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CRITERION: 3.1.1

Grants for research projects sponsored by government/non-government sources such as industry, corporate houses, international bodies, endowment, chairs in the institution during the year 2023-24

Sl. No.	Department	Nature of award	Name of awarding agency	Amount In Rs.	Page No.
1	Computer Science and Engineering	PIC-TNSCST	TNSCST-PIC-IPCU Establishment	25,000.00	2
2	Mechanical Engineering	Naan Muthalvan - Project Scheme	Niral Thiruvizha 2024 – TNSDC, Anna University.	10,000.00	6
3	Electrical and Electronics Engineering	Naan Muthalvan - Project Scheme	Niral Thiruvizha 2024 – TNSDC, Anna University.	10,000.00	23
4	Electronics and Communication Engineering	Student Project Scheme	Tamil Nadu State Council for Science & Technology	7,500.00	39
5	Electrical and Electronics Engineering	Student Project Scheme	Tamil Nadu State Council for Science & Technology	7,500.00	44
6	Mechanical Engineering	Student Project Scheme	Tamil Nadu State Council for Science & Technology	5,500.00	54
7	Centre for Promotion of Research	IEEE Madras Section	IEEE Madras Section	5,000.00	62

[Handwritten signature]

J. Praveen
PRINCIPAL
Kings College of Engineering,
PUNALKULAM - 613 303.



தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

(Established by Government of Tamilnadu)
Directorate of Technical Education Campus, Chennai - 600 025.

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DR. R. SRINIVASAN, M.Sc., Ph.D., F.I.C.S., M.A.C.S. (USA).

Member Secretary

Letter No. : TNSCST/PIC/PCU/2023-24

179

06-02-2024

To
The Principal,
Kings College of Engineering
Punalkulam, Gandarvakottai Taluk,
Pudukkottai – 613 303

Sub.: PIC-TNSCST - Release of funds for the PCU established at Kings College of Engineering, Pudukkottai – reg.

Ref.: 1. Letter No. TNSCST/PIC/PCU/2023-24 / 029, Dated 21.09.2023

Intellectual Property related activities are reached through Intellectual Property Rights (IPR) Cell established in your university by Patent Information Centre of Tamil Nadu State Council for Science and Technology for the welfare of the academicians to promote IP filings. To continue the IP activities, a sum of Rs.25,000/- has been sanctioned for the Intellectual Property Cell for encouraging innovation, promoting IPR awareness and facilitating IP protection in your region for the F.Y. 2023-24.

The fund shall be utilized for conducting a workshop for general awareness on significance of IPR protection, various forms of IPR etc. and an advanced technical training on topics related to patent search, patent drafting, technology transfer and commercialization strategies etc. at the maximum expense of Rs. 10,000/- for each programme. After completion, you have to submit utilization certificate for the above grant along with programme completion report (prescribed guidelines enclosed herewith). All IPR-related activities should be executed with the concurrence of the State Council.

As resolved during the IPR cells review meeting convened on 16/11/2023 at Madurai,

- The institutions are insisted to motivate the students and research scholars to develop novel innovations and inventions to take forward to the industry level through technology transfer, as there are 36 IPR cells now in various regions of the state, including arts and science, engineering, law, medical institutions.
- Newly established IPR cells should be inaugurated and organize a technical workshop by the end of December

- All the IPR cells should submit the pending UC / SE as soon as possible. The remaining grant which was given for the F.Y. 2022-23 should be utilized effectively in bringing the awareness about Intellectual Properties.
- The IPR cells are motivated to facilitate filing of Geographical Indications, as mentioned in the regional wise tentative GI - list shared with the coordinators. They are further advised to identify any other potential GI products in their region and take initiatives by conducting field-work on collection of data and required details related to the potential GI products.

Note:

Kindly arrange to submit UC for the following grant, which was already sanctioned to your institution:

F.Y.	Amount	Reference
2022-23	Rs.25,000/-	TNSCST/PIC/PCU/2023-24 / 029; Dated 21.09.2023

Yours sincerely



Member Secretary

- Encl.: 1. Format of Utilization Certificate.
2. Guidelines for report submission.
3. Format for Quarterly report.

Copy to:

Dr. S. Kannan,
Professor,
Dept. of Electronics and Communication Engineering
Kings College of Engineering
Punalkulam, Gandarvakottai Taluk,
Pudukkottai – 613 303

Dr. J. Arputha Vijaya Selvi, M.E., Ph.D.,
PRINCIPAL

Ref: KCE / PRL / TNSCST/117/23-24

28.02.2024

To
The Member Secretary,
Tamil Nadu State Council for Science and Technology,
Guindy,
Chennai.

Sir,

Sub: Submission of Utilization Certificate – IPR Cell – reg.,

Ref: TNSCST/PIC/PCU/2023-24/029 dt. 21.09.2023

With reference to the above, herewith, I am submitting the signed copy of the utilization certificate (2 copies) for your kind perusal and approval.

Thank you,

Regards,

J. Arputha Vijaya Selvi
28/2/2024

Dr. J. Arputha Vijaya Selvi
PRINCIPAL
Kings College of Engineering
PUNALKULAM - 613 303



Encl. Utilization Certificate (2 copies)

UTILISATION CERTIFICATE
(Two Copies)

1. Name of the Institution : Kings College of Engineering
Punalkulam, Pudukottai.
2. Name of the Grantee/
Coordinator : Dr. S. Kannan
3. Purpose of the Grant : IPR cell
4. Tamilnadu State Council for
Science and Technology TNSCST/PIC/IPCW/2023-24/029
Sanction letter No., Date &
mount : Dated: 21.09.2023
: Rs: 25000/-

Certified that Rs. 25000/- of grants-in-aid sanctioned during the year 2023-2024 in favour of Kings College of Engineering under this Council Letter No. TNSCST/PIC/IPCW/2023-24/029 has been utilized for the purpose of IPR - PROMOTION ACTIVITIES dated: 21.09.2023 for which it was sanctioned and the conditions of the grant are fulfilled / being fulfilled.

S. Kannan 28/2/24
Signature of the

IPR Cell Coordinator

S. Kannan 28/02/2024.
Signature of

Head of the Institution with SEAL



PRINCIPAL
Kings College of Engineering
PUNALKULAM - 613 303




Niral Thiruvizha 2024
Results



S.No	College Code	College Name	Theme Name	Faculty Guide	Team Member Name
1	4	Madras Institute of Technology, Anna University	Agritech & Food Technology	Dr. M R Sumalatha	Grish G, Kaillash Kumar S, Sandhiya M, Swetha Das R
2	1113	R.M.K.Engineering College	Agritech & Food Technology	Mr. C. M. Varun	Mukesh Nath G, Udhayakumar R
3	1113	R.M.K.Engineering College	Agritech & Food Technology	Mr.Y.Alexander Jeevanantham	Dinith N N, Ruthran S, Sri Rajesh J, Vignesh Kumar V
4	1113	R.M.K.Engineering College	Agritech & Food Technology	Dr. N.R Gladiss Merlin	G Rohit Sudarsen, Hare Ram C, K Sathvik
5	1113	R.M.K.Engineering College	Agritech & Food Technology	Dr. N.R Gladiss Merlin	Prasenna Vignesh V, Revanth JR, S Mithun Raaj
6	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Agritech & Food Technology	Mrs.S.Sangeetha	HariHaran.N, Karan.M, Mohana Aditayan.P
7	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Agritech & Food Technology	Dr. M. Selvam	Suganthan. P
8	1130	Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College (An Autonomous Institution)	Agritech & Food Technology	Dr.S.Rajamanickam	ABILASH B L, PRAVEEN A, SANTHOSH B, SHYLES B
9	1133	Velammal Institute of Technology	Agritech & Food Technology	A.PONSANGEETHA	Ajay Kumar K B, Lohith Shyam Sri S, Sathish Kumar M
10	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	A.TAMILSELVI	BIKKA THARUN KUMAR YADAV, RISHIKESAVAN P S
11	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	Senthilkumar A	A Ranjith kumar, S Nishanth
12	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	Harshanya M	Allwin p thomas, S.AAKASH
13	2105	Dmi college of Engineering	Agritech & Food Technology	Dr.D.R.Denslin Brabin	AMRUTHA MERIN SUNNY, HARSHINI N, JOSHNA N, VISHNU PRIYA
14	2106	Jeppiaar Institute of technology	Agritech & Food Technology	Mr.S.Saravanan	Hari Prasanth K, Rahul Rakesh J, Subhash M
15	2114	PANIMALAR ENGINEERING COLLEGE	Agritech & Food Technology	Dr.S.DEEPA	ANISHA G, JAHAVI K, SUBHIKSHA K, YAMKA DELFIN A
16	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Dr.R.Shanthi	ESWARA SAI PRAKASH NUNI, EZHILBHARATH, NIVENDRA Y
17	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Dr.Nithiyanantham K K	Siddarth S
18	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	MRS. C. AMUTHA	DINESH M, SABARISH KUMAR L M, SNEKAVARSHINI S S, VINUDHA K
19	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	DR. T. SANTHANA KRISHNAN	AHAMED SHABITH, JOTHIKA SHREE G K, MADHUMITHA K, SELVA PREVIN R V
20	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Mrs. Maharsi M	Mrithula.K.R, Senthilnayaki.N, Snehaprabha.K
21	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Ms.M.Sandhiya	A.Tinisha, B.Visvesh, H.Vinisha, R.Tharunika
22	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Ms. M. Manju	Jeyavelan K S, Rissi Kumar P, Shivaraj S, Shivesh P R
23	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Dr. Tamilselvi P	Abirami R, Adhavan T, Chetan Choudhary
24	2122	Saveetha Engineering college (Autonomous)	Agritech & Food Technology	Dr.Aswini J	Aishree Ramesh, S Sanjay, Vincent Isaac Jeyaraj J
25	3101	ANAND INSTITUTE OF HIGHER TECHNOLOGY	Agritech & Food Technology	A.S.BALAJI	Bandi Revathi, Delcy V, Kalepalli lavanya
26	3101	ANAND INSTITUTE OF HIGHER TECHNOLOGY	Agritech & Food Technology	S.DINAKAR JOSE	ABBURI LAKSHMI NARAYANA, BARATH, DAISAN N, DURAIRAJ M
27	3106	EASWARI ENGINEERING COLLEGE	Agritech & Food Technology	Mrs.D.Kavitha	Burhan Aijaz, Kishore Babu M S, Mohammad Irfan Sheikh
28	3106	EASWARI ENGINEERING COLLEGE	Agritech & Food Technology	Dr.J.Vijayaraj	Mugliesh E, Nitish Kumar P, Sanjay Karthik S
29	3110	KCG College of Technology	Agritech & Food Technology	Dr Thomas Leonid	Somesh kumar, Vigneshwaran, prem kumar
30	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Dr. S. Mary Virgil Nithya	Ashik Sharon M, John Mugeshe C, Vasanth M
31	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Mr. M. Martin Charles	Anand samuel, Anton Dominic Savio Vaz S, Cherub Timothy S, Lester Perez R
32	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Dr. A. Santhi Mary Antony	Manoj Prasath R S, Satish M S, Suthir T, Theodore B
33	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Dr. G. K. Sathish Kumar	Ahamed Rasheef H R, Akash Michael A, Levin Prince M, R Dhinesh
34	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Mr. B. R. Sathish	Joe Sebastian L, Prasanna L, Praveen Samuel S, Vinith Raj A
35	3124	ST.JOSEPH'S INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	Dr. D. Menaga	ROSHAN B T, VIKAAS S R
36	3128	Agni College of Technology	Agritech & Food Technology	Ms V.Nivi	Karuppaiya M, Tamilarasan . S, Visali .G
37	4117	PRINCE SHRI VENKATESHWARA PADMAVATHY ENGINEERING COLLEGE	Agritech & Food Technology	Dr.M.Preetha	Jaya Saradhy.P.S, Lingesw.S, RahulKumar.P
38	4124	Sri Sai Ram Institute of Technology	Agritech & Food Technology	Parthiban M	Harish J, Manobala V, SIVAKUMAR k, Saidhanush k
39	4124	Sri Sai Ram Institute of Technology	Agritech & Food Technology	M Subashini	Aiswarya V, Jayadurga M S, Sakthi Priya M, Sandeep R
40	4124	Sri Sai Ram Institute of Technology	Agritech & Food Technology	Dr.A. Rajasekar	MUTHUKUMAR G, NANDINI S R, SOUMIYA A, VASANTHAKUMAR S R
41	4125	Sri Sairam Engineering College	Agritech & Food Technology	Dr.SURESHKUMAR M	HARINISHA N, JESSICA SHARON W, PRIYADHARSHINI M, PRIYANKA MALAR G P
42	4125	Sri Sairam Engineering College	Agritech & Food Technology	Mrs.V.Valarmathi	ARUN SANTHOSH V, ARUNN T, DHANUSH PRABHU K, Srihari V
43	4207	C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Agritech & Food Technology	Mrs. G. Mahalakshmi	Dhiviyabala .G, Gayathri .M, Jayasri .A
44	4207	C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Agritech & Food Technology	Dr. R. Kanimozhi	Dhakshan.D, Dhanushraj. B, Sambath kumar.K
45	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mr.M.O.Ramkumar	BALAJI K, JAYASRI A R, KARAN R
46	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mrs.K.Kalaiselvi	Alex.M, Hari.K, Jaya Prakash Narayanan.A
47	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Dr.T.Ananth kumar	NIDYA THIRSHALA M, NIVETHA N, OVIYA A, SABIMOZHI M
48	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mrs.G.Leema Roselin	LOKESH E, MOHAMED INAMUL HUSSAIN N, NITHISH G, POORNACHANDRAN G
49	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mr.C.Manimaran	P. MOHAN, S. NAVEEN RAJ, S. SRINEVASAN, S.DHARANIDHARAN
50	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Ms.K.Sheela	J.Nandhakumar, K.Mangaiyarkarasi, R.Pooja sree, S.Sivasankari
51	4212	KARPAGA VINAYAGA COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	P.Geetha	G.Harini, S.Jayasri, V.Arivazhagan, V.Ravinapriya
52	4216	Mailam engineering college	Agritech & Food Technology	Dr. DHANASEKARAN K	DHANENDHIRAN R, MOHAMED ASHIQ M, MOHAMMED THARICK K, SUBBASH V
53	4216	Mailam engineering college	Agritech & Food Technology	GAJENDIRAN R	A.Deepa, D.Mahalakshmi, S.Aishwarya Lakshmi
54	4216	Mailam engineering college	Agritech & Food Technology	Mr.S.Vanakovarayan	Divyashree G, Hemavathi M, Jeeva P
55	4216	Mailam engineering college	Agritech & Food Technology	Dr.MOHANADEVI C	Dhanesh D, Mohamed Ibrahim R, Praveen Kumar M, Youvaraj J
56	4216	Mailam engineering college	Agritech & Food Technology	K.Sundaravinayagam	Nitin Vimal Guru M, Ranjith Kumar M, Sabarivasan K, Tamilselvan E
57	4216	Mailam engineering college	Agritech & Food Technology	Mr.S.Shanmuganathan	ARUN S, BALAMURUGAN A, EZHILARASAN P

