

**Scheme: Research & Development Support (SERC)**  
**Programme: Science & Engineering Research Council (Engineering Sciences)**  
**Projects Sanctioned during 2002-03**

Sl. No.	Sanction No. Date of Sanction (D/M/Y)	Project Title	Project Investigator & Address	Sanctioned Cost
1.	III.5(91)/2001-ET 9/4/2002	To Develop a Multi Moule software package for rconnoitery as well as comprehensive risk assessment in chemical proces industries	Prof. S.A. Abbasi Pondicherry University Kalapet, Poidicherry - 605 014	1069800
2.	III 5(41)2001-ET 9/4/2002	The Analysis of Fused Deposition through Electro Chemical Discharge	Prof. A Ghosh IITK Kanpur -	1112000
3.	III 5(45)/(2001-ET 9/4/2002	Studies on evaluation of cross-talk & interference in cable harness usedin communication system & radar	Prof. B.N. Das IITKh Kharagpur -	754800
4.	III.5(135)/2001-ET 10/4/2002	Optimal Power supply bidding by reinforcement learning in deregulated power market	Prof. S.A. Khaparde D/o Electrical Engg. IITB Mumbai -	798000
5.	III.5(47)/2000-ET 10/4/2002	Developmetn of Adptive Neuro Fuzzy Controller of Anesthesia	Mr. Amod Kumar Central Scientific Instruments Organisation (CSIO) Chandigarh -	1450800
6.	III 5(47)/2000-ET 10/4/2002	Developmetn of Adptive Neuro Fuzzy Controller of Anesthesia	Prof. Sneh Anand Centre for Bio-medicl Engineering IITD Hauz Khas New Delhi -	1471106
7.	III 5(55A)99-ET 22/04/2002	Development for environmental application of Photocatalysis with emphasis on utilisation of Solar Energy	Prof. S.N. Upadhyay Banaras Hindu University Varanasi - 221 005	942822
8.	III.5(131)/2001-ET 23/04/2002	Development and validation of a computer assisted instructional package for training script-specific work-reading skills in Indian Languages	Dr. Duggirala Vasanta Biomedical Engineering Deptt. Osmania University Hyderabad -	222000
9.	III.5(133)/2001-ET 02/05/2002	Fabrication of optical waveguide poser splitter on silicon substrate for optical fiber communication (Phase-III)	Prof. D.K. Gautam Dept. of Electronics N.M. University Jalgaon -`	1525000
10.	SR/S3/CE/06/2002	Stochastic & Hybrid optimisation techniques for	Dr. V.K. Jayaraman Deptt. Of Chemical Engg.	1395840

	13/05/2002	process Engineering	National Chemical Laboratory Pune -	
11.	III.5(173)/99-ET 21/05/2002	Strategy to counter effects on pollutants	Dr. Siva Pullaih IISc. Bangalore -	953400
12.	III.5(17)/97-ET 21/05/2002	A Fuzzy multi-objective model for River Water Quality	Dr. P.P. Majumdar IISc. Bangalore -	912000
13.	III.5(13)/98-ET 21/05/2002	Non-linear Earth of make response analysis and structural optimization of piping networks	C.s. Manohar IISc. Bangalore -	919200
14.	III.5(35)/2001-ET 27/05/2002	Spech systhesis (Tamil & Oriya): An appilcation for the blind	Prof. V.I. Subramoniam International School of Dravidian Linguistics (Auto) St.Xaviers College` Thiruvananthapuram -	1581000
15.	III.5(28)/99-ET 17/06/2002	Modelling of crack tip blunting using finite element method	Ms. Mita Trafer National Metallurgical Laboratory Jamshedpur -	804136
16.	III.5(132)/2001-ET 24/06/2002	flexible system Management for Techynology Cpability Building at the Firm level	Dr. K. Momaya IITD Hauz Khas New Delhi -	559000
