-2017/475/AC	PHOTO – CC: 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	Dr. Soumitra Maity, Asstt. Professor	Dept. of Applied Chemistry	33.00	DST(SERB)
169	ICMR/2016-2017/476/ESE	ALGAL Biomass Harvesting Through Biopolymeric Approach	Dr. Sheeja Jagadevan, Asstt. Professor & Dr. Chiranjib Banerjee, Inspire Faculty,	Dept. of ESE	3.38	ICMR
170	DST(SERB) / (142) /2016-2017/477 /PE	Studies on Characteristics and Dissociation Behavior of Natural Gas Hydrate in Sediments under Subsurface	Dr. Ajay Mandal, Associate Professor,	Dept. of PE	44.17	DST (SERB)

		Mimic Conditions				
171	DST(SERB)/(143)/2016-2017/478/AC	Development of a Point-of-Care Assay System for Qualitative and Quantitative Analysis of Food Allergens using Artificial Antibodies	Dr. Rashmi Madhuri, Asstt. Professor, & Dr. Prashant Kumar Sharma, Asstt. Professor,	Dept. of AC Dept. of APH	45.49	DST (SERB)
172	CIL(6)/2016-2017/479/ME	Multiple Layer Trial Blasing for Better Recovery with less Diluted Coal	Prof. A. K. Mishra	Dept. of Mining Engineering	431.24	CIL
173	DST(SERB)/(144)/ 2016-2017/480/MME	Development of an Intelligent Helmet for Safety and Communication of Underground Miners”	Dr. Tanmoy Maity, Associate Professor,	Dept. of MME	33.03	DST
174	DST(SERB)/(145)/ 2016 - 2017/481/AGL(Travel)	35 th International Geological Congress	Prof. S. Mohanty	Dept. of AGL	1.34	DST
175	DST(SERB)/(146)/ 2016-2017/482/AM	Linear and Cyclic Codes over Finite Local Rings	Dr. Pramod Kumar Kewat, Assistant Professor	Dept. of Applied Math	15.02	DST
176	DST(SERB)/(147)/ 2016-2017/483/Mech. Engg	On the Reductions of aerofoil-turbulence Noise by wavy Edges	Dr. S. Narayanan, Assistant Professor	Dept. of Mechanical Engg.	33.44	DST

177	DST(SERB)/(148)/2016-2017/484/Mech. Engg	Optimal Design of thin Walled Beam/Plate Structures for Maximum Elasto-plastic Buckling Load	Dr. Prasun Jana, Assistant Professor	Dept. of Mechanical Engg.	20.08	DST
178	DST(SERB)/(149)/2016-2017/485/AM	Study of Surface Wave Propagation in Elastic Solids Involving Piezoelectric Material	Dr. Sanjeev A. Sahu, Assistant Professor	Dept. of Applied Mathematics	15.02	DST
179	DST/INSPIRE/(150)/2016-2017/486/AGP	Lithosphere Structure and Rheological Characteristics of the Eastern Indian Shield: Implications on Craton-mobile Belt Interactions and Crustal Growth/ Recycle Processes	Dr. Srinivasa Rao Gangumalla Assistant Professor,	Dept. of AGP	35.00	DST(INSPIRE)
180	DST(SERB)/(151)/2016-2017/487/APH	Leve-free Cancer Detection Using White Light Quantitative Phase Microscopy (QPM)	Dr. B. Bhaduri, Assistant Professor	Dept. of APH	49.41	DST
181	DST (SERB)/(152)/2016-2017/488/Mechanical Engg.	Impact of Emulsified drop on a Heated Substrate	Dr. Deepak Kumar Mandal , Assistant Professor	Dept. of Mechanical Engg.	29.48	DST
182	DST(SERB)/(153)/2016-2017/489/ME	Radon Exhalation and its Control in Indian Underground Uranium Mines	Dr. Patitapaban Sahu, Assistant Professor	Dept. of ME	46.21	DST
183	DST(SERB)/(154)/2016-	Investigation of Heat	Dr. Pawan Kr.	Dept. of Mechanical	33.22	DST

