

SSN College of Engineering
Department of Electronics and Communication Engineering
Externally Funded Projects
(Ongoing)

S.No	Project Title	Principal Investigators / Co Investigators	Funding Agency	Date / Month of Sanction / Commencement	Amount in Rs. (Lakhs)	Duration	Academic Year (Sanctioned)
					Sanctioned		
1	A Stand-alone Assistive Device for the Elderly to Read Vital Information from Packed Consumer Products	Dr. W. Jino Hand (PI) Dr. B. Ramani (Co-PI) Dr. P. Vijayalakshmi (Co_PI)	DST TIDE	Jul-25	15.10	2025 - 2027 (2 years)	2025-2026
2	A multi-sensor-based bidirectional sign- language-to-speech (BiSLATS) translation system in Tamil	Dr.P.Vijayalakshmi (Co - PI) Dr. T. Nagarajan SNU Chennai (Co - PI) Dr. B. Ramani (Co-PI)	DST TIDE	Sep-24	18.92	2024 - 2025 (1.5 year)	2024 - 2025
3	Development of Process informatics for the quality improvement of various technological important crystals	Dr. Srinivasan M (PI) Prof Ramasamy (Co-PI) Dr.Rajavel (Co-PI) Prof. Noritaka Usami (International PI)(University of Japan)	MHRD (SPARC Scheme)	Apr-24	79.32	2024 - 2027 (3 years)	2023 - 2024
4	Automated Identification and Characterization of Underwater Images in Deep Ocean	Dr. K. Muthumeenakshi (PI) (ECE) Dr. S. Sakthivel Murugan (Co-PI) (NITTTR -ECE) Dr. N. Padmapriya (Co-PI) (Mathematics)	MoES	Mar-24	48.16	2024 - 2026 (2 Years)	2023-2024
5	5G usecase lab setup	Dr. P. Vijayalakshmi Dr. A. Jawahar Dr.N.EdnaElizabeth Dr.R.Kishore Dr.P.Kaythry Dr.N.Prabagarane	Govt of India	Oct-23	75.00	2023 - 2027 (4 Years)	
6	Efficient water management in agricultural fields using mule based sensor networks	S. Radha, VP/SSN CE (PI) Dr.R. Kishore, ASP/ECE (Co-PI) Dr. R. Hemalatha, ASP/ECE (Co-PI) Dr. Michael Segal, Ben Gurion University (International PI) Dr. Shlomi Dolev, (International Co-PI)	MHRD (SPARC Scheme)	Jul-23	64.10	2023 - 2026 (3 years)	

7	Standalone Domain Specific Speech to Speech translator for English, Hindi and Tamil Languages	Dr. Mahadeva Prasanna (IIT Dharwad) Dr.T. Nagarajan (SNU C) Dr. P. Vijayalakshmi	SERB IMPRINT IIC	Jul-23	53	2023 - 2026 (3 years)	2023 - 2024
8	Apowered EMG-based embedded system controlled transfemoral prosthesis	Dr.Satheesh Kumar Gopal (PI) (Mech) Dr. Vijayalakshmi P (Co - PI) (ECE) Dr.Dhanalakshmi M (Co - PI) (BME) Dr.RAJINIKUMARPALANIYAPPAN (TPESU) (CO-PI)	SERB CRG	03-03-2023	34.82	2023 - 2026 (3 years)	2022 - 2023
9	Real-time multi-dialect automatic speech recognition system for Tamil	Dr.B.Bharathi (PI - CSE) Dr.P.Vijayalakshmi (Co-PI) Dr.T.Nagarajan (SNU Chennai) (Co - PI)	TVA	05.-01.2023	13.77	2023 - 2024 (1 year)	
10	Speech Assistive technologies	Dr.P.Vijayalakshmi (PI) Dr.T.Nagarajan, SNU Chennai (Co - PI)	MeiTY	Feb-22	87.62	2022 - 2025 (3 years)	2021 - 2022
11	Prosody Modelling	Dr.T.Nagarajan, SNU Chennai (PI) Dr.P.Vijayalakshmi (Co- PI)	MeiTY	Mar-22	99.00	2022 - 2025 (3 years)	
12	High Performance Integrated Two-stage Electrochemical Technology for Recovery of Water from Electroplaing Effluent with Realtime Monitoring and Control System	Dr.S.Radha (PI) Dr.B.S.Sreeja (Co - PI) (Anna University) Dr.K.Muthumeenakshi (Co - PI)	DST	14.09.2020	34.46	2020 - 2023 (3 Years)	

SSN College of Engineering
Department of Electronics and Communication Engineering
Externally Funded Projects
(Completed)

S.No	Project Title	Principal Investigators / Investigators	Co	Funding Agency	Date / Month of Sanction / Commencement	Amount in Rs. (Lakhs)	Duration
						Sanctioned	
1	Design, Development and Experimental Evaluation of Highly Integrated Multi-Standard Antennas for Mimo Implementation in Automobiles as a Part of Intelligent Transport System	Dr. Malathi Kanagasabai (PI) (CEG, Guindy) Dr.Gulam Nabi Alsath (Co-PI) Dr.Y.Ramana Rao (Co-PI) (CEG, Guindy)		DST (Indo-Srilankan Joint Project Scheme)	27.09.2021	20.88	2021 - 2023 (2 Years)
2	Design of metesurface based shared aperture phased array antenna operating in S and X bands	Dr.K.T.Selvan		LRDE, Ministry of Defence, DRDO	09-07-2021	9.71376	2021 - 2022 (1.5 years)
3	Electrochemical sensing of sulfamethoxazole antibiotic in water at GO/ZnO Nanocomposites-modified electrodes: Optimization and Real time measurement	Dr.P.Senthil Kumar. Chemical Dr.B.S.Sreeja, ECE		DST - TMD	28.12.2020	63.29222	2020 - 2023
4	Development of ultrasonic sensors for monitoring heavy mineral accumulation in the littoral zone of Mahabalipuram coast	Dr.S.Radha (PI) Dr.B.S.Sreeja (Co-PI) ,		TNSCST	04.11.2019	4.80	2019 - 2021 (2 years)
5	Developement of low cost wearable semi automatic insulin delivery smart system	Dr.B.S.Sreeja (PI) , Dr.S.Radha (Co-PI)		DST DBDT	04.07.2019	35.04	2019 - 2022 (3 years)
6	Fusion algorithms for Multispectral and PAN images in cartographic applications	Dr.N.Venkateswaran (PI) Dr.K.Madheswari (Co-PI)		ISRO	02.07.2019	14.29	2019 - 2021 (2 years)
7	Development of an efficient IoT enabled plant disease pest detection system	Dr.S.Radha (PI) Dr.R.Hemalatha (Co-PI)		DST SSTP	12.02.2019	62.26	2019 - 2022 (3 years)
8	Design of game based communication platform for children with cerebral palsy	Dr.R.Amutha (PI) Dr.R.Rajavel (Co-PI)		DST SSTP	12.02.2019	17.01	2019 - 2022 (3 years)
9	Offshore Excavation of Heritage Rich Submerged Sites of Pampuhar and Mahabalipuram by Empirical Mode Decomposition using Machine Learning	Dr.S.Sakthivel Murugan Dr.N.Padmapriya (Dept. Of Maths)		DST SSTP	23.02.2018	49.99	2018 - 2021 (3 years)

