



**SRI SIVASUBRAMANIYA NADAR COLLEGE OF
ENGINEERING**

(An Autonomous Institution)
Kalavakkam – 603 110

SELF STUDY REPORT

3.1.2 The Institution provides seed money to its
Teachers for Research

Submitted to

The National Assessment and Accreditation Council

February 2024

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Sl. No.	Name of the teacher provided with seed money	Title of the Project	Date of grant DD-MM-YYYY	Amount granted (INR in Lakhs)
1	Dr. B. Senthil Kumar, Dr. C. Aravindan	Evaluation of tamil language models and fairness in data	21-04-2023	4.00
2	Dr. V. Thanikachalam Dr. V. Sivamurugan	Food classification and caloric estimation using deep learning	21-04-2023	3.20
3	Dr.S.Ramanagopal, Dr.P.Sangeetha	Performance of hybrid fibre reinforced cellular light weight concrete incorporating nano particles	21-04-2023	2.10
4	Dr.P.Theerthana, Dr.Kirubaharan.B	Investigating the patient acceptance of health kiosks in the era of COVID-AUTUAT approach	21-04-2023	1.30
5	Dr.R.Arun, Dr.P.Saravanan	Design and Development of IoT enabled 2DoF PID-dead-time compensating controller	21-04-2023	2.90
6	Dr. A. Jawahar, Dr. R. Kishore Dr. N. Prabagarane	Real time water quality monitoring system for Thenpennai River (Development of prototype model as proof of concept)	21-04-2023	2.50
7	Dr. A. Beulah, Dr. S. Angel Deborah, Dr. S. Rajalakshmi	A voice enabled interactive learning system for visually impaired	21-04-2023	1.35
8	Dr.Nalinkanth V Ghone	Role of ITGA5 in interaction of breast cancer cells with mesenchymal stem cells	21-04-2023	4.90
9	Dr. Anirudh Venkataraman Krishnan Dr. S.R. Koteswara Rao	Developing novel multi-layered materials for light weighting and ballistic protection applications using accumulative roll bonding	21-04-2023	7.00
10	Dr. Ashwinth, Dr. T. Sree Sharmila, Dr. J. Sofia Jennifer	EYELINT : A Meta Heuristic Recognition System with Composite Feature Intelligence	21-04-2022	3.60
11	Dr.V.Rajini, Dr.K.Vijayasekar, Dr.M.Deveshraj	Design and Development of an efficient electric trike power train for Indian Automotive sector	24-02-2022	7.00
12	Dr. Esther Florence, Dr. Vimal Samsingh	Development of mechanically robust and durable fibers as textile	24-02-2022	2.70
13	Dr. S Radha, Dr. B. S Sreeja	Development of heavy metal ion detecting probing sensor for industrial effluent water monitoring applications	24-02-2022	4.50
14	Dr.L.Suganthi	Virtual Reality Based Training Simulator for Dental Education with Haptic Feedback	24-02-2022	3.50
15	Dr. A. K. Lakshminarayanan, Dr. S. R. Koteswara Rao	Fabrication, testing and characterisation of metal 3D printed super duplex stainless cylindrical components	24-02-2022	6.75