	2017/490/Mechanical Engg.	Transfer Enhancement in some Novel Geometries using Nanofluids for Electronic Cooling Application	Singh, Assistant Professor	Engg.		
184	DRDO(6)/2016-2017/491/AC	Development of Hybrid Nanocomposite Based Wide Band RADAR Absorbing Materials (1-12 GHz)	Dr. G. C. Nayak, Assistant Professor,	Dept. of Applied Chemistry	32.90	DRDO
185	CPRI/2016-2017/492/ME	Development of a Selection Methodology for Roadheader and Tunnel Boring Machine in Different Geological Conditions for Rapid Tunnelling	Prof. V. M. S. R. Murthy	Dept. of Mining Engineering	117.00	CPRI
186	ISRO(3)/2016-2017/493/AGP	Integrated Remote Sensing and Geophysical Approach for Mineral Mapping over Parts of Dharwar Craton	Dr. Sanjit Kumar Pal, Assistant Professor	Dept. of AGP	30.23	ISRO
187	DRDO(7)/2016-2017/494/MECH. ENGG.	Establishment of Hybrid Mirco Machining Technology using Micro Electro-chemical Machining and Micro Electro-discharge machining processes for Aerospace Materials	Dr. Alok Kumar Das, Assistant Professor	Dept. of Mechanical Engg.	59.28	DRDO
188	UGC-DAE/2016-2017/495/APH	Development of hole transport materials for	Dr. R. Thangavel, Assistant	Dept. of Applied Physics	0.45	UGC-DAE

		application of perovskite solar cells	Professor			
189	DST(SERB)/(155)/2016-2017/496/AC	Medicinal Aspects of Supramolecular Chemistry: Anion Recognition	Dr. Swapan Dey, Assistant Professor Dept. of Applied Chemistry	Dept. of Applied Chemistry	36.69	DST(SERB)
190	DST(SERB)/(156)/2016-2017/497/CE	Assessment of Groundwater Quality and Zonation of Kadiri Watershed in the Drought Prone Areas of Anantapur Region	Dr. Srinivas Pasupuleti	Assistant Professor, Dept. of Civil Engineering	28.76	DST(SERB)
191	DST(SERB)/(157)/2016-2017/498/CSE	Design and Implementation of Multiple Strategies to Identity Handwritten Forgery Activities in Legal Documents	Dr. Soumen Bag, Assistant Professor,	Dept. of CSE	13.00	DST(SERB)
192	DST(SERB)/(158)/2016-2017/499/ECE	Design and Development of Multiband Circularly Polarized Compact Metamaterial Antenna for Mobile/WLAN/WiMAX Applications	Dr. Raghvendra Kr. Chaudhary, Assistant Professor,	Dept. of ECE	51.26	DST(SERB)
193	ISRO/(4)/2016-2017/500/AGL	Estimation of Surface Deformation in Response to Fluid Extraction and Subsurface Coal Fires Using SAR Interferometric Techniques	Dr. Tajdarul H. Syed, Associate Professor	Dept. of AGL	22.70	ISRO

194	DST(SERB)/(159)/2016-2017/501/AM	Study of Non-linear Advection-Dispersion Equation and Their Applications	Dr. M. K. Singh, Associate Professor	Dept. of AM	23.45	DST(SERB)
195	ISRO/(5)/2016-2017/502/ME	Thermal Anomaly Reduction and Monitoring of Coal Fire in the Gondwana Coal Fields and Coal Fire Induced Land Subsidence Using Remote Sensing and Ground Based Techniques	Dr. Dheeraj Kumar, Associate Professor	Dept. of Mining Engineering	19.39	ISRO
196	DST(SERB)/(160)/2016-2017/503/ECE	Investigation on Ultra-thin Conformal Metamaterial Absorbers for Multiband Applications	Dr. Raghvendra Kr. Chaudhary , Assistant Professor,	Dept. of ECE	46.56	DST(SERB)
197	DST(SERB)/(161)/2016-2017/504/PE	Extraction of Pour Point Depressants from Fruits and Its use for Crude Oil Transportation	Dr. Tarun Kumar Naiya, Assistant Professor	Dept. of PE	33.39	DST(SERB)
198	DST(SERB)/(162)/2016-2017/505/ECE	Optical Sensors Based Traffic Weighbridge	Prof. Vishnu Priye, Dr. Jaisingh T, Asstt. Professor	Dept. of ECE	42.39	DST(SERB)
199	DST(SERB)/(163)/2016-2017/506/AM	Energy Efficient Trajectory Design for Space Missions	Dr. Badam Singh Kushvah, Associate Professor	Dept. of Applied Math	23.85	DST(SERB)
200	DST(SERB)/(164)/2016-2017/507/AGP	Building Crustal Models and the Delineation of Potential Concealed Mineralized	Dr. Srinivasa Rao Gangumalla, Asstt. Professor	Dept. of Applied Geophysics	40.18	DST(SERB)

