

Scheme: Research & Development Support (SERC)
Programme: Science & Engineering Research Council (Engineering Sciences)
Projects Sanctioned during 2003-04

Sl. No.	Sanction No. Date of Sanction (D/M/Y)	Project Title	Project Investigator & Address	Sanctioned Cost
1.	SR/S3/EE/29/2002-SERC-Engg 16.04.2003	Development of Anisotropic Ceramic Dielectric Resonator for Miniature Microwave Circuit Applications"	Dr. Animesh Biswas Deptt. Of Electrical Engg. Indian Institute of Technology Kanpur - 208016	1774680
2.	III.5(126)/2001-SERC-Engg 23.04.2003	Application of Fractal Dimension and AI Techniques for Conditions Monitoring and fault Diagnosis of Industrial Machineries through Tribo Analysis of Used Oil	Dr. Bijan Sarkar Deptt. Of Production Engg. jadavpur University Kolkata - 700032	1407389
3.	SR/S3/EE/17/2002 19.05.2003	Design and Simulation of SiC Bipolar transistors for VLSI and Power Applications	Dr. M. Jagadesh Kumar Deptt. Of Electrical Engg. Indian Institute of Technology New Delhi - 110016	1629600
4.	SR/S3/EE/37/2002-SERC-Engg 09.02.2004	Development of specialized search tools for Indian languages based on NLP	Prof. Rajeev Sangal International Institute of Information Technology Gachibowli Hyderabad - 500019	2134860
5.	SR/S3/EE/21/2002-SERC-Engg 03.02.2004	Development of indogenous composite long rod insulator for High Voltage Transmission	Dr. P.A. Krishnamoorthy Electrical Insulators, Electrical Research & Development Association(ERDA) Makarapur Industrial Estate, Vadodara - 390010	1759560
6.	III.5(60)/2000-ET 23.04.2003	Two-dimensional mixing of pollutants in open channels	Dr. Z. Ahmed Deptt. Of Civil Engg. Indian Institute of Technology Roorkee - 247667	912000
7.	III.5(119)/2001-SERC-ENGG. 26.05.2003	The Role of reduced Iron in Contaminant Transport, Transformation & Degradation in Engineered & Natural subsurface Environment	Dr. Purnendu Bose Indian Institute of Technology Kanpur - 208016	2982480
8.	SR/S3/MECE/10/2003 26.05.2003	Effect of Cohesion on Initiation of Motion and Transport of Non-Uniform Sediments	Dr. U.C. Kothyari Deptt. Of Civil Engg. Indian Institute of Technology Roorkee - 247667	772920
9.	SR/S3/MECE/23/2002 02.06.2003	Design Options Based on Performance Analysis of Rural Roads in Uttanchal	Dr. S.S. Jain Deptt. Of Civil Engg. Indian Institute of Technology Roorkee - 247667	1636000
10.	SR/S3/MECE/32/20	Dynamic Response of the	Dr. Amit Roychowdhury	765840

	02 14.10.2003	Human Head under Impact Loading by Finite Element Method	Deptt. Of Applied Mechanics Bengal Engineering College Howrah Kolkata - 711103	
11.	SR/S3/MECE/26/2002-SERC-Engg 16.10.2003	Performance evaluation and analytical modeling of Ferro cement skin element under torsion	Dr. C.B. Kameswar Rao Deptt. Of Civil Engg. National Institute of Technology Warangal - 506004	1226640
12.	SR/S3/MECE/011/2003-SERC-Engg 12.12.2003	SERC school on Natural Disaster Management	Dr. P. Basak Amal Jyothi College of Engineering Kottayam - 686518	165000
13.	SR/S3/MCE/27/2002 17.02.2004	Characterization and Design of GRP Reinforced Concrete Structures in Indian Environment	Dr. Abhijit Mukherjee Deptt. Of Civil Engg. Indian Institute of Technology Mumbai - 400076	1672720