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16	Dr. K. S. Gayathri, Dr. R. Vinob Chander	Ambient assisted dementia care through smart home with activity recognition, abnormality detection and decision support system using artificial intelligence and machine learning technique	16-12-2021	2.00
17	Dr.Pachimatla Rajesh Dr.P.Senthil Kumar	Electrochemical impedance spectroscopic studies on effect of moisture content on double layer capacitance at hybrid electrolytes /glassy carbon electrode interface	16-12-2021	3.80
18	Dr. Srinath Rajagopalan, Dr. B. Mahalingam, Dr. N. Sivakumar	Retrieving data. Wait a few seconds and try to cut or copy again	16-12-2021	4.00
19	Dr. G. Aswin Sriram, Dr. R. Srinath	Development of SiO ₂ - Fused composite biochar for removal of nutrients from industrial wastewater	16-12-2021	3.90
20	Dr. Surendar Natarajan, Dr. N. Sivakumar, Dr. N.P. Rajesh	Estimation of surface, groundwater flow quantity and recharge sources using modelling techniques and stableisotopic data signatures	16-12-2021	5.75
21	Dr. Vani H	Design and development of RF resonator to sense the natural radioisotopes in building materials	16-12-2021	0.65
22	Dr. Thiruvenskadam. T, Dr. Sudarsan Jayasingh	Impact of Self-Help Group in Economic Empowerment of Rural Women: A study at Chengalpattu District, Tamil Nadu	16-12-2021	0.50
23	Dr. Kavitha. M	Impact of Covid 19 on adolescence girls and young women	16-12-2021	0.40
24	Dr. V. S. Nagarajan	Design and comparative evaluation of reluctance motor drives for energy efficient ceiling fan application	16-12-2021	5.00
25	Dr. S. Kirubaveni, Dr. R. Govindaraj	Experimental analysis on the development of adulteration sensor using nanomaterials	16-12-2021	1.70
26	Dr. N. Edna Elizabeth, Dr. P. Kaythry	A secure Smart building based on WoT paradigm	16-12-2021	1.10
27	Dr. T. T. Mirnalinee, Dr. J. Bhuvana, Dr. B. Bharathi	Edge computing based real time smart surveillance system	16-12-2021	3.00
28	Dr. R. Subashini	Assessment of Antimicrobial Mechanisms of Biogenic nanoparticles on Microbes	16-12-2021	3.50
29	Dr.S.Saranya	Quantitative Tool for muscle strength Evaluation	16-12-2021	2.95
30	Dr. N. Punitha	Development of an Intelligent System to Characterise Uterine Contractions During Pregnancy	16-12-2021	2.95
31	Dr. Divya Zindani Dr. A.K. Lakshminarayan	Machine learning based decision support systems for solid state metal additive manufacturing process	16-12-2021	6.00
32	Dr. S. Santosh Dr.K. Rajkumar	Development of low-cost ternary high temperature shape memory alloys	16-12-2021	6.50

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33	Dr. B. Anand Ronald Mr. D. Ebenezer	Erosion corrosion of duplex stainless steel weldments	16-12-2021	6.50
34	Dr. M. S. Alphin Dr. S. Raja	Portable oxygen generator with storage	16-12-2021	1.70
35	Dr. M. S. Alphin	cylinder and nasal mask	16-12-2021	6.00
36	Dr. M. Sundarakannan	Performance investigation and combinatorial approach on 2D and 3D network on chip	16-12-2021	0.50
37	Dr. N. Sripriya, Dr. S. Mohanavalli, Dr. S. Poornima	A Hybrid Approach for Query-based Text Summarization using Deep Learning	21-12-2020	1.10
38	Dr. S. Poornima, Dr. N. Sripriya, Dr. S. Mohanavalli,	A prediction system for pest and disease occurrences in plant	21-12-2020	1.50
39	Dr. J. Sofia Jennifer, Dr. T. Sree Sharmila	Detection of COVID-19 cases using deep neural networks with X-ray images	21-12-2020	1.20
40	Dr. T. Shanmughapriya, Dr. P. Vasuki, Dr. S. Chithra, Dr. Cherry Mathew Philipose	Privacy Manager	21-12-2020	1.50
41	Mr. A. Sandana Karuppan, Dr. V. Arulkumar	A talking 3D AI teaching learning assistant for learning environment	21-12-2020	0.60
42	Dr. C. Annadurai, Dr. I. Nelson	Automated thermal and respiratory data collection through facial scans using deep learning	21-12-2020	1.63
43	Dr. S. Hanis, Dr. K. J. Jegadish Kumar	Implementation and testing of image encryption algorithm	21-12-2020	1.50
44	Dr. C. Vinothkumar, Dr. A. Jawahar	A single camera approach to monitor the breathing pattern and respiratory rate using image processing techniques	21-12-2020	1.40
45	Dr. B. Ramani	Gesture to speech conversion using deep learning architectures	21-12-2020	1.02
46	Dr. G. Durga	Reconfigurable FET in the design of CMOS circuits	21-12-2020	2.35
47	Dr. Suresh J, Dr. Venkata vara prasad D, Dr. Balasubramaniam V	Blockchain enabled IoT asset tracking and management	21-12-2020	1.55
48	Dr. Raghuraman G, Dr. Kavitha S	Virtual smart monitoring system for students using emotion recognition	21-12-2020	1.66