		Zones in the North Singhbhum Mobile Belt (NSMB) Eastern Indian Craton Through Integrated Geophysical Studies				
201	DST(SERB)/(165)/2016-2017/508/PDF/AC	Financial Support under National Post Doctoral Fellowship to Dr. Punita Mourya	Prof. G. Udayabhanu	Dept. of Applied Chemistry	19.20	DST(SERB)
202	DST(WTI)/(166)/2016-2017/509/AC	Development of Ternary Nanocomposite Hydrogel Derived from Functionalized Biopolymer Amylose/TiO ₂ -Ag NPs and its Potential Application Towards Treatment of Wastewater	Dr. Sagar Pal, Associate Professor	Dept. of Applied Chemistry	23.90	DST(WTI)
203	DST(SERB)/(167)/2016-2017/510/AM	Mathematical Study on Wave Propagation Aspects in Piezoelectric Composite Structure with Complexities	Dr. Abhishek Kr. Singh, Asstt. Professor	Dept. of Applied Mathematics	14.69	DST(SERB)

B. R&D Projects Received during the Financial year 2017-18 (APRIL 2017 TO MARCH 2018)

Sl. No.	Project No.	Title of the Project	Coordinator(s)	Department	Total cost of the project (Rs. In lakhs)	Sponsoring agency
1	DST(SERB)/(168)/2017-2018/511/ME	An Investigation into the Effects of Intrinsic Properties of Indian Coals on Spontaneous Combustion Process and Coal Mine Fires	Dr. D. P. Mishra, Asstt. Professor	Dept. of Mining Engineering	21.45	DST(SERB)
2	DST(SERB)/(169)/2017-2018/512/AM	Joint Modeling of Event Time and Non-Ignorable Missing Covariate Data in Survival and Longitudinal Analysis	Dr. G. K. Vishwakarma, Asstt. Professor	Dept. of Applied Mathematics	15.68	DST(SERB)
3	ISRO/(6)/2017-2018 / 513/ECE	A Compact Low Volume Dielectric Resonator Antenna Loaded with Metamaterial Structure for Small Satellite Application	Dr. . Raghvendra Kr. Chaudhary, Asstt. Professor	Dept. of ECE	20.10	ISRO
4	CIL(7)/2017-2018/ 514/FME	Design of Cost Effective Process Flowsheet for Improved Washing Efficiency of Indian Coking and Non-coking Coals	Prof. Nikkam Suresh	Dept. of FME	1212.98	CIL
5	ISRO/(7)/2017-2018/515/AP	Electron Induced Chemistry of Molecules Relevant to Space Applications	Dr. Bobby Antony, Associate Professor	Dept. of Applied Physics	24.56	ISRO