10	Theoretical and Experimental Analysis on the design of Compound Reconfigurable Reflectarray Antenna with an Integrated Electronic Control System	Dr.N.Gulam Nabi Alsath (PI) Dr.S.Ramprabhu (Co-PI) Dr.S.Kirubaveni (Co-PI)	DST SERB CRG	16.07.2018	36.74	2018 - 2021 (3 years)
11	Omni-directional to Directional Pattern Switching Patch Antenna for Wireless Sensor Nodes at Reactor	Dr.B.S.Sreeja (PI) Dr.S.Radha (Co-PI)	BRNS	01.08.2017	24.96	2017 -2020 (3 years)
12	Speech assitive aids for visually challenged people	Dr. T. Nagarajan (PI) (Dept of IT) Dr.P. Vijayalakshmi (Co-PI)	Tamil Virtual Academy	01.08.2018	25.00	2018 - 2020 (2 years)
13	Speech-Input Speech-Output Communication Aid (SISOCA) for Speakers with Cerebral Palsy	Dr.P.Vijayalakshmi Dr.T.Nagarajan	DST - TIDE	09.02.2017	22.78	2016 - 2018 (2 years)
14	Implementation of Magnetic Induction (MI) based Wireless Underground Sensor Network (WUSN) System for Smart Irrigation	Dr.S.Sakthivel Murugan (PI) Dr.K.Muthumeenakshi (Co-PI)	TNSCST	31.07.2017	8.70	2017 - 2020 (3 years)
15	Foldscope (Area: Agriculture)	Ms.P.Kaythry	DBT	18.04.2018	8.00	2018 - 2019 (1 year)
16	Design and implementation of sensor based monitoring system under Asian Elephant Depradation and its mitigation measures in Tamilnadu	Dr.R.Jayaparvathy (PI) Dr.M.Gulam Nabi Alsath (Co-PI)	Tamilnadu Forest Department	05.03.2018	5.50	2018 (6 months)
17	Establishment of Microwave and Antenna Testing Laboratory	Dr.S.Radha (PI) Dr.M.Gulam Nabi Alsath (Co-PI) Dr.S.Ramprabhu (Co-PI)	AICTE	08.09.2017	8.75	2017 - 2019 (2 years)
18	Design and development of a computer controlled system for the production of textile antennas and sensors	Dr.S.Esther Florence (PI) Mr.Vimal Sam Singh (Co-PI)(Dept. Of Mechanical)	DST SERB Extramural	08.12.2016	30.96	2016 - 2019 (3 years)
19	The feasibility of bandwidth enhancement of reflectarray antenna at Ku band for conventional and shaped beams	Dr.K.T.Selvan (PI) Dr.A.Patnaik (IIT Roorke) Dr.R.Kalidoss (CI)	ISRO	07.02.2017	12.81	2016 - 2018 (2 years)

20	Fund for Improvement of S&T Infrastructure	Dr.S.Salivahanan (PI) Dr.S.Radha (PI)	DST - FIST	25.11.2013	50.00	2014 - 2019 (5 years)
21	Insulin Delivery and Glucose Evaluation Micro-Systems (InDeGEMS)	Dr.B.S.Sreeja (PI) Dr.S.Radha (Co-PI)	Cooperation and Development Center, EPFL (CODEV), Switzerland.	30.01.2018	6.9	2018 - 2019 (1 year)
22	HMM-based Text-to-speech synthesis system for Malaysian Tamil	Dr. T. Nagarajan (PI) Dr. P. Vijayalakshmi (Co-PI)	Murasu systems Sdn Bhd, Malaysia	18.11.2016	4	2016 - 2017 (6 months)
23	Speech enabled interactive enquiry system in Tamil	Dr.T.Nagarajan (PI) (Dept. of IT) Dr.P.Vijayalakshmi (Co - PI) Dr.B.Bharathi (Co-PI) (Dept. of CSE) Ms.Sasirekha (Co-PI) (Dept. of IT)	Tamil Virtual Academy	26.02.2016	9.52	2016 - 2017 (6 months)
24	Development of Text-to-speech synthesis for Indian languages	Dr.T.Nagarajan (PI) (Dept. of IT) Dr.P.Vijayalakshmi (Co-PI) Dr.A.Shanina (Co-PI) (Dept. of IT)	MCIT	26.12.2011	77	2012 - 2017 (3 years)
25	Hardware implementation of SPWM control for Standalone Hybrid Renewable Energy using DSP processor	Dr.B.S.Sreeja (PI) Dr.S.Radha (Co-PI)	Linton University College, Malaysia	22.12.2014	4.3888	2014 - 2016 (1 year)
26	Study of soft errors in 65nm gate length CMOS SRAM and 30nm gate length FINFET, Tunnel FET and Junction-less FET based SRAM using TCAD Simulation	Dr.R.Srinivasan (PI) (Dept. of IT) Mr.K.K.Nagarajan (Co-PI)	DRDO	26.12.2011	30.47	2012 - 2015 (3 years)
27	Intel Embedded Curriculum Initiative in India	Dr.S.Radha (PI) Dr.Premnand V.Chandramani (PI)	INTEL	08.09.2011	6.5	2011 - 2014 (3 years)
28	An Assessment and Intelligibility modification system for Dysarthric speakers	Dr.P.Vijayalakshmi (PI) Dr.T.Nagarajan (Co-PI) (Dept of IT)	AICTE	21.10.2010	9	2010 - 2013 (3 years)
29	Design and Hardware Implementation of an Adaptive Filter to Improve the Signal to Noise Ratio due to Wind Driven Ambient Noise in Shallow Water	Dr.S.Radha (PI) Dr.S.Sakthivel Murugan (Co-PI)	NIOT	05.11.2009	20.64	2010 - 2012 (2 years)
30	Design and Development of Wireless Sensor Node	Dr.S.Radha (PI)	IGCAR	28.01.2008	28.58	2008 - 2010 (2 years)
31	FPGA Design for Pulsed Signal Processing	Dr.V.S.Kanchana Bhaskaran (PI)	IGCAR	11.04.2008	6	2008 - 2009 (2 years)
32	Reconfigurable Wavelength selective filter based on one dimensional Photonic Band Gap structures in silicon for ROADM applications	Dr.V.Nagarajan (PI) Dr.Prita Nair (PI)	AICTE	26.03.2007	15	2007 - 2009 (2 years)

