2010-11 Sponsored Research Projects Completed (2010-11)

Name of the Project	Principal	Sponsor	Outlay
	Investigator		(Lakhs)
Geodynamic evolution of the Main Central	D.K.	DST	14.10
Thrust Himalayas	Mukhopadhyay		
Earthquake Precursor Research Using Satellite	A.K. Saraf	DST	12.80
Thermal Infrared Data			
Investigation of Distribution and Formation	A.K.Sen	DST	9.80
Conditions of the Noble Metal (PGE and Gold)			
Mineralization in the Sukinda Chromite			
Groundwater contamination due to waste	Mohd. Israil	DST	4.07
disposal and aquifer characterization around			
Roorkee using integrated Geoelectrical			
techniques			

Continuing Sponsored Research Project (2010-11)

Name of the Project	Sponsoring	Outlay	Principal
	Agency	(Lakhs)	Investigator
Deep Crustal Structure of NE Himalayas	DST	8.66	Sri Niwas
(Arunachal Pradesh) Through Integrated			
Geophysical (MT and Gravity & Magnetic)			
Data Analysis			
National Facility of Geochronology/	IITR	20.00	Head, IIC,
Isotope Geology			Roorkee
Early Paleogene Mammal Fauna from	DST	17.04	Sunil Bajpai
Western India: Evolutionary and			
biogeographic Aspects with Special			
Reference to 'Out of India' hypothesis-			
Early Paleogene Vertebrates of India:	DST	34.80	Sunil Bajpai
Evolutionary and Biogeographic Response to			
India-Asia Collision			
Mapping of basic parameters of expected	DST	11.60	Anand Joshi
strong ground motion estimated of seismic			
treatment of Technology Mumbai			
Establishing National Facility for "AR- ³⁹ AR	DST	39.03	A.K. Jain
Geothermochronology at the Indian Institute			
of Technology, Mumbai			
Hydrothermal alteration pattern based	BRNS	15.58	A.K.Sen
exploration model for unconformity type			
uranium and other associated metals in			
southern part of Sonrai Basin, Lalitpur			
District, Uttar Pradesh			
Long tail effects in Probabilistic Seismic	DST	11.46	Anand Joshi
hazard analysis: a case study of Himalaya			
and Mexico city			

Geophysical Investigation for Possible	CSIR	8.76	Kamal
Implications of Solani knee-bend in			
Himalayan Tectonics			
Source modeling and generation of strong	Dept. of	30.02	Anand Joshi
ground motion: A case study of Sumatra	Atomic		
earthquake of December 26,2004	Energy,		
	BARC,		
	Mumbai		
Physical Basis for Existence of Direct and	CSIR	8.76	Sri Niwas
Inverse Relationship Between Electrical and			
Hydraulic Conductivity of Aquifers			

New projects (2010-11)

Name of the Project	Principal	Sponsoring	Outlay (
	Investigator	Agency	Lakh))
Subsurface imaging of Uttaranchal Himalaya	Anand Joshi	MoES	64.18
using a dense network of strong motion			
records			
Dissolution Rates of Deccan Basalts and other	G.J. Chakrapani	DST	20.68
Lithologies in the Narmada River Basin			
Text –Book Series for the Graduate Students	Sandeep Singh	MoES	88.17
in Earth Sciences			
Remote Sensing Based Debris-Cover Analysis	R.P.Gupta	Ministry of	10.40
of Chhota – Shigri Glacier, Himalaya		Water	
		Resources	
Lode gold Mineralization in the Southern	R.	DST	43.06
Granulite Terrain, Kerala: Geochemical and	Krishnamurthi		
Petrological Constraints on their genesis			
Investigation of Potential Metalliferous	A.K. Sen	UGC-DAE	0.25
Nature of Coal from India			

<u>2011-12</u>

New Research Projects (2011-12)

Name of the Project	Principal	Sponsoring	Outlay (in
	Investigator	Agency	Lakh of
			Rupees)
SAR Interferometry in Surface	Prof. A.K. Saraf	CSIR	17.42
Deformation studies in Tectonically		New Delhi	
active parts of India			
India's paleoclimatic evolution during	Prof. Sunil	DST	7.48
late Cretaceous early Paleogene:	Bajpai	New Delhi	
unraveling the defects of ENSO like			
situation in a greenhouse world			

New Methods for Strain Estimation from	Prof. D.C.	DST,	14.72
Deformed Markers in Rocks	Srivastava	New Delhi	
Geochemical Evolution from Ground	Prof. G.J.	DAE,	24.33
Water in a Limestone –Granite Terrain	Chakrapani	BARC,	
Underground Markers in Rocks		Mumbai	