17.	III.5(67)/2001 25/06/2002	Soft Computing Approach to pattern Recognition and Image Processing	Prof. Sankar.K. Pal Indian Statistical Institute 203, Barrackpore, Trunk Road Calcutta -	540000
18.	III.5(89)/2001-ET 27/06/2002	Development of High Performance Robot Welding System using TIME Twin Process Integration from Shri K.L.	Shri. K.L. Rohira Welding Research Institute BHEL Tiruchirappalli -	3961000
19.	SR/S3/RM/11/2002 01/07/2002	Computer Integrated Tolerance Design of Precision Mechanical Assemblies	Prof. P.V.Mohan Ram PSG College of Technology Coimbatore - 641 004	580000
20.	SR/S3/RM/01/2002 05/07/2002	SERC School on Advances in Welding Technology	we Welding Research Institute BHEL Tiruchirappalli - 620 014	620000
21.	SR/S3/RM/08/2002 08/07/2002	Studies on Manufacturability of Sheet Metal and Tubular Parts using Hydro-forming Process	Dr. G. Chandramohan PSG College of Technology Coimbatore -	1364000
22.	SR/S3/EE/014/2002 10/07/2002	Express Track: development of Platform for Electronic Submission of proopsal, review and reporting	Dr. Sridharan Deptt. Of Electrical Engg. IITC Chennai -	496000
23.	SR/S3/RM/08/2002 11/07/2002	Design, Dvelopment and Performance study of New concept Harmonic Drive	Dr. (Mrs.) R. maiti IITKh Kharagpur - 721 302	1014000

24.	SR/S3/RM/05/2002 16/07/2002	Enhancing Capabilities of Abrasive Flow machining Process	Prof. H.S. Shan IITR Roorkee -	798000
25.	SR/S3/RM/07/2002 17/07/2002	Investigation on the Preparation of Ceramic Inks for Direct Ceramic Inkjet Printing for Manufacture of Ceramic Components	Dr. K. Prakasan PSG College of Technology Coimbatore -	965000
26.	SR/S3/RM/06/2002 26/07/2002	Development of Smart Micro-actuators for micro-Fuidic Applications	Dr. S.Senthil Nathan PSG College of Technology Coimbatore -	1824000
27.	SR/S3/RM/10/2002 07/08/2002	Cost Effective Weld Seam Tracking and Adaptive Control using Optical Sensors and Neural Networks	Prof. K.Prasad Rao IITC Chennai -	1371000
28.	III.5(123)/2003-ET 08/08/2002	Prventatopm pf Castastrp[joc Fao;ire om Gas omsi;ated Suste,	Prof. Y.G. Srinivasa Deptt. Of Electrical Engg. IITC Chennai -	960360
29.	III.5(43)/96-ET 12/08/2002	SERC School on methods in Materials Characterization held on January, 2002	Dr. C.S. Sundar Indira Gandhi Centre for Atomic Research Kalpakkam - 630 012	600000
30.	III.5(10)/2001-ET 13/08/2002	Seismci Evaluation and Retrofit of existing Multi-Storey Buildings	Dr. B.Sivaram Sarma Structural Engineering Research Centre (SERC) Chennai -	2760000
31.	III.(10)/2001-ET 13/08/2002	Seismci Evaluation and Retrofit of existing Multi-Storey Buildings	Dr. Devdas Menon IITC Chennai -	2860000
32.	III.5(96)/2000-ET 23/08/2002	Transistor mismatch in the deep sub-micron CMOS Technology	Dr. Navakanta Bhat Electrical Communication Engg. IISc. Bangalore -	1543560
33.	III.5(46)/2001-ET 13/09/2002	Development of high power ultrasonic transducer for NDE of thick concrete structures	Prof. K. Balasubramaniam IITC Chennai -	1337466
34.	III.5(59)/2001-ET 16/09/2002	Porous silicon based bio-sensors	Prof. E. Bhattacharya IITC Chennai -	1668000
35.	III.5(118)/2001-ET 16/09/2002	Expermental Investigations on Earthquake Resistance & Retrofitting measures of fullscale masonry House under Quasi-static Conditions	Shri Shailesh Kumar Central Building Research Institute Roorkee -	1212000