14.	SR/S3/MECE/09/2002 17.02.2004	Centrifuge Model Studies on Stabilization of slopes with piles	Dr. B.V.S. Viswandham Deptt. Of Civil Engg. Indian Institute of Technology Mumbai - 400076	982301
15.	SR/S3/MECE/09/2004-SERC-Engg 19.02.2004	Study at Mahamaham tank to monitor the water quality and to derive a model on the vaiants of water quality	Dr. Ashutosh Das Shanmugha Arts, Science, Technology & Research Academy (SASTRA) Thanjavur - 613402	360000
16.	SR/S3/MECE/25/2002-SERC-Engg 01.03.2004	Correlation and Artificial Neural Network Techniques for Ablation Problems	Dr. Subrahmanya S. Katte Deptt. Of Mechanical Engg. Shanmugha Arts, Science, Technology & Research Academy (SASTRA) Thanjavur - 613402	780000
17.	SR/S3/CE/014/2002-SERC-Engg. 28.05.2003	SERC School on Process Intensification in Chemical Engineering Process Industries(PICPI)	Institute of Chemical Technology Mumbai - 400019	360000
18.	SR/S3/CE/01/2003-SERC-Engg. 05.06.2003	Process Intensification in extraction by emulsion liquid membrane	Dr. A. Bhowal Jadavpur University Kolkata - 700032	357000
19.	SR/S3/CE/010/2002 06.06.2003	Novel TFC Membranes for Recovery of Non-Volatile Organic Acids	Dr. U.K. Kharul National Chemical Laboratory Pune - 411008	1124400
20.	SR/S3/CE/13/2003-SERC-Engg 11.06.2003	Kinetics of Selective Reduction of No by Hydrocarbons	Dr.(Mrs.) Preeti Aghalayam Deptt. Of Chemical Engg. Indian Institute of Technology Mumbai - 400076	999000
21.	SR/S3/CE/15/2003-SERC-Engg 11.06.2003	Optimal Strategies for grade transition in large-scale distributed parameter system	Dr. Shardhartiya Deptt. Of Chemical Engg. Indian Institute of Technology Mumbai - 400076	739440
22.	SR/S3/CE/07/2003-SERC-Engg	Meso-Pattern Formation by Electrical Field Directed Dewetting of Thin Polymers	Dr.(Mrs.) Kajari Kargupta Jadavpur University Kolkata - 700032	686340

	11.06.2003			
23.	SR/S3/CE/023/2002 -SERC-Engg 11.06.2003	Crystallization of shared Melts and Ethylene Co-polymers: Influence of Co-monomer type content and distribution	Dr. K Guruswamy National Chemical Laboratory Pune - 411008	1001473
24.	SR/S3/CE(029)2003 01.10.2003	SERC School on Modelling and Optimization for Performance Enhancement in Engineering	Dr. B.D. Kulkarni National Chemical Laboratory Pune - 411008	288000
25.	SR/S3/CE(035)/2003 01.10.2003	SERC School on Analytical and Numerical Methods used in Modelling	Prof. S. Pushpavanam Deptt. Of Chemical Engg. Indian Institute of Technology Chennai - 600036	342000
26.	SR/S3/CE/02/2003- SERC-Engg 06.10.2003	Neural Network control of froth depth for a flotation column	Dr.(Mrs.) Swati Mohanty Regional Research Laboratory Bhubaneswar - 751013	1176480
27.	SR/S3/CE/038/2003 -SERC-Engg 06.10.2003	Interactive Data-Base on Chemical Reactors	Dr. B.D. Kulkarni National Chemical Laboratory Pune - 411008	643200
28.	SR/S3/CE/28/2003- SERC-Engg. 13.11.2003	Novel slow-release Iron-manganese and molybdenum fertilizers Pilot Scale Investigations	Dr.(Mrs.) Chandrika Varadachari Raman Centre for Applied and Interdisciplinary Science Kolkata - 700075	420000
29.	SR/S3/CE/19/2003- SERC-Engg 25.11.2003	Study on Oil droplet detachment from solid substrate in simple shear flow	Prof. Suddhasatwa Basu Deptt. Of Chemical Engg. Indian Institute of Technology New Delhi - 110016	2001600