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49	Dr. Angel Deborah S, Dr. Milton R S, Dr. Rajalakshmi S, Dr. Saritha M	Fine-grained emotion recognition system for counselling	21-12-2020	1.45
50	Dr. Sujaudeen N Ms. Lakshmi priya S	Storage and processing of streaming data for smart meter application	21-12-2020	1.31
51	Dr. A. Shahina, Dr. T. T. Mirnalinee	Person authentication using Transient Evoked Otoacoustic Emission (TEOAE) signals with deep learning neural network architectures	21-12-2020	1.20
52	Dr.R.Sundareswaran, Dr.V.Mahesh	Analysing Diabetic Neuropathy-A graph theoretic approach	21-12-2020	2.20
53	Dr. S.Vanitha	Analysis of some stochastic queueing systems	21-12-2020	0.20
54	Dr. S. Yugesh	Generalised sampling and average sampling in shift invariant and quasi shift invariant space	21-12-2020	0.79
55	Dr. T. M. Rajalaxmi, Dr. S. Sampath Kumar	Certain topological indices of chemical networks and its applications	21-12-2020	0.64
56	Dr.P.Venugopal, Dr.N.Padmapriya	Identification of improper signature using graph theory techniques	21-12-2020	0.95
57	Dr. R. Sundareswaran	Analyzing diabetic neuropathy -A graph theoretic approach	21-12-2020	2.20
58	Dr. Martha Karunakar, Dr. M. Shyamala Bharathy, Dr. N. Bhalaji, Dr. K. Kabilan	Developing multiple intelligence based diagnostic tests for application in enhancing English language skills	21-12-2020	1.66
59	Dr. Mrunal Deshpande, Dr. R. Govindaraj	Fabrication of bifacial dye-sensitized solar cells using conducting transparent counter electrodes	03-12-2020	4.80
60	Dr. S. Tamilselvi, Dr. R. Rengaraj, Dr. G. R. Venkatakrishnan	Fault detection of solar PV firm using machine learning and thermal image processing	03-12-2020	4.20
61	Dr. V. Thiagarajan, Dr. V. Kamaraj, Dr. R. Rengaraj, Dr. G. R. Venkatakrishnan	Design and implementation of smart controller for variable frequency drive	03-12-2020	3.50
62	Dr. M. Senthil Kumaran, Mr. Balaji Chandra	Deposition and optimization of strontium niobate thin films as efficient UV transparent conducting electrode	03-12-2020	3.50
63	Dr. J. Anitha Roseline	Analysis of dynamic stability of a ball balancing robot	03-12-2020	3.00
64	Dr. K. Murugesan, Dr. K. Usha	Investigations of deep vision sensors for event based control	03-12-2020	2.70

