

List of recent sponsored research projects

No.	Project Title	Principal Investigator	Duration	Sponsor
1	Lysimeter Based Sub-Surface Investigations To Assess the Transport Behaviour of Contaminants In the Vadoze Zone Surrounding Near Surface Disposal Facility at Kalpakkam	Prof M Sudhakar Rao	2011-2014	AERB
2	Characterization of Rail Track Ballast Fouling Using Ground Penetration Radar And Field Sampling	Dr P Anbazhagan	2011-2013	CISTUP
3	Performance Evaluation of Geosynthetic Reinforced Unpaved Roads	Prof G Madhavi Latha	2011-2013	CISTUP
4	Underground Construction In Urban Areas : Field Data Analysis and Monitoring, Numerical Simulations and Validation	Prof T G Sitharam	2011-2013	CISTUP
5	Use of Solid Waste to Enhance Properties of Problematic Soils	Prof P V Sivapullaiah	2011-2013	CISTUP
6	Retrofitting of Masonry In Compression, Flexure and Shear with FRP	Dr K S Nanjunda Rao	2012-2014	CISTUP
7	Evaluation of Municipal Solid Waste (Msw) Characteristics of a Typical Landfill In Bangalore	Prof G L Sivakumar Babu	2012-2014	CISTUP
8	Performance Evaluation of Public Transport operations in Karnataka by using Multivariate and Non -Parametric techniques	Prof T G Sitharam	2013-2015	CISTUP
9	Assessment of Fatigue Crack Propagation in Concrete Beams and Columns of Bridges	Prof J M Chandra Kishen	2013-2015	CISTUP
10	Removal efficiencies of degraded organic contaminants present in the Municipal Solid Waste(MSW) of Bangalore city after treatment by clays	Prof P V Sivapullaiah	2013-2015	CISTUP
11	Damage Assessment of Reinforced Concrete Bridge Beams using Acoustic Emission Method.	Dr R Vidyasagar	2010-2012	CISTUP
12	Quantification of Damage For Residual Life Assessment of Reinforced Concrete Infrastructures.	Prof J M Chandra Kishen	2010-2012	CISTUP

13	Urban Water Supply and Management	Prof M S Mohan Kumar	2010-2012	CISTUP
14	Solidification/Stabilization of Heavy Metals In Solid Wastes.	Prof M Sudhakar Rao	2010-2013	CPCB
15	Assessing the Ground Water Storage Changes & Sustainability due to Climate Change In the Semi-Arid Watersheds of South India	Prof M Sekhar	2010-2015	CSIR
16	Evaluation of Psycho-Physical Traits of Drivers and Applicability of ITS Based Traffic Law Enforcement for Improving Road Safety and Mobility In India	Dr Ashish Verma	2011-2014	CSIR
17	Structural Safety Assessment of Large Structures Using Spectral Stochastic Finite Element Method	Dr Debraj Ghosh	2011-2015	BRNS
18	Organizing the BRNS review meeting	Prof C S Manohar	2013-2014	BRNS
19	Organizing 3rd meeting-BRNS	Prof C S Manohar	2014-2015	BRNS
20	Testing of Pavements Using Seismic Waves	Prof Jyant Kumar	2008-2012	Department of Highway Road Transport
21	Strength and Fracture Properties of Cement Stabilized Rammed Earth and Its Application for Structural Walls	Dr K S Nanjunda Rao	2011-2014	DST
22	Exploratory Evaluation of Local Kinematics on Overall Deformation In Granular Media	Dr Tejas Gopur Murthy	2011-2015	DST
23	Software -hardware system for crack resistance characteristics determination of engineering materials and structures under mixed mode fracture	Prof J M Chandra Kishen	2013-2015	DST
24	Tsunami modeling challenges in the Indian ocean: computations ,inverse and forward problems, uncertainty qualification and source characterization	Prof Debasish Roy	2014-2014	DST
25	Dynamic Properties of Cohesionless Soils using Resonant Column & Bender Element Tests and their Effects on Ground Response Amplification.	Prof Jyant Kumar	2008-2012	DST
26	Managing Change In Soil Moisture & Agricultural Productivity Under a Global Warming Scenario Using Catchment Scale Climate Change Assessment Framework.	Prof D Nagesh Kumar	2009-2013	DST
27	Development of Hybrid Aerators.	Prof ARK Rao	2010-2012	DST