6	NIRDPR/2017-2018/516/MS	Behavioral and Cultural Causalities Affecting MGNREGA Implementation at Local Governmental Bodies : A Critical Assessment in Jharkhand	Dr. Bibhas Chandra, Asstt. Professor,	Dept. of Management Studies	10.93	NIRDPR
7	DST(SERB)/(170)/2017-2018/517/CE	Static Stability Analysis of Carbon Nanotube Reinforced Laminated Composite Plate Subjected to Axial Compressive Loading	Dr. Tanish Dey, Asstt. Professor Dept. of Civil Engineering	Dept. of Civil Engineering	29.85	DST(SERB)
8	CSIR(22)/2017-2018/518/AM	Mathematical Modeling of Dynamical Diseases in the Human Brain	Prof. Ranjit Kumar Upadhyay	Dept of Applied Mathematics	5.87	CSIR
9	IIT(ISM) & Tata Steel (MoU)/2017-2018/519/Instt.	Selection, Detailed Characterization and Optimization of Commercial Flocculants Towards the Treatment of Major Water Consuming Unit of Steel Plant	Dr. Sagar Pal, Assoc. Professor	Dept. of Applied Chemistry	12.65	IIT(ISM) & Tata Steel (MoU)
10	CSIR(23)/2017-2018/520/AM	Study on Some Solution Methods of Vector Optimization Problems	Dr. Anurag Jayswal, Asstt. Professor	Dept of Applied Mathematics	5.87	CSIR
11	CSIR(24)/2017-2018/521/CSE	WSN based Disaster and Environmental Monitoring System for Safety of Miners Working in Underground Coal Mines	Dr. Chiranjeet Kumar, Associate Professor	Dept. of CSE	5.41	CSIR

12	CSIR(25)/2017-2018/522/AM	Study of Wave Propagation Aspects in Piezoelectric, Piezomagnetic and Functionally Graded Piezoelectric Composite Structures	Dr. Abhishek Kr. Singh, Asstt. Professor	Dept. of Applied Math	5.87	CSIR
13	DST(SERB)/(171)/2017-2018/523/MECH. ENGG	Development of New Strategy to Enhance Cylindrical Wire Electrical Discharge Turning Process	Dr. Amitava Mandal, Asstt. Professor .	Dept. of Mechanical Engg	33.61	DST(SERB)
14	DST(SERB)/(172)/2017-2018/524/CSE	Precision Agriculture Model to Increase Crop Productivity in India using Big Data	Dr. Dharavath Ramesh, Asstt. Professor	Dept. of CSE	18.13	DST(SERB)
15	CSIR(26)/2017-2018/525/AC	Titanate Nanosheet/Cationically Modified Dextrin Through in-situ Exfoliation: Development and Application Towards Enhanced Dye Adsorption and Photodegradation Property	Dr. Sagar Pal, Associate Professor	Dept. of AC	11.00	CSIR
16	DST(SERB)/(173)/2017-2018/526/ESE	Design and Development of Full Solar Spectrum Enriched Photocatalyst for Sustainable Water Treatment	Dr. Saravanan Pichiah, Asstt. Professor	Dept. of ESE	15.40	DST(SERB)
17	DST(SERB)/(174)/2017-2018/527/CIVIL ENGG	Dynamic Crack Kinking from Aggregate-Mortar Interface of Concrete Sub-Structural System	Dr. Sukanta Chakraborty, Asstt. Professor	Dept. of Civil Engg.	28.70	DST(SERB)

18	NBHM/2017-2018/528/AM	Mathematical Modelling of Elastic Wave Propagation in Highly Anisotropic and Heterogeneous Media	Dr. Abhishek Kr. Singh, Asstt. Professor	Dept. of Applied Mathematics	14.38	NBHM
19	DST(SERB)/(175)/2017-2018/529/AC	Synthesis and Catalytic Investigation Towards H ₂ Evolution by 1 st Row Transition Metal Based Molecular Catalysts	Dr. Sumanta K. Padhi, Asstt. Professor	Dept. of Applied Chemistry	28.99	DST(SERB)
20	DST(SERB)/(176)/2017-2018/530/AGP	A Seismic Transect Across Northeastern India Beneath the Shillong Plateau	Dr. Mohit Agrawal, Asstt. Professor Dept. of Applied Geophysics	Dept. of Applied Geophysics	43.05	DST(SERB)
21	DRDO(8)/2017-2018/531/CIVIL ENGG.	Comprehensive Study on Effect of High Temperature on Concrete Structure Related to the Lining of Curved Structure such as Tunnel	Prof. Sekhar Ch. Dutta	Dept. of Civil Engineering	9.75	DRDO
22	DST(SERB)/(177)/2017-2018/532/AM	Mathematical Modelling of Seismic Wave Propagation in Composite Layered Structures	Prof. Amares Chattopadhyay	Dept. of Applied Mathematics	15.19	DST(SERB)
23	DST(SERB)/(178)/2017-2018/533/MECH. ENGG.	Development of modular type high speed ultra-precision machining center	Dr. Vivek Bajpai, Asstt. Professor	Dept. of MECH. ENGG.	35.16	DST(SERB)