Sponsored Research Projects Completed (2011-12)

Name of the Project	Principal Investigator	Sponsoring Agency	Outlay (in lacs of Rupees)
Deep Crustal Structure of NE Himalayas (Arunachal Pradesh) Through Integrated Geophysical (MT and Gravity & Magnetic) Data Analysis	Sri Niwas	DST	8.66
Early Paleogene Mammal Fauna from Western India: Evolutionary and biogeographic Aspects with Special Reference to 'Out of India' hypothesis	Sunil Bajpai	DST	17.04
Early Paleogene Vertebrates of India: Evolutionary and Biogeographic Response to India-Asia Collision	Sunil Bajpai	DST	34.80
Mapping of Basic Parameters of Expected Strong ground Motion Estimated of Seismic Treatment for Cities in Himalaya	Anand Joshi	DST	11.60
Long tail effects in Probabilistic Seismic hazard analysis: a case study of Himalaya and Mexico city	Anand Joshi	DST	11.46
Hydrothermal alteration pattern based exploration model for unconformity type uranium and other associated metals in southern part of Sonrai Basin, Lalitpur District, Uttar Pradesh	A.K. Sen	BRNS	15.58
Geophysical Investigation for Possible Implications of Solani Knee- Bend in Himalayan Tectonics	Kamal	CSIR	8.76

Continuing Sponsored Research Project (2011-12)

Name of the Project	Sponsor	Outlay	Principal
		(Lakhs)	Investigator
National Facility of Geochronology/	IITR	20.00	A.K.
Isotope Geology			Chaudhary
Establishing National Facility for "AR- ³⁹ AR	DST	39.03	A.K. Jain
Geothermochronology at the Indian Institute of			

Technology, Mumbai			
Source modeling and generation of strong ground	BARC,	30.02	Anand Joshi
motion: A case study of Sumatra earthquake of	Mumbai		
December 26,2004			
Subsurface imaging of Uttaranchal Himalaya using	MoES	64.18	Anand Joshi
a dense network of strong motion records			
Physical Basis for Existence of Direct and Inverse	CSIR	8.76	Sri Niwas
Relationship Between Electrical and Hydraulic			
Conductivity of Aquifers			
Dissolution Rates of Deccan Basalts and other	DST	20.68	G.J.
Lithologies in the Narmada River Basin			Chakrapani
Deep Geoelectrical Studies of India – Eurasia	DST	13.95	M. Israil
collision zone: Regional MT profile in			
Uttarakhand Himalaya			
Text –Book Series for the Graduate Students in	MoES	88.17	Sandeep
Earth Sciences			Singh
Remote Sensing Based Debris -Cover Analysis of	DST	23.43	R.P. Gupta
Chhota-Shigri Glacier Himalaya			
Lode gold Mineralization in the Southern	DST	43.06	R.
Granulite Terrain, Kerala: Geochemical and			Krishnamurthi
Petrological Constraints on their genesis			
Investigation of Potential Metalliferous Nature of	UGC-	0.25	A.KSen
Coal from India	DAE		

<u>2012-13</u>

Completed Sponsored Research Projects (2012-13)

Principal Investigator	Title of the Project	Sponsoring Agency	Outlay (Amount in lakhs)
Prof. Sandeep Singh	Establishing National Facility for ⁴⁰ Ar- ³⁹ Ar Geo- thermochronology at the Indian Institute of Technology, Mumbai	DST, New Delhi	39.03
Prof. Sri Niwas	Physical Basis for Existence of Direct and Inverse Relationship Between Electrical and Hydraulic Conductivity of Aquifers	CSIR, New Delhi	8.76
Prof. A.K. Sen	Investigation of Potential Metalliferous Nature of Coal from India	UGC-DAE- CSIR	1.30

Continuing Sponsored Research Projects (2012-13)