30.	SR/S3/CE/044/2003 -SERC-Engg 09.02.2004	Arsenic Removal from Drinking Water by Electro Coagulation	Dr. Sanjeev Choudhari Indian Institute of Technology Mumbai - 400076	861600
31.	SR/S3/CE/36/2003- SERC-Engg 10.02.2004	Application of Cavitation to Chemical Processing: Establishing scale Up Strategies using Industrially Important Reactors	Prof. A.B. Pandit Univ. Deptt. Of Chemical Technology Mumbai - 400019	960504
32.	SR/S3/CE/025/2003 -SERC-Engg. 09.02.2004	Electrochemical Technology for the Removal of Arsenic from Drinking Water	Dr. S. Vasudevan Central Electrochemical Research Institute Karaikudi - 630006	972960
33.	SR/S3/CE/052/2003 -SERC-Engg. 10.02.2004	High Internal Phase Emulsified Suspension Polymerization Synthesis of Novel, Beaded, Functional Polymers for Chromatography and Catalysis	Dr. C.R. Rajan National Chemical Laboratory Pune - 411008	961230
34.	SR/S3/CE/45/2003- SERC-Engg	Isolation Purification & Stabilization of tubulin	Dr. Arvind M. Lall University of Mumbai Institute of Chemical	549600

	10.02.2004		Technology Mumbai - 400019	
35.	SR/S3/CE/45/2003- SERC-Engg 10.02.2004	Isolation Purification & Stabilization of tubulin	Dr. Arvind M. Lall University of Mumbai Institute of Chemical Technology Mumbai - 400019	1028123
36.	SR/S3/CE/048/2003 -SERC-Engg 10.02.2004	PORE Polymerisation Reactor Simulation	Dr. V.V. Ranade National Chemical Laboratory Pune - 411008	829320
37.	SR/S3/CE/055/2003 -SERC-Engg 10.02.2004	Genetic and Memo tic Programming Software for Data Driven Modelling	Dr. S.S. Thambe Chemical Engg. & Process Development National Chemical Laboratory Pune - 411008	817320
38.	SR/S3/CE/053/2003 -SERC-Engg 10.02.2004	Process Simulator based on Artificial Intelligence and Machine Learning	Dr. V.K. Jayaraman Chemical Engg. Division National Chemical Laboratory Pune - 411008	752520
39.	SR/S3/CE/054/2003 -SERC-Engg 10.02.2004	Wavelet Transforms and their application in Complex Analysis	Dr. V. Ravi Kumar Chemical Engg. Division National Chemiac Laboratory Pune - 411008	762120
40.	SR/S3/CE/42/2003- SERC-Engg. 19.02.2004	Studies on flow behaviour and Gel Characteristics on oil based system	Dr. G.P. Karmakar Indian School of Mines Dhanbad - 826004	528000
41.	SR/S3/CE/056/2003 -SERC-Engg 19.02.2004	Studies on Large Scale syntjesis of Nano-Particulate additives for speciality Grade Polymer Films	Dr. S. Radhakrishnan National Chemical Laboratory Pune - 411008	1021284
42.	SR/S3/CE/037/2003 -SERC-Engg. 19.02.2004	Development of Anaerobic Bioreactor and Suitable Microbial Consortia for the Removal of sulphur Dioxide for the Gaseous Streams	Dr. A. G. Rao Indian Institute of Chemical Technology Hyderabad - 500007	537934
43.	SR/S3/CE/049/2003 -SERC-Engg. 19.02.2004	Gene Expression Profiling & Gene Network Analysis using Analysis using Mathematical Programming	Dr. Sanjeev Garg Deptt. Of Chemical Engg. Indian Institute of Technology Kanpur - 208016	1636800
44.	SR/S3/CE/046/2003 -SERC-Engg. 20.02.2004	Colloids and Interfaces: Fundamentals & Challenges	Prof. Ashutosh Sharma Deptt. Of Chemical Engg. Indian Institute of Technology Kanpur - 208016	384000
45.	SR/S3/CE/047/2003 -SERC-Engg 20.02.2004	SERC School on Recent Advances in Process Systems Engineering (Process Simulation, Design, Control and Optimization)	Dr. Sachin C. Patwardhan Deptt. Of Chemical Engg. Indian Institute of Technology Mumbai - 400076	360000