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Externally Funded Projects (Submitted)

S.No	Project Title	Principal Investigators / Co Investigators	Funding Agency	Amount in Rs. (Lakh)	Month and Year of Submission	Duration	Academic Year Submitted	Status
1	Design and Development of Electromagnetic Interference Compatible Cables for Underground Mines	Dr. R. Rengaraj ASP/EEE (PI), Dr. V. Kamaraj Prof & Head/EEE (Co-PI), Dr. G.R. Venkatakrishnan ASP/EEE (Co-PI), and Dr. S. Karthie ASP/ECE (Co-PI)	Ministry of Mines	37.29	21.08.2020	3 Years	2020 - 21	Rejected
2	Design and Development of a Novel Mechanized Book Reading Unit using Eye Gaze Tracking for Effortless Control for Quadriplegia Patients	PI: Dr R Vimal Samsingh (ASP/Mech); Co-PI: Dr. Esther Florence S	Sree Ramakrishna Paramahansa Research Grant	41.79	12.09.2020	3 Years	2020 - 21	Rejected
3	Forewarning of Goat Diseases Diagnosis using IoMT to improve the Productivity and Economy of small and big farming	PI: Dr.A.Jawahar, Co-PI: Dr.C.Vinothkumar, Dr. N. R. Shanker, Ph.D., Aalim Muhammed Salegh College of Engineering	NICRA-ICAR	28.61	15-10.2020	3 Years	2020 - 21	Rejected
4	AICTE Margdarshan Scheme	Dr. V. Rajini and Dr. A. Jawahar	AICTE	42.9	09-11-2020	3 Years	2020 - 21	Selected but to be resubmitted
5	Design and Development of carbon foam based electromagnetic interference compatible cables for automotive applications from agricultural waste	Dr. R. Rengaraj ASP/EEE (PI), Dr. K. Sathish Kumar ASP/Chemical (Co-PI), Dr. S. Karthie ASP/ECE (Co-PI), and Dr. G.R. Venkatakrishnan ASP/EEE (Co-PI)	DST-WMT	87.37	30.11.2020	3 Years	2020 - 21	Rejected
6	Design and development of Home based rehabilitation system	Dr.R.Amutha & Dr.B.Ramani	DST SERB - POWER	23.97	Jan-21	3 Years	2020 - 21	Rejected
7	Noise-aware Text-to-Speech Synthesis system for Tamil	Dr. P. Vijayalakshmi, Prof / ECE, Dr. T. Nagarajan, Prof & Head, IT, SSNCE, Dr. Actlin Jeeva, AP, ECE, KL University	DST SERB - POWER	28, 51,440	Jan-21	3 Years	2020 - 21	Rejected
8	Establishment of IoT Research and Innovation Lab	Dr. S. Radha Dr.R.Kishore	AICTE MODROBS	17.46	07.01.2021	3 Years	2020 - 21	Pipeline (status not known)
9	DEVELOPMENT OF A PROGNOSTIC AND DIAGNOSTIC SYSTEM FOR BONE HEALTH MONITORING USING MICROWAVE NDT	Dr.Vimal Sam Singh (Department of Mech) Dr.S.Esther Florence	SERB CRG	45.25	07.02.2021	3 Years	2020 - 21	Rejected

10	Development of Social Interface for NAO Humanoid Robot to make a Nurse-like Assistant for an Elderly Care Service	Dr. K S Jayakumar (Mech) Dr. V.Vaithianathan	DST SERB	30.734	26-02-2021	3 Years	2020 - 21	Rejected
11	SPECIFIC MEASURABLE ASSISTIVE REUSABLE TECHNOLOGY FOR DIABETIC MONITORING	Dr.R.Kalidoss Dr. B. Partibane Dr.K.S.Vishvaksean Dr.K.Sathishkumar (Chemical) Dr. N. Bhalaji (IT)	Biomedical Device and Technology Development (Grand Challenge) to DST	20.4	29-03-2021	3 Years	2020 - 21	Rejected
12	THEORETICAL AND EXPERIMENTAL INVESTIGATIONS ON THE DESIGN OF NOVEL PLASMONIC MICROSENSOR ARRAYS WITH REMOTE DATA ACQUISITION FOR BIOMEDICAL APPLICATIONS	Dr. M. Gulam Nabi Alsath (PI) Dr. S. Kirubaveni, Dr. S. Ramprabhu, Dr. S. Radha (Co-PI)	DST SERB CRG	5562739	03-03-2021	3 Years	2020 - 21	Rejected
13	Crop Selection and Productivity Improvement based on Live Climatic Conditions using Satellite Images	Dr.C.Annadurai Dr.I.Nelson	DST SERB	42.92475	08-03-2021	3 Years	2020 - 21	Rejected
14	Experimental Investigations on Electromagnetic Radiation Suppression in Mobile Telephony Using Conformal Frequency Selective Surfaces	Dr S Ramprabhu Dr M Gulam Nabi Alsath Dr S Radha	DST-SERB-CRG	35.3694	08-03-2021	3 Years	2020 - 21	Rejected
15	BraInternet: The Internet of Intelligent Entities	Prabagarane N and Giacomo Morabito (PI) Co-PI(s)- R. Kishore, S. Radha, N. Edna Elizabeth, LauraGalluccio, Sergio Palazzo and Alfio Lombardo.	Ministry of Science and Technology-: International Cooperation Division-Indo-Italy	1650000	30-04-2021	3 Years	2020 - 21	Rejected
16	EXPERIMENTAL INVESTIGATIONS ON THE SYNTHESIS OF CONDUCTIVE OXIDES AND THE DEVELOPMENT OF OPTICALLY TRANSPARENT ANTENNAS FOR AUTOMOTIVE APPLICATIONS	Dr. M. Gulam Nabi Alsath (Indian - PI), Dr. Andrea Michel (Italian-PI, University of Pisa)	DST under India Italy Call for Mobility of Researchers	17.69	02-04-2021	3 Years	2020 - 21	Rejected
17	Wearable Fabric-based Sensor for Assessment of Limb Kinematics in post-operative rehabilitation protocol after osteotomy	Dr. S. Esther Florence S, ASP/ECE Dr. Vimal Samsingh, ASP/Mech	DST SERB POWER	28.09	14.10.2021	3 Years	2021 - 22	Rejected
18	Design and development of wireless power transfer system for electric vehicle applications	Dr. M. Anbuselvi Dr. P. Saravanan (EEE)	DST SERB	29.00	14.10.2021	3 Years	2021 - 22	Rejected
19	Theoretical and Experimental Analysis on the Design of Compound Reconfigurable Reflect-array Antenna with an Integrated Electronic Control System	Dr. M. Gulam Nabi Alsath Dr. S. Kirubaveni & Ms. N. Kavitha	DST - SERB under TETRA	30.00	18.10.2021	3 Years	2021 - 22	Rejected