586	6230	Tagore Institute of Engineering and Technology	Smart Manufacturing	HARITHA M	KRISHNA P, RANJITH R, VINOTH R
587	7105	COIMBATORE INSTITUTE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	A.Thiyagarajan	Blessy edison, Nirmal T, Rohin raj, Spellbin S
588	7111	Jansons Institute of Technology	Smart Manufacturing	Mrs.Berlin	Logananth K, Pandiyan V, Swetha R, Vangapandu Kushal
589	7113	K P R INSTITUTE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Mr.S.Vinoh	Hariharan K, Ragul S, Shiyamala R, Varshin Narasimman
590	7115	KALAIIGNAR KARUNANIDHI INSTITUTE OF TECHNOLOGY	Smart Manufacturing	ARIVUMANI RAVANAN	LOGESHWARAN S, MADESHWARAN S, PREM KUMAR S, SRIKAUVIN S
591	7115	KALAIIGNAR KARUNANIDHI INSTITUTE OF TECHNOLOGY	Smart Manufacturing	VASANTHI R	Ajay Kamalesh G, Muthu Krishnan K, Nagaarjun V, Sanjay N
592	7125	PPG INSTITUTE OF TECHNOLOGY	Smart Manufacturing	Mr.R.Aravindh kumar	Hariharan S, Mohan Prasath J, Nithish Kumar T, Rahul krishnan
593	7135	SNS COLLEGE OF TECHNOLOGY	Smart Manufacturing	Dr.G.Tharanitharan	Boobase A, Dharshan R, Gokulnath V, Hari Prasath T
594	7135	SNS COLLEGE OF TECHNOLOGY	Smart Manufacturing	Mr P.Leon Dharmadurai	Ajoyas Sojan.R, Aswin.B, PRADEEP.N, Sanjay S
595	7179	KUMARAGURU COLLEGE OF TECHNOLOGY	Smart Manufacturing	Sangeetha.S	Nisanth T, Sibi S, Siva Chandru V, Tharika N B
596	7181	SRI RAMAKRISHNA ENGINEERING COLLEGE	Smart Manufacturing	Dr.R.Sudhakar	Puspharaj M
597	7207	HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Dr.T.vandarkuzhali	GOWTHAM R, RUPAN RICHARDS RAJ R
598	7207	HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Mr. T. Prabhu	HARI HARA PRASATH S, MAHESWARAN N, RAKESH SHIBU S A
599	7207	HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Dr.J.Ramya	Boominthan R, G.GOWTHAM, R.Bagavathi
600	7207	HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Ms J.Santhiya Christie	ABISHEK V, ADITHIYAN A, JOHN VS BAPTY, KEERTHANA S
601	7212	KARPAGAM INSTITUTE OF TECHNOLOGY	Smart Manufacturing	N.Sathiyapriya	Pon Saravanan R, Ponn Raja P, Siva P
602	7276	Dr.Mahalingam College of Engineering and Technology	Smart Manufacturing	Mr.A.Shafeek	AJAY KRISHNA T, ARUN PRASATH D, GUNA PRAKASH A
603	7309	EXCEL ENGINEERING COLLEGE	Smart Manufacturing	M. Nandha Kumar	J. Nandheeswaran, S. Moulidhar, Tomraj Thoudam
604	7311	Government College of Engineering Erode	Smart Manufacturing	Dr.M.Mohammadha Hussaini	BRINDHASRI B, DANUJA A, KARISHMAA S
605	7311	Government College of Engineering Erode	Smart Manufacturing	Dr.A.Vetrivel	Kavin V, Sivakumar A, Vignesh D
606	7377	K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Smart Manufacturing	Mr.K.C.Mohanraj	PRASANTH M, RAFITH S, SRIMAN A
607	8120	M.A.M. COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Dr. S. Roseline	Gobi b, Muthukumar A, Narayanasamy, Sanjay s
608	8138	SARANATHAN COLLEGE OF ENGINEERING	Smart Manufacturing	Mr.Ramprasath.S	B.Santhosh Kuamr, M.Bharath Kumar, N.Mohamed Mansoor, Y.Michael Santhosh
609	8147	SRM TRP ENGINEERING COLLEGE	Smart Manufacturing	Dr.sudhakaran p	Devendran K, Ezhil Murugan U K, Nithishna S
610	8148	UNIVERSITY COLLEGE OF ENGINEERING, ARIYALUR	Smart Manufacturing	Dr.S.Senthil Kumar	NAVEENA V, SANTHIYA P, SOWMIYA B, SWARNA R
611	8204	ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE	Smart Manufacturing	Mr. V.Rajakani	Gowthaman G, Rohit Keerthan R, Saminathan S, Yogesh S U
613	8211	Kings College of Engineering	Smart Manufacturing	Dr. S. Sabanayagam	Jegan.K, Lalith kumar.E, Mahendran.M, Prakash.K
615	9120	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	Smart Manufacturing	S.Naga Kannika	ARAVINDHAN M, NAGENDRAN S, RAGUL S, SAKTHIBALAN K
616	9120	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	Smart Manufacturing	T.Ponvel Murugan	J.Manibharath, M. Nandhakumar, V. Pannee selvam, Veera Abimanyu.P
617	9128	Syed Ammal Engineering College	Smart Manufacturing	DHARMAPRABHAKARAN.T	Harisubramanian.B, Naveenkalish.N, Saranpriyan.N
618	9128	Syed Ammal Engineering College	Smart Manufacturing	Dr.S.Karthikeyan	DINESH S, KARTHICK R, SHEIK FARITH S
619	9130	University College of Engineering Ramanathapuram	Smart Manufacturing	Mr.R.Manikandan	Prabakaran S, Saiban Ali M, Sathiskumar S
620	9131	VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	B.Karthikeyan	Abimanyu C, Muthu Pandian C, Ram Prasath V K, Sridharshan K M D
621	9176	Alagappa Chettiar Government College of Engineering and Technology	Smart Manufacturing	Dr. S. Nageswari	MADHUMITHA S, RAIHANA S, VISHNUPRIYA S, VISHWESHWARI S
622	9176	Alagappa Chettiar Government College of Engineering and Technology	Smart Manufacturing	Dr. K. Baskaran	PRIYADHARSHINI R, SALOMIPRINCY A, SUHAANI P, THYLASHRI P
623	9177	Thiagarajar College of Engineering, Madurai	Smart Manufacturing	Mr SAR Sheik Masthan	Ananth S
624	9202	CHETTINAD COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	P.Nagarani Sobana	J.Vignesh, K.Harish, P.Loganathan
625	9204	Kamaraj College of Engineering and Technology	Smart Manufacturing	Dr. R. Muthuselvi	G.Aravind Narayanan, K.Ashok Kumar, S.Horrish Kumar
626	9222	Theni Kammavar Sangam College of Technology	Smart Manufacturing	Dr.M.RAJASHANTHI	M Ragul Prasath, M.K Charu Prakash, R Thirumalai Raj, S Mohamed Faisal
627	9508	Government College of Engineering	Smart Manufacturing	Dr.D.Jebakani	GUNALAKSHMI N S, JOSELIN SOPHIA RANI J, LAKSHMI SRI K, LAKSHMIGANTH K
628	9508	Government College of Engineering	Smart Manufacturing	P.E.Irin Dorothy	ALAGU VELAN G, ARIRAM S, GOWTHAM D, GURU PRAKASH G
629	9519	P.S.R. ENGINEERING COLLEGE	Smart Manufacturing	Ms.M.Vimala	Najmul Sahi N, siddharth s
630	9519	P.S.R. ENGINEERING COLLEGE	Smart Manufacturing	Dr.P.Sivasamy	Deepakkumar V, Gokul M, Kaviraj T
631	9520	P.S.R.R COLLEGE OF ENGINEERING	Smart Manufacturing	R. Bhuvaneeshwari	GeethaPriya S, Kiruthika S
632	9536	RAMCO INSTITUTE OF TECHNOLOGY	Smart Manufacturing	Mr. E. Thangam	Kalai Arun Balu R, Rajesh V, Rajkumar K
633	9614	MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Dr.M. Anish John Paul	Abishek Joel GM, Aron carter Rajesh Singh, Jacob sames, Raghul RS
634	9618	PONJESLY COLLEGE OF ENGINEERING	Smart Manufacturing	J. Freeda Rose	Beetrishya M, Jebisha M, Jenisha J, Merin Stephy E Hh
635	9623	AMRITA COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Babu B	Akash R, Amriteshwar K M, Easwar s, Nithish R
636	9623	AMRITA COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Sarika A S	Abiram R, Akshaya G V, Nanthini M R
637	9623	AMRITA COLLEGE OF ENGINEERING AND TECHNOLOGY	Smart Manufacturing	Mrs. P. Brindha	Aravind V S, Ram Padmeshwar B, Sakthi Shaalini N M, Sushma Sree K T
638	4	Madras Institute of Technology, Anna University	Smart Town/City	Dr.P Indumathi	Hari Kailash M M, Pranavam B, Sabareesh CG
639	1113	R.M.K.Engineering College	Smart Town/City	Dr.M.S.Kavitha	Rajeshwari P, Sai silvya M, Thirisha R V
640	1113	R.M.K.Engineering College	Smart Town/City	Dr. S. Radhika	Kiruthika R A, Lokshana Dharshini D V, M Vaishnavi, P M Anusha
641	1113	R.M.K.Engineering College	Smart Town/City	Ms.M. Rekha	Aashida S, Amirtha A, Elakkiya S, Ezhil Arasi S
642	1114	Prathyusha engineering college	Smart Town/City	Sripriya N	Pooja.M, Sakshi Kumari.P, Yuva Lakshmi.G
643	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Dr. M. Selvam	S.SHRINATH
644	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Balakrishnan R	Vengatesan M
645	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Mr.R.Jenin Prabhu	Derick Thaved Raj, Dinesh.R, Sanjay Kumaran.S
646	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Mrs. T.Kavitha	Balaji V, Eswaramoorthy S, Gowtham S
647	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Ms.K.Vidhyalakshmi	Asmaa Ayyub, Balasaranya .S
648	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Dr. S. Lakshmanan	Arun kumar B, Balaji V
649	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Dr. R. Ganapathy Srinivasan	E Prakash, MS Jeevadhharshan, Yuvaraja S
650	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Smart Town/City	Mrs. R. Harini	MOHAMED THOUFEEK MJ, SAKTHI SWETHA G, THANUSHRI S
651	1127	St.Peter's College of Engineering and Technology, Avadi, Chennai	Smart Town/City	N.Jagadish	Jamaludeen A, Manikandaprabhu R, Nishanth E



NAAN MUDHALVAN – ANNA UNIVERSITY – NIRAL THIRUVIZHA

TAMILNADU'S SKILLING INNOVATION CHALLENGE [HACKATHON]

DESIGNING A JOYSTICK OPERATOR TRICYCLE FOR PERSON AND DISABILITY

Major Area:

Develop personalized motorcycles and tricycles for people with disabilities involves designing inclusive and cost-effective transportation solutions tailored to their specific requirements and preferences (**Smart Manufacturing**).

Problem statement:

Designing a joystick operated tricycle for person with disability.

Total Cost:

Category	Estimated Cost
Tricycle	₹1,500
Electronics (Joystick, Control Unit, Display)	₹1,200
Battery Setup	₹4,250
Wirings	₹600
Mechanical components	₹900
Contingency	₹600
Miscellaneous Expenses	₹800
Total Estimated Budget	₹9,850

College Code & College Name:

College code : 8211

College Name : Kings College of Engineering, Pudukottai.

Guide Name, Designation & Mobile No:

Guide Name : Dr. S. Sabanayagam, M.E., Ph.D.

Designation : Assistant Professor

Mobile No : +91 9443228702

Student Team details:

SI. No	Student Reg. No.	Name of the Student	Branch	Mobile No.	Email Id
1.	821120114023	Jegan.K	MECH	9345343409	jegankrishnanj@gmail.com
2.	821120114318	Prakash.K	MECH	9025242761	gptprakash2003@ gmail.com
3.	821120114026	Lalith kumar.E	MECH	9025771941	lalithelangovan2003@gmail.com
4.	821120114317	Mahendran.M	MECH	8940706548	mahendranmahe050@gmail.com

Project Summary:

The objective is to provide an alternative steering solution that accommodates varying levels of mobility impairments, offering increased accessibility and independence for riders. The development of such a mechanism involves considerations related to ergonomics, safety, ease of use, and adaptability to different tricycle models. The incorporation of a joystick control mechanism aims to address the challenges faced by individuals with limited arm or hand mobility, allowing them to steer the tricycle effectively. The development of a joystick control mechanism for steering in disability tricycles represents a significant step towards enhancing mobility and independence for individuals with limited arm or hand mobility.

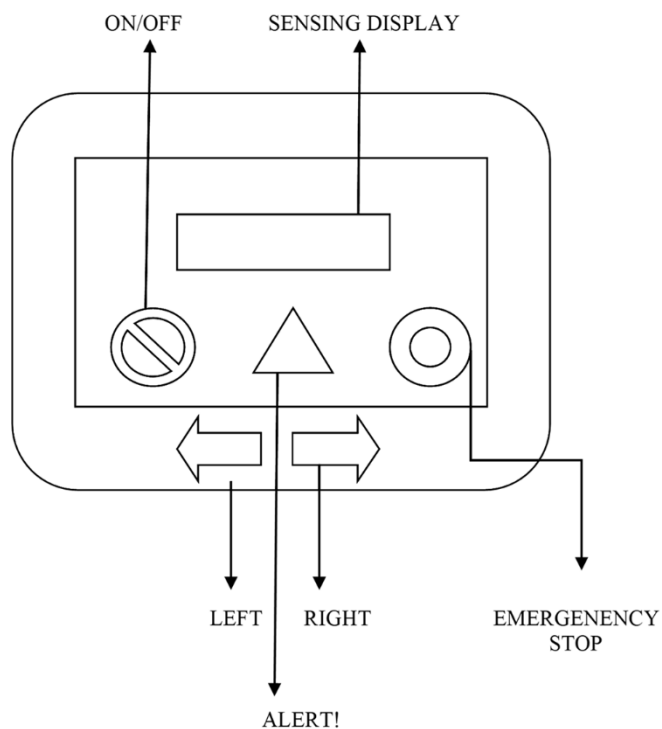
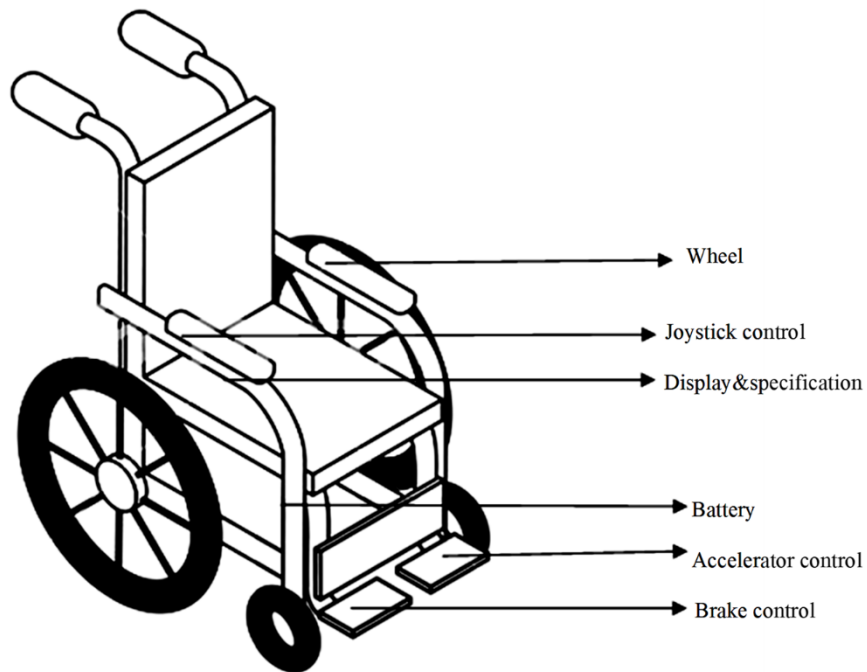
Proposed solution with methodology:

1. Tricycles are a popular mode of adaptive transportation for individuals with disabilities, offering stability and balance compared to traditional bicycles.

2. The incorporation of a joystick control mechanism aims to address the challenges faced by individuals with limited arm or hand mobility, allowing them to steer the tricycle effectively.
3. The design prioritizes ergonomic considerations, ensuring the joystick is easily accessible and comfortable for individuals with diverse mobility limitations.
4. The joystick control system is designed to be adaptable to different tricycle models, allowing for widespread use across various configurations and sizes. The joystick unit consists of a sensitive and responsive control interface, enabling precise steering with minimal effort.
5. The joystick control mechanism is seamlessly integrated into the tricycle frame, maintaining a low profile and minimizing visual and physical obstruction.
6. Implementing necessary modifications based on user feedback to optimize the joystick control mechanism.

Work plan:

- Needs Assessment
- Vehicle Design
- Development of Model
- Hardware Assembly
- Compatibility Testing
- Energy consumption Testing
- User Interface and Accessibility
- Documentation



Material Components

- Wheel
- Motor
- Battery
- Object sensor
- Display
- Accelerator control
- Brake control
- Seat belt

Figure 1 Fabrication Model

Expected outcomes/results

A joystick-operated tricycle for persons with disabilities is designed to provide enhanced mobility and independence for individuals facing challenges in using traditional controls such as pedals or steering wheels. The expected outcomes of such a device include: Increased Mobility, User-Friendly Interface, Improved Quality of Life, Customization Options, Positive Psychological Impact.

In conclusion, a joystick-operated tricycle for persons with disabilities aims to enhance mobility, promote independence, and improve the overall quality of life for individuals facing mobility challenges. Regular feedback and iterative improvements will be essential in ensuring the device meets the diverse needs of its users.

UNDERTAKING

1. The college will provide the basic infrastructure and other required facilities to the students for timely completion of their projects.
2. The college assumes to undertake the financial and other management responsibilities of the project.
3. The college will ensure that the funds provided are utilized only for the purpose provided and any remaining amount will be returned back to the University after the time of completion of the project.


02/02/24
Signature of the Mentor
(C. S. Sabanayagam)


02/2/2024
Signature and seal of the principal
PRINCIPAL
Kings College of Engineering.
PUNALKULAM - 613 303.



TAMILNADU SKILL DEVELOPMENT CORPORATION

Naan Mudhalvan Niral Thiruvizha

Declaration Form

1. Name of the College : Kings College of Engineering
2. College code : 8211
3. Theme : Smart Manufacturing
4. Problem statement : Designing a joystick operated tricycle for person with disability.
5. Faculty Guide Details : Dr. S. Sabanayagam,
Associate Professor/Mechanical Engineering,
Kings College of Engineering, Pudukottai.

Team Leader Name	Reg.No	Year	Department	Mobile No
1. Prakash. K	821120114318	IV Mech	Mechanical	9025242761
Team members				
1. Jegan. K	821120114023	IV Mech	Mechanical	9345343409
2. Lalith kumar. E	821120114026	IV Mech	Mechanical	9025771941
3. Mahendran. M	821120114317	IV Mech	Mechanical	8940706548

6. Detailed Work Plan from 12th March-2024 to 30th May-2024

S. No	Project Description	Start Date	End Date
1	Project Proposal	12.03.2024	16.03.2024
2	Project Review I	18.03.2024	
3	Fabrication	19.03.2024	10.04.2024
4	Project Review II	11.04.2024	12.04.2024

5	Project fabrication Analysis	13.04.2024	19.04.2024
6	Project Documentation	20.04.2024	30.04.2024
7	Project Review III	02.05.2024	03.05.2024

7. Details of Financial Assistance required.

Category	Estimated Cost
Tricycle	₹1,500
Electronics (Joystick, Control Unit, Display)	₹1,200
Battery Setup	₹4,250
Wirings	₹600
Mechanical components	₹900
Contingency	₹600
Miscellaneous Expenses	₹800
Total Estimated Budget	₹9,850

UNDERTAKING

1. The college will provide the basic infrastructure and other required facilities to the students for timely completion of their projects.
2. The college will undertake the financial and other management responsibilities of the project also; college will be responsible in following the time lines.
3. The college will ensure that the funds provided are utilized only for the purpose provided and any remaining amount will be returned back to the University after the time of completion of the project.
4. I hereby declare that the details furnished above are true and correct.

Signature of Faculty Guide



Signature of Principal

PRINCIPAL
Kings College of Engineering,
PUNALKULAM - 613 303



Accelerate Vigyan



THIS CERTIFICATE IS AWARDED TO

MR. JEGAN K

FOR SUCCESSFULLY PARTICIPATED IN

SERB Sponsored

High-End workshop (KARYASHALA)

on

Manufacturing of Moulds and Dies for Plastic Products using CAD/CAM/CAE

Duration (From: 18th March to 24th March, 2024)

Organized by

Central Institute of Petrochemicals Engineering & Technology CIPET)

Institute of Petrochemicals Engineering & Technology (IPT),

B-25, C.N.I. Complex, Patia, Bhubaneswar-751024

EVENT ORGANIZER
SIGNATURE WITH DATE

HEAD OF THE INSTITUTE
SIGNATURE WITH DATE


24/03/2024



KINGS
COLLEGE OF ENGINEERING
An Autonomous Institution

IEEE Madras Section
STB166621

Certificate of Appreciation

This is to certify that

K. Prakash , IV - Mech

has participated in Kings Project Expo'24 organized by Centre for Promotion of Research, Kings College of Engineering on 03.05.2024 and won

Track: Mechanical First / Second Prize

Project Title: Designing a joystick operated Tricycle for persons with disability

Dr.