36.	SR/S3/MCE.07/2002 -SERC-Engg. 18/09/2002	Reliability based Design of water supply pipe networks	Dr. T.R. Neelakantan Deptt. Of Civil Engg. SASTRA Thanjavur -	662400
37.	III.5(141)/2000-ET 23/09/2002	Engineering of Smart materials through mechano-emission characteristics	Dr. Ashok Misra Birla Institute of Technology P.O. Mesra	1576175

			Ranchi - 835 215	
38.	SR/S3/ME/02/2002 23/09/2002	Synthesis of in-situ Tic reinforced ferrous-based composites from an industrial waste by thermit reductionrout	Dr. Karabi Das IITKh Kharagpur -	1964000
39.	SR/S3/RM/1017/2002 04/10/2002	Development of Twin Roll Casting Technique for Manufacturing Thin Castings	Dr. S.V. Prabhu IITG Guwahati -	1230300
40.	SR/S3/RM/23/2002 18/10/2002	Efficient Control Srtategy for a Hopping Robot based on passive Energetics	Dr. Rudra Pratap Deptt. Of Mechanical Engineering IISc. Bangalore -	737000
41.	SR/S3/CE/010/2002 21/10/2002	Synthesis characterization and systematic analysis of photoreactive epoxy polymers for negative photoresist applications	Dr. S.C. Murugavel PSG College of Technology Peelamedu Coimbatore -	1753200
42.	iii.5(71)/2001-ET 21/10/2002	Computer simulation of stedy state performance of rotary kiln in the metallization of ilmenite by solid reductants	Dr. S. Savithri RRL Thiruvananthapuram -	1003200
43.	SR/S3/CE/09/2002-SERC-Engg. 31/10/2002	Counter Current Multi-Stage Fluidized Bed Column for Removal of Dissolved Anions from Waste Water	Prof. Nishith Verma Deptt. Of Chemical Engg. IITK Kanpur -	994800
44.	III.5(124)/2001-SERC-Engg 05/11/2002	Influence of iron & titanium minerals on the optical properties of Kaolin	Dr.(Mrs.) Sathy Chandrasekhar RRL Thiruvananthapuram - 695 019	854400
45.	SR/S3/RM/14/2002. 05/11/2002	Optimization of Process Parameters of No-bake Moulding in an Automated Foundty System	Prof. B.N. Lahiri Jadavpur University Calcutta -	1805000
46.	SR/S3/RM/20/2002(CMERI) 07/11/2002	Development of Softwarefor Dierct Slicing of CAD Models	Shri P.S. Banerjee CMERI Durgapur -	220000
47.	SR/S3/RM/20/2002(IIT Kh) 07/11/2002	Development of Softwarefor Dierct Slicing of CAD Models	Shri P.S. Banerjee CMERI Durgapur -	284000
48.	SR/S3/RM/03/2002 12/11/2002	New Technology for One-Off Intricate Castings	Dr. B. Ravi IITB Mumbai -	1691000
49.	III.5(97)/2000-ET 12/11/2002	Applicability of Equal Channel Angular Extrusion to the Processing of Aluminum Allyos	Dr. Uday Chakkingal Deptt. Of Metllurgical Engg. IITC Chennai -	1982884
50.	SR/S3/MCE/03/2002-SERC-Engg	Theoretical and experimental investigation of strain	Dr. Anirudha Sengupta IITKh	1146830

	12/11/2002	localization in cohesive soils under Plane strain condition	Kharagpur -	
51.	SR/S3/RM/22/2002 21/11/2002	Analysis of Non-Linear Delay Differential Equations with Application to Manufacturing Processes	Dr. A. Chatterjee Deptt. Of Mechanical Engineering IISc. Bangalore -	599000
52.	SR/S3/RM/03/2002 22/11/2002	Development of a method of Evaluation of Environmental Impact of Engineering Designs during early Product Development	Prof. A. Chakrabarti IISc. Bangalore -	1070000
53.	III.5(5)/2001-SERC-Engg. 28/11/2002	Metal-Carbide Composite layer formation on aluminium alloy by laser processing	Dr. D. Sastikumar REC Truchirappalli -	1181100