28	Assessment of the climate change impacts on the agricultural and water sectors in a deficit catchment in Karnataka.	Prof D Nagesh Kumar	2009-2012	DST
29	Engineering Behaviour of Fly-Ash Composites	Prof G L Sivakumar Babu	2010-2013	DST
30	1.Studies for Form based code. 2.CMP for Tier II Cities (Tumkur) implementation	Prof T G Sitharam	2013-2014	Directorate of Urban Land Transport Urban Development Department
31	2013 IBM faculty award	Prof M S Mohan Kumar	2014-2015	International business machine corporation
32	Developing design guidance for rammed earth construction'- project	Prof B V Venkatarama Reddy	2011-2015	Indo –French Centre for the promotion of advanced Research (ifcpar)
33	Global Mobility Monitor Network (GMMN)	Dr Ashish Verma	2012-2013	"Global mobility monitor network (gmmn)" "global mobility monitor network (gmmn)"
34	Probabilistic Evaluation of Liquefaction Potential With Local Site Effects	Prof T G Sitharam	2009-2012	Indira Gandhi Centre for Atomic Research
35	New Schemes for Computing the Reliability Of Structural Systems With Large Elasto-Plastic Deformations and Under Earthquake Excitations	Prof Debasish Roy	2010-2012	Indira Gandhi Centre for Atomic Research
36	Parallelized Computational Modelling of Tsunamis Through Ruptures or Submarine Landslides : Forward and Inverse Problems	Prof Debasish Roy	2011-2014	Indian National Centre for Ocean Information Services
37	Energy and Mass Exchange In Vegetative Systems	Prof M Sekhar	2012-2014	ISRO
38	Megha Tropiques Utilisation Programme (MTUP)	Prof M Sekhar	2010-2013	ISRO

39	Development of Land Parameter Retrieval Techniques & Tools for Polarimetric Sar Data Analysis.	Prof M Sekhar	2010-2014	ISRO
40	Measurements of Deformation Fields Through Image Analysis For Complex Constitutive Materials	Dr Tejas Gorur Murthy	2011-2013	IISc-STC Cell
41	Probabilistic Behaviour of Modal Properties of an Airframe	Dr Debraj Ghosh	2011-2013	IISc-STC Cell
42	Seismic Vulnerability Assesment Using High Resolution Remote Sensing Data for Disaster Management	Dr P Anbazhagan	2013-2015	IISc-STC Cell
43	Estimation Of Soil Hydraulic Properties In Catchment using Agro-Hydrological Models and Microwave Remote Sensing	Prof M Sekhar	2013-2015	IISc-STC Cell
44	Studies on Integration of GPS And INS for Varying Coupling Architectures Using Stochastic Filters	Prof Debasish Roy	2013-2015	IISc-STC Cell
45	Assimilation of Remote Sensing Data for Modeling the Land Surface Fluxes at Watershed Scale Using a Distributed Hydrological Model.	Prof M Sekhar	2010-2012	IISc-STC Cell
46	Novel & Parallelized Computational Schemes for Wrinkled Membranes and Unfurling Inflatable Structure.	Prof Debasish Roy	2010-2013	IISc-STC Cell
47	Probabilistic Seismic Hazard Evaluation of Karnataka State Considering Local Site Effects and Revisit of Source Characterization Based on Remote Sensing Data.	Prof T G Sitharam	2010-2013	IISc-STC Cell
48	Development of Domestic Wastewater Treatment Technology	Prof M Sudhakar Rao	2010-2012	Korea Institute of Science & Technology (KIST)
49	Study Of Agara And Bellandur Lakes As A Source Of Water	Prof T G Sitharam	2013-2015	Mantri Developers Pvt Ltd
50	Remediation of Chromium Contaminated Groundwater Using Ferro- Particles Based Technology	Prof M Sudhakar Rao	2012-2014	Ministry of drinking water and sanitation
51	Influence of Seasonal Variation On Ground Water Quality at Landfill Site In Goa	Prof M Sudhakar Rao	2013-2015	NICOMET INDUSTRIES LTD