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65	Dr. U. Shajith Ali	Double input Y-source converter with battery-supercapacitor hybrid energy storage system for microgrid applications	03-12-2020	2.50
66	Dr. R. Leo	IoT and machine learning based building energy management	03-12-2020	2.50
67	Dr. N. Venkateswaran, Dr. P. Balaji Bhargav	Synthesis of doped BiFeO ₃ multiferroic materials by chemical routes and tuning their band gap for photovoltaic applications	03-12-2020	3.90
68	Dr. V. Vaithianathan, Dr. S. Ramprabhu	Design and fabrication of a conformal wideband antenna for bio-medical applications	03-12-2020	2.50
69	Dr. S. Karthie	Investigations on the performance of high-frequency filters for wireless applications	03-12-2020	1.20
70	Dr. K. S. Vishvakshen, Dr. R. Kalidoss, Dr. B. Parthibane	Design and development of novel antenna structure for 5G communication	03-12-2020	1.50
71	Dr.R.Parthiban - PI, Dr.K.Sathish Kumar (CO - PI)	Design and Synthesis of Polyaspartamide Compositated Polymeric Networks for the Development of PEM Fuel Cell.	03-12-2020	4.30
72	Dr.K.Sathish Kumar - PI, Dr.K.Aravinth - CO-PI	Bandgap Tuning of Molybdenum and Tungsten Doped BFO Multiferroic Materials for Energy Conversion Applications	03-12-2020	3.50
73	Dr.P.Senthil Kumar	Study on Simultaneous Removal of Nitrate and Phosphate from Aquatic Environment using Hydrothermally derived Carbon Synergistic effect and Mechanism	03-12-2020	5.25
74	Dr.D.Gnana Prakash - PI, Mr.Nafis Ahmed - CO - PI	Development of Organic Nanocomposite Films and Fabrication of Hybrid Heterojunction Solar Cells	03-12-2020	3.50
75	Dr.M.Subramanian - PI, Dr.R.Anantharaj - CO - PI	Extraction of Polyphenols from Cashew Nut Shell Liquid using Ionic Liquids and Deep Eutectic Solvent. Experimentations and COSMO - RS model Predictions	03-12-2020	3.50
76	Dr. C. Arun Prakash	Vision based reconfigurable drone for surveillance and monitoring	03-12-2020	5.00
77	Dr. M. Suresh Dr. S. Rajkumar	Hydrothermal liquefaction of biomass wastes and experimental investigations on emission characteristics of dual fuel compression ignition engine	03-12-2020	6.30
78	Dr. M. Selvaraj	Variable stiffness vibration absorber with feedback control	03-12-2020	3.50
79	Dr. M. Nalla Mohamed	Investigation on crashworthiness analysis of hybrid cylindrical corrugated tubes for automotive applications	03-12-2020	4.50
80	Dr. S. R. Koteswara Rao Dr. A. K. Lakshminarayanan	Retrieving data. Wait a few seconds and try to cut or copy again.	03-12-2020	6.00
81	Dr. N. Nallusamy Dr. M. Srinivasan	Development of High quality Ge doped Indigenous mc-Silicon ingot and wafers for Solar Cell applications	03-12-2020	4.00
82	Dr.S.Singaravadelu	Growth of high-quality glycine and piperazine derivative materials for optoelectronic device applications	03-12-2020	4.00

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83	Dr. Julie Charles	Fabrication of high performance electrode materials based on hybrid conducting polymers for supercapacitors	03-12-2020	4.00
84	Dr. A. Chandrasekar, Dr. S. Ramprabhu	Design and development of RF resonator to sense the natural radioisotopes in building materials	03-12-2020	2.00
85	Dr.M.Srinivasan	Fabrication of Ge doped mc-silicon solar cells from ssn grown directional solidification silicon ingot	03-12-2020	2.50
86	Dr. S. Karthika, Dr. S. Chithra, Dr. N. Bhalaji	Social cyber forensics using OSINT	14-11-2019	5.00
87	Ms. J. K. Josephine Julina, Dr. T. Sree Sharmila, Dr. S. Joseph Gladwin	Vision-based hand gesture recognition for educating hearing impaired people	14-11-2019	0.60
88	Mr. V. Sivamurugan, Dr. K. R. Uthayan	Analysis of retinal images and prediction of diabetic retinopathy with image enhancement	14-11-2019	1.00
89	Mr. K. Kabilan, Mr Vinob Chandar, Ms Malathy	neXTGeneration learning and resource handling	14-11-2019	2.30
90	Dr. Sivapriya S.V, Dr. Priyadharshini R	Prediction of shallow type landslide influenced by rainfall using ANN	14-11-2019	2.00
91	Dr. Jijo James	Influence of temperature and duration of calcinations on the valorisation of calcined sugarcane press mud in lime stabilization of an expansive soil	14-11-2019	2.50
92	Dr. Shanmugapriya M, Dr.P.Sangeetha	Prediction of mechanical properties of nano-concrete using artificial neural networks and fuzzy logic	14-11-2019	5.20
93	Dr. SMM.Kennedy	Fabrication of a quantum yield setup to characterize powder phosphors	14-11-2019	4.00
94	Dr.R.Govindaraj	Synthesis of Lead free silver bismuth iodide light absorbers for mesoscopic solar cells	14-11-2019	4.50
95	Dr. N.B Muthuselvan Dr. Devesh Raj	Realization of swarm intelligence using real time deep learning algorithm	14-11-2019	5.50
96	Dr. Pandikumar	Design control and implementation of modular multilevel inverter for grid integration	14-11-2019	3.00
97	Dr.S.Sakthivel Murugan	Establishment of underwater acoustic test tank	14-11-2019	6.00
98	Dr. K. J. Jegadish Kumar, Dr.M. Gulam Nabi Alsath	Design and fabrication of compact implantable dual band antenna integrated with an implantable medical device for biotelemetry applications	14-11-2019	2.00