46.	SR/S3/CE/051/2003 -SERC-Engg 20.02.2004	SERC School on Modelling of Industrial Reactors	Dr. D. Kunzru Deptt. Of Chemical Engg. Indian Institute of Technology Kanpur - 208016	360000

47.	SR/S3/CE/34/2003-SERC-Engg 23.02.2004	Studies on Removal of Toxic Hexavalen Chromium from Tannery waste using Bioleaching Technique	Dr.(Mrs.) Pinaki Bhattacharya Deptt. Of Chemical Engg. Jadavpur University Kolkata - 700032	822000
48.	SR/S3/RM/054/2002 23.04.2003	Development of Humanoid Robot for Hazardous Applications	Dr. A. Dutta Centre for Mechatronics Indian Institute of Technology Kanpur - 208016	2406000
49.	SR/S3/RM/05/2003 23.04.2003	Development and Analysis of Micro-EDM for Micro-machining	Dr. S.S. Joshi Deptt. Of Mechanical Engg. Indian Institute of Technology Powai Mumbai - 400076	1897000
50.	SR/S3/RM/11/2003 30.06.2003	Development of Non-conventional Method for Manufacturing of Light engineering Components of Near Net Shape	Shri. S.K. Mulhopadhyay Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue Durgapur - 713209	336000
51.	SR/S3/RM/21/2003-SERC-Engg 02.07.2003	Development of Process Technology and Manufacture of Austempered Ductile Iron Components	Shri. M.K. Jas Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue Durgapur - 713209	775000
52.	SR/S3/RM/43/2002-SERC-Engg 02.07.2003	Design, Fabrication and Control of flexible Manipulators	Dr. S.K. Dwivedy Indian Institute of Technology Guwahati - 781039	825000
53.	SR/S3/RM/18/2003 16.07.2003	Micro Analysis of Castings from Rotary Furnance	Dr. Ranjit Singh Deptt. Of Mechanical Engg. Dayalbagh Educational Institute Agra - 282005	1539000
54.	SR/S3/RM/16/2003 29.207.2003	A Grid-based Architecture for Manufacturing Systems Simulations	Dr. N.R.S. Raghavan Indian Institute of Science Bangalore - 560012	986000
55.	SR/S3/RM/19/2003 13.08.2003	Manufacture of Wear Parts by Hot Consolidation of Mechanically Alloyed Copper-Iron Powders	Dr. R. Subramanian Deptt. Of Metallurgical Engg. PSG College of Technology Peelamedu Coimbatore - 641004	4816000
56.	SR/S3/RM/33/2003 24.09.2003	Programmable Educational Robot	Smt. A.V. Kulkarni Centre of Mechatronics Indian Institute of Technology Kanpur - 208016	881000
57.	SR/S3/RM/30/2003 24.09.2003	Manufacturing of Wire Drawing Dies, Moulds, Pins and Chains by Multicomponent Boriding	Dr. P. Gopalakrishnan PSG College of Technology Peelamedu Coimbatore - 641004	1353000
58.	SR/S3/RM/29/2003 03.10.2003	Defects Analysis of Abrasive Waterjet Machined Ceramics and Super Alloys	Dr. V. Raghuram Deptt. Of Mechanical Engg. Indian Institute of Technology Kanpur - 208016	854000

59.	SR/S3/RM/25/2003 03.10.2003	Investigations into Magnetic Abrasive Finishing of Plane Surfaces	Prof. V.K. Jain Deptt. Of Mechanical Engg. Indian Institute of Technology Kanpur - 208016	1257000
60.	SR/S3/RM/30/2003 03.10.2003	Design and Development of Self Guided Vehicle with Embedded System Controller	Prof. Y.G. Srinivasa Deptt. Of Mechanical Engg. Indian Institute of Technology Chennai - 600036	1538000
61.	SR/S3/RM/34/2003 03.10.2003	Near Net Shape Manufacturing of Al-based Ceramic Reinforced Particulate Metal Matrix Composites Investment Casting Process	Dr. B.N. Mondal Central Mechanical Engineering Research Institute Mahatma Gandhi Avenue Durgapur - 713209	604000