20	THEBe: Channel Modeling and Analysis for Indoor, Outdoor, Single and Multi Hop TeraHertz Band Communications in 6G Wireless Systems	Dr. S. Radha Dr. N. Prabagarane, Dr. R. Nakkeeran (Pondicherry University, Pondicherry), Dr. Pravati Swain (NIT Goa), Dr. Neelakandan Rajamohan (IIT Goa)	SERB	717.71	10.12.2021	3 Years	2021 - 22	Rejected
21	OPTIMUM DESIGN OF HIGHLY TRANSPARENT MICROWAVE AND MILLIMETERWAVE ANTENNAS FOR NEXT GENERATION AUTOMOTIVE SYSTEMS	Dr.S.Kirubaveni Dr.M. Gulam nabi alsath and Dr.S.Radha	DST CRG EXP	48.73	14.12.2021	3 Years	2021 - 22	Rejected
22	DESIGN, DEVELOPMENT AND INVESTIGATIONS Of RF ENERGY HARVESTING SYSTEM FOR FUTURE WIRELESS COMMUNICATIONS	Dr.K.Muthumenakshi Dr.S.Radha Dr.S.Esther Florence	DST CRG EXP	18.60	15.12.2021	3 Years	2021 - 22	Rejected
23	Development of AI based expert auto fit analyzer for women's upper garment	Dr. N. Edna Elizabeth Dr. R. Kishore Dr. S. Hanis Dr. N. Prabagarane	DST	42.68	Jan-22	3 Years	2021 - 22	Under Processing
24	Non destructive testing of the mechanical behaviour of bones using microwaves	Dr. R. Vimal Samsingh (Mech) Dr. S. Esther Florence	DST	46.15	Feb-22	3 Years	2021 - 22	Under Review
25	Shape analysis of 3D objects for robot grasping and objects recognition application	Dr. K. S. Jayakumar Dr. V. Vaithianathan	SERB CRG	41.73	Feb-22	3 Years	2021 - 22	Under Processing
26	Development of surface functionalized carbon-based nanosystems as drug delivery platform for cervical cancer screening and therapy	Dr. B. S. Sreeja Dr. M. Srinivasan Dr. S. Radha Dr. J. Saranya (Rajalakshmi College)	SERB CRG	80.23	Mar-22	3 Years	2021 - 22	Rejected
27	Nano architectonics of metal combined with magnetic materialbased polymer nanocomposites for treatment of lung cancer call lines	Dr. M. Srinivasan Dr. B. S. Sreeja Dr. S. Radha Dr. P. Ramasamy	SERB CRG	35.26	Mar-22	3 Years	2021 - 22	Rejected
28	Design of low-cost smart waste Ebin with segregation and monitoring system	Dr. P. Kaythry Dr. P. Sangeetha	TNSCST	3.00	Mar-22	2 Years	2021 - 22	Under Review
29	Artificial intelligence based autonomous drone for agriculture geo-fencing	Dr. R. Rajavel Dr. W. Jino Hans	TNSCST	3.90	Mar-22	2 Years	2021 - 22	Under Review
30	Augmented reality based jelly fish inspired marine debris and sewage scavenging system	Dr. R. Vimal Samsingh Dr. S. Esther Florence	TNSCST	5.00	Mar-22	2 Years	2021 - 22	Under Review
31	Development of low dimensional nanostructures for sensing application	Dr. S. Radha Mrs. V. Shyamala - Research Scholar	TNSCST	3.00	Mar-22	2 Years	2021 - 22	Under Review

32	Design and development of electromagnetic interference compatible cables for mining application	Dr. R. Rengaraj Dr. G. R. Venkatakrishnan Dr. S. Karthie alias Ayyadurai	SERB CRG	37.28	Mar-22	2 Years	2021 - 22	Under Review
33	Localized image based crack severity level classification using machine learning methods	Dr. R. Hemalatha Dr. P. Sangeetha Dr. S. Radha	SERB CRG	33.78	Apr-22	3 Years	2021 - 22	Accepted for Evaluation
34	Microwave blood pattern analysis on textile surfaces to aid crime investigation	Dr. S. Esther Florence Dr. R. Vimal Samsingh	SERB CRG	4.99	Apr-22	3 Years	2021 - 22	Under Review
35	A powered EMG-based embedded system controlled transfemoral prosthesis	Dr. G. Satheesh Kumar Dr. M. Dhanalakshmi Dr. P. Vijayalakshmi Dr. P. Rajini Kumar	SERB CRG	40.45	Apr-22	3 Years	2021 - 22	under review
36	Developing a teleconsultation based clinical decision support system for chronic respiratory diseases	Dr. C. Vinoth Kumar Dr. A. Jawahar Dr. K. Nirmala	SERB CRG	20.60	Apr-22	3 Years	2021 - 22	Under Process
37	Design and development of brush-less radial and axial motor for electric two-wheeler applications	Dr. P. Saravanan Dr. M. Anbuselvi	SERB CRG	29.50	Apr-22	3 Years	2021 - 22	Under review
38	Experimental investigations on the development of frequency selective surface based textile radar absorber for military personnel	Dr. S. Ramprabhu Dr. M. Gulam Nabi Alsath Dr. S. Radha	SERB CRG	33.71	Apr-22	3 Years	2021 - 22	Under Review
39	Design of novel plasmonic microsensor arrays with remote data acquisition for biomedical applications	Dr. M. Gulam Alsath Dr. S. Kirubaveni Dr. S. Ramprabhu	SERB CRG	31.80	Apr-22	3 Years	2021 - 22	Under Review
40	Design and development of a system to detect object behind steel wall for disaster rescue applications	Dr. G. Durga Dr. S. Ramprabhu	SERB CRG	25.96	Apr-22	3 Years	2021 - 22	Under processing
41	An assistive aid for visually impaired people using image captioning technique in Tamil language	Dr. W. Jino Hans Dr. B. Ramani Dr. P. Vijayalakshmi	TVA TSDF	10.98	May-22	3 Years	2021 - 22	Under Review
42	Data driven approaches for dehazing of High-resolution multispectral remote sensing images	Dr. N. Venkateswaran Dr. W. Jino Hans	ISRO RESPOND	19.24	May-22	3 Years	2021 - 22	Under Review. Results expected during November2022.