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99	Dr. S. Saraswathi, Dr. K. Madheswari, Ms. Y. V. Lokeshwari, Dr. K. K. Nagarajan	Building a streaming air quality monitoring system and analyse trend for healthy living	14-11-2019	3.00
100	Dr.R.Anantharaj, Dr.R.Sujatha	Quantum chemical based COSMO-RS model phase equilibria predictions and its validations	14-11-2019	5.00
101	Dr.Kilaru Harsha Vardhan (PI), Dr.P.Senthil Kumar (CO - PI)	Development of optimized carbon based electrode for electrochemical detection of sulfamethoxazole antibiotic in pharmaceutical effluent and natural water bodies	14-11-2019	6.00
102	Ms. B. Divya, Ms. S. Vidhusha	VR for NDD	14-11-2019	4.20
103	Dr. K. Nirmala	Non-invasive portable system to estimate white blood cells from the optical image of nail fold capillary circulation	14-11-2019	3.50
104	Dr. S. Suresh Kumar	Ballistic performance determination of nano powders intruded polymer composite target for light weight personal armour	14-11-2019	4.50
105	Dr. R. Rajeswari	Indentation creep studies on friction stir welded of AA7075	14-11-2019	5.50
106	Dr. K. Vijay Sekar	Design Development and Optimization of 3D finite element models in drilling of titanium based metal matrix compoites	14-11-2019	2.00
107	Dr. G. Kalpana, Dr. C. Kalaivani	On C* algebra valued metric spaces and related fixed point theorems	14-11-2019	0.35
108	Dr. M. Shanmugapriya	Prediction of mechanical properties of nano-concrete using artificial nueral networks and fuzzy logic	14-11-2019	5.00
109	Dr. P.Nagapandiselvi	Growth and characterization of unidirectional single and multi-crystals for optoelectronic applications	14-11-2019	5.00
110	Dr. D. Praveen Sam, Dr. Vallidevi	Developing Reading and Listening Diagnostic Test Modules for Placement Purposes	14-11-2019	1.80
111	Dr. Divya John, Dr S. Sasirekha	Developing a Computer-Assisted Reading Comprehension Test	14-11-2019	0.40
112	Dr. R. Prakash Dr. K. Sathish Kumar	Thermal performance analysis of solar flat plate collector with grooved tubes using aqueous glycol and nanofluids	01-10-2019	5.50
113	Dr. K. S. Jayakumar Dr.A.K.Lakshminarayanan	Design and fabrication of solid state extrusion setup to produce Mg nanocomposite micro tubes for biomedical stent applications	01-10-2019	4.80
114	Dr.P.Sangeetha, Dr.S.Ramanagopal	Study on the behaviour of composite spacetruss structure for varying shear connectors	01-10-2019	4.50
115	Dr. S. Malathy	Development and implementation of flexible reduced device count multilevel inverter for PV systems	29-03-2019	2.20