Mr.D.Nandakumar
Mr.J.Niranjana Samuel
COORDINATORS

P.P.

Dr. P.P. Shantharaman
DRC CONVENER

J. Arputha

Dr. J. Arputha Vijaya Selvi
PRINCIPAL



KINGS
COLLEGE OF ENGINEERING
An Autonomous Institution

IEEE Madras Section
STB166621

Certificate of Appreciation

This is to certify that

E. Lalith Kumar, IV - Mech

has participated in Kings Project Expo'24 organized by Centre for Promotion of Research, Kings College of Engineering on 03.05.2024 and won

Track: Mechanical First / ~~Second~~ Prize

Project Title: Designing a joystick operated for Tricycle persons with disability

Dr.

Mr.D.Nandakumar

Mr.J.Niranjana Samuel
COORDINATORS

P.P.

Dr. PP. Shantharaman

DRC CONVENER

J. Arputha

Dr. J. Arputha Vijaya Selvi

PRINCIPAL



KINGS
COLLEGE OF ENGINEERING
An Autonomous Institution

IEEE Madras Section

STB166621

Certificate of Appreciation

This is to certify that

M. Mathendran, IV - Mech

has participated in Kings Project Expo'24 organized by Centre for Promotion of

Research, Kings College of Engineering on 03.05.2024 and won

Track: Mechanical First / Second Prize

Project Title: Designing a joystick operated Tricycle for persons with disability

Dr. J. Arputha Vijaya Selvi

Mr. D. Nandakumar

Mr. J. Niranjana Samuel

COORDINATORS

P.P. Shantharaman

Dr. P. P. Shantharaman

DRC CONVENER

J. Arputha Vijaya Selvi

Dr. J. Arputha Vijaya Selvi

PRINCIPAL



KINGS
COLLEGE OF ENGINEERING
An Autonomous Institution

IEEE Madras Section
570160021

Certificate of Appreciation

This is to certify that

K. Jegans, IV - Mech

has participated in Kings Project Expo'24 organized by Centre for Promotion of Research, Kings College of Engineering on 03.05.2024 and won

Track: Mechanical First / Second Prize

Project Title: Designing a joystick operated Tricycle for persons with disability

Dr. D. Nandakumar
Mr. D. Nandakumar

Mr. J. Niranjan Samuel
COORDINATORS

Dr. P. P. Shantharaman
Dr. P. P. Shantharaman

DRC CONVENER

Dr. J. Arputha Vijaya Selvi
Dr. J. Arputha Vijaya Selvi

PRINCIPAL

PRE-RECEIPT

Niral Thiruvizha ID: NMNT 756

College Name : 8211 - KINGS COLLEGE OF ENGINEERING

Project Title : DESIGNING A JOYSTICK OPERATED TRICYCLE FOR PERSON WITH DISABILITY

Faculty Guide : Dr. S. SARANAYAGAM

Name of the students:

Sl.No.	Reg. No.	Name	Branch	Mobile No.
1.	821120114-318	PRAKASH . K	IV MECH	9025242761
2.	821120114-023	JEGAN . K	IV MECH	9315343409
3.	821120114-026	LALITHKUMAR . E	IV MECH	9025771941
4.	821120114-317	MAHENDRAN . M	IV MECH	8940706548

Received a sum of Rs.10,000/- (Rupees Ten thousand Only) sanctioned by TNSDC under Niral Thiruvizha Scheme through Centre for Sponsored Research and Consultancy (CSRC), Anna University towards the financial assistance for the project details indicated above. Certified further the same will be transferred to the above student concerned.

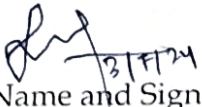
Account Holder Name : Dr. J. ARPUTHA VIJAYA SELVI

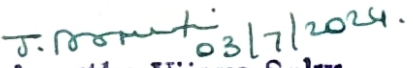
Account No. : 136402000000661

Bank Name & Branch : INDIAN OVERSEAS BANK, NORTH MAIN STREET, THANJAVUR

IFSC : IOBA0001364

Note: The bank account should be the official account of the college principal, rather than an individual account, enclose copy of cheque leaf for validation.


Name and Sign
of the Faculty Advisor
Dr. S. SARANAYAGAM


Dr. Namamuthu Vijaya Selvi,
of the Principal with Seal M. E., Ph.D
PRINCIPAL
Kings College of Engineering
Punalakulam- 613 303

Place: PUNALAKULAM

Date: 03-07-2024



Bill Passed for the amount of Rs. _____/- (Rupees _____)

AU - NM Co-ordinator

UTILISATION CERTIFICATE

Niral Thiruvizha ID: NMNT 756

College Name : 8211-KINGS COLLEGE OF ENGINEERING

Project Title : DESIGNING A JOYSTICK OPERATED TRICYCLE FOR PERSON WITH DISABILITY


Faculty Guide : DR. S. SARANAYAGAM

Name of the students:

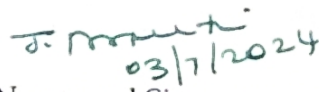
Sl.No.	Reg. No.	Name	Branch	Mobile No.
1.	821120114 - 318	PRAKASH. K	IV MECH	9025242761
2.	821120114 - 023	JEGAN. K	IV MECH	9345343409
3.	821120114 - 026	LALITHKUMAR. E	IV MECH	9025771941
4.	821120114 - 317	MAHENDRAN. M	IV MECH	8940706548

Certified that out of Rs.10,000/- (Rupees Ten thousand Only) sanctioned by TNSDC under Niral Thiruvizha Scheme through Centre for Sponsored Research and Consultancy (CSRC), Anna University towards the financial assistance for the project details indicated above, an amount of Rs. 11,020 /- (Rupees ELEVEN THOUSAND AND TWENTY only) was utilised for the purpose for which it was sanctioned, leaving a balance of Rs. - /- (Rupees - only).

Certified that I have satisfied myself that the conditions on which the grant-in-aid was sanctioned have been duly fulfilled and that I have exercised the necessary checks to see that the money was actually utilized for the purpose for which it was sanctioned.


Name and Sign
of the Faculty Advisor
DR. S. SARANAYAGAM


Name and Sign
of the Finance Officer /
Auditor / Accounts
Officer with seal


Name and Sign
of the Principal with seal
DR. J. Arputha Vijaya Selvi,
B.E., M.E., Ph.D
PRINCIPAL
Kings College of Engineering
Punalakulam- 613 303

Place: PUNALAKULAM
Date: 03-07-2024

MANAGER (Accounts)
KINGS COLLEGE OF ENGINEERING
PUNALAKULAM 613 303,
GANDARVAKOTTAI TALUK, PUDUKOTTAI DISTRICT,



BILL SUMMARY

Niral Thiruvizha ID: NMNT 756

College Name : B211-KINGS COLLEGE OF ENGINEERING

Project Title : DESIGNING A JOYSTICK OPERATED TRICYCLE FOR PERSON WITH DISABILITY

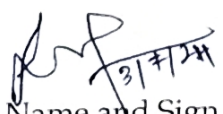
Faculty Guide : DR. S. SARANAYAGAM

Name of the students:

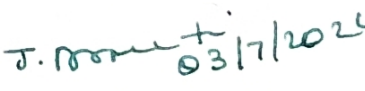
Sl.No.	Reg. No.	Name	Branch	Mobile No.
1.	821120114-318	PRAKASH.K	IY MECH	9025242761
2.	821120114-023	JEGAN.K	IY MECH	9345343409
3.	821120114-026	LALITHKUMAR.E	IY MECH	9025771941
4.	821120114-317	MAHENDRAN.M	IY MECH	8940706548

Sl.No.	Bill No.	Bill Date	Description	Amount
1.	HCF/0374	13.03.2024	WHEEL CHAIR	1350
2.	KG/12954	13.03.2024	JOYSTICK CONTROLLER	950
3.	LEPL/113	13.03.2024	BATTERY, DC MOTOR	4250
4.	LEPL/113	13.03.2024	WIRING SETUP WITH SWITCH	650
5.	DS/2-215	13.03.2024	SPROCKET(02), CHAIN DRIVE	1150
6.	LEPL/113	13.03.2024	DIGITAL DISPLAY WITH PRO GRAMMING	1820
7.	-	13.03.2024	MISCELLANEOUS (WHOLE PROJECT WORK)	850
TOTAL				11,020

(Rupees ELEVEN THOUSAND AND TWENTY Only)


Name and Sign
of the Faculty Advisor
DR. S. SARANAYAGAM


Name and Sign
of the Finance Officer /
Auditor / Accounts
Officer with seal


Dr. N. Arputha Vijaya Selvi,
of the Principal with seal
PRINCIPAL
Kings College of Engineering
Punalakulam - 613 303

Place: PUNALAKULAM
Date: 03.07.2024

MANAGER (Accounts)
KINGS COLLEGE OF ENGINEERING
PUNALAKULAM 613 303.
GANDARVAKOTTAI TALUK, PUDUKOTTAI DISTRICT.






Niral Thiruvizha 2024
Results



S.No	College Code	College Name	Theme Name	Faculty Guide	Team Member Name
1	4	Madras Institute of Technology, Anna University	Agritech & Food Technology	Dr. M R Sumalatha	Grish G, Kaillash Kumar S, Sandhiya M, Swetha Das R
2	1113	R.M.K.Engineering College	Agritech & Food Technology	Mr. C. M. Varun	Mukesh Nath G, Udhayakumar R
3	1113	R.M.K.Engineering College	Agritech & Food Technology	Mr.Y.Alexander Jeevanantham	Dinith N N, Ruthran S, Sri Rajesh J, Vignesh Kumar V
4	1113	R.M.K.Engineering College	Agritech & Food Technology	Dr. N.R Gladiss Merlin	G Rohit Sudarsen, Hare Ram C, K Sathvik
5	1113	R.M.K.Engineering College	Agritech & Food Technology	Dr. N.R Gladiss Merlin	Prasenna Vignesh V, Revanth JR, S Mithun Raaj
6	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Agritech & Food Technology	Mrs.S.Sangeetha	HariHaran.N, Karan.M, Mohana Aditayan.P
7	1118	Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College	Agritech & Food Technology	Dr. M. Selvam	Suganthan. P
8	1130	Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College (An Autonomous Institution)	Agritech & Food Technology	Dr.S.Rajamanickam	ABILASH B L, PRAVEEN A, SANTHOSH B, SHYLES B
9	1133	Velammal Institute of Technology	Agritech & Food Technology	A.PONSANGEETHA	Ajay Kumar K B, Lohith Shyam Sri S, Sathish Kumar M
10	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	A.TAMILSELVI	BIKKA THARUN KUMAR YADAV, RISHIKESAVAN P S
11	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	Senthilkumar A	A Ranjith kumar, S Nishanth
12	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	Harshanya M	Allwin p thomas, S.AAKASH
13	2105	Dmi college of Engineering	Agritech & Food Technology	Dr.D.R.Denslin Brabin	AMRUTHA MERIN SUNNY, HARSHINI N, JOSHNA N, VISHNU PRIYA
14	2106	Jeppiaar Institute of technology	Agritech & Food Technology	Mr.S.Saravanan	Hari Prasanth K, Rahul Rakesh J, Subhash M
15	2114	PANIMALAR ENGINEERING COLLEGE	Agritech & Food Technology	Dr.S.DEEPA	ANISHA G, JAHNAVI K, SUBHIKSHA K, YAMKA DELFIN A
16	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Dr.R.Shanthi	ESWARA SAI PRAKASH NUNI, EZHILBHARATH, NIVENDRA Y
17	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Dr.Nithiyanantham K K	Siddarth S
18	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	MRS. C. AMUTHA	DINESH M, SABARISH KUMAR L M, SNEKAVARSHINI S S, VINUDHA K
19	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	DR. T. SANTHANA KRISHNAN	AHAMED SHABITH, JOTHIKA SHREE G K, MADHUMITHA K, SELVA PREVIN R V
20	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Mrs. Maharsi M	Mrithula.K.R, Senthilnayaki.N, Snehaprabha.K
21	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Ms.M.Sandhiya	A.Tinisha, B.Visvesh, H.Vinisha, R.Tharunika
22	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Ms. M. Manju	Jeyavelan K S, Rissi Kumar P, Shivaraj S, Shivesh P R
23	2116	RAJALAKSHMI ENGINEERING COLLEGE	Agritech & Food Technology	Dr. Tamilselvi P	Abirami R, Adhavan T, Chetan Choudhary
24	2122	Saveetha Engineering college (Autonomous)	Agritech & Food Technology	Dr.Aswini J	Aishree Ramesh, S Sanjay, Vincent Isaac Jeyaraj J
25	3101	ANAND INSTITUTE OF HIGHER TECHNOLOGY	Agritech & Food Technology	A.S.BALAJI	Bandi Revathi, Delcy V, Kalepalli lavanya
26	3101	ANAND INSTITUTE OF HIGHER TECHNOLOGY	Agritech & Food Technology	S.DINAKAR JOSE	ABBURI LAKSHMI NARAYANA, BARATH, DAISAN N, DURAIRAJ M
27	3106	EASWARI ENGINEERING COLLEGE	Agritech & Food Technology	Mrs.D.Kavitha	Burhan Aijaz, Kishore Babu M S, Mohammad Irfan Sheikh
28	3106	EASWARI ENGINEERING COLLEGE	Agritech & Food Technology	Dr.J.Vijayaraj	Mugliesh E, Nitish Kumar P, Sanjay Karthik S
29	3110	KCG College of Technology	Agritech & Food Technology	Dr Thomas Leonid	Somesh kumar, Vigneshwaran, prem kumar
30	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Dr. S. Mary Virgil Nithya	Ashik Sharon M, John Mugeshe C, Vasanth M
31	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Mr. M. Martin Charles	Anand samuel, Anton Dominic Savio Vaz S, Cherub Timothy S, Lester Perez R
32	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Dr. A. Santhi Mary Antony	Manoj Prasath R S, Satish M S, Suthir T, Theodore B
33	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Dr. G. K. Sathish Kumar	Ahamed Rasheef H R, Akash Michael A, Levin Prince M, R Dhinesh
34	3111	LOYOLA ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	Mr. B. R. Sathish	Joe Sebastian L, Prasanna L, Praveen Samuel S, Vinith Raj A
35	3124	ST.JOSEPH'S INSTITUTE OF TECHNOLOGY	Agritech & Food Technology	Dr. D. Menaga	ROSHAN B T, VIKAAS S R
36	3128	Agni College of Technology	Agritech & Food Technology	Ms V.Nivi	Karuppaiya M, Tamilarasan . S, Visali .G
37	4117	PRINCE SHRI VENKATESHWARA PADMAVATHY ENGINEERING COLLEGE	Agritech & Food Technology	Dr.M.Preetha	Jaya Saradhy.P.S, Lingesw.S, RahulKumar.P
38	4124	Sri Sai Ram Institute of Technology	Agritech & Food Technology	Parthiban M	Harish J, Manobala V, SIVAKUMAR k, Saidhanush k
39	4124	Sri Sai Ram Institute of Technology	Agritech & Food Technology	M Subashini	Aiswarya V, Jayadurga M S, Sakthi Priya M, Sandeep R
40	4124	Sri Sai Ram Institute of Technology	Agritech & Food Technology	Dr.A. Rajasekar	MUTHUKUMAR G, NANDINI S R, SOUMIYA A, VASANTHAKUMAR S R
41	4125	Sri Sairam Engineering College	Agritech & Food Technology	Dr.SURESHKUMAR M	HARINISHA N, JESSICA SHARON W, PRIYADHARSHINI M, PRIYANKA MALAR G P
42	4125	Sri Sairam Engineering College	Agritech & Food Technology	Mrs.V.Valarmathi	ARUN SANTHOSH V, ARUNN T, DHANUSH PRABHU K, Srihari V
43	4207	C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Agritech & Food Technology	Mrs. G. Mahalakshmi	Dhiviyabala .G, Gayathri .M, Jayasri .A
44	4207	C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Agritech & Food Technology	Dr. R. Kanimozhi	Dhakshan.D, Dhanushraj. B, Sambath kumar.K
45	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mr.M.O.Ramkumar	BALAJI K, JAYASRI A R, KARAN R
46	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mrs.K.Kalaiselvi	Alex.M, Hari.K, Jaya Prakash Narayanan.A
47	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Dr.T.Ananth kumar	NIDYA THIRSHALA M, NIVETHA N, OVIYA A, SABIMOZHI M
48	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mrs.G.Leema Roselin	LOKESH E, MOHAMED INAMUL HUSSAIN N, NITHISH G, POORNACHANDRAN G
49	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Mr.C.Manimaran	P. MOHAN, S. NAVEEN RAJ, S. SRINEVASAN, S.DHARANIDHARAN
50	4211	IFET COLLEGE OF ENGINEERING	Agritech & Food Technology	Ms.K.Sheela	J.Nandhakumar, K.Mangaiyarkarasi, R.Pooja sree, S.Sivasankari
51	4212	KARPAGA VINAYAGA COLLEGE OF ENGINEERING AND TECHNOLOGY	Agritech & Food Technology	P.Geetha	G.Harini, S.Jayasri, V.Arivazhagan, V.Ravinapriya
52	4216	Mailam engineering college	Agritech & Food Technology	Dr. DHANASEKARAN K	DHANENDHIRAN R, MOHAMED ASHIQ M, MOHAMMED THARICK K, SUBBASH V
53	4216	Mailam engineering college	Agritech & Food Technology	GAJENDIRAN R	A.Deepa, D.Mahalakshmi, S.Aishwarya Lakshmi
54	4216	Mailam engineering college	Agritech & Food Technology	Mr.S.Vanakovarayan	Divyashree G, Hemavathi M, Jeeva P
55	4216	Mailam engineering college	Agritech & Food Technology	Dr.MOHANADEVI C	Dhanesh D, Mohamed Ibrahim R, Praveen Kumar M, Youvaraj J
56	4216	Mailam engineering college	Agritech & Food Technology	K.Sundaravinayagam	Nitin Vimal Guru M, Ranjith Kumar M, Sabarivasan K, Tamilselvan E
57	4216	Mailam engineering college	Agritech & Food Technology	Mr.S.Shanmuganathan	ARUN S, BALAMURUGAN A, EZHILARASAN P