54.	III.5(124)/99-ET 09/12/2002	Preparation of Nickel Hydroxide suitable to battery industry from Nickel Sulphate/Nickel Metal	Dr. T Subbaiah RRL Bhubaneswar -	833130
55.	SR/S3/EE/013/2002-SERC-Engg 11/12/2002	Modeling Simulation and Characterization fo Quantum mechanical Effect in Nano Scale MOSFETs for ULSI Circuit Application	Prof. R.S. Gupta Deptt. Of Electronic Sciecne University of Delhi Delhi -	1668000
56.	III.5(157)/99-ET 26/12/2002	Analytic and Algorithmic aspects of Stochastic Control systems	Prof. Vivek Shripad Borkar School of Technology and Computer Science TIFR Mumbai -	396000
57.	SR/S3/RM/47/2002 30/01/2003	An Efficient coupled Piezo-thermoelastic Layerwise Theory for Hybrid Beams	Dr. S. Kapuria Deptt. Of Mech. Engg. IITD New Delhi -	771000
58.	SR/S3/RM/33/2002 03/02/2003	Manufacturing and Testing of Herringbone-Grooved Journal bearing	Dr. T.K. Nandi Birla Institute of Technology Ranchi - 835 215	1403000
59.	SR/S3/RM/40/2002 03/02/2003	Development and Performance Evaluation of Diamond coated Carbide Tools for High Speed and Clean machining	Prof. A.K. Chattopadhyay IITKh Kharagpur -	1820000
60.	SR/S3/RM/34/2002 03/02/2003	Development of Performance Studies of Evaporative Pattern Casting Process	Dr. Pradeep Kumar IITR Roorkee -	1425000
61.	SR/S3/RM/31/2002 03/02/2003	research Project on New Architectures for Image-based Robotic Path Planning	Dr. K. Sridharan IITM Chennai -	1248000
62.	SR/S3/RM/12/2002 03/02/2003	Influence of Process Parameters in Electro-Chemical Machining Process	Shri S.K. Chak NSIT New Delhi -	835000
63.	SR/S3/RM/36/2002 04/02/2003	Numerical simulation and Experimental Investigation of the Geometry of Autoclaved	Prof. N.N. Kishore IITK Kanpur -	1123000

		Composite Parts		
64.	SR/S3/RM/39/2002 04/02/2003	Investigation of the Welding Conditions of Hydrogen Management in Gas Metal Arc Welding of High Speed Low Alloy Steel of High Productivity	Dr. T.K. Pal Jadavpur University Calcutta -	1751000
65.	SR/S3/CE/017/2002 -SERC-Engg 05/02/2003	Novel side armed polymers as dispersing/wetting agents for resin minimal pigments concentrates-tailoring and evaluation	Dr. N.V. Sastry S.P. University Valloabh Vidyanagar -	1190460
66.	SR/S3/CE/014/2002 -SERC-Engg 05/02/2003	Development of cost effective and eco-friendly bleaching of natural textile fibres using advanced oxidation technique	Dr. J.V. Rao Northern India Textile Research Association Ghaziabad - 201 002	1746000
67.	SR/S3/CE/022/2002 -SERC-Engg 05/02/2003	SERC School on interfacial Fluid Dynamics	IISc. Bangalore - 560 012	300000
68.	SR/S3/CE/021/2002 -SERC-Engg 05/02/2003	SERC School on Recent Advances in Design and Analysis of Bio-technology Processes	IITB Mumbai - 400 076	360000
69.	SR/S3/RM/46/2002 10/02/2003	Study and Analysis of Light Weight High Speed Robot Arms	Dr. S.K. Saha Deptt. Of Mech. Engg. IITD New Delhi -	1295000
70.	III.5(103)/2002- ET(2) 11/02/2003	2nd SERC School on Surface Engineering	ARCI Hyderabad - 500 005	600000
71.	SR/S3/RM/35/2002 14/02/2003	A New Approach to the Manufacture of Surgical Implants from CT/MRI Images	Shri K. Raja VIT Vellore -	770000