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116	Dr. R. Rajavel, Mr. K. Kabilan	Development of speech enhancement algorithm for digital hearing aids using acoustic and visual speech cues	29-03-2019	2.10
117	Dr. R. Hemalatha, Dr. K. Muthumeenakshi	Development of an automatic fabric defect detection system	29-03-2019	2.50
118	Dr. Vallidevi, Dr. Nagarajan KK Dr. Gnanaprakash	Remote monitoring and spatio-temporal mapping of ground water pollutant's plume movement around solid waste dump yard	29-03-2019	2.50
119	Dr. Felix Enigo Ms. Jansi Rani	Predictive policing using social network analysis	29-03-2019	2.70
120	Ms. Manisha, Ms. Priyadharshini, Ms. Beulah, Dr. Sree Sharmila	CYBORG for object recognition	29-03-2019	1.20
121	Dr.B.Chitra, Dr.P.Senthil Kumar	Diversity of biosurfactant producing bacterial strain for enhancing aromatic amine degradation	29-03-2019	4.00
122	Dr.Sachin Gaurishankar Sarate	EMG Analysis of cricket Batsman foreman muscles while executing different phases of batting strokes	29-03-2019	4.50
123	Dr.S.Pravin Kumar	Automatic measurement of vocal fold vibratory parameters	29-03-2019	6.50
124	Dr. S. Rajkumar	Modelling and experimental investigations of combustion and emission characteristics of dual fuelled low temperature compression ignition engine	29-03-2019	5.20
125	Dr. R. Vimal Samsingh Dr. S. Esther Florence	Development of PVDF embedded composite material for use in stealth applications	20-03-2019	4.20
126	Dr. M. Mahalakshmi, Dr. Muthu Senthil Pandian	An investigation on sensitizer and counter electrode materials to enhance the efficiency of the quantum dot sensitized solar cells	14-01-2019	4.50
127	Dr. R. Ramaprabha	Design control and implementation of embedded switched inductor based source inverter with high boost factor for photovoltaic interface	10-01-2019	2.20
128	Dr. S. Ramprabhu, Dr. A. Murugesan, Dr. M. Gulam Nabi Alsath	Design and fabrication of cost effective polymer composite based FSS microwave absorbers	10-01-2019	2.20
129	Dr. B. Prabavathy, Dr. Chitra Babu	Intelligent clinical decision support system using deduplication of big data in healthcare domain	10-01-2019	2.67
130	Dr. J. Bhuvana, Dr. T.T. Mirnalinee	Wildlife surveillance for monitoring agricultural fields and residential area	10-01-2019	3.25
131	Dr.V.Jaikumar (PI)	Development of effective materials for super capacitor	10-01-2019	1.60

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132	Dr.K.Jagannathan (PI)	Enhancing removal of gaseous organic pollutants under normal fluorescent lamps with modular box type photocatalytic reactor.	10-01-2019	4.50
133	Dr. S. Arun Karthick	Functionalised nasal filter for ABC filtration	10-01-2019	6.00
134	Ms. M. Dhanalakshmi	Design and development of Hi-Tech composite blades for lower limb amputees	10-01-2019	1.95
135	Dr. J. Vijay, Dr. S. Saraswathi, Dr. S. Arun Karthick	Design and development of wearable textronic system for monitoring physiological	10-01-2019	3.40
136	Dr. SI Davis Presley	Synthesis of Non-steroidal Anti-Inflammatroy Drugs	10-01-2019	4.00
137	Dr. Tanusree Sengupta	Structural characterization of a human serpin and its natural variants	10-01-2019	4.50
138	Dr. N. Priyadarshini	Development of Novel Functionalized Titanium dioxide Based Nanomaterial and Nanocomposite for Effective and Specific Removal of Uranium(VI)	10-01-2019	3.55
139	Dr. A. Murugesan, Dr. S. Ramprabhu	Design and fabrication of cost effective polymer composite based FSS microwave absorbers	10-01-2019	2.15
140	Dr. Divya John, Dr. Sasirekha	Designing a Listening Test for the English Classroom	10-01-2019	1.50