256	7214	NEHRU INSTITUTE OF ENGINEERING AND TECHNOLOGY	Clean and Green Technology	Mohammedkasim M	James Gnanraj K, Kannan S J, Prashanth S
257	7277	Sri Krishna college of Engineering and Technology	Clean and Green Technology	Dr. R. Chandra Devi	A D Charuthy, K Hariram, R Srikanan, S Saikrupa
258	7277	Sri Krishna college of Engineering and Technology	Clean and Green Technology	Mr.S.Karthikeyan	Dhinesh Balaji S, Harish K, Kathirvel S
259	7277	Sri Krishna college of Engineering and Technology	Clean and Green Technology	Dr.K.Balasubramanian	A.Swetha, Sowmitha P, Vasudevan J, Yazhini S M
260	7309	EXCEL ENGINEERING COLLEGE	Clean and Green Technology	K.Vijay babu	ARJUN S, DHILIPKUMAR V, HARI KRISHNAN S
261	7311	Government College of Engineering Erode	Clean and Green Technology	Dr.K.Tamilselvan	BUVANESH M, PRABHU A, VIMAL M A
262	7311	Government College of Engineering Erode	Clean and Green Technology	Dr.G.M.Gowthama kumar	ADITYAPRIYAN G, NARESH KUMAR L, REBECCA JANE ANGELINA R
263	7322	NANDHA ENGINEERING COLLEGE	Clean and Green Technology	Dr. Senniangiri N	Gugan . A, Sabarish.D, Srikanth.G
264	7327	Sri shanmugha college of engineering and technology	Clean and Green Technology	Mr. K. Mohan	DEVENDIRAN S, KISHOR KANNAN A, MANORANJITH A, SUTHARSHAN G
265	7376	BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Clean and Green Technology	Dr MANOJ KUMAR P	AZHAGARVIJAY P S, KANAGATHARA R, ROHITH M R, SAHITHYA V
266	7377	K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Clean and Green Technology	Dr.J.Philip Robinson	Kaviyashree V, Lokeshwar P C, Sridhar R
267	8117	K.Ramakrishnan College of Technology	Clean and Green Technology	Mr.A.OORKALAN	G.BALAJI, M.MIRUDHULA, M.SUDHARSAN
268	8138	SARANATHAN COLLEGE OF ENGINEERING	Clean and Green Technology	Ms.Vaishali.P	A. Raghul, A.R. Kishor, R. Aishwarya, S. Srivarsan
269	8147	SRM TRB ENGINEERING COLLEGE	Clean and Green Technology	ANISWARYA KANNAN	A.T. JANANI, M.DEVABHATHY, M.Karishma, S. Jayasree
270	8211	Kings College of Engineering	Clean and Green Technology	Mr. S.R. Karthikeyan	SIVARANJANI.D, SOWMIYA.K, SOWMIYA.L, VIJJI
271	9115	MOHAMED SATHAK ENGINEERING COLLEGE	Clean and Green Technology	DR.T.HARIHARAN	Anbarasan R, Dinesh Kumar D, Kavin M
272	9116	MOTHER TERASA COLLEGE OF ENGINEERING AND TECHNOLOGY	Clean and Green Technology	P THIRUMURUGAN	BARATH ANTONY A, GOKULRAJA A, HARI KRISHNAN D, JAYACHANDER S
273	9117	MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY	Clean and Green Technology	Mr.S.Sundaravignesh	KANAGARAJ P, MUTHUPANDI M, RAMA MOORTHY K, VIGNESH M
274	9131	VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY	Clean and Green Technology	Dr P Karthikeyan	Bhavisya D, Vijaya Rajya Scindia R.B
275	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Mr.N.Rajakumar	IYYAPPAN P, SIVA A R, SUJITH M, VIJAYA RAGHAVAN R
276	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Ms. C. Sindhuja	Anusha K, Arthi M, Divya Barathi S, Lavanya S
277	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Dr.RM.Sakthi Sadhasivam	PRAVEEN M, SRIDHAR C, VASANTH S, VIKENESHWARAN M
278	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Dr.R.Sarala	ASHWIN R, Hariram P, Karuppiah U, Mogeshwar J
279	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Dr.S.M.Kavitha	P.K.Nuthana, R.Maharajothi, S.Kasthuri, V.Dinesh
280	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Dr. C. Karthika pragadeeswari	Gnana Barathi SP, Sharmika L, Sushmitha S, Thulasimani S
281	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Dr.P.Raveendiran	RAKESH SHARMA .A, VELMURUGAN .M, VETRISELVAN .S, VIGNESH .S
282	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Dr. S. Nageswari	ABINESH A, ANWAR T, BHARATHISELVAN V
283	9176	Alagappa Chettiar Government College of Engineering and Technology	Clean and Green Technology	Prof.R.Manigandan	GOKULNATH N, GOWTHAM S, SARANRAJ R, VIGNESHWARAN M
284	9204	Kamaraj College of Engineering and Technology	Clean and Green Technology	çDr. S.Karthikumar	Jasmine Kilda. L, Kamali. S, Vaishaali. A. M
285	9204	Kamaraj College of Engineering and Technology	Clean and Green Technology	çMrs.R.Amuthalakshmi	E. Varsha, M. Lamiya Banu, R.Rinisha, S.Thilsath meeral
286	9217	SETHU INSTITUTE OF TECHNOLOGY	Clean and Green Technology	Mr. M.JOTHI BASS	KARTHIKEYAN S, NAVEEN KUMAR N, THILOTHAMA M
287	9217	SETHU INSTITUTE OF TECHNOLOGY	Clean and Green Technology	Mr. R. Jayaprakash	Suresh Kumar G, Suryaprakash R, Veerapathiran S, Vishvanath S
288	9217	SETHU INSTITUTE OF TECHNOLOGY	Clean and Green Technology	Mr. S.A. Sethu Raaman	BALCHAMY S
289	9223	UNIVERSITY COLLEGE OF ENGINEERING, DINDIGUL	Clean and Green Technology	Dr.S.Aiswarya	B.SANTHOSH, B.SARAN, M.GANAPATHI RAM, M.MANOJ KUMAR
290	9500	ANNA UNIVERSITY REGIONAL CAMPUS, TIRUNELVELI	Clean and Green Technology	Dr. K. Usha Kingsly Devi	Angel L, Blessy J, Deepashree K, Mary Princy T
291	9500	ANNA UNIVERSITY REGIONAL CAMPUS, TIRUNELVELI	Clean and Green Technology	Dr. K. Usha Kingsly Devi	EASAKKI RAJAN K, MATHUMITHA I, PAVADHARAN I M K, SRUTHI R
292	9508	Government College of Engineering	Clean and Green Technology	Prof.M.Balasubramanian	Dhanush Karun R, Dhinesh Kumar M, Mohamed Fazil S, Vignesh K
293	9517	Mepco Schlenk Engineering College, Sivakasi	Clean and Green Technology	Dr.L.Prakash	DHARUN KUMAR G, HARIHARAN B
294	9519	P.S.R. ENGINEERING COLLEGE	Clean and Green Technology	Dr.K.Valarmathi	Balaji Sankaran R, Boobala Ashok B
295	9519	P.S.R. ENGINEERING COLLEGE	Clean and Green Technology	Ms.K.Ramalakshmi	Sutharsana Prasanna N
296	9519	P.S.R. ENGINEERING COLLEGE	Clean and Green Technology	Mrs.K.Shalini	K. Maheshselvi, K. Sakthiyi, P. Hemalatha
297	9519	P.S.R. ENGINEERING COLLEGE	Clean and Green Technology	Dr.Vinoth Rathinam	C.Anantha eswaran, E.merlin abraham
298	9519	P.S.R. ENGINEERING COLLEGE	Clean and Green Technology	Ms.S.Karthika	B. Hariharan, C. Muneeswaran, M. Aathithiyar, R. Mohamed Yasin
299	9601	ANNAI VAILANKANNI COLLEGE OF ENGINEERING, KANYAKUMARI	Clean and Green Technology	Ms.ANITHA SAHAYA MERCY	A.Arun, C.Sree vidhya, R.Rabinesh
300	9601	ANNAI VAILANKANNI COLLEGE OF ENGINEERING, KANYAKUMARI	Clean and Green Technology	Mr.N.Manikandan	SIVANESH MSIVANESH M, SOOSAI SHAM, Salan vinish .s, Soundhar Rajan k
301	9622	St.Xavier's Catholic College of Engineering	Clean and Green Technology	Ajith J. Kings	Malvin Reno A, Nithesh A, Riwan Mejo C, Shajan R
302	9623	AMRITA COLLEGE OF ENGINEERING AND TECHNOLOGY	Clean and Green Technology	Srinivasan P	Gohin G P, Gopika R K, Sreedharsan R, Thanayasri P S
303	9628	UNIVERSITY COLLEGE OF ENGINEERING, NAGERCOIL	Clean and Green Technology	Dr.C.Mythili	A R SUSHMA, CHADWICK J, K K ROHAN, SARAVANAN C
304	9633	ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY	Clean and Green Technology	B.EASVARA THAYA BALAN	E.G.Raja Lekshmi, R.Princy, T.Ponrejitha, T.Shamini
305	9635	STELLA MARY'S COLLEGE OF ENGINEERING	Clean and Green Technology	Mrs. N. Agnes Flora	J. Jaisil, J. Jeya Pratheeksha, M. Mohamed Shake Bareeth, S. J. Varshath
306	4	Madras Institute of Technology, Anna University	Education 4.0	Dr.P.Jayashree	Hamilton Samic S, Sundarajan Balaji, Suriyaa V
307	1114	Prathyusha engineering college	Education 4.0	W, Thamba Meshach	Deepak R, Divakar Rao N, Soorya Christic M
308	1114	Prathyusha engineering college	Education 4.0	R.THAGARAJAN	Kancharla Charan, Lokeshwaran D, Premkumar V N, Sivakumar G
309	1114	Prathyusha engineering college	Education 4.0	Premalatha G	K.Venkataramanamma, R.Pranathi, R.Swetha
310	1132	Velammal Engineering College	Education 4.0	Dr.B.Murugeshwari	Mounish P.S, Shahid Farhan W.S, Thirumalai N
311	2102	APOLLO ENGINEERING COLLEGE	Education 4.0	R. SUDHA	ANAND E, ASKAR ALI E, LAKSHMI NARAYANAN S, LINGAN A
312	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Education 4.0	Adithya Anil	P.Sai Ganesh
313	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Education 4.0	Aswathi.K.P	Aswath Gopal P, Aswin M, Harish M
314	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Education 4.0	M Sindhu	Rikeshkumar K, Rohithkumar R
315	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Education 4.0	Ms T.C. Sabareeswari	Sai Rakesh K, Thanaj Cheziyan T, Tharun V.S
316	2104	CHENNAI INSTITUTE OF TECHNOLOGY	Education 4.0	Ms T.C. Sabareeswari	Adithya N, Mathesh A
317	2106	Jeppiaar Institute of technology	Education 4.0	Mr.A. Satheesh	HEMAVARSHNI P, KIRUTHIKAA V, NISHANTHINI H, SAHITHYA A
318	2114	PANIMALAR ENGINEERING COLLEGE	Education 4.0	Dr.S.DEEPA	KIRAN.S, PRASANNA,V, PRAVEEN RAJ.M.P, RAKESH.V
319	2116	RAJALAKSHMI ENGINEERING COLLEGE	Education 4.0	Dr. M. Sridevi	Farhan Subi, Jagan Balaji T, Logeshwaran V
320	2116	RAJALAKSHMI ENGINEERING COLLEGE	Education 4.0	Dr. Shanmugapriya P	Sankaranarayanan G, Sashank S, Subhash G M, Valli T
321	2116	RAJALAKSHMI ENGINEERING COLLEGE	Education 4.0	Dr.Selvakumar V S	Hari Krishnan K B, Karthikaa K, Keerthikumar J, Madhesh M



NAAN MUDHALVAN-ANNA UNIVERSITY- NIRAL THIRUVIZHA
TAMIL NADU'S SKILLING INNOVATION CHALLENGE[HACKATHON]

**Smart Poultry Guard: Innovating Sustainable Poultry Farming
through Advanced Gas Emission Detection and Monitoring for
Improved Environmental Management**

Major Area :

The major area involved in creating an automatic sensor model to address ammonia/H₂S gas emissions from bird litter in the poultry sector is environmental monitoring and control. This field focuses on developing systems and technologies to monitor and manage various environmental parameters, including gas emissions, in order to ensure a safe and sustainable environment.

Problem Statement:

The goal is to create an automatic sensor model that can assess gas emissions and trigger alerts when the gas concentration exceeds safe limits.

Total Cost: 20,000

College Code & College Name:

College Code : 8211

College Name: Kings College of Engineering

Guide Name, Designation & Mobile No:

Guide Name : Mr.S.R.Karthikeyan

Designation : Assistant Professor

Mobile No : 9790469427

E-Mail : karthikeyan.eee@kingsengg.edu.in

Student Team Details :

Sl. No	Student Reg. No.	Name of the Student	Branch	Mobile No.	Email Id
1.	821120105026	SIVARANJANI.D	EEE	6382394531	dshivaranjani4@gmail.com
2.	821120105028	SOWMIYA.K	EEE	8072997927	ssaranam362kk@gmail.com
3.	821120105029	SOWMIYA.L	EEE	8220094107	sowmiyalingan05@gmail.com
4.	821120105032	VIJLJ	EEE	6383316031	Sankarviji726@gmail.com

Project Summary:

To create an automatic sensor model for addressing ammonia/H₂S gas emissions from bird litter in the poultry sector, you would need to research and select appropriate gas sensors, design a sensor network, develop a data acquisition system, set threshold limits for gas concentrations, implement an alert system, integrate with management measures, test and calibrate the model, and monitor and maintain its performance. This model aims to assess gas emissions, trigger alerts when limits are exceeded, and prompt necessary measures for effective management of odor and fly issues in poultry farms.

Proposed Solution with Methodology:

- 1. Research and select appropriate gas sensors:** Identify gas sensors that are capable of detecting ammonia (NH₃) and hydrogen sulfide (H₂S) gases. Consider factors such as sensitivity, accuracy, and compatibility with the poultry farm environment.
- 2. Design the sensor network:** Determine the optimal locations for placing the gas sensors within the poultry farm to ensure comprehensive coverage. Consider factors such as the size of the farm, ventilation systems, and potential gas emission sources.
- 3. Develop a data acquisition system:** Create a system that can collect data from the gas sensors in real-time. This system should be able to process and analyze the data effectively.

4. Set threshold limits: Define threshold limits for ammonia and hydrogen sulfide gas concentrations that are considered safe within the poultry farm. These limits should be based on relevant regulations and guidelines.

5. Implement an alert system: Configure the sensor model to trigger alerts when the gas concentrations exceed the defined threshold limits. These alerts can be in the form of notifications sent to farm managers or integrated with existing farm management systems.

6. Integrate with management measures: Ensure that the automatic sensor model is connected to a system that can prompt necessary measures for effective management. This may include activating ventilation systems, adjusting litter management practices, or implementing other odor and fly control strategies.

7. Test and calibrate: Conduct thorough testing and calibration of the sensor model to ensure its accuracy and reliability. This may involve comparing sensor readings with reference measurements or conducting controlled experiments.

8. Monitor and maintain: Regularly monitor the performance of the sensor model and conduct maintenance activities as needed. This includes checking sensor functionality, replacing sensors if necessary, and updating software or firmware.

Workplan:

Week	Task
Feb 1-7	Pre-existing Solutions
Feb 8-14	Rapid Prototyping
Feb 15-21	Off-the-Shelf Components
Feb 22-28	Simple Alert System
Mar 1-7	Basic User Interface
Mar 8-14	Limited Connectivity
Mar 15-21	Development for detecting on Ammonia/H ₂ S
Mar 22-28	Basic Power Setup
Mar 29-31	Testing and Iteration

Plan of action:

Week 1: Research and identify suitable gas sensors for detecting ammonia and hydrogen sulfide gases in poultry farms.

Week 2: Consider factors such as farm size, ventilation systems, and potential gas emission sources when determining sensor placement.

Week 3: Set up a data acquisition system to collect and process real-time data from the gas sensors.

Week 4: Define threshold limits for ammonia and hydrogen sulfide gas concentrations based on relevant regulations and guidelines.

Week 5: Document the entire process, including sensor installation, data acquisition setup, and alert system configuration.

List of Facilities available in the college to develop the prototype of the Project:

Power Electronics ,Simulation Software and Testing Equipments.

Nature of Industry Support for the project

Greens of Technology

Details of Financial assistance required:

Category	Description	Estimated Cost (Rs.)
Data Collection Infrastructure	Basic sensors or low-cost data collection devices.	2,500
Model Development	Machine Learning using pre-existing models or frameworks.	7,500
Connectivity and Cloud Services	Wi-Fi or IOT connectivity and Data Storage	2,500
Documentation Development	Documentation and manuals	3000
Testing and Prototyping	Testing components and prototypes	3000
Miscellaneous	Cables and Connectors	1500
Total Estimated Budget	Estimated Budget	20,000

Expected results:

1. **Efficient Gas Emission Detection:** Successful development and implementation of a sensor model capable of accurately detecting ammonia and H2S gas emissions from bird litter in poultry farms
2. **Real-time Monitoring System:** Establishment of a real-time monitoring system that continuously assesses gas levels, providing immediate feedback on environmental conditions within poultry facilities.
3. **Alert System Implementation:** Integration of an alert system that triggers notifications when gas emissions exceed predefined limits, enabling timely intervention and mitigation measures.
4. **Reduced Odor and Fly Issues:** Mitigation of odor and fly issues associated with ammonia and H2S emissions, contributing to a more hygienic and pleasant environment for both poultry and farm workers.
5. **Improved Environmental Compliance:** Enhanced adherence to environmental regulations and standards related to gas emissions in the poultry sector, promoting sustainable and responsible farming practices.
6. **Positive Environmental Impact:** Overall reduction in the environmental impact of poultry farming through the efficient management of hazardous gas emissions, contributing to a more sustainable agricultural sector
7. **Industry Adoption:** Encouragement of industry-wide adoption of the SmartPoultryGuard system, establishing it as a standard for addressing gas emissions in poultry facilities.

