EASWARI ENGINEEERING COLLEGE

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Bharathi Salai, Ramapuram, Chennai - 600 009

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROJECT LABORATORY

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROJECT LABORATORY

FACILITIES AND UTILIZATION

S.NO	NAME OF THE FACILITIES	UTILIZATION	PO s and PSO s
1	Pspice, B2Spice	UG students PG students Research Scholars Faculty members	PO1, PO2, PO3, PO4, PO5,PO6, PO7, PO9, PO10, PO11, PO12
2	Spectrum Analyzer		
3	DSO		
4	SDR Kit		
5	Code Composer Studio		
6	MATLAB		
7	Xilinx ISE Software		
8	Altera Quartras II		
9	BroadBand wirless Simulator		
10	Sensor kits		
11	Interfacing Kits		

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

FACILITIES

- Sufficient numbers of computers with the following configuration are available for student's project work in the laboratories
- I5 Processor with 2.4GhZ / 3.1 GHz speed
- 2 GB / 3 GB / 4 GB RAM
- Minimum of 500 GB HDD
- Project laboratories are open from 8.00 A.M-3.45 P.M during working hours and from 3.45 P.M – 4.30 P.M beyond working hours.
- 1 Gbps internet connection is made available in the project labs.
- Students are instructed to shut down the systems after their usage.
- Sensor kits are available to implement remote sensing projects.
- Special software tools for projects, such as B2 Spice, and Broadband wireless Simulator,Xilinx ISE Software are available.
- Mobile phone and Android studio kits are available for mobile app development.
- Matlab tool to implement Data mining and Image processing projects is available.
- Support for usage of any open-source tools, software, and simulator (like NS2) is available.

UTILIZATION

- Students can utilize the project lab on all working days.
- In addition, the project lab is kept open for usage on all Saturdays and beyond the working hours (3.45 pm to 4.30 pm)
- The project Lab is also used for mini-projects and Mobile app development.
- The project lab is also used for research scholars and Ph.D. faculties.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2021-2022

S.NO	OUTCOMES	COUNT
1	TNSCST PROJECTS	28
2	PROJECT DAY 22	8
3	SMART INDIA HACKATHON	11
4	e-SIM Contest	3
5	PUBLICATIONS	26
6	PATENTS	10
7	Open Innovation Challenge	1
8	Grand Innovation challenge	3
9	CII Young Designer Awards 2021	6

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2020-2021

S.NO	OUTCOMES	COUNT
1	e-SIM Contest	5
2	PUBLICATIONS	55
3	TNSCST PROJECTS	21
4	PATENTS	12
5	PROJECT DAY 21	10

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020

S.NO	OUTCOMES	COUNT
1	PUBLICATIONS	33
2	PATENTS	2
3	SMART INDIA HACKATHON	1
6	TNSCST PROJECTS	25
7	PROJECT DAY 2020	8

ACADEMIC YEAR

2021-2022

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TNSCST PROJECTS (2021-2022)

S.No	Dept	Investigator(s)	Project title	Sponsoring Agency	COST (Rs. in lakhs)
1	ECE	Mr.V DINESH Krishna N	Human Trafficking safety app	TNSCST	0.1
2	ECE	Dr.S Vanaja Puviyarasi K Vishrutha RV	Non-Invasive Glucometer	TNSCST	0.1
3	ECE	Dr.S Ahamed Ali Ahmed Faizel A Mohan K Bharathi M	Secured Data Outsourcing in the Cloud using SSS	TNSCST	0.11
4	ECE	Mrs.B.Padmavathi Aneesa Banu K Dhivya S Mukesh Karthikeyan	Covid 19 Diagnosis using Cough recordings	TNSCST	0.1
5	ECE	Mrs.S.Kalpana Devi Sharmila R Soundharya S Suganthi R	Effective Management and Visualization of real time monitoring and tracking of student	TNSCST	0.09