Principal Investigator	Title of the Project	Sponsoring Agency	Outlay (Amount in lacs of Rs.)
Dr. Anand Joshi	Source modeling and generation of strong ground motion: A case study of Sumatra earthquake of December 26, 2004	DAE, BARC, Mumbai	30.02
Prof. G.J. Chakrapani	Dissolution Rates of Deccan Basalts and other Lithologies in Narmada River Basin	DST, New Delhi	20.68
Prof. G.J. Chakrapani	Geochemical Evolution from Ground Water in a Limestone – Granite Terrain Underground Markers in Rocks	DAE, BARC, Mumbai	24.33
Prof. M. Israil	Deep Geoelectrical studies of India-Eurasia Collision Zone: Regional MT profile in Uttrakhand Himalaya	DST, New Delhi	13.91
Prof. Sandeep Singh	Text–Book Series for the Graduate Students in Earth Sciences	MoES New Delhi	88.17
Prof. A.K. Saraf	SAR Interferometry in Surface Deformation studies in Tectonically active parts of India	CSIR New Delhi	17.42
Prof. R.P. Gupta	Remote Sensing Based Debris – Cover Analysis of Chhota-Shigri Glacier, Himalaya	DST New Delhi	23.43
Prof. A.K. Sen	Investigation of Potential Metalliferous Nature of Coal From India	UGC_DAE- CSIR	1.30
Prof. Sunil Bajpai	India's paleoclimatic evolution during late Cretaceous early Paleogene: unraveling the defects of ENSO like situation in a greenhouse world	DST New Delhi	7.48
Prof. D.C. Srivastava	New Methods for StrainEstimation from Deformed Markers in Rocks	DST, New Delhi	14.72

New Sponsored Research Projects (2012-13)

Principal Investigator	Title of the Project	Sponsoring Agency	Outlay (Amount in lacs of Rs.)
Prof. D.K. Mukhopadhyay	Structural and petro- mineralogical controls of uranium Mineralization in Hurra-Ki-Dhani-Jahaz area, Sikar, Rajasthan	DAE, BRNS Mumbai	27.99
Dr. Anand Joshi	Crustal Attenuation Studies of the Garhwal and the Kumaon Himalaya for Estimation of Seismic Hazard	Science and Engineering Research Board,(SERB), New Delhi	51.66
Dr. Biplab Bhattacharya	Sediment – Organism Interaction Pattern in Basal Gondwana Sediments of Raniganj Basin, India and its bearing on late Paleozoic Paleogeographic- Paleoclimatic Changes	DST New Delhi	18.85

2013-14Completed Sponsored Research Projects (2013-14)

Principal	Title of Projects	Sponsoring	Amount
Investigators		Agency	In Lacs
Prof.G.J.Chakrapani&	Geochemical evolution of ground water	BRNS	25.00
R.K.Bajpai (BARC)	in a limestone-granite terrain		
, , ,	underground research laboratory site,		
	Gulbarga District, Karnataka		
Prof. Anand Joshi	Subsurface imaging of Uttaranchal	MoEs	64.18
	Himalaya using a dense network of		
	strong ground motion recorders (PI)		
Prof. Arun K. Saraf	SAR interferometry in surface	CSIR	12.37
	deformation studies in tectonically		
	active parts of India		
Prof. R.	Lode gold mineralization in southern	DST, New	43.06
Krishnamurthi	granulite terrain, Kerala: Geochemical	Delhi	
	and petrological constraints on their		
	genesis		

Continuing Sponsored Research Projects (2013-14)

Principal Investigators	Title of Projects	Sponsoring	Amount
		Agency	In Lacs
Prof. Arun K. Saraf	SAR Interferometry in Surface Deformation Studies in Tectonically Active Parts of India	CSIR, New Delhi	17.42
Prof. Anand Joshi	Crustal attenuation studies of the Garhwal and Kumaon Himalaya for estimation of seismic hazard	DST	51.66
Dr. Pitambar Pati	Neotectonically controlled coastal subsidence along parts of Odisha coast: A study of future of Indian east coast	IIT Roorkee (Faculty Initiation Grant)	10.00
Dr. Biplab Bhattacharya	Sediment-organism interaction pattern in basal Gondwana sediments of Raniganj Basin, India, and its bearing on Late Paleozoic paleogeographic- paleoclimatic changes	DST, Govt. of India (DST FAST TRACK Project for Young Scientists)	18.85
Prof. Sandeep Singh	Text–Book Series for the Graduate Students in Earth Sciences	MoES New Delhi	88.17
Prof. Sandeep Singh	Geological Expedition to Ladakh and Karakoram	DST, New Delhi	11.00
Prof. D.K. Mukhopadhyay	Structural and petro- mineralogical controls of uranium Mineralization in Hurra-Ki-Dhani-Jahaz area, Sikar, Rajasthan	DAE, BRNS Mumbai	27.99
Prof. D.C. Srivastava	New Methods for strain estimation from deformed markers in rocks	DST, New Delhi	14.72

New Sponsored Research Projects (2013-14)

Principal Investigators	Title of Projects	Sponsoring	Amount
		Agency	In Lacs
Prof. Anand Joshi.	Simulation of great earthquake in the	DST	17.10
	central seismic gap region of Himalaya		
	and its related seismic hazard using		
	modified semi empirical approach		
Dr. Vikram Vishal	Hydro-mechanical behavior of lignites and	DST	83.00
	bituminous coal during multiphase CO ₂		
	injection		
Prof. S.	Three Dimensional Seismic Structure and	DST	12.27
Mukhopadhyay	Seismicity in the Himalaya Region		