UNDERTAKING

1. The college will provide the basic infrastructure and other required facilities to the students for timely completion of their projects.
2. The college assumes to undertake the financial and other management responsibilities of the project.
3. The college will ensure that the funds provided are utilized only for the purpose provided and any remaining amount will be returned back to the University after the time of completion of the project.

S. S. Sathish 31/01/24
Signature of the Mentor

J. M. M. M. M.
31/1/2024.
Signature and seal of the Principal

PRINCIPAL

**Kings College of Engineering
PUNALKULAM - 613 303.**



TAMILNADU SKILL DEVELOPMENT CORPORATION

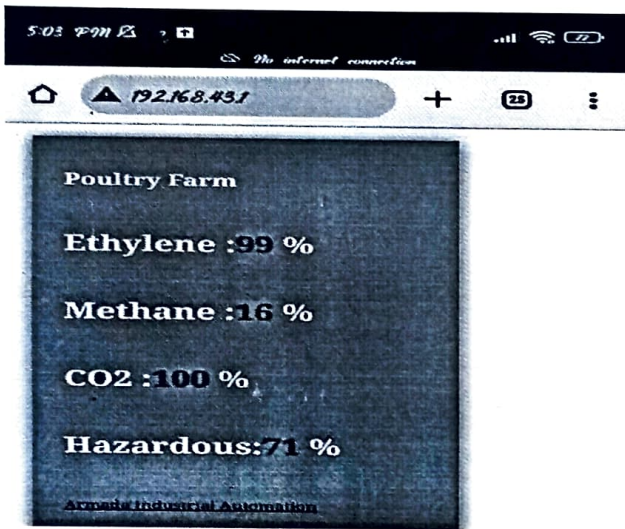
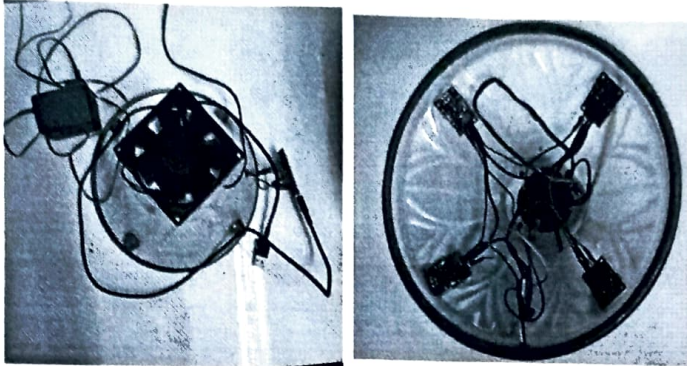
Naan Mudhalvan Niral Thiruvizha

Declaration Form

- 1. Name of the College** : KINGS COLLEGE OF ENGINEERING
- 2. College Code** : 8211
- 3. Theme:** Clean & Green Technology
- 4. Problem Statement:** How can we create an Automatic sensor model to address ammonia / H₂S gas emission from bird litter in the poultry sector, managing odour and fly issues? The goal is to assess gas emissions and trigger alerts when limits are exceeded, prompting necessary measures for effective management.
- 5. Faculty Guide Details:** S.R.Karthikeyan,
Assistant Professor / EEE
Mobile No. 9790469427
E-Mail ID: karthikeyan.eee@kingsengg.edu.in

TeamLeaderName	Reg.No	Year	Department	MobileNo
1. L.Sowmiya	821120105029	IV	EEE	8220094107
Teammembers				
1. D.Sivaranjani	821120105026	IV	EEE	6382394531
2. K.Sowmiya	821120105028	IV	EEE	8072997927
3. J.Viji	821120105032	IV	EEE	9787041359

6. Attach photos of the prototype/App/Software:



7. Attach photos of the 2nd review being conducted:



UNDERTAKING

1. The college will provide the basic infrastructure and other required facilities to the students for timely completion of their projects.
2. The college will undertake the financial and other management responsibilities of the project also; college will be responsible in following the time lines.
3. The college will ensure that the funds provided are utilized only for the purpose provided and any remaining amount will be returned back to the University after the time of completion of the project.
4. I hereby declare that the details furnished above are true and correct.

S.R. Karthikeyan 26/04/24

Signature of Faculty Guide

S.R. KARTHIKEYAN

AP/EEE - Kings College of Engg

821125 - AU code

J. Mani 26/4/2024

Signature of Principal

PRINCIPAL

Kings College of Engineering,
PUNALKULAM - 613 303





Niral Thiruvizha 2024 - Evaluation Schedule

S.No	Zone	NMNT Team ID	Team Lead - Student Name	Team Lead - Register Number	VENUE	DATE	FN/AN	Team Lead - Department	Faculty Guide Name	College Code & College Name
1	Chennai - 1	NMNT001	EMMANUEL F	110820104007	Anna University, CEG Campus, Guindy	26-06-2024	FN	Computer Science and Engineering	Mr J Lin Eby Chandra	1108-JAYA ENGINEERING COLLEGE
2	Chennai - 1	NMNT002	Nanda kumar JP	113120UG7303	Anna University, CEG Campus, Guindy	26-06-2024	FN	Information Technology	Mr.S.Johnpaul	1118-Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College
3	Chennai - 1	NMNT003	G.Yogeshwaran	210220104032	Anna University, CEG Campus, Guindy	26-06-2024	FN	CSE	R. SUDHA	2102-APOLLO ENGINEERING COLLEGE
4	Chennai - 1	NMNT004	Swathisri R	210420205062	Anna University, CEG Campus, Guindy	26-06-2024	FN	Information Technology	T N Charanya	2104-CHENNAI INSTITUTE OF TECHNOLOGY
5	Chennai - 1	NMNT005	SHAKTHI A P	200701230	Anna University, CEG Campus, Guindy	26-06-2024	AN	CSE	Dr.M.Rakeshkumar	2116-RAJALAKSHMI ENGINEERING COLLEGE
6	Chennai - 1	NMNT006	Yashwant D B	200701299	Anna University, CEG Campus, Guindy	26-06-2024	AN	Computer Science and Engineering	Dr.T.Kumaragurubaran	2116-RAJALAKSHMI ENGINEERING COLLEGE
7	Chennai - 1	NMNT007	Sushil Mane M	200701268	Anna University, CEG Campus, Guindy	26-06-2024	AN	Computer Science and Engineering	Dr.T.Kumaragurubaran	2116-RAJALAKSHMI ENGINEERING COLLEGE
8	Chennai - 1	NMNT008	Ananyaa Sanjeev	310620205006	Anna University, CEG Campus, Guindy	26-06-2024	AN	Information Technology	Dr. K. Johny Elma	3106-EASWARI ENGINEERING COLLEGE
9	Chennai - 1	NMNT009	Thaswin Meshak A	311120205058	Anna University, CEG Campus, Guindy	26-06-2024	AN	Information Technology	Dr. R. Juliana	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
10	Chennai - 1	NMNT010	Danush Athithya R.K.	311120104015	Anna University, CEG Campus, Guindy	26-06-2024	AN	Computer Science and Engineering	Dr V J Sharmila	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
11	Chennai - 1	NMNT011	Gayathri N	312320104041	Anna University, CEG Campus, Guindy	26-06-2024	FN	Computer Science and Engineering	S NIRESH KUMAR	3123-ST.JOSEPH'S COLLEGE OF ENGINEERING
12	Chennai - 1	NMNT012	NaveenKumar V	200801138	Anna University, MIT Campus, Chrompet	26-06-2024	AN	ECE	Dr.R.Gayathri	2116-RAJALAKSHMI ENGINEERING COLLEGE
13	Chennai - 1	NMNT013	H S Dhanush	212220020014	Anna University, MIT Campus, Chrompet	26-06-2024	AN	Biomedical Engineering	Dr.Vinuraj Kumar S	2122-Saveetha Engineering college (Autonomous)
14	Chennai - 1	NMNT014	Aadesh Vijayaraghavan	2127200502001	Anna University, MIT Campus, Chrompet	26-06-2024	AN	CSE[IV B.Tech AD]	Dr R Jayabhaduri	2127-SRI VENKATESWARA COLLEGE OF ENGINEERING
15	Chennai - 1	NMNT015	M.Thirumalai Raj	310620106138	Anna University, MIT Campus, Chrompet	26-06-2024	AN	ECE	Mrs . S. Uma Maheswari	3106-EASWARI ENGINEERING COLLEGE
16	Chennai - 1	NMNT016	Keerthi U	412420243016	Anna University, MIT Campus, Chrompet	26-06-2024	AN	AI&DS	Dr. Su. suganthi	4124-Sri Sai Ram Institute of Technology
17	Chennai - 1	NMNT017	S.Sundarraaj	113120UG07096	Anna University, CEG Campus, Guindy	27-06-2024	FN	Information Technology	Dr.M.Rajesh Khanna	1118-Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College
18	Chennai - 1	NMNT018	S Daniel joseph	113120ug01009	Anna University, CEG Campus, Guindy	27-06-2024	FN	BME	Dr.N.Bharathiraja	1118-Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College
19	Chennai - 1	NMNT019	Daniel Joseph S	113120UG01009	Anna University, CEG Campus, Guindy	27-06-2024	FN	BME	Dr.N.Bharathiraja	1118-Veltech Multitech Dr. Rangarajan Dr. Sakunthala Engineering College
20	Chennai - 1	NMNT020	Mehjabeen Tabasum.M	113320106026	Anna University, CEG Campus, Guindy	27-06-2024	FN	ECE	Dr.K.MENAKA	1133-Velammal Institute of Technology
21	Chennai - 1	NMNT021	Gobiharun T	113320205012	Anna University, CEG Campus, Guindy	27-06-2024	FN	Information Technology	DURGA DEVI.G	1133-Velammal Institute of Technology
22	Chennai - 1	NMNT022	POORVIKA R	212020121016	Anna University, CEG Campus, Guindy	27-06-2024	FN	Biomedical engineering	N.Malligeswari	2120-SKR Engineering College
23	Chennai - 1	NMNT023	SANTHOSH MANIKANDAN M	310620205086	Anna University, CEG Campus, Guindy	27-06-2024	FN	IT	Mrs. Anusha S	3106-EASWARI ENGINEERING COLLEGE
24	Chennai - 1	NMNT024	Sharon Flora P	310620121044	Anna University, CEG Campus, Guindy	27-06-2024	FN	Biomedical Engineering	Dr.G.Babu	3106-EASWARI ENGINEERING COLLEGE
25	Chennai - 1	NMNT025	Harini.S	113220041047	Anna University, CEG Campus, Guindy	26-06-2024	FN	ECE	Mrs.Kavitha	1132-Velammal Engineering College
26	Chennai - 1	NMNT026	Harshithan K S	311020205027	Anna University, CEG Campus, Guindy	26-06-2024	FN	Information Technology	Ms KRITHIKAA VENKET V	3110-KCG College of Technology
27	Chennai - 1	NMNT027	Triesha Kenneth	311120104060	Anna University, CEG Campus, Guindy	26-06-2024	AN	Computer Science and Engineering	Prof. S Nirmala	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
28	Chennai - 1	NMNT028	Alfred Jerome G	311120105002	Anna University, CEG Campus, Guindy	26-06-2024	AN	EEE	Mr. A. Infantraj	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
29	Chennai - 1	NMNT029	Vijay K	311120205060	Anna University, CEG Campus, Guindy	26-06-2024	AN	IT	Ms. E. Anitha	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
30	Chennai - 1	NMNT030	Gautham S	311120104017	Anna University, CEG Campus, Guindy	26-06-2024	AN	Computer Science and Engineering	Ms J Christina	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
31	Chennai - 1	NMNT031	RAJESHWARI P	111720104124	Anna University, CEG Campus, Guindy	26-06-2024	FN	DEPARTMENT OF ECE	Dr.M.S.Kavitha	1113-R.M.K.Engineering College
32	Chennai - 1	NMNT032	Varsha V	113221072057	Anna University, CEG Campus, Guindy	26-06-2024	FN	Aritifical Intelligence and Data Science	Mrs.A.Prema	1132-Velammal Engineering College
33	Chennai - 1	NMNT033	Thiyaneashwar K	210420244057	Anna University, CEG Campus, Guindy	26-06-2024	FN	Computer science and Business Systems	Dr.N.Kirubakaran	2104-CHENNAI INSTITUTE OF TECHNOLOGY
34	Chennai - 1	NMNT034	Siva Harish M	312320105121	Anna University, CEG Campus, Guindy	26-06-2024	FN	EEE	JAYARAMA PRADEEP	3123-ST.JOSEPH'S COLLEGE OF ENGINEERING
35	Chennai - 1	NMNT035	R Sivakumar	412520112025	Anna University, CEG Campus, Guindy	26-06-2024	AN	ICE	Mrs.Uma Maheswari.B	4125-Sri Sairam Engineering College
36	Chennai - 1	NMNT036	MUKESHWARAN A	412520105040	Anna University, CEG Campus, Guindy	26-06-2024	AN	EEE	Dr.A.Sanjeevi Gandhi	4125-Sri Sairam Engineering College
37	Chennai - 1	NMNT037	Soundharya R	211120106004	Anna University, MIT Campus, Chrompet	26-06-2024	AN	ECE	Joy Merline C G	2111-MADHA ENGINEERING COLLEGE
38	Chennai - 1	NMNT038	Harshavarthini G	2116200301025	Anna University, MIT Campus, Chrompet	26-06-2024	AN	Biomedical Engineering	Dr.N.Padmasini	2116-RAJALAKSHMI ENGINEERING COLLEGE
39	Chennai - 1	NMNT039	SAM ABHISHEK A C	412520104129	Anna University, MIT Campus, Chrompet	26-06-2024	AN	CSE	Mrs.HEMAVATHI.S	4125-Sri Sairam Engineering College