6	ECE	Dr.S.Kayalvizhi Nithya Priya J Shrithi S V Soundarya T	Smart Waste management using Geo Tracking of Waste for sustainable habitant	TNSCST	0.1
7	ECE	Dr.R.M.Bhavadharini Divyasree H Dhivyaa T Asvitha S	Doctor Plant : A deep learning based Mobile app to detect plant diseases	TNSCST	0.1
8	ECE	Mr.P.Baskaran Devasena R Aishwaryaa Laxmi B R Abinaya R	IoT Temperature Mask Scan Entry System	TNSCST	0.18
9	ECE	Mr.P.Baskaran Sai Krishna R Saketh Raman R Yuteesh S	IoT based person / wheel chair fall detection	TNSCST	0.1
10	ECE	Dr.C.U.Om kumar Balaji V Nhaveen A Sai Balakrishnan S	Covid Facemask and Temperature Authentication system using machine Learning and Rasberry Pi	TNSCST	0.063
11	ECE	Dr.C.U.Om kumar Narmatha J Christy Ratnarajan K John A	Eco Friendly Beach Cleaning Rover	TNSCST	0.32
12	ECE	Mrs.A.Abirami Sathya Narayanan B	Voice controlled wheel chair using Arduino UNO	TNSCST	0.14

		Sharmitha N Sowbarnika M			
13	ECE	Mrs.A.Abirami Abirami H Alekhya N Anu Priyanka B S	Helpr' Near in	TNSCST	0.12
14	ECE	Ms.S.Bhuvaneswari Architha A S Haritha M Kavya Varshini M	Smart Patient Monitor	TNSCST	0.1
15	ECE	Ms.S.Bhuvaneswari Prajana Shree N Savitha M Vaishalli S	Tabs for Alzhiemer's Patients	TNSCST	0.28
16	ECE	Dr. V. Mercy Raja Selvi Niranjan G M Samuel Koshy Sanjith J	Voice based Digital Payment System in Regional Language	TNSCST	0.2
17	ECE	Mr.K.P.K.Devan Aravindhan E Dharmala Pranavi Kishore Shankar A	Automatic Irrigation System	TNSCST	0.1
18	ECE	Mr.M.Lakshmanan Barath Vikraman E Dhanasekar D Manoj G	IoT Based non contact Temperature Monitoring Entry System	TNSCST	0.07
19	ECE	Mrs.S.Buvaneswari Preetha M Yashmi S	Security Surveillance detection using Convolutional Neural Network	TNSCST	0.08

20	ECE	Mrs.S.Buvaneswari Lavanya N Lavanya N Madhumitha P M	Smart e-voting system through face recognition using machine learning	TNSCST	0.08
21	ECE	Mr.P.Harikumar Dinesh Kumar S Jerrald J	Covid Tracker using Smart Devices	TNSCST	0.14
22	ECE	Dr.J.Deepa Monika R Dhanushah R Kaavya L	IoT based Smart gadget for visually impaired person	TNSCST	0.1
23	ECE	Ms.Rathina Priya V Aishwarya N Harish R M Mehavarshini K	Vital device that speaks for the differently abled	TNSCST	0.1
24	ECE	Ms.M.Bhanumathi Dhanya S Krithika K G Gugan R	Nutrient indicator and feedback system for Hydroponics	TNSCST	0.1
25	ECE	Ms.M.Bhanumathi Ravi Rithika Roshni Ravikumar Sona Selvaraj	Hand gesture Recognition using CNN	TNSCST	0.1
26	ECE	Ms.Rathina Priya V Poojitha T Sakthi V Swetha M	Blood Bank System using Cloud Computing	TNSCST	0.22
27	ECE	Ms.D.Kavitha Sai Adithya R Gowtham B Jeevanantham S	Data Security using Artificial Intelligence for IoT devices	TNSCST	0.1