24	ARDB(MoD)/2017-2018/534/MECH. ENGG.	Experimental Investigation on the Heat Transfer Enhancement of Hybrid nano-fluids in a plate heat exchanger	Dr. Subrata Kr. Ghosh, Asstt. Professor	Dept. of Mechanical Engineering	20.53	ARDB(MoD)
25	Tata Steel/2017-2018/535/ESE	Study to Develop & Improve Nitrification in AIS (Advent Integral System) at BOT Plant	Prof. S. K. Gupta,	Dept. of ESE	11.50	TATA STEEL
26	DST(SERB)/(179)/2017-2018/536/AGL	Possible Hadean to Archaean Crustal Evolution in the Singhbhum Craton: An Investigation into the Detrital Zircon Archive	Dr. Sukanta Dey, Associate Professor	Dept. of Applied Geology	41.00	DST(SERB)
27	MOM(17)/2017-18/537/ME	Development of Environment Friendly Blasting Techniques	Dr. B. S. Choudhary, Assistant Professor	Department of Mining Engineering	29.04	MoM
28	ISRO/(8)/2017-2018/538/ECE	Design and Development of Substrate Integrated Waveguide (SIW) Based Circular Polarized High Gain Slot Array Antenna for Satellite Communication	Dr. Santanu Dwari, Asstt. Professor	Department of Electronics & Com. Engineering	18.20	ISRO
29	CIL(8)/2017-2018/539/CHEMICAL ENGG.	High ash coal gasification and associated upstream and downstream processes (Coal to Chemicals - CTC)	Prof. I. M. Mishra	Department of Chemical Engineering	1872.00	CIL

30	CIL(9)/2017-2018/540/ME	Development of Virtual Reality Mine Simulator (VRMS) for improving safety and productivity in coal mines	Prof. V. M. S. R. Murthy	Department of Mining Engineering	1320.10	CIL
31	ISRO/(9)/2017-2018/541/AM	Predicting Reliability and Optimal Release Time of Various Categories Software Systems	Dr. Subhashis Chatterjee, Associate Professor	Dept. of Applied Mathematics	16.48	ISRO
32	DST(SERB)/(180)/2017-2018/542/ECE	Analysis of Phonocardiogram (PCG) Signal for Classification of Heart Valve Disease	Dr. Sumitra Shukla, Post Doctoral Fellow	Dept. of ECE	9.60	DST(SERB)
33	MoES(12)/2017-2018/543/PE	Development and Characterization of Efficient Drilling Fluid Systems to Explore Huge Natural Gas Hydrate Resource in the Offshore of India	Dr. Ajay Mandal, Assoc. Professor	Dept. of PE	42.77	MoES
34	DST(RFBR)/(181)/2017-2018/544/AM	Approach for the Processing of Data of Vibro-seismic Waves Records and Theoretical Investigations on Seismic Waves	Dr. Santimoy Kundu, Asstt. Professor	Dept. of Applied Mathematics	14.22	DST(RFBR)
35	IRS, ONGC & IIT(ISM)/2017-2018/545/PE	Development of Polymer Nano-composite Hydrogel Systems for Water Control in Oil/Gas Wells Completed in Harsh Environment	Dr. Keka Ojha, Associate Professor	Dept. of Petroleum Engineering	45.40	IRS, ONGC & IIT(ISM)