43	Surface acoustic wave filters for UHF and L-band frequencies	Dr. S. Ramprabhu	ISRO RESPOND	19.74	May-22	3 Years	2021 - 22	Under Review
44	Real-time multi-dialect automatic speech recognition system for Tamil	Dr. B. Bharathi Dr. P. Vijayalakshmi Dr. T. Nagarajan	TVA TSDF	13.77	May-22	3 Years	2021 - 22	Presented the project proposal to TVA expert members on 10.08.2022
45	Smart agents for geriatric functional empowerment and dignified sustenance	Dr. G. Satheesh Kumar Dr. M. Dhanalakshmi Dr. S. V. Jansi Rani Dr. P. Vijayalakshmi Dr. M. Senthil Kumaran Dr. M. Anbuselvi Dr. S. Vijayan Dr. Ramakrishnan Dr. P. Rajini Kumar VIT Vellore	SERB SUPRA	79.35	May-22	3 Years	2021 - 22	Under review
46	Development of flexible cost- effective lifetime enhanced continuous glucose monitoring electrochemical sensors for type I diabetes mellitus - a micro needle based approach	Dr. B. S. Sreeja Dr. M. Srinivasan Dr. S. Radha	SERB	36.00	Jun-22	3 Years	2021 - 22	Under review
47	Development and investigations on high ionic conductive Sm/GdxCel - xO2-del Electrolytes for intermediate temperature solid oxide fuel cells	Dr. P. Rajesh Dr. S. Kirubaveni	MNRE	61.31	Jul-22	3 Years	2022 - 23	Under review
48	Development of portable heavy metal ion sensor for detecting chromium nickel and zinc metal ions for electroplating industry effluent water quality monitoring	Dr. S. Radha Dr. B. S. Sreeja	MNRE	42.87	Aug-22	3 Years	2022 - 23	Under review
49	Microelectronic system integrated wearable minimally invasive continuous glucose monitoring and insulin delivery system based on microneedle based sensing and therapy	Dr. B. S. Sreeja Dr. M. Srivasan Prof. Rohit Srivattsava IITB	TTD SPVF	300.00	Sep-22	3 Years	2022 - 23	Under review
50	Focal liver lesion detection classification and localization an AI-based cognitive system for interventional radiologist / surgeons	Dr. S. Sasirekha Dr. S. Radha Dr. Asha Nandhini Co-PI – Amrita Vishwa Vidyapeetham Chennai Dr. Subhalakshmi Co-PI, SRM medical college hospital	SERB INTEL FIRE	38.90	Sep-22	3 Years	2022 - 23	Under review
51	Real time water quality monitoring and prediction system for thenpennai river	Dr. A. Jawahar Dr. R. Kishore Dr. N. Prabagarane	SERB SURE	29.98	Sep-22	3 Years	2022 - 23	Under review
52	Experimental investigations on the design of fabric based frequency selective surface for mitigation of harmful electromagnetic radiations from mobile phones	Dr. S. Ramprabhu Dr. M. Gulam Nabi Alsath Dr. S. Radha	SERB SURE	28.88	Sep-22	3 Years	2022 - 23	Under review

53	Design and development of high-performance antenna systems for ingestible wireless devices	Dr. K. Jegadish Kumar Dr. M. Gulam Nabi Alsath	SERB SURE	24.00	Sep-22	3 Years	2022 - 23	Under review
54	Development of air-writing recognition system to enhance the learning skills of special children	Dr. R. Amutha Dr. S. Radha Dr. W. Jino Hans Dr. C. Vinoth Kumar	SERB SURE	20.00	Sep-22	3 Years	2022 - 23	Under review
55	Optimum design of highly transparent compact multi-service antennas for intelligent transport systems	Dr. S. Kirubaveni Dr. M. Gulam Nabi Alsath Dr. S. Radha	SERB SURE	30.00	Sep-22	3 Years	2022 - 23	Under review
56	Smart footwear with hybrid energy harvesting an aid to self-powered wearable sensors	Dr. K. Muthumeenakshi Dr. S. Radha Dr. S. Esther Florence	SERB SURE	19.60	Sep-22	3 Years	2022 - 23	Under review
57	Investigation on network coordination for beyond 5G (5BG) wireless systems through embedded intelligence	Dr. R. Kalidoss Dr. B. Partibane Dr. K. S. Vishvaksenan	SERB SURE	26.16	Sep-22	3 Years	2022 - 23	Under review
58	Low cost dosage and frequency of dosage programmable painless transdermal insulin delivery patches for type I diabetic patients	Dr. B. S. Sreeja Dr. S. Radha	SERB SURE	28.00	Sep-22	3 Years	2022 - 23	Under review
59	Design and development of a cost-effective predictive maintenance system for induction motors using deep learning framework	Dr. R. Rajavel Dr. M. Balaji Dr. A. K. Lakshminarayanan	SERB SURE	22.60	Sep-22	3 Years	2022 - 23	Under review
60	Developing drone as a service (DaaS) for effective plant health management	Dr. R. Hemalatha Dr. S. Radha	SERB SURE	27.49	Sep-22	3 Years	2022 - 23	Under review
61	Hybrid underwater energy harvesting system using ocean water and solar cell	Dr. S. Sakthivel Murugan Dr. K. Murugesan Dr. M. Senthilkumaran	SERB SURE	27.31	Sep-22	3 Years	2022 - 23	Under review
62	Development of nurse-like assistant for an elderly care service using NAQ humanoid robot	Dr. V. Vaithianathan Dr. K.S. Jayakumar	SERB SURE	29.54	Sep-22	3 Years	2022 - 23	Under review
63	A learning aid for documenting online classroom lecture	Dr. R. Ramani Dr. W. Jino Hans Dr. P. Vijayalakshmi	SERB SURE	18.44	Sep-22	3 Years	2022 - 23	Under review
64	Development of mm-wave and THz testing facility	Dr. S. Radha Dr. M. Gulam Nabi Alsath	DST SATHI	2000.00	Sep-22		2022 - 23	Under review
65	Design and development of IoT solution for offshore heterogeneous structure monitoring using distributed sensing system	Dr. P. Kaythry Dr. P. Sangeetha Dr. R. Kishore	SERB POWER	29.00	Sep-22	3 Years	2022 - 23	Under review
66	Evaluation of gait parameters in virtual reality environment using novel flexible sensors	Dr. R. Vimal Samsingh Dr. S. Esther Florence Dr. C. Arun Prakash	SERB SURE	27.56	Sep-22	3 Years	2022 - 23	Under review
67	Investigation of glaucoma co-morbidities in capillary morphology using optical images of nail-fold region	Dr. K. Nirmala Dr. C. Vinoth Kumar	SERB SURE	24.60	Sep-22	3 Years	2022 - 23	Under review
68	The design development and implementation of a key pre-distribution scheme for wireless sensor network deployments	Dr. N. Edna Elizabeth Dr. S. Radha Dr. R. Kishore	IGCAR	20.88	Oct-22	3 Years	2022 - 23	Under review
69	Sensor techniques for fish freshness detection and food safety	Dr. E. M. Malathy Dr. R. Rajavel Dr. M. Sugumar Food Technology Anna Uty	SERB SURE	17.47	Oct-22	3 Years	2022 - 23	Under review