72.	SR/S3/EECE/03/200 3-SERC-Engg 17/02/2003	Nucleation of a group of research on emergin technologies for white light illumination	Dr. Deepak Gupta Deptt. Of Materials & Metallurgical Engg. IITK Kanpur -	195000
73.	SR/S3/CE/018/2002 -SERC-Engg 18/02/2003	Development of Biocatalysts for Chiral Separation	Shri Sanjay Nene National Chemical Laboratory Pune -	1187280
74.	SR/S3/ME/021/2002 19/02/2003	Development of Hybrid Epoxy Layered Silicate nano Composites	Dr. P. Gnanasundaram Anna Univeristy Chennai -	1326000
75.	SR/S3/ME/011/2002 19/02/2003	Synthesis of Nanosized powders of BST and fabrication of prototype multilayer actuator	Dr. V. Kumar Centre for Materials for Electronics Technology Thrissur - 680 771	640800
76.	III.5(72)/2001-	Phase pure Ba <sub>2</sub> Ti <sub>9</sub> O <sub>20</sub>	Dr. N. Raghu	874400

	SERC-Engg. 27/02/2003	Ceramics for Multi Layer Chip Capacitor and Microwave Dielectric Applications	Centre for Materials for Electronics Technology Thrissur - 680 771	
77.	SR/S3/EECE/02/2003-SERC-Engg. 28/02/2003	Development of PC based software for conventional X-ray image enhancement using image processing techniques	Dr. Mahu Bhattacharya IIT Calcutta -	156708
78.	III.5(72)/2000-ET 03/03/2003	Development of Sol_Gel Alumina Composites	Dr. K.G.K. Warriar RRL Thiruvananthapuram -	1627065
79.	III.5(91)/2000-ET 03/03/2002	A Study of Metal Oxide Coatings on Glass Substracted bySol-Gel Technique	Dr. C.P. Sharma national Physical Lab New Delhi -	1382441
80.	III.5(112)/2001-SERC-Engg 10/03/2003	Synthesis of Nd-Fe-B magnet alloy powder by chemical route	Dr. V. Rao NML Jamshedpur -	836976
81.	III.5(195)/99-ET 12/03/2003	Studies in Ancient Mining and Metallurgy in Northern India	Dr. Vibha Tripathi Deptt. Of AOHC & Archaeology, BHU Varanasi -	1320936
82.	III.5(47)/99-ET 11/03/2003	Design Development of Automated Rolling Element Bearing Testing Stand	Dr, Ranjan Sengupta CMERI Durgapur -	3987500
83.	SR/S3/RM/03/2003 13/03/2003	Development of New Heuristics for Lot Sizing and Scheduling	Dr. P.S.S. Prasad PSG College of Technology Coimbatore -	545000
84.	SR/S3/RM/55/2002 13/03/2003	Optimal Deployment of Robots in Construction Indsutry using Fuzzy Logic Approach	Dr. V.S.S. Kumar Osmania University Hyderabad -	885000
85.	SR/S3/RM/01/2003 13/03/2003	Automatic Machine for Sharpening/Resharpenting of CTC Tea Leaves	Dr. N.P. Mukherjee CMERI Durgapur -	911000
86.	SR/S3/ME/09/2002-SERC-Engg 21/03/2003	Synthesis of Doped Barium Titaneate through Emulsion Precipitation and Hydrothermal Precipitation Techniques	Dr. R.P. Das Chemical Metallurgy Division RRL Bhubaneswar -	1224000
87.	III.5(60)/2000-ET 21/03/2003	Two-dimensional mixing of pollutants in open channels	Dr. Z. Ahmed Deptt. Of Civil Engg. IITR, Roorkee -	912000
88.	SR/S3/RM/054/2002 25/03/2003	Development of a Humanoid Robot for Hazardous Applications	Dr. A Dutta IITK Kanpur - 208 016	2406000
89.	SR/S3/ME/06/2002-SERC-Engg 25/03/2003	Development of transparent photocatalytic titania films on glass for antifogging and self cleaning applications	Dr. Debtosh Kundu Central Glass & Ceramic Research Institute Calcutta -	1566595
90.	SR/S3/RM/05/2003 26/03/2003	Development and Analysis of Micro EDM for Micro machining from Dr.	Dr. S.S. Joshi IITB Mumbai -	1897000