28	ECE	Ms.D.Kavitha Vishnu Prakash D Yogesh S Sikkindar Sahabudeen	Child abuse detection technique using Image Processing	TNSCST	0.1

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROJECT DAY (2022)

S.No	Project No	Title of Project	Mentor Name	Student Name
1	EEC ECE 001	Voice recognition enabled farmer assistance module with LoRaWAN connectivity	Dr. R. Hema, AP/ECE 9840211547 9894480651	Gayathri S Bhagavath Kumar M Hariharasudhan S Jabilo Jose J Ajit Kumar M
2	EEC ECE 002	Virtual Assistant	Dr. O Vignesh, AP/ECE 9994242158	Sakthi Sneghaa V A Shakthi S P Sona Shiva

				Swathy R Vithiya N
3	EEC ECE 003	Virtual Reality using Arduino and processing	Dr. R. Praveen Kumar AP/ECE 9994254328	Sooraj. I Roopashree. V Soundarya. R Srividya.R Triniton Simon Paul.M
4	EEC ECE 004	Human Trafficking safety App	Mr.V.Dinesh, AP/ECE, 9003936045	Krishna N
5	EEC ECE 005	Non-invasive glucometer	Dr. S. Vanaja, AP/ECE 9094866634	Puviyarasi K Vishrutha RV
6	EEC ECE 006	BUS TRACKING AND AUTOMATED TICKETING SYSTEM THROUGH IOT	Mrs.A.T.MADHAVI, AP/ECE, 9941961987	M.S.Vaaraghi Esther Rani.P.T Akash .K Thilagavathy.E
7	EEC ECE 007	Indian sign language translator	Dr.R.Hema AP/ECE 9894480651 Ms. T. Gophika, AP/ECE 9003952868	Ashish Hameed.C Ananya.M Gopika J S Phvan Paveethra K
8	EEC ECE 008	Secure Wireless controller for Hand-Held remote operation of Traffic Signals		

PROJECT DAY (2022) CERTIFICATES

SRM GROUP OF INSTITUTIONS RAMAPURAM CAMPUS

EASWARI ENGINEERING COLLEGE
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RAMAPURAM, CHENNAI

PROJECT DAY 2022

Certificate of Participation

This is to certify that Mr. /~~Ms.~~ KRISHNA N of II ECE

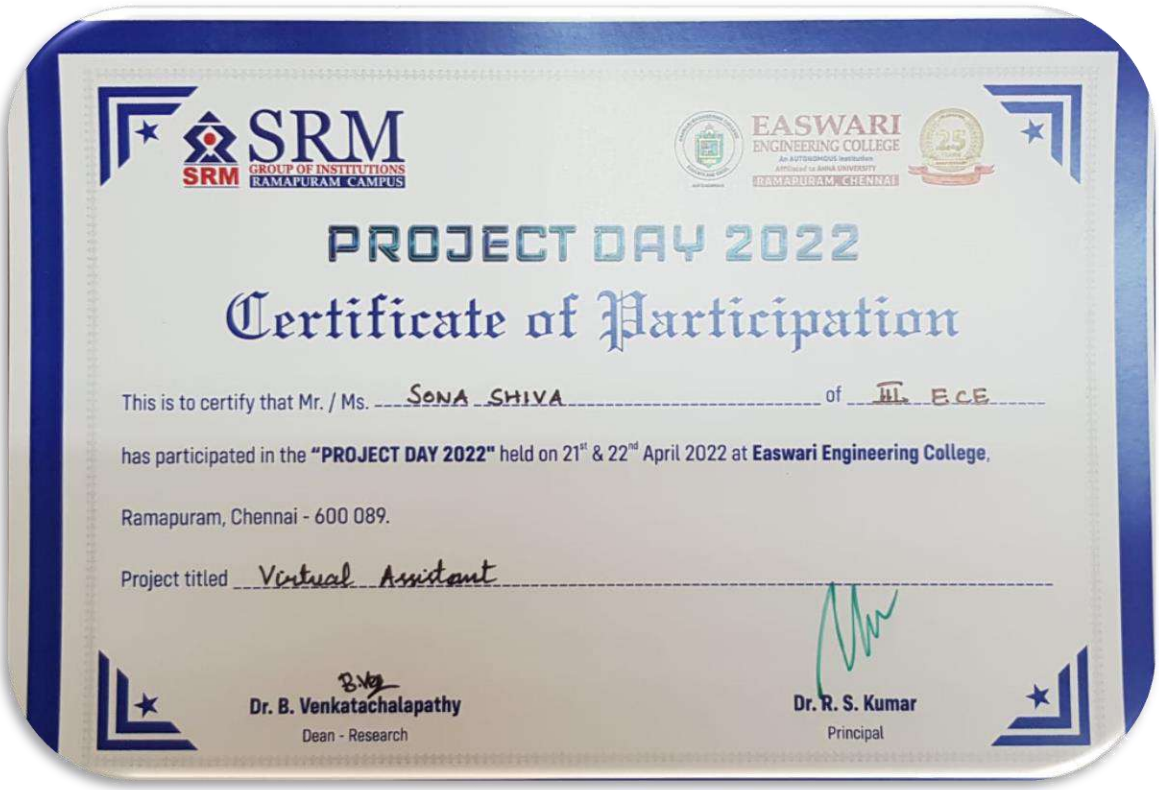
has participated in the **"PROJECT DAY 2022"** held on 21st & 22nd April 2022 at **Easwari Engineering College**,