70	Automated identification and characterization of benthic epifauna in deep ocean	Dr. K. Muthumeenakshi Dr. S. Sakthivel Murugan	DOM	45.30	Nov-22	2 Years	2022 - 23	Under review
71	Unravelling the mysteries of suberged sites (poompuhar and danushkodi) near deep ocean	Dr. S. Sakthivel Murugan Dr. K. Muthumeenakshi	DOM	49.96	Nov-22	2 Years	2022 - 23	Under review
72	Automated characterization of benthic reef communities using underwater video in deep ocean	Dr. N. Padmapriya Dr. S. Sakthivel Murugan	DOM	45.00	Nov-22	2 Years	2022 - 23	Under review
73	Hybrid ROV with dexterous robotic manipulator for deep ocean	Dr. G. Satheesh Kumar Dr. S. Sakthivel Murugan Dr. Arun Ramaveerapathiran Dr. P. Mirunalini	DOM	57.98	Nov-22	2 Years	2022 - 23	Under review
74	Sustainable Management of Red Palm Weevil using IoT technology for the early detection of Red Palm Weevil and sustainable management of the pest by applying bio-formulation to trees via drones (a plant-derived material induce systemic resistance against all biotic stresses)	Dr. Padmanaban B (ICAR, New Delhi) Dr. S. Radha, Dr. R. Hemalatha, Dr. Angeldeborah,	QRDI “Early detection of Red Palm Weevil” innovation challenge, Ministry of Qatar, UAE.	80.00	Jan-23	3 Years	2022 - 23	Under review
75	Development of a multi-use, artificial intelligence (AI) based, internet of things (IoT) compatible, decision support system (DSS) for varietal identification, plant health monitoring, and yield prediction in precision banana farming	Dr.R.Selvarajan (Director/NRCB) Dr.S.Radha Dr. R. Hemalatha	DBT	2180.00	Jan-23	3 Years	2022 - 23	Under review
76	Machine learning approach for quality assessment and non-destructive analysis of monocrystalline silicon crystals grown by Cz/CCz processes	Dr. M. Srinivasan Dr. B.S. Sreeja Dr. P. Ramasamy	SERB - CRG	28.00	Feb-23	3 Years	2022 - 23	Under review
77	Design and implementation of hybrid thermoelectric power generator and storage system for efficient waste heat recovery	Dr. B. S. Sreeja Dr. S. Radha Dr. M. Srinivasan	SERB - CRG	35.00	Feb-23	3 Years	2022 - 23	Under review
78	Diagnosis and Forewarning of goat diseases using IoMT to improve the Productivity in Tamilnadu.	Dr. A. Jawahar	SERB - CRG	22.53	Feb-23	3 Years	2022 - 23	Under review
79	Design and Implementation of Artificial Inteligence Enabled Internet of Things for Smart Cities:Traffic Assistanceand Waste Management.	Dr. R. Kalidoss	SERB - CRG	34.57	Feb-23	3 Years	2022 - 23	Under review
80	Early Rapid Detection and management of Red plam weevilin cocountplantationusing loRA enabled Acoustic Sensing Network	Dr. Hemalatha	SERB - CRG	65.00	Feb-23	3 Years	2022 - 23	Under review
81	Analysis and Implementation of Elliptic Curve Cryptographic (ECC) algorithm in lightweight devices for Smart Applications	Dr.N.Edna Elizabeth	SERB - MATRIX	6.00	Feb-23	3 Years	2022 - 23	Under review
82	Studies on the possibilities of using the properties of elliptic curve arithmetic for secure communication in real time applications	Dr.R.Kishore	SERB	6.00	Feb-23	3 Years	2022 - 23	Under review

83	A Novel Product for Remote Diagnosis and Assessment of Osteoporosis in Elderly and Menopausal Women	Dr. Vimal Samsingh R Dr. Esther Florence	CMRG	30.73	Feb-23	3 Years	2022 - 23	Under review
84	Development of Air- Writing Recognition System for Tamil alphapets to enhance the learning skills of Special Children of Tamilnadu	Dr.R.Amutha	CMRG	30.45	Feb-23	3 Years	2022 - 23	Under review
85	Diagnosis and Forewarning of goal diseases using IoMT to improve the Productivity in Tamilnadu.	Dr. A. Jawahar	CMRG	22.53	Mar-23	3 Years	2022 - 23	Under review
86	Design and Implementation of Artificial Inteligence Enabled Internet of Things for Smart Cities: Traffic Assistanceand Waste Management.	Dr. R. Kalidoss	CMRG	34.57	Mar-23	3 Years	2022 - 23	Under review
87	Early Rapid Detection and management of Red plam weevil in cocountplantationusing loRA enabled Acoustic Sensing Network	Dr. Hemalatha	CMRG	65.00	Mar-23	3 Years	2022 - 23	Under review
88	Analysis and Implementation of Elliptic Curve Cryptographic (ECC) algorithm in lightweight devices for Smart Applications	Dr. Edna Elizabeth. N	SERB Matrix	6.00	Mar-23	3 Years	2022 - 23	Under review
89	Studies on the possibilities of using the properties of elliptic curve arithmetic for secure communication in real time applications	Dr. .R. Kishore	SERB	6.00	Mar-23	3 Years	2022 - 23	Under review
90	Development of Air- Writing Recognition System for Tamil alphapets to enhance the learning skills of Special Children of Tamilnadu	Dr. Amutha	CMRG	30.45	Mar-23	3 Years	2022 - 23	Under review
91	A Novel Product for Remote Diagnosis and Assessment of Osteoporosis in Elderly and Menopausal Women	Dr. Vimal Samsingh R Dr. Esther Florence (ECE)	CMRG	30.73	Mar-23	3 Years	2022 - 23	Under review
92	Design and implementation of hybrid thermoelectric power generator and storage system for efficient waste heat recovery	Dr. B. S. Sreeja Dr. S. Radha Dr. M. Srinivasan	SERB CRG	35.00	Mar-23	3 Years	2022 - 23	Under review
93	Machine learning approach for quality assessment and non-destructive analysis of mono crystalline silicon crystals grown by Cz/CCz processes	Dr. M. Srinivasan Dr. B.S. Sreeja Dr. P. Ramasamy	SERB CRG	28.00	Mar-23	3 Years	2022 - 23	Under review
94	Energy efficient Animal intrusion Detection and Prevention System with On Device ML models	Dr. S. Radha Dr. R. Hemalatha	DST TDT-TDP	73.65	Jun-23	3 Years	2022 - 23	Under review

SSN College of Engineering
Department of Electronics and Communication Engineering
Externally Funded Projects (Submitted)