Prof. D.C. Srivastava	Palesotress distribution in Himalaya	JC Bose Fellowship (DST)	68.00
Prof. M. Israil	Deciphering 3D Geoelectrical Structure from MT/MV data recorded in Garhwal Himalayan Region	DST, New Delhi	19.57
Prof. M. Israil	Magnetotelluric studies for delineation of 3-D Geoelectrical structure of Garhwal Himalaya	MoES, New Delhi	24.34

2014-15Continuing Sponsored Research Projects (2014-15)

Principal	Title of Projects	Sponsoring	Amount
Investigators		Agency	In Lacs
Prof. Anand Joshi.	Simulation of great earthquake in the	DST	17.10
	central seismic gap region of Himalaya		
	and its related seismic hazard using		
	modified semi empirical approach		
Dr. Vikram Vishal	Hydro-mechanical behavior of lignites	DST	83.00
	and bituminous coal during multiphase		
	CO ₂ injection		
Prof. S.	Three Dimensional Seismic Structure	DST	12.27
Mukhopadhyay	and Seismicity in the Himalaya Region		
Prof. D.C. Srivastava	Paleostress distribution in Himalaya	JC Bose	68.00
		Fellowship	
		(DST)	
Prof. M. Israil	Deciphering 3D Geoelectrical Structure	DST, New	19.57
	from MT/MV data recorded in	Delhi	
	Garhwal Himalayan Region		
Prof. M. Israil	Magnetotelluric studies for delineation	MoES,	24.34
	of 3-D Geoelectrical structure of	New Delhi	
	Garhwal Himalaya		
Prof. Anand Joshi	Crustal attenuation studies of the	DST	51.66
	Garhwal and Kumaon Himalaya for		
	estimation of seismic hazard		

New Sponsored Research Projects (2014-15)

Principal Investigator	Name of the Project	Sponsoring	Outlay
		Agency	(Lakh)
Prof. M. Israil	Magnetotelluric Studies for Delineation	Ministry of	24.34
	of	Earth	
	3-D Geoelectrical of Garhwal Himalaya	Sciences	
Dr. Lopamudra Saha	Collision of the Singhbhum Craton with	SERC,	20.00
	the Eastern Ghats Mobile Belt:	DST	
	Testimony of An Early Paleozoic		
	Accretionary Orogen in the Indian		
	Subcontinent		
Prof. Anand Joshi	Modelling of Finite Ruptures in Three	Ministry of	23.50
	Dimensionally Attenuating Medium for	Earth	
	Detail Seismic Hazard Studies of	Sciences	
	Kumaon Himalaya Using Strong		
	Motion Data		
Prof. Sandeep Singh	Migimatization, Melting, Leucogranite	Ministry of	23.96
	Generation, and Exhumation of the	Earth	
	Higher Himalayan (HHC), Sikkim	Sciences	
	Himalaya		
Prof. G.J. Chakrapani	Water and Sediment Characterization of	Ministry of	29.36
	Kallai River, Kerala: Geochemical and	Earth	
	Sedimentological Approach	Sciences	
Prof. A.K. Sen	Study of Alkaline-Carbonatite	Ministry of	38.57
	Complexes as Potential Resources of	Mines	
	REEs, Nb-Ta and U-Th		
Dr. A.S. Maurya	Paleoceanographic Significance of	CSIR	18.92
	Deep-Sea Benthic Foraminifera At		
	Kerguelen Plateau Southern Ocean		
	ODP Site 1138A During The Late		
	Eocene-Early Oligocene (-40-30Ma)		

New Sponsored Research Projects (2015-16)

Principal Investigator	Name of the Project	Sponsoring	Outlay
		Agency	(Lakh)
Prof. D.C. Srivastava	HIGH RESOLUTION STRUCTURAL	DST	17.12
	AND DAMAGE ZONE MAPPING		
	ALONG RISHIKESH-DEOPRAYAG,		
	UTTRAKHAND		
Prof. R. Anbalagan	SLOPE STABILITY STUDIES IN	DST	18.80
	RESERVOIR RIM REGION OF		
	TEHRI DAM		
Prof. M. Israil	DECIPHERING 3D	DST	19.57
	GEOELECTRICAL STRUCTURE		
	FROM MT/MV DATA RECORDED		
	IN GARHWAL HIMALAYAN R		
	EGION		