Ramapuram, Chennai - 600 089.

Project titled HUMAN TRAFFICKING SAFETY APP

Dr. B. Venkatachalapathy
Dean - Research

Dr. R. S. Kumar
Principal



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RAMAPURAM, CHENNAI

PROJECT DAY 2022

Certificate of Participation

This is to certify that Mr. / Ms. SONA SHIVA of III ECE

has participated in the **"PROJECT DAY 2022"** held on 21st & 22nd April 2022 at **Easwari Engineering College**,

Ramapuram, Chennai - 600 089.

Project titled Virtual Assistant

Dr. B. Venkatachalapathy
Dean - Research

Dr. R. S. Kumar
Principal

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EASWARI ENGINEERING COLLEGE
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RAMAPURAM, CHENNAI

PROJECT DAY 2022

Certificate of Participation

This is to certify that Mr. / Ms. SHRUTHI PRIYA J M. of III ECE

has participated in the **"PROJECT DAY 2022"** held on 21st & 22nd April 2022 at **Easwari Engineering College**,

Ramapuram, Chennai - 600 089.

Project titled Virtual Assistant.

B.Veg

Dr. B. Venkatachalapathy
Dean - Research

Dr. R. S. Kumar
Principal

SRM GROUP OF INSTITUTIONS RAMAPURAM CAMPUS

EASWARI ENGINEERING COLLEGE
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PROJECT DAY 2022

Certificate of Participation

This is to certify that ~~Mr.~~ / Ms. SWATHY R of III ECE

has participated in the **"PROJECT DAY 2022"** held on 21st & 22nd April 2022 at **Easwari Engineering College**,

Ramapuram, Chennai - 600 089.

Project titled Virtual Assistant.

B.Veg

Dr. B. Venkatachalapathy
Dean - Research

Dr. R. S. Kumar
Principal

EASWARI ENGINEEERING COLLEGE

(An Autonomous Institution)

Bharathi Salai, Ramapuram, Chennai - 600 009

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PUBLICATIONS (2021-2022)

TYPE OF PUBLICATION	COUNT
SCOPUS JOURNAL	1
SCI /WOS JOURNAL	16
INTERNATIONAL JOURNAL	17
NATIONAL JOURNAL	Nil
INTERNATIONAL CONFERENCE	36
NATIONAL CONFERENCE	NIL