52	Urban Floods : Modeling Studies	Prof P P Mujumdar	2010-2012	NATIONAL REMOTE SENSING CENTRE
53	Hydrophobic Sand Applications Such as Barrier Material for Organic Pollutants.	Prof M Sudhakar Rao	2012-2013	NICOMET INDUSTRIES LTD
54	"Making Performance based Structural Engineering for the Resistance Attainable "	Prof C S Manohar	01/10/2015	UK-India education & research initiative
55	Fire Resistance and Repair of Earthquake Damaged Structures	Prof C S Manohar	07/09/2012	UK-India education & research initiative
56	Prevention of Nitrate Contamination of Groundwater in Mulbagal Town through use of Bio-barrier at Pit-toilet Locations	Prof M Sudhakar Rao	2015-2018	ARGYAM
57	Static and Cyclic loading Characteristics of Geocell Reinforced Aggregates	Prof G Madhavi Latha	2013-2016	CISTUP
58	Advanced Pavement Engineering Lab- Allocation of funds for Rejuvenation	Prof T G Sitharam	2015-2016	CISTUP
59	Characterization of Bengaluru groundwater for BTEX contamination and development of procedures for remediation of BTEX contaminated groundwater	Prof M Sudhakar Rao	2015-2017	CISTUP
60	Reliability analysis for storm water drain network in Byatarayanapura, Mahadevapura and Eat core zones of Bangalore	Prof V V Srinivas	2015-2016	CISTUP
61	Bioremediation of detergent contaminated lake in Bengaluru	Prof M Sudhakar Rao	2015-2016	CISTUP
62	Uncertainty quantification in multiscale analysis of non ocomposite materials	Dr Debraj Ghosh	2012-2016	BRNS
63	"Seismic site classification for Indian shallow soil deposits"	Dr P Anbazhagan	2012-2016	BRNS
64	"Stochastic Modeling of Hydration Process in Concrete :Investigation into Creep and Shrinkage"	Prof Ananth Ramaswamy	2012-2016	BRNS
65	"Studies on fatigue crack growth in graphite"	Prof J M Chandrakishen	2012-2016	BRNS
66	"Development of probabilistic design and analysis procedures in radioactive waste disposal in NSDF and design of NSDF closure"	Prof G L Sivakumar Babu	2012-2016	BRNS

67	"Development of a Model for evaluating Prestress Losses considering Creep & Shrinkage Losses in Concrete & Relaxation Losses in Steel over 100 Years"	Prof Ananth Ramaswamy	2012-2016	BRNS
68	"Safety and Global sensitivity analyses of structures with alternative uncertainty models"	Prof C S Manohar	2012-2016	BRNS
69	"Determination of shear wave velocity for deeper ground using surface wave testing with the use of geophones"	Prof Jyant Kumar	2012-2016	BRNS
70	"Stochastic modeling of groundwater flow and contaminant transport modeling at the proposed uranium tailings pond"	Prof M Sekhar	2012-2016	BRNS
71	"An Integrated Experimental & Computational approach to Structural Design for Pallistic Impact & Blasts"	Prof Debasish Roy	2014-2018	DRDO
72	"Ground exploration using surface seismic waves:effect of height of fall/weight of the dropping mass on the influence zone and correlation with in situ penetration tests"	Prof Jyant Kumar	2012--2015	DST
73	"Guidelines for the use of Geocells in Flexible pavements"	Prof G L Sivakumar Babu	2012-2016	DST
74	"What will the future be? Projecting environmental change in warming world for semiarid landscapes"	Prof M Sekhar	2014-2017	DST
75	Water Security and Infrastructure Resilience under Climate Change	Prof P P Mujumdar	2014-2016	DST
76	Measurement of shear wave velocity at deep soil sites and sites response studies	Dr P Anbazhagan	2015-2018	DST
77	Calcite fluxes in pulicat lagon(South-East India) as a geochemical proxy of environmental changes	Prof M Sudhakar Rao	2015-2018	DST
78	"Bicycle Design Research Project"	Prof T G Sitharam	2014-2016	Directorate of Urban Land Transport Urban Development Department
79	IBM Shared University Research Award	Prof M S Mohan Kumar	2014-2016	International business machine corporation