62.	SR/S3/RM/24/2003 10.10.2003	Studies on the Strength and Dimensional Accuracy of Components Produced in Layered Manufacturing	Shri. C.D. Naiju Vellore Institute of Technology Vellore - 632014	710000
63.	SR/S3/RM/35/2003 12.12.2003	Experimental Study of Machinability and Optimization of Machining Condition of Inconel-718	Prof. A.B. Chattopadhyay Deptt. Of Mechanical Engg. Indian Institute of Technology Kharagpur - 721302	734000
64.	SR/S3/RM/28/2003 12.12.2003	Design and Development of adaptive Robot Controller using Soft computing	Dr. D.K. Pratihari Deptt. Of Mechanical Engg. Indian Institute of Technology Kharagpur - 721302	839000
65.	SR/S3/RM/50/2003 12.12.2003	Development and Optimisation of elcasting Process for Near-net Shape Complex-shaped SiC, Si3N4, Si3N4 bonded SiC Particulates	Dr. I. Ganesh ARCI Balapur Village, RCI Road Hyderabad - 500005	1258000
66.	SR/S3/RM/46/203 12.12.2003	Axis Run Away in CNC Machines during Unprecedented Power Failures	Shri. B. Vinod PSG College of Technology Peelamedu Coimbatore - 641004	1620000
67.	SR/S3/RM/45/2003 12.12.2003	Tool Condition Monitoring in High Speed Machining using Acoustic Emission Technique	Shri. V. Prabhu Raja PSG College of Technology Peelamedu Coimbatore - 641004	913000
68.	SR/S3/RM/52/2003 12.12.2003	Selection of Optimum Tool Geometry and Cutting conditions using Surface roughness Prediction Model for Dry Machining	Dr. P.V. Rao Deptt. Of Mechanical Engg. Indian Institute of Technology New Delhi - 110016	817000
69.	SR/S3/RM/39/2003 11.12.2003	A Study on the Layed Manufacturing of Components using Indigenous Powders	Prof. S. Narayanan Deptt. Of Mechanical Engg. Vellore Institute of Technology Vellore - 632014	873000
70.	III.5(102)/2001-SERC-Engg 17.04.2003	Friction & wear behaviour of Aluminium MMC brake disc/brake pad during sliding wear	Prof. M.K. Surappa Deptt. Of Metallurgy Indian Institute of Technology Bangalore - 560012	1682104

71.	SR/S3/ME/04/2002-SERC-Engg 02.05.2003	Processing & Characterization of Ni-Cu-Zn Ferrite Powder for Multilayer Ferrite Chip Inductor Application	Dr. Japes Bera National Institute of Technology Rourkela - 769008	768000
72.	SR/S3/ME/09/2002-SERC-Engg 14.05.2003	Synthesis of Doped Barium Titanate through Emulsion Precipitation and Hydrothermal Precipitation Techniques	Dr. R.P. Das Chemical Metallurgy Division Regional Research Laboratory Bhubaneswar - 751013	1224000
73.	III.5(17)/2001-ET 14.05.2003	Studies on the early historic pottery and simulation on the Technology	Dr. S. Chakrabarti Central Glass & Ceramic Research Institute 196, Raja S.C. Mullick Road Kolkata - 700032	793800
74.	SR/S3/ME/06/2002-SERC-Engg 14.05.2003	Development of transparent photocatalytic titania films on glass for antifogging and self-cleaning applications	Dr. Debtoosh Kundu Central Glass & Ceramic Research Institute 196, Raja S.C. Mullick Road Kolkata - 700032	1566595
75.	SR/S3/ME/022/2002-SERC-Engg 14.05.2003	Low-cost La-based reproducible colossal magnetoresistance films by spray pyrolysis	Dr. B.K. Roul Institute of Materials Science 68/1, Laxmi Vihar, Bhubaneswar - 751005	768000