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SCI

S. No	Name of the Authors	Details of the Publication	Impact Factor	Citations
1	LegaPriyadharshini, Sivakumar	"An Enhanced Scheduling Technique To Maintain Qos In Real Time Data Communication In Wireless Mesh Networking", International Journal of Aquatic Science ,ISSN: 2008-8019,Vol 12, Issue 03, 139-155.	2.744	-
2	Vidhyalakshmi. M; Premkumar .R; Saranya S; Priya. C	"An Automated Water Quality Monitor and Fish Feed Dispenser system in Aqua Farms using Internet of Things", International Journal of Aquatic Science -2008-8019,Vol 12, Issue 02, 2021, 2214-2220	2.744	-
3	Senthilkumar K P, Sivakumar P	"An Efficient approach for removing Haze from single Image using Gaussian Pyramidal Decomposition",Concurrency and Computation-Practice and Experience, 1532-0626, Volume-33 Issue -16.	2.175	1
4	K.Kalaiselvi,L.Vanitha,T. Rajesh Kumar,S. Saranya,K. Kumaresan	"Performance Analysis of Malicious and Link Failure Detection System Using Deep Learning Methodology", Wireless Personal Communications.	2.017	2
5	R.Sundar , A.T.Madhavi, P.Veerakumar , Dr.Suresh.A	"Underwater Biofouling Detection Using Image Processing andNeural Network", International Journal of Aquatic Science, Vol 12, Issue 03, 2021.	2.744	-
6	K.Kalaiselvi,S.Saranya, K.DeepaThilak, Kumaresan.K	"Replication Image Detection Using Convolutional Neural Network", Journal of	1.49	-

		Engineering Research, 2307 -1877, Vol 2021, 1-10,		
7	Swaminathan, J.N., Vignesh, O., Kalyan Chakravarthy, N.S.	"Harmonic Inversion Based Posterirori Minimization in HPA for 5G Communication Framework", Wireless Personal Communications, Vol.120, Issue no.2, Apr-21,1279–1289, 2021	2.017	-
8	Praveen Kumar, R., Raj, J.S., Smys, S.	"Performance Analysis of Hybrid Optimization Algorithm for Virtual Head Selection in Wireless Sensor Networks",Wireless Personal Communications,2021	2.017	1
9	Suresh, A., Resmi R Nair., Neeba, E.A., Kumar, S.A.P.	"Recurrent Neural Network for Genome Sequencing for Personalized Cancer Treatment in Precision Healthcare", Neural Processing Letters	2.908	4
10	Vidya, P.M., Sudha, S.	"A fully integrated VLSI architecture using chaotic PWM for RF transmitter design with electromagnetic interference reduction", Integration, the VLSI Journal, Jan-22, 33 - 45.	1.211	-
11	Sunanthini, V., Deny, J., Govinda Kumar, E., Vairaprakash, S., Govindan, P., Sudha, S., Muneeswaran, V., Thilagaraj, M.	"Comparison of CNN Algorithms for Feature Extraction on Fundus Images to Detect Glaucoma", Journal of Healthcare Engineering, 2022	2.682	-
12	Arivuselvam B, Sudha S	"Leukemia classification using the deep learning method of CNN", Journal of X-Ray Science and Technology, Volume 30,Issue 3, Pages 567 - 585.	1.535	-
13	Indumathy, D., Ramesh, K., Senthilkumar, G., Sudha, S., Mohanaprakash, T.A.	"Investigations on coronary artery plaque detection and subclassification using machine learning classifier", Journal of X-Ray Science and Technology, Volume 30, Issue 4 513 - 529, 2022.	1.535	-
14	S. Saranya and S. Sudha	"Execution Analysis of Clarity Locale Segmentation for Condition Recognition Utilizing Genetic Algorithm Method", Journal of Medical Imaging and Health Informatics,	0.189	-