80	" ADAPTATION OF IRRIGATED AGRICULTURE TO CLIMATE CHANGE " - Project No.4700-W1	Prof M Sekhar	2013-2016	CIFEFR
81	"IISC - IGCAR R&D CELL"	Prof C S Manohar	2004-2015	IGCAR
82	WATER SCIENCE TECHNOLOGY CELL	Prof M S Mohan Kumar	2001-2018	IFCWS
83	AN INTEGRATED STUDY OF HYDROLOGY AND MINERALOGY FOR ASSESSMENT OF WATER QUALITY AND QUANTITY IN SUB-CATCHMENT/WATERSHED	Prof M Sekhar	2001-2018	IFWCS
84	Development of a distributed groundwater model with a framework to integrate with a surface water model and to assimilate RS DATA	Prof M Sekhar	2014-2016	ISRO, Ahmedabad
85	Calibration and Validation of smap Soil Moisture Product over Experimental Agricultural Watershed in Karnataka	Prof M Sekhar	2015-2017	ISRO, Ahmedabad
86	Theoretical and computational study of frictional effects in viscoelastic and generalized elastic contacts	Dr Narayan K Sundaram	2014-2017	IISC-STC CELL
87	Modelling of evapotranspiration from remote sensing	Prof M Sekhar	2015-2017	I IISC-STC CELL
88	Assessing Policies For Climate Change Adoption And Transport Sector Mitigation In Indian Cities (CLIMATRANS)	Dr Ashish Verma	2014-2017	Inst. Of Transport Economics, Norway
89	Integrated Urban Flood Management In India : Technology-Driven Solutions	Prof P P Mujumdar	2013-2016	Information Technology Research Academy
90	Modelling Hydrology Of Mahanadi River Basin Considering Changes In Land-Use/Land-Cover.	Prof V V Srinivas	2011-2016	Ministry of Earth Sciences
91	Hydrometeorological Feedback and Changes In Water Storage And Fluxes In Northern Indian Basins	Prof P P Mujumdar	2011-2016	Ministry of Earth Sciences
92	Monitoring of Seismicity around Bangalore Metropolitan	Prof T G Sitharam	2014-2017	Ministry of Earth Sciences
93	Workshop and Review Meeting On 10-12 March 2015	Prof P P Mujumdar	2015-2016	Ministry of Earth Sciences
94	"steam turbine design for flexible operation"	Prof Debasish Roy	2015-2020	Mitsubishi Hitachi Power Systems

95	"The kumbh Mela Experiment: Measuring and Understanding the dynamics of mankind's largest crowd"	Dr Ashish Verma	2015-2018	Ministry Information Technology
96	"Smart Campus Water Management project: Closing the iot Loop from Network to Knowledge"	Prof M S Mohan Kumar	2015-2017	Ministry Information Technology
97	" NEW PARTICLE FILTERING AND STOCHASTIC SEARCH TECHNIQUES APPLIED TO THE SINGLE- AND MULTIPLE-TARGET TRACKING OF SLOW MOVING OBJECTS IN THE PRESENCE OF CLUTTER "	Prof Debasish Roy	2014-2017	Naval Research Board
98	"Study of biodiversity in the Castlerock-Kulem region of Karnataka and Goa	Prof T G Sitharam	2013-2015	Rail Vikas Nigam Limited
99	Integrated Water Resources Model for Bangalore City	Prof M Sekhar	2015-2017	Stokholm Environmental Institute
100	Sensor based Security & Emergency Management system for underground Metrosystems during disaster events (sensermetro)	Prof T G Sitharam	2015-2018	DSTO
101	The Kumbh Mela Experiment:Measuring and Understanding the dynamics of Mankind contribution from Amsterdam university	Dr Ashish Verma	2015-2017	Amsterdam University