S.No	Project Title	Principal Investigators / Co Investigators	Funding Agency	Amount in Rs. (Lakh)	Month and Year of Submission	Duration	Academic Year Submitted	Status
1	Improving the hygiene and sanitation facility of Govt. Rural School students	Dr. P. Kaythry	Direct Aid Programme of Australian Embassy	5.00	Aug-23	10 months	2023 - 24	Rejected
2	A Stand-alone Assistive Device for the Elderly to Read Vital Information from Packed Consumer Products	Dr. W. Jino Hans Dr. B. Ramani Dr. P. Vijayalakshmi	DST TIDE	15.14	Sep-23	3 Years	2023 - 24	Under Review
3	AI Based Automation Framework For Handling Email/Grievances	Dr. S. Radha Dr. S. Sasirekha (IT) Dr.I Joe Louis Paul (IT) Dr.S. Swamynathan (Anna University)	SERB-SURE	29.08	Nov-23	3 Years	2023 - 24	Under Review
4	Development of an automated modular dress form to replace trial rooms in apparel retailers	Dr. N. Edna Elizabeth Dr. S. Hanis	SERB - POWER	14.78	Jan-24	3 Years	2023 - 24	Under Review
5	Federated Learning and Blockchain-Enhanced DAI Framework-aided Non-Terrestrial Network (NTN) Communications for 5G/6G.	Dr. Prabagarane N & Suvendi Rimer Dr. Jawahar A Nagarajan V Khmaies Ouahada	SPARC	112.94	Feb-24	2 Years	2023 - 24	Rejected
6	Development of Process informatics for the Quality Improvement of Various Technological Important Crystals	Dr. Srinivasan M (RC) Prof. Ramasamy P (RC) Dr. Rajavel R, Prof. Noritaka Usami, Prof. Toru Ujihara, Dr. Kentaro Kutsukake	SPARC	116.05	Feb-24	2 Years	2023 - 24	Sanctioned
7	AI based personalized rehabilitation for person with multiple disabilities	Dr. T.T. Mirunalinee (CSE) Dr. S. Angel Deborah (CSE) Dr. R.Amutha	SERB - POWER	19.00	Feb-24	3 Years	2023 - 24	Under Review
8	Intelligent Machine Learning Assisted Autonomous Marine Robot with Dexterous Arm for Aquatic System Inspection and Sample Collections	Dr. Arun (EEE) Dr. S. Sakthivel Murugan Dr. Satheesh Kumar Gopal (Mech) Dr. P.Mirunalini (CSE)	DST and Innovation for IoT & IoE	77.00	Feb-24	3 Years	2023 - 24	Under Review
9	Intelligent Autonomous Underwater Drone with Machine Learning Capabilities for Marine Organism Detection and Classification	Dr. Arun (EEE) Dr. S. Sakthivel Murugan Dr. Satheesh Kumar Gopal (Mech) Dr. P.Mirunalini (CSE)	DST and Innovation for IoT & IoE	93.00	Feb-24	3 Years	2023 - 24	Under Review
10	Utilizing the Existing DAI Framework with BDIx Agents to Support a Self-Organised Cell-Free with RIS Network in 6G	Dr. Prabagarane N Dr. Jawahar. A	DoT	123.68	Mar-24	3 years	2023 - 24	Under Review
11	Development of Embedded Tiny Vision Plant Disease Detection Mule using Augmented Intelligence	Dr. S. Aasha Nandhini	DoT	55.38	Mar-24	3 Years	2023 - 24	Under Review

12	Articulate – A Communication Aid for People with Articulatory Impairments	Dr. P. Vijayalakshmi Dr. S.R. Mahadeva Prasanna (IIT) Dr. T. Nagarajan (SNU) Dr. G. Anushiya Rachel (SNU) Dr. K.T Deepak (IIT)	IITMandi, iHub HCI Foundation	80.00	Apr-24	3 Years	2023 - 24	Under Review
13	An Indigenous Novel Voice Assisted Intelligent Navigation Jalkapi AUV (INVJ -AUV) system for naval Applications	Dr. R. Arun (EEE) Dr. S. Sakthivel Murugan Dr. G. Satheesh Kumar (Mech) Dr. B. Ramani, Dr. K. Muthumeenakshi	Ministry of Defence (iDEX - Innovations for Defence Excellence)	935.53	Apr-24	2 Years	2023 - 24	Under Review
14	Underwater Object Identification using High-Resolution Hyperspectral Imaging	Dr.N.Padmapriya (Mahths) Dr.S.Sakthivel Murugan Dr.K.Muthumeenakshi	Ministry of Defence (iDEX - Innovations for Defence Excellence)	181.85	Apr-24	2 Years	2023 - 24	Under Review
15	Development of Drone as a Service (DaaS) for Smart Agriculture with Edge AI	Dr. R. Hemalatha	DoT- Call for Proposals for Accelerated Research on 6G Ecosystem	54.63	Apr-24	3 Years	2023 - 24	Under Review
16	Design, Develop and Configure an autonomous delivery BOT	Dr. Kavitha M, Associate Professor (MBA) Dr Aravindan (IT) Dr. Vasuki (IT) Dr. R. Vimal Samsingh, (Mech) Dr B.Sakthi Abirami (ECE)	Aerovista Dynamics	22.00	Apr-24	3 Years	2023 - 24	Sanctioned
17	In-situ monitoring and Prediction of Ocean Acidification Parameters using Nanosensors in Marine Environment	K. Muthumeenakshi Dr.S.Sakthivel Murugan Dr.S.Radha	ISRO - NICES	55.89	Apr-24	3 Years	2023 - 24	Under Review
18	BoarGuard: A Sustainable Solution for Wild Boar Management in Agriculture Fields	Dr. P. Kaythry Dr. B. Partibane Dr. K. J. Jegadish Kumar	IEEE Tech4Good	4.00	Apr-24	2 Years	2023 - 24	Under Review
19	Cognitive Therapeutic PlayStation for Multiple Cognitive Disorders	Dr. S. Angel Deborah (CSE) Dr. T.T. Mirunalinee (CSE) Dr. R.Amutha						
20	From Policy to Practice: Exploring Strategies for Implementing Selected Foundational Ideas of National Education Policy 2020 in Higher Education	Martha Karunakar (English) Krishnasamy Selvan, Rupashree Baral, Prama Bhattacharya, R. Rajagopalan, Koushik Guha	Indian Council of Social Science Research (ICSSR)	13.12	Jun-24	1 Year	2023 - 24	Under Review
21	Predicting the performance of concrete with seashell waste under extreme environment using Deep Learning approaches	Dr. P. Kaythry Dr. P Sangeetha (Civil)	DST- ASEAN	23.30	Jun-24	2 Years	2023 - 24	Under Review
22	Investigations On Sustaibanle Water Resource Management of Ancient Tamil Nadu	Dr. P Kaythry Dr. W. Jino Hans Dr. P. Sangeetha (Civil)	IKS- Institutional Internship MoE	9.00	Jun-24	2 Years	2023 - 24	Under Review

SSN College of Engineering
Department of Electronics and Communication Engineering
Externally Funded Projects (Submitted (2024 - 2025))