76.	III.5(86)/2000-SERC-Engg 29.05.2003	Development of plasma sprayed hydroxyapatite coated metallic implants for orthopaedic application	Dr. M.K. Sinha Central Glass & Ceramic Research Institute 196, Raja S.C. Mullick Road Kolkata - 700032	2544776
77.	III.5(86)/2000-SERC-Engg 29.05.2003	Development of plasma sprayed hydroxyapatite coated metallic implants for orthopaedic application	Dr. M.K. Sinha Central Glass & Ceramic Research Institute Kharagpur - 721302	492000
78.	SR/S3/ME/01/2002-SERC-Engg 26.05.2003	Development & characterization of bulk amorphous and nanocrystalline ferromagnetic materials	Dr. Amitava Mitra National Metallurgical Laboratory Jamshedpur - 831007	2158453
79.	SR/S3/ME/027/2002-SERC-Engg 06.06.2003	Control of superheat in continuous casting molds through a hollow jet nozzle-a physical and mathematical model investigation	Dr. Dipak Mazumdar Indian Institute of Technology Kanpur - 208016	1171200
80.	SR/S3/ME/024/2002-SERC-Engg 14.07.2003	Development of toughened zirconia ceramics for tribological applications	Dr. Bikramjit Basu Indian Institute of Technology Kanpur - 208016	1051200
81.	SR/S3/ME/024/2002-SERC-Engg 14.07.2003	Development of toughened zirconia ceramics for tribological applications	Dr. Bikramjit Basu National Metallurgical Laboratory Jamshedpur - 831007	669600
82.	5(68)/2001-SERC-Engg	Processing and characterization of Alumina - High zirconia	Dr. S. Bhattacharya Deptt. Of Ceramic Engg. National Institute of	1989105

	30.07.2003	Microcomposites prepared by a combined Gel - Precipitation Technique	Technology Rourkela - 769008	
83.	SR/S3/ME/10/2002-SERC-Engg 28.08.2003	Development of Innovative Process for Selection of Flotation Collector in Minerals/Metallurgical Industry	Dr. B.P. Singh Mineral Processing Technology Division Regional Research Laboratory Bhubaneswar - 751013	1576500
84.	SR/S3/ME/023/2002-SERC-Engg 01.09.2003	Hydrogen effects on Fe-based soft magnetic bulk amorphous alloys	Dr. Indranil Chatteraj National Metallurgical Laboratory Jamshedpur - 831007	744000
85.	SR/S3/ME/015/2002-SERC-Engg 22.09.2003	Mathematical Modelling of the Acheson Process	Dr. Govind S. Gupta Deptt. Of Metallurgy Indian Institute of Science Bangalore - 560012	979320
86.	SR/S3/ME/037/2002-SERC-Engg 14.10.2003	Extraction of Nickel and Cobalt from lateritic nickel ore and chromite overburden of Orissa using microbial technique	Shri. L.B. Sukla Regional Research Laboratory Bhubaneswar - 751013	1389390
87.	SR/S3/ME/040/2002-SERC-Engg 11.11.2003	A New combination of grain refiner/modifier for Al-Si foundry alloys and evaluation by computer aided cooling curve analysis	Dr. S.A. Kori Deptt. Of Mechanical Engg. BVVS Basaveshwar Engg College Bagalkot - 587102	1623734
88.	SR/S3/ME/029/2001-SERC-Engg 11.11.2003	Effects of Strain Path on the Texture and Microtexture Developments in FCC Metals	Dr. I. Samajdar Deptt. Of Met.Engg & Mat.Sci. National Institute of Technology Powai Mumbai - 400076	1767670
89.	SR/S3/ME/016/2003-SERC-Engg 23.02.2004	Materials for wireless communication	Dr. M.J. Sebastian Regional Research Laboratory Thiruvananthapuram - 695019	1512000
90.	SR/S3/ME/017/2003-SERC-Engg 01.03.2004	Fabrication and Characterization of novel layered ferroelectric ceramics and polar glass nano/microcomposites	Prof. K.B.R. Varma Material Research Centre Indian Institute of Science Bangalore - 560012	2370600