334	Tirunelveli	NMNT334	E.G.Rajalakshmi	963320103074	Government College of Engineering, Tirunelveli	25-06-2024	FN	Civil engineering	B.EASVARA THAYA BALAN	9633-ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
335	Tirunelveli	NMNT335	Vignesh K	950820105049	Government College of Engineering, Tirunelveli	25-06-2024	AN	EEE	Prof.M.Balasubramanian	9508-Government College of Engineering
336	Tirunelveli	NMNT336	Emi Kinciya C	961520104008	Government College of Engineering, Tirunelveli	25-06-2024	FN	CSE	BIJU A	9615-MARIA COLLEGE OF ENGINEERING AND TECHNOLOGY
337	Tirunelveli	NMNT337	Jino.N	961820104054	Government College of Engineering, Tirunelveli	26-06-2024	AN	Computer science and Engineering	Manchu M	9618-PONJESLY COLLEGE OF ENGINEERING
338	Tirunelveli	NMNT338	M.Maria Sneka	960620104014	Government College of Engineering, Tirunelveli	26-06-2024	AN	CSE	S Reny	9606-DMI ENGINEERING COLLEGE
339	Tirunelveli	NMNT339	R.Nithyajothi	961820104068	Government College of Engineering, Tirunelveli	26-06-2024	AN	Computer Science and Engineering	Raja Sugirtha	9618-PONJESLY COLLEGE OF ENGINEERING
340	Tirunelveli	NMNT340	Malvin Reno A	962220114321	Government College of Engineering, Tirunelveli	25-06-2024	FN	Mechanical Engineering	Ajith J. Kings	9622-St.Xavier's Catholic College of Engineering
341	Tirunelveli	NMNT341	SUSHMA A R	962820105039	Government College of Engineering, Tirunelveli	25-06-2024	FN	ELECTRICAL AND ELECTRONICS ENGINEERING	Dr.C.Mythili	9628-UNIVERSITY COLLEGE OF ENGINEERING, NAGERCOIL
342	Tirunelveli	NMNT342	Ms. Nanthini M R	962320106031	Government College of Engineering, Tirunelveli	26-06-2024	AN	Electronics and Communication Engineering	Sarika A S	9623-AMRITA COLLEGE OF ENGINEERING AND TECHNOLOGY
343	Tirunelveli	NMNT343	P. Nithish	962220104086	Government College of Engineering, Tirunelveli	26-06-2024	AN	Computer Science and Engineering	Barona R	9622-St.Xavier's Catholic College of Engineering
344	Tirunelveli	NMNT344	Jeya Pratheksha J	963520103009	Government College of Engineering, Tirunelveli	25-06-2024	FN	CIVIL ENGINEERING	Mrs. N. Agnes Flora	9635-STELLA MARY'S COLLEGE OF ENGINEERING
345	Tirunelveli	NMNT345	S M Anto Ashwin	960620114002	Government College of Engineering, Tirunelveli	25-06-2024	FN	Mechanical Engineering	J.Jesumenon	9606-DMI ENGINEERING COLLEGE
346	Tirunelveli	NMNT346	Leena Gifty S	950820106039	Government College of Engineering, Tirunelveli	26-06-2024	AN	Electronics and Communication Engineering	Dr E.Sivaraman	9508-Government College of Engineering
347	Tirunelveli	NMNT347	Sruthi R	950020106044	Government College of Engineering, Tirunelveli	25-06-2024	AN	ECE	Dr. K. Usha Kingsly Devi	9500-ANNA UNIVERSITY REGIONAL CAMPUS, TIRUNELVELI
348	Tirunelveli	NMNT348	Angel L	950020106003	Government College of Engineering, Tirunelveli	25-06-2024	AN	ECE	Dr. K. Usha Kingsly Devi	9500-ANNA UNIVERSITY REGIONAL CAMPUS, TIRUNELVELI
349	Tirunelveli	NMNT349	SUTHARSAN P	950620114017	Government College of Engineering, Tirunelveli	26-06-2024	AN	Mechanical Engineering	VENKATESH A	9506-EINSTEIN COLLEGE OF ENGINEERING
350	Tirunelveli	NMNT350	Syed Mohamed Sahir	950820114093	Government College of Engineering, Tirunelveli	25-06-2024	AN	Mechanical	Dr.V.Asha Melba	9508-Government College of Engineering
351	Tirunelveli	NMNT351	Salomonkumar C	952820104056	Government College of Engineering, Tirunelveli	26-06-2024	AN	CSE	Mrs.Margret	9528-SCAD College of Engineering and Technology
352	Tirunelveli	NMNT352	Shivani S	95072014091	Government College of Engineering, Tirunelveli	25-06-2024	AN	ECE	Dr.R.Prem Ananth	9507-FRANCIS XAVIER ENGINEERING COLLEGE
353	Tirunelveli	NMNT353	Sharmila M	950820105041	Government College of Engineering, Tirunelveli	25-06-2024	AN	EEE	Dr.P.Subha Karuvelam	9508-Government College of Engineering
354	Tirunelveli	NMNT354	B. Mahesh Muthu	963220104028	Government College of Engineering, Tirunelveli	25-06-2024	AN	CSE	Mrs. B Shanmuga Sundari	9632-PET ENGINEERING COLLEGE, VALLIOOR
355	Trichy	NMNT355	BARATH ANTONYA	911620114304	University College of Engineering, BIT Campus, Trichy	26-06-2024	AN	MECHANICAL	P THIRUMURUGAN	9116-MOTHER TERASA COLLEGE OF ENGINEERING AND TECHNOLOGY
356	Trichy	NMNT356	M.Muthupandi	911720114010	University College of Engineering, BIT Campus, Trichy	26-06-2024	AN	Mechanical	Mr.S.Sundaravignesh	9117-MOUNT ZION COLLEGE OF ENGINEERING AND TECHNOLOGY
357	Trichy	NMNT357	I.L.Sowmiya	821120105029	University College of Engineering, BIT Campus, Trichy	26-06-2024	AN	Electrical and Electronics Engineering	Mr. S.R. Karthikeyan	8211-Kings College of Engineering
358	Trichy	NMNT358	Meenusree N	822720103022	University College of Engineering, BIT Campus, Trichy	26-06-2024	AN	Civil Engineering	Dr.S.Sumathi	8227-GOVERNMENT COLLEGE OF ENGINEERING, THANJAVUR
359	Trichy	NMNT359	SARAN RAJ E	8117201114327	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	MECHANICAL	Mr.G.SATHISH KUMAR	8117-K.Ramakrishnan College of Technology
360	Trichy	NMNT360	Sankaranarayanan.K	812120101022	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Aeronautical Engineering	Mr.V.Joseph Arun Prasath	8121-M.A.M. SCHOOL OF ENGINEERING
361	Trichy	NMNT361	K.Yuvaraj	811720103029	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Civil Engineering	Mr.A.OORKALAN	8117-K.Ramakrishnan College of Technology
362	Trichy	NMNT362	A.RAGHUL	813820103016	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	CIVIL	Ms.Vaishali.P	8138-SARANATHAN COLLEGE OF ENGINEERING
363	Trichy	NMNT363	Ms.M.DEVABHARATHY	814720106022	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	ECE	AISWARYA KANNAN	8147-SRM TRP ENGINEERING COLLEGE
364	Trichy	NMNT364	ARUN KUMAR R	9080369015	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Mechanical Engineering	Mr.S.Jeeva	8120-M.A.M. COLLEGE OF ENGINEERING AND TECHNOLOGY
365	Trichy	NMNT365	Sanjay S	812020114018	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Mechanical Engineering	Dr. S. Roseline	8120-M.A.M. COLLEGE OF ENGINEERING AND TECHNOLOGY
366	Trichy	NMNT366	Shreeram. R. R	8115U22EC106	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Electronics and Communication Engineering	Dr. B. Viswanathan	8115-K. RAMAKRISHNAN COLLEGE OF ENGINEERING
367	Trichy	NMNT367	GURU BHAVANI A	812020106009	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Electronic and communication Engineering	Mr. A. Syed Abdul Salam	8120-M.A.M. COLLEGE OF ENGINEERING AND TECHNOLOGY
368	Trichy	NMNT368	Kamalini V	621320103019	University College of Engineering, BIT Campus, Trichy	26-06-2024	FN	Civil Engineering	Dr.N.Sridhar	6213-Kongunadu College of Engineering and Technology
369	Trichy	NMNT369	S.Dharani	820420203003	University College of Engineering, BIT Campus, Trichy	26-06-2024	AN	Chemical Engineering	Mrs. D.K . Shanmugapriya	8204-ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
370	Chennai - 1	NMNT370	Joe Sebastian L	311120104023	Anna University, CEG Campus, Guindy	25-06-2024	FN	CSE	Mr. B. R. Sathish	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
371	Chennai - 1	NMNT371	Thirumalai N	113220031156	Anna University, CEG Campus, Guindy	25-06-2024	FN	Computer Science and Engineering	Dr.B.Murugeswari	1132-Velammal Engineering College
372	Chennai - 1	NMNT372	Jefna Besvi B	311120205027	Anna University, CEG Campus, Guindy	25-06-2024	FN	IT	Ms. V. Viancy	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
373	Chennai - 1	NMNT373	Meenakshi Sundaram C	311120104035	Anna University, CEG Campus, Guindy	25-06-2024	FN	CSE	Dr. P. Arulmozhi	3111-LOYOLA - ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
374	Chennai - 1	NMNT374	Mercy Kiruba G	312420104104	Anna University, CEG Campus, Guindy	25-06-2024	FN	CSE	Mrs. K. Jaspin	3124-ST.JOSEPH'S INSTITUTE OF TECHNOLOGY
375	Chennai - 1	NMNT375	MONIKA N	312420106069	Anna University, CEG Campus, Guindy	25-06-2024	FN	ELECTRONICS AND COMMUNICATION ENGINEERING	Mrs.G.Akilandeswary	3124-ST.JOSEPH'S INSTITUTE OF TECHNOLOGY

PRE-RECEIPT

Niral Thiruvizha ID: NMNT357

College Name : 8211- Kings college of Engineering

Project Title : Smart Poultry Guard

Faculty Guide : Mr. S.R. KARTHIKEYAN

Name of the students:

Sl.No.	Reg. No.	Name	Branch	Mobile No.
1.	821120105 026	D. Sivaranjani	EEE	63 82394531
2.	821120105 028	K. Sowmiya	EEE	8072997927
3.	821120105 029	L. Sowmiya	EEE	8220094107
4.	821120105 032	J. Viji	EEE	9787041359

Received a sum of Rs.10,000/- (Rupees Ten thousand Only) sanctioned by TNSDC under Niral Thiruvizha Scheme through Centre for Sponsored Research and Consultancy (CSRC), Anna University towards the financial assistance for the project details indicated above. Certified further the same will be transferred to the above student concerned.

Account Holder Name : Dr. J. Anuputha Vijaya Selvi

Account No. : 136402000000661

Bank Name & Branch : Indian Overseas Bank, North main st,

IFSC : IOBA0001364 Thanjavur.

Note: The bank account should be the official account of the college principal, rather than an individual account, enclose copy of cheque leaf for validation.

S. R. Karthikeyan

Name and Sign
of the Faculty Advisor

S. R. KARTHIKEYAN

Place: Punalkulam

Date: 01/07/2024

J. Anuputha
01/07/2024

Name and Sign
of the Principal with seal



Bill Passed for the amount of Rs. _____ /- (Rupees _____ Only)

AU - NM Co-ordinator

BILL SUMMARY

Niral Thiruvizha ID: NMNT357

College Name : 8211- Kings College of Engineering

Project Title : Smart Poultry Guard

Faculty Guide : MR. S. R. KARTHIKEYAN

Name of the students:

Sl.No.	Reg. No.	Name	Branch	Mobile No.
1.	821120105 026	D. Sivaranjani	EEE	6382394531
2.	821120105 028	K. Sowmiya	EEE	8072997927
3.	821120105 029	L. Sowmiya	EEE	8220094107
4.	821120105 032	J. Viji	EEE	9787041359

Sl.No.	Bill No.	Bill Date	Description	Amount
1.	AIA/E/03/03	07/03/2024	Micro Controller	2800.00
2.	AIA/E/03/05	07/03/2024	FD Fan Motor	1800.00
3.	AIA/E/03/03	07/03/2024	Sensors	4600.00
4.	AIA/E/03/03	07/03/2024	DC Power Adaptor	300.00
5.	AIA/E/03/03	07/03/2024	Mechanical Structure	1400.00
6.	AIA/E/03/03	07/03/2024	Wiring kit	300.00
7.	AIA/E/03/03	07/03/2024	Interfacing Relay kit 4ch	700.00
8.	AIA/E/03/03	07/03/2024	Buzzer	200.00
TOTAL				12,100.00

(Rupees Twelve Thousand and Hundred Only)

S. R. Karthikeyan
Name and Sign
of the Faculty Advisor
S. R. KARTHIKEYAN

[Signature]
Name and Sign
of the Finance Officer /
Auditor / Accounts
Officer with seal

J. Praveen
01/07/2024
Name and Sign
of the Principal with seal

Place: Punalakulam
Date: 01/07/2024

MANAGER (Accounts)
KINGS COLLEGE OF ENGINEERING
PUNALAKULAM - 613 303.
GANDARVAKOTTAI TALUK, PUDUKOTTAI DISTRICT.



UTILISATION CERTIFICATE

Niral Thiruvizha ID: NMNT357

College Name : 8211- Kings College of Engineering

Project Title : Smart Poultry Guard

Faculty Guide : MR. S.R. KARTHIKEYAN

Name of the students:

Sl.No.	Reg. No.	Name	Branch	Mobile No.
1.	821120105 026	D. S. Varanjani	EEE	6382394531
2.	821120105 028	K. Sowmya	EEE	8072997927
3.	821120105 029	L. Sowmya	EEE	8220094107
4.	821120105 032	J. Viji	EEE	9787041359

Certified that out of Rs.10,000/- (Rupees Ten thousand Only) sanctioned by TNSDC under Niral Thiruvizha Scheme through Centre for Sponsored Research and Consultancy (CSRC), Anna University towards the financial assistance for the project details indicated above, an amount of Rs. 12,100 /- (Rupees Twelve Thousand and One Hundred only) was utilised for the purpose for which it was sanctioned, leaving a balance of Rs. - /- (Rupees _____ only).

Certified that I have satisfied myself that the conditions on which the grant-in-aid was sanctioned have been duly fulfilled and that I have exercised the necessary checks to see that the money was actually utilized for the purpose for which it was sanctioned.

S. R. Karthikeyan
Name and Sign
of the Faculty Advisor
S.R.KARTHIKEYAN

[Signature]
Name and Sign
of the Finance Officer /
Auditor / Accounts
Officer with seal

J. Praveen
01/07/2024.
Name and Sign
of the Principal with seal

Place: Punalkulam
Date: 01/07/2024

MANAGER (Accounts)
KINGS COLLEGE OF ENGINEERING
PUNALKULAM, 613 003.
GANDARVAKOTTAI TALUK, PUDUKOTTAI DISTRICT.





நான் முதல்வன்

நீரல் திருவிழா
2024

Certificate
OF PARTICIPATION

This is to certify that

Mr./Ms..... **Mr. S.R. Karthikeyan**.....

from **Kings College of Engineering**.....

has participated as **Faculty Guide** in the
Niral Thiruvizha (Hackathon) Competition

MANAGING DIRECTOR

Tamil Nadu Skill Development
Corporation (TNSkills)

ORGANISED BY :

Tamil Nadu Skill Development Corporation (TN Skills) under the aegis of
Special Programme Implementation Department, Government of Tamil Nadu

Niral Thiruvizha 2024





TAMILNADU COUNCIL FOR SCIENCE AND TECHNOLOGY

(Established by Government of Tamilnadu)

Directorate of Technical Education Campus, Chennai - 600 025
Ph : 044 -2230 1428 www.tanscest.tn.gov.in Email ms.tanscest@nic.in

Prof. Dr. S. Vincent, D.Sc., Ph.D., MNASc, FNABS, FRSB(Ind)
Member Secretary

01.10.2024

Lr.No.TNSCST/SPS 2023-2024/ 3106A /01

To

The Principal
Kings College of Engineering
Punalkulam, Pudukkottai-613 303



To Mr. P.P.S.
CPE/RAD
J.P.P.
9/10/24

Sir/Madam,

Sub: TNSCST – Student Project Scheme (2023-2024) – approval intimation–grant release- Reg.

With respect to the above scheme, the list of project(s) approved by the State Council is enclosed, along with the terms and conditions. Guides are requested to adhere to these terms and conditions, including the timely submission of the Utilization Certificate (UC) and the seminar paper on or before 25.10.2024.

We trust that your students have successfully completed the project. Please inform the guides to submit the Utilization Certificate and the seminar paper in accordance with the terms and conditions specified in items 5 and 6. Kindly note that the grant will be released only upon receipt of both the UC and the seminar paper. Additionally, provide the institution's bank details (Account holder name, Account Number, IFSC code, and Branch name) to facilitate the transfer of the grant via NEFT. The grant should then be promptly disbursed to the concerned students through their respective guides.

Thanking you,

Yours faithfully

Member Secretary

- Encl: a) List of the approved SPS Projects 2023-24
b) Terms & Conditions (T&C)
c) Format of Utilization Certificate (UC)
d) Model Seminar Paper (SP)



TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

DOTe Campus, Chennai- 25

Student Project Scheme 2023-24

List of Approved Project(s)

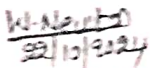
S No	Guide Name and Institutional Address	Title of the Project	Students Name	Project Code	Head of the Institution	Grant Amount
1	W Newton David Raj, Assistant professor, Dept. of ECE, Kings College of Engineering, Punalkulam, Pudukkottai- 613 303	Smart and safe rescue system for children trapped in open borewell	Keertiga S., Jothika G., Shanmugapriya V.,	EEE-1342	The Principal	Rs 7500
2	Dr. A. Albert Martin Ruban., Associate Professor, Dept. of EEE, Kings College of Engineering, Punalkulam, Pudukkottai- 613 303	Intelligence based smart borewell child rescue system	Akash M., Aravindh A., Gushendra Prasath P., Sudharsan S.	EEE-1356	The Principal	Rs 7500
3	Mr.R.Rajadurai, Assistant Professor, Dept. of Mechanical Engg., Kings College of Engineering, Punalkulam, Pudukkottai- 613 303	Design and fabrication of automatic fertilizer sprayer with weeder using proximity sensor	Shanmuga bharathi. S, Saravanan. A, Harish Ragavendra.M, Kabilan. M	EME-1328	The Principal	Rs 5500
Total						Rs 20500

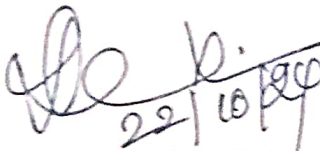
TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
DOTE Campus, Chennai - 600 025


STUDENT PROJECT SCHEME 2023-2024
UTILIZATION CERTIFICATE

1. Name of the guide and address : W.Newton David Raj,
Assistant Professor,
Dept of ECE,
Kings College of Engineering,
Punalkulam,
Pudukkottai-613 303
2. Name of the student(s) : Keertiga S,
Jothika G,
Shanmugapriya V
3. Title of the project : Smart and Safe Rescue System for Children
Trapped in Open Borewell
4. Project code : EEE-1342

It is certified that a sum of Rs 7500/- (Rupees Seven Thousands Five Hundred) sanctioned by the council for carrying out above mentioned student project has been utilized for the purpose for which it was sanctioned and sum of Rs NIL remaining unutilized is refunded.


Signature of the Guide


Signature of the HOD


Signature of the Principal
with SEAL
Kings College of Engineering
(Autonomous)
Punalkulam - 613 303

SMART AND SAFE RESCUE SYSTEM FOR CHILDREN TRAPPED IN OPEN

BOREWELL

S. Keertiga¹, G. Jothika², V. Shanmugapriya³

Final year ECE¹²³

Kings College of Engineering, Punalkulam,
Pudukkottai- 613303

ABSTRACT

In India for past few years, there have been several accidents of children falling into abandoned borewells which is left uncovered and get trapped. Abandoned borewells seems to be death pits for children. The time taken to rescue a child from an bore well takes about more than 72 hours .Due to an lack of an proper oxygen and humidity, the lives of an many child couldn't be saved. Recent survey says that about 10 of them 3 were rescued after a long process. The main aim of this technique is to rescue to an child safe within an short period. So use an ultra slim rescue stick for an rescue made up of steel diameter is about 20mm on which the sensors are placed above the stick at the top. The ultra slim rescue stick is inserted into the hole and goes down below the child and it is changes into an L shape , the child is rescued safety without an major injury. The ultra slim rescue stick can be extended based upon the distance. The time taken up for the rescue process is less than the conventional ones.

INTRODUCTION

Many developments has been introduced in an science and technology, which brings an lot of improvement in science and it leads to an development of an country, on the other side the major problem faced by an all is an water scarcity. The level of water become down, so many holes has been dugged and left uncovered properly. Due to the carelessness and improper coverage of a hole, children has been fell into a bore well. The main cause for an death is that an rescue process it takes more time ,and an oxygen that is present inside an hole is insufficient, and presence of many toxic gases inside an bore well leads to an death pits of many children. They use a new technology, by paralleling digging a horizontal hole and by rescuing the child. While drilling a parallel hole and vibrations causes ground quakes and disturbs the child. The hole is fully covered with sand which leads to a death of a child inside a hole. In order to overcome this problem, we are adopting a new Technology "SMART AND SAFE RESCUE SYSTEM FOR CHILDREN TRAPPED IN BOREWELL". The child is rescued safely without an major injury.

METHODOLOGY

The main heart of a process is an ESP-8266 in which an wifi module is already programmed. The inputs were applied by a sensor, Camera, CO₂ sucker and a power management which is controlled by a remote controller. The output is displayed on a screen. Here using an new technology to rescue an child from an borewell use an ultra slim rescue stick to rescue an child from an bore well, the stick is made up of an steel on which the sensors are fixed at the top of an stick also use an relay to control an oxygen unit , exhaust fan and light. In this process insert an slim stick into an bore well hole, the stick goes down the hole by an gap between an child and an hole ,there will be an at least point gap between them by using that gap insert an stick and the stick goes down below the child and by using an remote controller .The size of an stick is about 2mm and the ultra slim rescue stick size is very much lesser than 2mm at the end which is folded, is released and it is changed into an L shape. The child is rescued within an minimum hours without an major injury.