36	DST(182)/2017-2018/546/MS	Designing a Model for Measuring Entrepreneurial Drive of Active and Prospective Entrepreneurs with Science & Technology (S&T) Background in Jharkhand	Dr. Niladri Das, Asstt. Professor	Dept. of Management Studies	18.15	DST
37	DST(183)/2017-2018/547/ME	4 Days Training Programme on Application for Numerical Simulation for Slope stability Risk Mitigation and Management	: Dr. A.K.Verma, Asstt. Professor	Dept. of Mining Engineering	4.50	DST
38	MoT(1)/2017-2018/548/MS	Study of Living and Working Conditions of Artists of Tribal Paintings of Jharkhand	Dr. Mrinalini Pandey, Asstt. Professor	Dept. of Management Studies	11.92	MoT
39	Tata Steel & IIT(ISM) - MoU/2017-2018/549/Instt.	Investigation on corrosion inhibition properties of nanostructures passivated zinc surface using surface Plasmon resonance and electrochemical impedance spectroscopy	Dr. Moirangthem Rakesh Singh, Asstt. Professor	Dept. of Applied Physics	12.50	Tata Steel
40	DST-SERB/(184)/2017-2018/550/AC	Financial Support under National Post Doctoral Fellowship to Dr. Sumanta Sahoo under the mentorship of Dr. Ganesh Chandra Nayak,	Dr. G. C. Nayak, Asstt. Professor	Dept. Applied Chemistry	19.20	DST(SERB)
41	DST-SERB/(185)/2017-2018/551/AM	The Kontorovich-Lebedev Transform and Related Integral Operators on	Dr. Akhilesh Prasad, Associate Professor	Dept. of Applied Mathematics	15.79	DST(SERB)

		Function and Distribution Spaces				
42	IUSSTF/2017-2018/552/AC	2D Nanomaterials for Energy Storage	Dr. G. C. Nayak, Asstt. Professor	Department of Applied Chemistry	30.25	IUSS&TF
43	DST-SERB/(186) / 2017-2018/553/AC	Extraction of Nanocellulose from Waste Paper for Production of Biodegradable, Flexible and Cheaper Electrodes for Energy Storage Devices	Dr. G. C. Nayak, Asstt. Professor	Department of Applied Chemistry	36.69	DST(SERB)
44	DST-SERB/(187)/ 2017-2018/554/AP	Electron and Positron Induced Chemistry at the Molecular Level Investigation Through Scattering Studies	Dr. Bobby Antony, Associate Professor	Dept. of Applied Physics	23.34	DST(SERB)
45	DST-SERB/(188)/ 2017-2018/555/AP	Development of Surface Plasmon Resonance Ellipsometry as Label-free Optical Biosensor for Ultrasensitive Detection of Chemical and Biological Species	Dr. Moirangthem R. Singh, Asstt. Professor	Dept. of Applied Physics	37.06	DST(SERB)

C. SUMMARY OF R&D PROJECTS EXECUTIED DURING THE FINANCIAL YEAR 2017-2018 (APRIL 2017 TO MARCH 2018)

INR in lakhs

Total value of the projects carried forward from the previous Financial years.

9246.02

Total value of the Projects Received during the financial year 2017-2018 (APRIL 2017 TO MARCH 2018)

5274.82

Total Value of the Projects carried out during the financial year 2017-2018 (APRIL 2017 TO MARCH 2018)	14520.84
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Abbreviations of the Sponsoring Organizations :

DST	:	Department of Science & Technology
UGC	:	University Grants Commission
CSIR	:	Council of Scientific & Industrial Research
MoES	:	Ministry of Earth Sciences
MoEF	:	Ministry of Environment & Forests
MOC	:	Ministry of Coal
CIL	:	Coal India Limited
MWR	:	Ministry of Water Resource
DAE	:	Department of Atomic Energy
IPEM	:	International Project Erasmus Mundus
ICSSR	:	Indian Council of Social Science Research
MRD	:	Ministry of Rural Development
ISRO	:	Indian Space Research Organisation
OIL	:	Oil India Limited
MOM	:	Ministry of Mines
DRDO	:	Defence Research & Development Organization
ICPR	:	Indian Council of Philosophical Research

ICMR : Indian Council of Medical Research
CPRI : Central Power Research Institute
UGC-DAE : University Grants Commission – Department of Atomic Energy
MoS : Ministry of Steel
NIRDPR : National Institute of Rural Development & Panchayati Raj
NBHM : National Board for Higher Mathematics
ARDB : Aeronautics R&D Board (Ministry of Defence)
TATA STEEL: Tata Steel, Jamshedpur.
MoT : Ministry of Textiles
ICMR : Indian Council of Medical Research
CPRI : Central Power Research Institute
ICSSR ; Indian Council of Social Science Research
MCIT : Ministry of Communication & Information Technology