S.No	Project Title	Principal Investigators / Co Investigators	Funding Agency	Amount in Rs. (Lakh)	Month and Year of Submission	Duration	Academic Year Submitted
1	Green Growth: Analysing Organic Fertilizers to Boost Agricultural Productivity Using AI	Dr. P. Kaythry	DST	26.77	Jul-24	3 years	2024 - 2025
2	Development of a Tinyml based Device for Early Detection of Fusarium Wilt, Bract Mosaic and Rhizome Rot Diseases in Banana	Dr. S. Aasha Nandhini, Dr. S. Radha, Dr. R. Hemalatha,	DBT	92.98	Aug-24	3 years	2024 - 2025
3	Development of Biosensing Devices for early detection of CRB and its management in Coconut plantation	Dr. R. Hemalatha, Dr. S. Radha, Dr. S. Aasha Nandhini	DBT	84.81	Aug-24	3 years	2024 - 2025
4	Hybrid Cryptosystems: Combining Quantum Key Distribution with Classical Cryptography for Enhanced Security	Dr. R. Kishore Dr. P. Kaythry Dr. Edna Elizabeth Dr. K. J. Jegadish Kumar Dr. S. Hanis Dr. S. Aasha Nandhini	DoT	51.48	Sep-24	3 years	2024 - 2025
5	Voice Guided diagnostic tool for the early detection of obstructive lung diseases	Dr. M.P Actlin Jeeva	PMECRG	46.14	Nov-24	3 years	2024 - 2025
6	Thermal Image Super-Resolution using Convolutional Neural Networks	Dr. Satyakam Baraha	PMECRG	59.94	Nov-24	3 years	2024 - 2025
7	Development of Conformal Microwave Sensor for Real-Time UAV Icing Detection	Dr. B. Sakthi Abirami	PMECRG	71.66	Nov-24	3 years	2024 - 2025
8	Development of Portable TinyML based Edge device for Early Detection of Fungal, Bacterial, and Viral Banana Plant Diseases	Dr. S.Aasha Nandhini	PMECRG	68.59	Nov-24	3 years	2024 - 2025

9	High Performance Zinc Ion Battery and PNSN Drive with Integrated Charging Solutions for Electric Vehicle	Dr R. Hemalatha	PMECRG	42.5	Nov-24	3 years	2024 - 2025
10	From Policy to Practice Exploring Strategies for Implementing Selected Foundational Ideas of National Education Policy 2020 in Higher Education	Dr. Krishnasamy T. Selvan Dr. Kit Patrick	SNF	27.66	Nov-24	3 years	2024 - 2025
11	Speak Your Mind: A Silent Speech Interface to Decode Imagined Speech to Vocal Speech for Aphasia	Dr. P. Vijayalakshmi Dr. G. Anushiya Rachel Dr. M. P. Actlin Jeeva	SNF	36.55	Nov-24	3 years	2024 - 2025
12	Nanomaterial- Based Sensor for On -Site Pesticide Detection in Fruites and Vegetables	Dr B Chitra Dr G Durga	TNSCST	4	Nov-24	2 years	2024 - 2025
13	Archaeological and Historical Object Reconstruction using a Scalable Multi-Core Risc-V Processor with Integrated GPU and 3D Object Scanner	Dr. V. Vaithianathan Dr. K. J Jegadish Kumar	TNSCST	5	Nov-24	2 years	2024 - 2025
14	Next Gen Smart EV Charging Solutions: AI-Powered Hybrid Infrastructure for Sustainable Urban Transport	Dr. K. J Jegadish Kumar Dr. V. Vaithianathan	National Board for Higher Mathematics	41.64	Jan-25	3 years	2024 - 2025
15	Design and Implementation of a Cryptographically Secure Random Number Generator	Dr. R. Amutha Dr K.J. Jegadish Kumar Dr. Sreehari Veeramachaneni	ISRO	19.18	Mar-25	2 years	2024 - 2025
16	AI—Powered Microfluidic Lab-on-a- Chip for Rapid. Decentralized, and Cost-Effective Diagnostics of Infectious Diseases: A Scalable Approach for Point-of-Care Testing	Dr. I. Nelson Dr. C. Annadurai	ICMR	44.48	Apr-25	3 years	2024 - 2025
17	Aid for Space Research Programme RES-HSFC-2024-001 in Space Medicine research	Dr. C Annadurai Dr. I. Nelson	ISRO	22.85	May-25	2 years	2024 - 2025
18	Development of MIMO-Enabled In-Band Full-Duplex Implantable Antenna for Wireless Capsule Endoscopy	Dr. Sakthi Abirami Dr. K.T Selvan	CEFIPRA	21.45	May-25	2 years	2024 - 2025
19	Intelligent Resource Scheduling for Sustainable 6G Data Centres.	Dr.P.Vijayalakshmi Dr.T.T.Mrinalinee Dr.A. Shahina	Nokia	30	May-25	3 years	2024 - 2025

SSN College of Engineering
Department of Electronics and Communication Engineering
Externally Funded Projects (Submitted (2025 - 2026))

S.No	Project Title	Principal Investigators / Co Investigators	Funding Agency	Amount in Rs. (Lakh)	Month and Year of Submission	Duration	Academic Year Submitted
1	Sustainable Electrochemical Platform for CO2 conversion into energy-rich industrial feedstock	Dr. G. Durga Dr. Chithra	ANRF - ARG	50.23	Jul-25	3 years	2025 - 2026
2	Investigation on AI-driven EM design techniques of microwave filters for wireless communication systems	Dr. S. Karthie, Dr. R. Rajavel Dr. K. J. Jegadish Kumar	ANRF – ARG	25	Jul-25	3 years	2025 - 2026
3	Drone- Based Field Validation of an Edge-AI System for Plant Disease Detection and Precision Spraying	Dr. Aasha Nandhini Dr. R Hemalatha	AICTE	35	Jul-25	3 years	2025 - 2026
4	Multimodal AI-Based Diagnostic System for Pre-Symptomatic Detection of Yellow Mosaic Virus and Anthracnose in Black Gram Using Few-Shot Learning and Edge Deployment	Dr. S. Aasha Nandhini Dr. R. Hemalatha Dr. I. Johnson TNAU	ANRF – ARG	71	Jul-25	3 years	2025 - 2026
5	Development of a TinyML-Powered On-Field Diagnostic Tool for Fusarium Wilt, Bract Mosaic and Rhizome Rot in Banana	Dr. Aasha Nandhini Dr. R Hemalatha	DBT-Emerging Frontiers in Biotechnology	92	Sep-25	3 years	2025 - 2026

SSN College of Engineering

Department of Electronics and Communication Engineering

Externally Funded Projects

Summary

S.No	Project Category	Number of Projects	Amount in Rs. (Lakhs)
1	Externally Funded (Completed)	32	729.47
2	Externally Funded (Ongoing)	12	601.35