RESULT

By adopting an ultra slim rescue stick technology, child is rescued safely without an major injury, the sensors are used to sense the present situation of an child and the conditions of an child can be seen through an camera and instructions are given through an microphone which is present at both the rescue and an monitoring unit. By using a remote controller the ultra slim stick is operated and a child is rescued.

CONCLUSION

To rescue of a child from a bore well by this new technology. In this technique use an ultra slim rescue stick made up of a stainless steel. The rescue stick is designed about that is folded at the end and it is inserted into the hole and goes down below the child and it is changed into an L shape .The child is rescued safely within an short period and all the sensors are placed above the rescue stick which is operated by an remote controller.

Guide:Mr. W. Newton David Raj, Assistant Professor, Department of Electronics and Communication Engineering, Kings College of Engineering,Punalkulam,Pudukkottai- 613303



TAMILNADU COUNCIL FOR SCIENCE AND TECHNOLOGY

(Established by Government of Tamilnadu)

Directorate of Technical Education Campus, Chennai - 600 025
Ph : 044 -2230 1428 www.tanscst.tn.gov.in Email ms.tanscst@nic.in

Prof. Dr. S. Vincent, D.Sc., Ph.D., MNASc, FNAAB, FRSB(Ind)
Member Secretary

01.10.2024

Lr.No.TNSCST/SPS 2023-2024/ 3106A /01

To

The Principal
Kings College of Engineering
Punalkulam, Pudukkottai-613 303



To Dr. P.P.S.
CPE/RAD
J.M.
9/10/24

Sir/Madam,

Sub: TNSCST – Student Project Scheme (2023-2024) – approval intimation–grant release- Reg.

With respect to the above scheme, the list of project(s) approved by the State Council is enclosed, along with the terms and conditions. Guides are requested to adhere to these terms and conditions, including the timely submission of the Utilization Certificate (UC) and the seminar paper on or before 25.10.2024.

We trust that your students have successfully completed the project. Please inform the guides to submit the Utilization Certificate and the seminar paper in accordance with the terms and conditions specified in items 5 and 6. Kindly note that the grant will be released only upon receipt of both the UC and the seminar paper. Additionally, provide the institution's bank details (Account holder name, Account Number, IFSC code, and Branch name) to facilitate the transfer of the grant via NEFT. The grant should then be promptly disbursed to the concerned students through their respective guides.

Thanking you,

Yours faithfully

Member Secretary

- Encl: a) List of the approved SPS Projects 2023-24
b) Terms & Conditions (T&C)
c) Format of Utilization Certificate (UC)
d) Model Seminar Paper (SP)



TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

DOTe Campus, Chennai- 25

Student Project Scheme 2023-24

List of Approved Project(s)


S No	Guide Name and Institutional Address	Title of the Project	Students Name	Project Code	Head of the Institution	Grant Amount
1	W Newton David Raj, Assistant professor, Dept. of ECE, Kings College of Engineering, Punalkulam, Pudukkottai- 613 303	Smart and safe rescue system for children trapped in open borewell	Keertiga S., Jothika G., Shanmugapriya V.,	EEE-1342	The Principal	Rs 7500
2	Dr. A. Albert Martin Ruban., Associate Professor, Dept. of EEE, Kings College of Engineering, Punalkulam, Pudukkottai- 613 303	Intelligence based smart borewell child rescue system	Akash M., Aravindh A., Gushendra Prasath P., Sudharsan S.	EEE-1356	The Principal	Rs 7500
3	Mr.R.Rajadurai, Assistant Professor, Dept. of Mechanical Engg., Kings College of Engineering, Punalkulam, Pudukkottai- 613 303	Design and fabrication of automatic fertilizer sprayer with weeder using proximity sensor	Shanmuga bharathi. S, Saravanan. A, Harish Ragavendra.M, Kabilan. M	EME-1328	The Principal	Rs 5500
Total						Rs 20500


TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
DOTE Campus, Chennai - 600 025

STUDENT PROJECT SCHEME 2023-2024
UTILIZATION CERTIFICATE

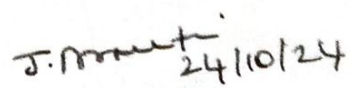
1. Name of the guide and address : Dr. A. Albert Martin Ruban,
Associate Professor,
Dept of EEE,
Kings College of Engineering,
Punalkulam,
Pudukkottai-613 303
2. Name of the student(s) : Akash.M,
Aravindh A ,
Gushendra prasath P,
Sudharsan S.
3. Title of the project : Intelligence Based Smart Borewell Child Rescue System
4. Project code : EEE-1356

It is certified that a sum of Rs 7500/- (Rupees Seven Thousands Five Hundred) sanctioned by the council for carrying out above mentioned student project has been utilized for the purpose for which it was sanctioned and sum of Rs NIL remaining unutilized is refunded.


Signature of the Guide 23/10/24


Signature of the HOD 23/10/24

Mr. R. Sundaramoorthi
HOD - EEE
Kings College of Engineering
(Autonomous)
Punalkulam - 613 303


Signature of the Principal
with SEAL
Principal
Kings College of Engineering
(Autonomous)
Punalkulam - 613 303



PROPOSAL FOR THE GRANT
of
STUDENT PROJECT SCHEME
(TNSCST)



on

INTELLIGENCE BASED SMART BOREWELL CHILD RESCUE SYSTEM

Submitted to

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

DOTE CAMPUS,

CHENNAI- 600 025.

Submitted by

AKASH.M(821120105008)

ARAVINDH.A(821120105005)

GUSHENDRAPRASATH.P(821120105008)

SUDHARSAN.S (821120105030)



Department of Electrical and Electronics Engineering

Kings College of Engineering

Approved by AICTE New Delhi & Affiliated to Anna University
Chennai



Accredited by NAAC with 'B++' Grade, Recognised under 2(f) and 2(B) of UGC

Punalkulam - 613303, Tamilnadu, India

PROPOSAL FOR THE GRANT
of
STUDENT PROJECT SCHEME (TNSCST)
on
**“INDELIGENCE BASED SMART BOREWELL CHILD RESCUE
SYSTEM”**

CONTENTS

S.No	Description	Page No
1	Application for Science & Technology Projects	1
1.1	Introduction	2
1.2	objective	2
1.3	Methodology	2
1.4	Work plan	3
1.5	Budget	4
1.6	Conclusion	4

Name of the Students :

S.No	Name	E-mail ID
1.	AKASH.M	akashakash19071@gmail.com
2.	ARAVINDH.A	aravindhbe2002@gmail.com
3.	GUSHENDRA PRASATH.P	www.gushendraprasath4g@gmail.com
4	SUDHARSAN.S	sansudhar420@gmail.com

Name of the Guide : Dr. A.Albert Martin Ruban.M.E.,Ph.D.,

Department / Designation : Associate professor, Department of EEE

Institutional address : Kings College of Engineering, Punalkulam, Gandarvakottai taluk , Pudukkottai district-613303

Phone No & Mobile No. : 91594 89328,9791469724,8778683334, 95978 23993

Project Title : INDELIGENCE BASED SMART BOREWELL CHILD RESCUE SYSTEM

Sector in which your Project proposal is to be considered : Artificial Intelligence and Embedded System , Electrical

CERTIFICATE

This is to certify that AKASH.M, ARAVINDH.A, GUSHENDRA PRASATH.P, SUDHARSAN.S are a bonafide final year students of B.E – Electrical and Electronics Engineering of our college and it is also certified that two copies of utilization certificate and final report along with seminar paper will be sent to the Council after completion of the project by the end of April 2024

Signature of the Guide

Signature of the HOD

Signature of the Principal

INTELLIGENCE BASED SMART BOREWELL CHILD RESUE SYSTEM

1.1 INTRODUCTION:

India makes up 16% of the world's population, but has only 4% of the world's fresh water resources. The number of borewell in India is now around twenty-seven million, with borewell accounting for more than 50%. After producing water borewell often remain uncovered, it possible for children to accidentally fall into them is the only cause behind the present sad in India. Many children died in these borewells children's carelessness and playful behaviour this type of accidents most often occurs. The borewell depth of around 700 feet. In this case the rescue of children from deep borewells is challenging and requires more time. There is no way to rescue children from some bore well accidents. To develop a portable, accurate and cost-effective model to rescue the children from borewell accident is the main objective of this project.

1.2 OBJECTIVE:

This project proposes a portable intelligence based on the child rescue in the borewell. The robotic system control will go down the borewell and perform the action which will attach an arms for picking up. In addition, this system can provide oxygen, which can be life saving.

Process of rescue :

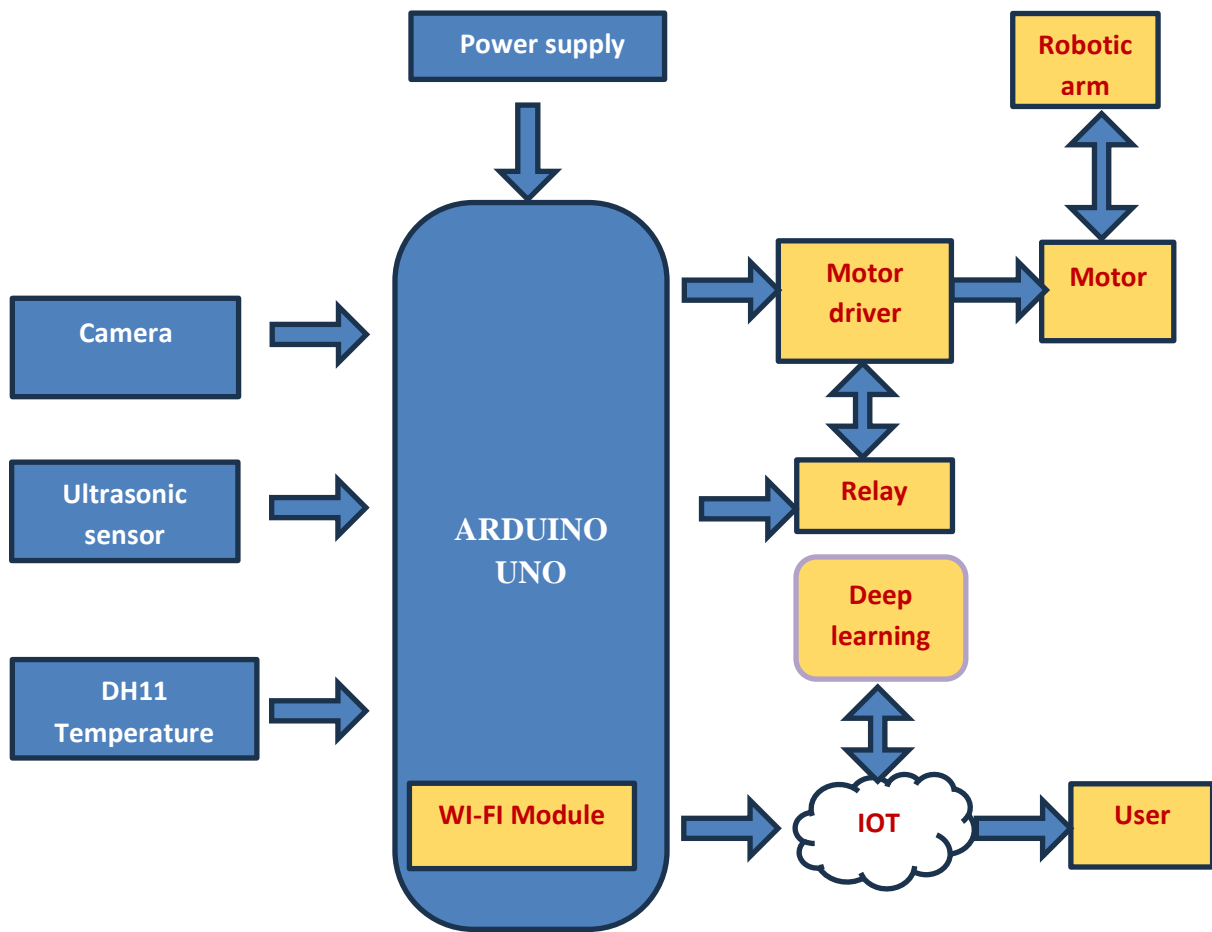
- Identify the child before they fall into a borehole.
- Detect the child after falling into the borewell by sending commands to the borewell rescue system
- A mobile application is used to operate the system based on continuous observations made with IR camera.
- Send commands to the robotic system which activate the appropriate motors and communicate with the system.
- Finally pick up the child from the borewell.

1.3 METHODOLOGY:

In this project the Arduino Uno is the control module and a IR camera module which consists of LCD display, motor driver DC motor , wi-fi module and control switches also. The first step will be able to identify the child before falling into the borewell. After the child falls into the borewell, the next step is to locate him or her. Initially, we will collect datasets such as facial emotions images which will be VGGISH algorithm to analyze a child's facial expressions with image capturing determine child whether or not. Next, we will divide those datasets into different categories, such as training datasets and testing datasets. So, the training dataset first undergoes a process called dataset augmentation, the dataset is multiplied into many datasets undergoes a process called pre-processing. We trained those datasets by removing the highlights using VGGnet learning. If the child is danger music is played to keep the children quiet. It is checking if it responds to the inquiries using the VGGISH deep learning. The temperature of the child is determined by using temperature sensor threshold value is 50 degrees celsius and verify the child is alive. The mobile application display the status of the condition of the child. A tele-conferencing system will also be add to the robot for communicating with the child . The robotic arm is controlled by the motor driver. The motor fixed in the top will control the rope movement (up and down). Remaining two motors fixed in the arm used to open and close the robot arm. An AI-based robot gripper holds the child tightly and takes them out

safely. Also, we can gain a better understanding of the borehole. This will enable us to perceive the child's location and position as well as detect any faults in the pipeline.

BLOCK DIAGRAM:



1.4 WORK PLAN :

S.NO	Preparation and planning	Duration
1	Components purchase	1 month
2	Circuit design and assemble	1 month
3	Circuit testing	1 month
4	Implementation and execution	2 month

1.5 BUDGET:

S.No	Components	Cost - Rs
1	Arduino Uno	1500
2	Motor driver	280
3	Gear Motor (3)	1800
4	Gears	530
5	DH11 sensor	270
6	IR Camera	1534
7	Ultrasonic sensor	180
8	12v battery	1340
9	Speaker	290
10	Relay	270
10	Wi-Fi module	328
10	Other materials	1800
11	Total	10,122

1.6 CONCLUSION:

A robotic frame work for rescue robotics in bore-well environment has been proposed here. To evaluate the results using various parameters, such as training accuracy and validation accuracy. Children's facial emotions were assessed using VGG NET algorithms in this study to determine if they showed changes associated with pneumonia. AI model implementation was carried out using Python programming. Monitors and rescuers of children trapped in borewell were successfully rescued and implemented through the project. Deep learning can detect facial emotions and recognize a child's voice using the current system.



Dr. J. Arputha Vijaya Selvi, M.E., Ph.D.,
PRINCIPAL

Ref: KCE / PRL /TNSCST/24-25

24.10.2024

To
The Member Secretary
Tamil Nadu Council for Science and Technology
Directorate of Technical Education Campus,
Chennai – 600 025.

Sir,

Sub: Submission of Utilization Certificate and seminar report – reg.,
Ref: Lr. No. TNSCST/SPS 2023-2024/3106A/01 dt. 01.10.2024.

With reference to the above, herewith, I am forwarding the utilization certificate and seminar paper of the projects for your kind perusal.

Thank you,

Regards,

J. Arputha Vijaya Selvi
24/10/24
PRINCIPAL

Principal

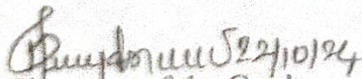
Kings College of Engineering
(Autonomous)
Punalkulam - 613 303

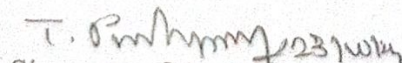
TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
DOTE Campus, Chennai - 600 025


STUDENT PROJECT SCHEME 2023-2024
UTILIZATION CERTIFICATE

1. Name of the guide and address : R. Rajadurai,
Assistant Professor,
Department of Mechanical Engineering,
Kings College of Engineering,
Punalkulam,
Pudukkottai-613 303
2. Name of the student(s) : S. SHANMUGABHARATHI,
A. SARAVANAN,
M. HARISH RAGAVENDRA,
M. KABILAN.
3. Title of the project : DESIGN AND FABRICATION OF AUTOMATIC
FERTILIZER SPRAYER WITH WEEDER USING
PROXIMITY SENSOR
4. Project code : EME-1328

It is certified that a sum of **Rs 5500/-** (Rupees Five Thousands Five Hundred) sanctioned by the council for carrying out above mentioned student project has been utilized for the purpose for which it was sanctioned and sum of **Rs NIL** remaining unutilized is refunded.


Signature of the Guide


Signature of the HOD


Signature of the Principal
with SEAL
Principal
Kings College of Engineering
(Autonomous)
Punalkulam - 613 303



PROJECT PROPOSAL



**DESIGN AND FABRICATION OF AUTOMATIC FERTILIZER
SPRAYER WITH WEEDER USING PROXIMITY SENSOR**

Submitted to
TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
DOTE Campus,
Chennai-600025.

Submitted by

S.SHANMUGABHARATHI	(821120114044)
A.SARAVANAN	(821120114042)
M. HARISH RAGAVENDRA	(821120114306)
M.KABILAN	(821120114310)

FOURTH YEAR B.E MECHANICAL ENGINEERING
KINGS COLLEGE OF ENGINEERING,
PUNALKULAM, PUDUKKOTTAI - 613 303.

Guided by

Mr.R. RAJADURAI, AP/MECH
Department of Mechanical Engineering
KINGS COLLEGE OF ENGINEERING,
PUNALKULAM, PUDUKKOTTAI - 613 303.

PROJECT PROPOSAL

1. Name of the student : **S.SHANMUGABHARATHI**
A.SARAVANAN
M.HARISH RAGAVENDRA
M.KABILAN
2. One valid e-mail id : harishragavendra15022003@gmail.com
3. Name of the guide : Mr. R.Rajadurai
4. Department/designation : MECH/ Assistant Professor
5. Institutional address : **KINGS COLLEGE OF ENGINEERING, Punalkulam,**
Gandarvakottai-Taluk, Pudukkottai-613303.
6. Phone no & Mobile :9585968066.
7. Project title :
**DESIGN AND FABRICATION OF AUTOMATIC FERTILIZER SPRAYER
WITH WEEDER USING PROXIMITY SENSOR**
8. Sector in which your project
Proposal is to be considered. : Engineering & Technology
9. Category of the Students : UG/ (Engineering)
10. Discipline in science : MECH

Abstract

The ultimate aim of this project is to help the farmers. During pesticides spraying to agriculture field, the chemicals used in pesticides can easily penetrate through their skin and can affect them. The weight of the spraying machine is too high and which always brings shoulder pain to farmers. To avoid these problems, this project can be used. This project involves the usage of structure which can be automatically moved over particular area. The length of the nozzle used for spraying and the force of the pesticide through the nozzle can also be adjusted according to the user demand which makes this automatic agro sprayer much more efficient one.

Introduction

India is an agricultural country. About seventy percent of our population depends on agriculture. One-third of our National income comes from agriculture. Our economy is based on agriculture. The development of agriculture has much to do with the economic welfare of our country. Though we are developing country, we are not using technologies to improve our agriculture. So we have to fabricate some machines which can be helpful to farmers so as to increase their profit, production and to save their time. Pesticide spraying is one of the difficult which farmer usually faces. The present scenario is being that the farmers have to carry the pesticides in their shoulders and the sprayers are manually operated.

Objective

The main goal of this project is

- Decrease the operational cost by using new mechanism
- To develop and implement an more efficient method for spraying

Design Methodology

In our country farming is done by traditional way, besides that there is large development of industrial and service sector as compared to that of agriculture. The spraying is traditionally done by labor carrying backpack type sprayer which requires more human effort. The weeding is generally done with the help of Bulls which becomes costly for farmers having small farming land. So to overcome these above two problems, we tried to eliminate these problems and designed the equipment which will be beneficial to the farmer for the spraying and weeding operations.

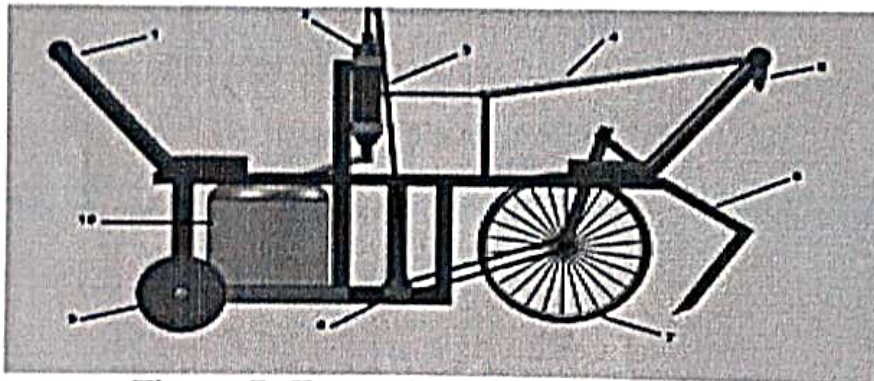


Figure 7: Front view of CAD model

- | | |
|----------------------------|------------------------|
| 1- Handle for controlling. | 6 - Weed cutter plate. |
| 2- Reciprocating pump. | 7 - Wheel. |
| 3- Connecting link (bar). | 8 - Crank. |
| 4- Flexible pipes. | 9 - Supporting wheels. |
| 5- Nozzles. | 10 - Storage tank. |

Working

- When the equipment is push forward by using handles, front wheel rotates and the gear is mounted at the axle of wheel is start to rotate and its rotation is then transferred to the pinion through the chain drive.
- The rotary motion of the pinion is converted into the reciprocating motion by the single slider crank mechanism, due to this arrangement the connecting rod moves upward and downward which then reciprocate the piston of single acting reciprocating pump mounted at the top of storage tank.
- During the upward motion of the connecting rod the pesticide is drawn into the pump and during the downward motion of connecting rod the pesticide is forced to the delivery valve, the delivery is connected to the pipe carrying the number of nozzles.

Expected Outcome:

The equipment is purposely design for the farmers having small farming land say 5-6 acre. It is suitable for spraying as well as weeding at minimum cost for the farmer so that he can afford it.

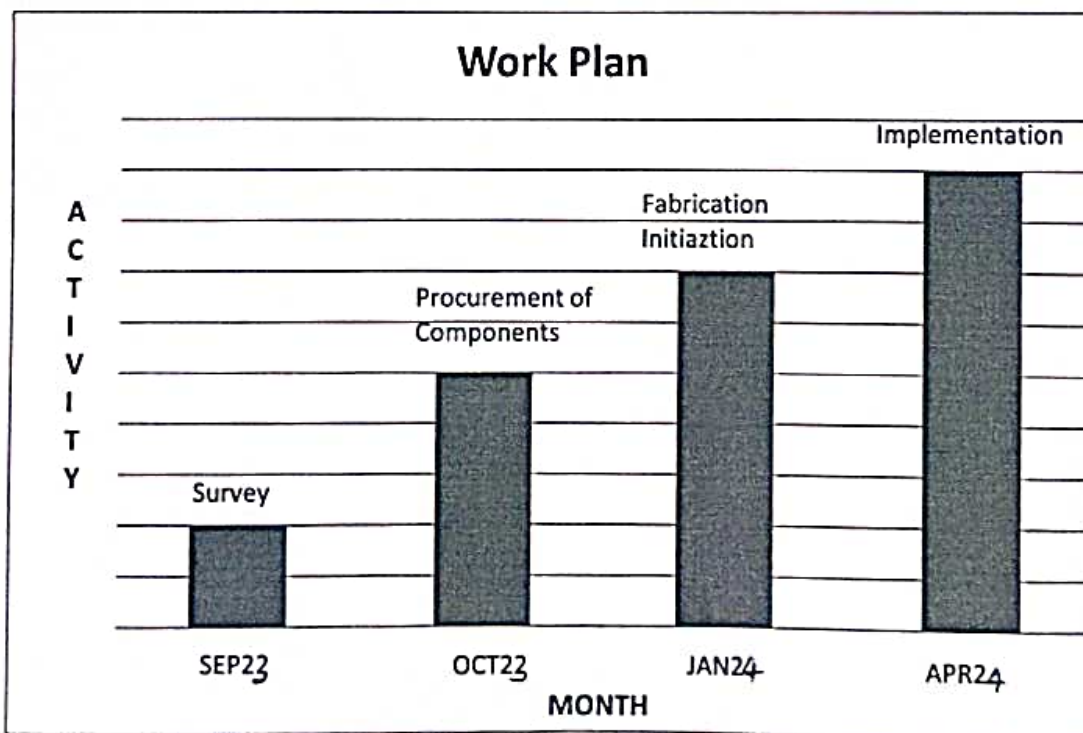
The equipment will results more beneficial when it is subjected to moist soil for weeding purpose, due to moist soil the weed cutter can easily penetrate and dig out the soil and hence will easily accomplished the weeding process.

The performance of the equipment will increase when it is operates on the smooth surface or less uneven surface and also it will be more effective when it is used on the crops having nearly similar height and having the less space between two crops.

BUDGET

Sl. No	Particulars	Quantity	Price (INR)
1.	Wheel 50cm dia	2	1000
2.	Reciprocating Pump stroke per rotation of wheel with 3lit/min discharge	1	1200
3.	Weed cutter plate	1	1000
4.	Nozzles	-	500
5	Storage tank		250
6	Miscellaneous Expenses		2000
Total (Rs)			5950
Rupees Five Thousand and Nine Fifty only			

WORK PLAN:



CERTIFICATE:

This is to certify that **S.SHANMUGABHARATHI, A.SARAVANAN, M.HARISH RAGAVENDRA & M.KABILAN** are a bonafide final year students of U.G.Mechanical Engineering of our college and it is also certified that two copies of utilization certificate and final report along with seminar paper will be sent to the Council after completion of the project by the end of April 2024.

Praydhar
Signature of Guide 13/10/23

T. P. Prabhakaran
Signature of HoD 13/10/23
H.O.D
DEPARTMENT OF MECHANICAL ENGINEERING
KINGS COLLEGE OF ENGINEERING
PUNALKULAM

J. Prakash
Signature of 13/10/2023
Register/Principal/Dean
with Seal
PRINCIPAL
Kings College of Engineering
PUNALKULAM - 613 803.

Fwd: IEEE - Proposal - Financial Support - Workshop - reg.,

Principal <principal@kingsengg.edu.in>

Tue, Oct 31, 2023 at 10:50 AM

To: Niranjan J <niranjansamuel@kingsengg.edu.in>, Abikayil Aarthi <aarthi.cse@kingsengg.edu.in>, Abhirami K <abhirami.cse@kingsengg.edu.in>

Sent from my iPhone

Begin forwarded message:

From: Principal KINGS CE <principal@kingsengg.edu.in>
Date: 31 October 2023 at 6:11:28 AM IST
To: IEEE Madras Section IEEE Madras Section <ieeemas@gmail.com>
Subject: Re: IEEE - Proposal - Financial Support - Workshop - reg.,

Dear Madam, Thank you for the financial support.

On Mon, 30 Oct 2023 at 4:32 PM, IEEE Madras Section IEEE Madras Section <ieeemas@gmail.com> wrote:

Dear Student Branch Counselor,

Based on the active IEEE SB([Kings College of Engineering](#)) members in your college, IEEE MAS can financially support up to Rs. 5,000/- (Rupees Five Thousand only) for the calendar year 2023 for the proposed event.

Event Date: 18-20 Oct 2023

Event Name : Data Science & Machine Learning

This amount Rs. 5,000/- is therefore approved for your proposal.

The amount can be claimed as Reimbursement upon submission of following documents:

1. Event reporting as per guidelines for IEEE MASLINK Newsletter
2. Original Utilization certificate signed both by IEEE SB Counselor and Principal
3. Photo copies of bills and vouchers can be sent for processing payments.
4. Proper acknowledgement upon receipt of payment.

Regards,

Dr. S. Radha
Treasurer, IEEE Madras Section.

On Mon, Sep 25, 2023 at 8:02 PM Principal KINGS CE <principal@kingsengg.edu.in> wrote:

Dear Sir,

We have submitted a proposal seeking partial financial support for organizing a workshop on machine learning and data science during 18 - 20 of October, 2023. As the event date is approaching, kindly let us know the status of the proposal submitted.

Thank you,

Regards,

Dr. J. Arputha Vijaya Selvi

Kings Project Expo-2024 report

Nirajan Samuel J <nirajansamuel@kingsengg.edu.in>
To: arunmamba@ieee.org

Wed, Jul 3, 2024 at 12:14 PM

Dear Sir,

As per the intimation received from your end, we have organized IEEE Madras Young Professionals sponsored the **Kings Project Expo-2024**, organized by the Centre for Promotion of Research at Kings College of Engineering on 03.05.2024 as part of winning the ElevateYP contest by IEEE Madras Young Professionals.

And herewith, I am forwarding the report of the Project Expo for your kind perusal and for approving the sponsorship from IEEE MAS YP.

Thank you,

Regards,

J. Nirajan Samuel

 **KINGS PROJECT EXPO-2024 - 03.05.2024.docx**
2748K



Nirajan Samuel J <nirajansamuel@kingsengg.edu.in>

Kings Project Expo-2024 report

ARUN MATHIYALAGAN <arunmemba@ieee.org>
To: Nirajan Samuel J <nirajansamuel@kingsengg.edu.in>

Thu, Jul 4, 2024 at 4:36 AM

nice sir, submit along with budget and copy of bills.

[Quoted text hidden]

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M.ARUN, M.E., M.B.A.,

Chairman, IEEE Madras Section Young Professionals,

Excom Member IEEE Madras Section & Chair, Editorial Team IEEE Madras Section Newsletter,

Vice Chairman, IEEE TEMS Madras Chapter,

Treasurer, IEEE COMSOC Madras Chapter,

Excom Member IETE Chennai Centre & Chair, Editorial Team IETE Chennai Centre Newsletter,

Assistant Professor, ECE, Panimalar Engineering College, Chennai.

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Kings Project Expo-2024 report

Niranjan Samuel J <niranjansamuel@kingsengg.edu.in>
To: ARUN MATHIYALAGAN <arunmembra@ieee.org>

Thu, Aug 1, 2024 at 4:09 PM

Dear Sir,

Herewith, I am forwarding the income-expenditure statement and copy of the bills for your kind perusal.

Thank you,

Regards,

Niranjan Samuel

On Thu, Jul 4, 2024 at 4:36 AM ARUN MATHIYALAGAN <arunmembra@ieee.org> wrote:
[Quoted text hidden]

5 attachments



cert.jpg
187K



refresh.jpg
254K



Shield -1.jpeg
62K



KINGS PROJECT EXPO'2024

Organized by

Center for Promotion of Research

Center for Promotion of Research in association with IEEE STB 16621 organized KINGS PROJECT EXPO' 2024 on 03.05.2024. This project expo aims to encourage the students' creativity and innovations on Engineering & Technology. Dr.S.Sabanayagam, CPR Member & Associate Professor / Mechanical Engineering, welcomed the gathering. Dr.J.Arputha Vijaya Selvi, Principal, inaugurated the expo and delivered the inaugural address. In her speech, she emphasized the significance of innovations in projects. Mr.J.Niranjan Samuel, JRF/R&D, introduced the chief guest Mr. M. I. Abdul Halik, Secretary of IEEE Madras Young Professionals, Chennai. Mr. M. I. Abdul Halik delivered special address on importance of IEEE membership and his IEEE membership journey. Also he shared his memories as Passion to Progress: My IEEE Member Experience. Dr. S. Sivakumar, Vice Principal, delivered the felicitation address. He insisted the students to enhance their technical knowledge both in software and hardware. The projects of internal and external students were evaluated by senior faculty members of every department nominated as jury's. Totally 70 batches participated in the project expo. Jury's evaluated the projects and gave feedback & valuable comments to the students. Based on the innovation, presentation, implementation and demonstration marks were awarded by the jury's. Two projects were selected for rewards from each department. The valedictory ceremony of the project expo started by 01:30 p.m. at Pallava Hall. Dr.R.Rajendran, Secretary of the college distributed the prizes and certificates to the participants. Project Expo came to an end with vote of thanks by Ms. S. Abikayil Aarthi, AP/CSE cum Event Coordinator – IEEE MAS YP and Secretary – IEEE STB 16621.

Participant Details:

S.No.	Department	Internal Batches	External Batches	Total
1.	CIVIL	04	-	04
2.	CSE	20	-	20
3.	ECE	03	-	03
4.	EEE	11	02	13
5.	MECH	19	-	19
6.	S&H	01	-	01
Total		58	02	60

Details of Prize winners:

S.No	Department	Name of the Participants/College	Title of the project
1.	Civil Engineering	First Prize P.Kathireswari J.Kiruthika sri J.Niksha Kings College of Engineering	Experimental Investigation on Partial Replacement of cement by seashell powder in concrete.
		Second Prize G.Bharath U.Hariharan M.Joshuva N.Krishnakanth Kings College of Engineering	Experimental analysis of recycled construction and demolition waste as partial replacement of coarse aggregates in concrete.
2.	Computer Science & Engineering	First Prize S.Mohammed Sameer S.Dinesh S.Sarvesh D.Guhan Kings College of Engineering	Spoton: A Hassle Free Car Parking System for smart cities using block chain technology
		Second Prize K.kayalvizhi S.Keeethiga V.Mahalakshmi Kings College of Engineering	Deep Learning with optimal Hierarchical spiking Neural Network for Medical image classification
3.	Electronics Communication Engineering	First Prize Natika K S Nivya P Priyadharshini J Vennila D Kings College of Engineering	Design And Implementation Of Robotic Spray Machine Using Artificial Intelligence
		Second Prize Devadharshini B Dhivya dharshini M Preethi S Swathi shuki M Kings College of Engineering	Design And Implementation Of Iot Based Non-Invasive Blood Pressure Monitoring

4.	Electrical& Electronics Engineering	First Prize Akash.A Harikumar.K Mesia Godwin.F Varsha.R Kings College of Engineering	Self generated E-Train modelling for future technology.
		Second Prize Dhivakar.S Morishkumar.S Guruprasath.N Ponnagaraan.M.G Kings College of Engineering	Power generation.
5.	Mechanical Engineering	First Prize Prakash K Jegan K Lalithkumar E Mahendran M Kings College of Engineering	Designing a joystick operated tricycle for person with disability.
		Second Prize Eraniyan K Arunkumar M Manoj kumar R Hariharan K Kings College of Engineering	Fabrication of development of a Remote Controlled scrap collecting vehicle for industrial applications.
6.	S&H	First Prize Swetha S Ashviniya A Praveen V Vinodhini A	Geothermal power plant



KINGS COLLEGE OF ENGINEERING
An Autonomous Institution
Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai
Recognized under 210 & 12B, UGC
NAAC Accredited Institution

KINGS PROJECT EXPO'24
03.05.2024 | FRIDAY | 10:00A.M.
Organised by
Centre for Promotion of Research

Chief Guest
Mr. Abdul Halik,
Secretary,
IEEE Madras Young Professionals
Chennai

Pallava Hall *All are Invited*

Mr. D. Nandakumar, AP/Civil
Mr. J. Niranjan Samuel, JRF/R&D
Dr. P. P. Shantharaman
Head/CPR
Dr. J. Arputha Vijaya Selvi
Principal
Dr. R. Rajendran
Secretary

Invitation



Chief guest invitation



Welcome Address by Dr.S.Sabanayagam



Honouring the Chief Guest



**Inaugural Address by Dr.J.Arputha Vijaya Selvi,
Principal,KCE**



Chief Guest Address



Participants demonstrated their projects in front of the jury's



Participants demonstrated their projects



Valedictory Session of Project Expo'24



Certificate Distribution by Dr.R.Rajendran, Secretary, KCE

Outcomes of the Project Expo'24

Experts evaluated the student's projects and gave their valuable remarks and feedback on the topic of the project and interacted with students about how to improve the quality of the work and project at large scale.

Students were able to

- Efficiently present their ideas.
- Design the project with all technical aspects.

D. Narasimhan
Dr. R. Rajendran
Project Expo Coordinators
 10/7/24

P. S. S. S. S.
DRC Convener
 10/7/24

J. Ramesh
Principal
 10/7/2024