		Volume 12, Number 1,January 2022, p. 20-26(7).		
15	S.Vanaja,R Preetha, Sheela , Durga Devi, Warrier GS, Krishnan R	"Location of early stage tumor detection using microwave imaging in the breast phantom", Current Medical Imaging.	1.24	-
16	Dharini N,Jeevaa Katiravan, Udhaya Sankar S M	"Wireless Sensor Network-based Detection of Poisonous Gases Using Principal Component Analysis", Computer Systems Science and Engineering, 0267-6192, Volume 44, Issue 1, 249-264.	4.397	-

SCOPUS

(i)National & International Journals

S. No	Name of the Authors	Details of the Publication	Impact Factor	Citations
1.	S. Suruthi,Shivaani M,Swetha M	"Contactless COVID-19 vaccine verification system", International Journal of Health Sciences, ISSN:2550-6978E-ISSN:2550-696X, 6(S4), 4481–4490, https://doi.org/10.53730/ijhs.v6nS4.9096	1.663	-

(ii)National &International Conference Proceedings

S. No	Name of the Authors	Details of the Publication	Impact Factor	Citations
1.	Vanaja, S., Preetha, R., & Sudha, S	"Hand Gesture Recognition for Deaf and Dumb Using CNN Technique", 6th International Conference on Communication and Electronics Systems (ICCES), IEEE Explore, 2021	2.28	1

2.	Balaji, A., Rahul Krishnan, **S. Vanaja**, T. Sowmiya, and R. Vanitha.	"Design and Analysis of Tri-Band Stop FSS for Medical Instruments Shielding Application", 6th International Conference on Communication and Electronics Systems (ICCES), IEEE Explore, 2021	2.28	-
3.	Jeyapoornima, B., V. Chinnammal, **S. Vanaja**, J. Joselin Jeya Sheela, Rahul Krishnan, and Y. DEEPIKA	"DESIGN OF MEANDER LINE ANTENNA FOR FOETAL MOVEMENT DETECTION", 6th International Conference on Communication and Electronics Systems (ICCES), IEEE Explore, 2021	2.28	1
4.	SP, Vijaya Vardan Reddy, B. Sathyasri, A. Balaji, **S. Vanaja,** Rahul Krishnan, and Y. Deepika	"Automatic Number Plate Recognition System for Entry and Exit Management", 6th International Conference on Communication and Electronics Systems (ICCES), IEEE Explore, 2021	2.28	-
5.	Preetha, R., **Vanaja, S**., Sudha, S., Vidyalakshmi, M., & Lathamanju, R	"LOWER GRADE GLIOMA DETECTION USING MRI IMAGE", 6th International Conference on Communication and Electronics Systems (ICCES), IEEE Explore, 2021	2.28	-
6.	D.C.Diana, S.P.Joy Vasantha Rani	"Modified inertia weight approach in PSO algorithm to enhance MMSE Equalization", IEEE 4th international conference on Electrical , Computer and Communication Technologies, 2021	0.48	1
7.	Parthiban T, Reshmika D, Lakshmi N, Ponraj A	"Handwritten Text to Braille for Deaf-Blinded People Using Deep Neural Networks and Python", Lecture Notes in Networks and Systems, ISSN - 23673370, V-339, PP-379-393, 10.1007/978-981-16-7018-3_28	0.6	-

(iii) Book Chapters

S. No	Name of the Authors	Details of the Publication	Impact Factor	Citations
1.	V. Sathya, Kirankumar Manivannan, V. Vani, Sridhar Chandrasekaran	"An Obfuscation Technique for Malware Detection and Protection in Sandboxing",Springer book chapter, Artificial Intelligence for Cyber Security: Methods, Issues and Possible Horizons or Opportunities. Studies in Computational	1.06	-

		Intelligence, vol 972. Springer, 978-3-030-72236-4, 235-261, https://doi.org/10.1007/978-3-030-72236-4_10		
2.	Swaminathan, J.N., Umamaheshwari, S., Vignesh, O., Raziya Sulthana, P., Hima Bindu, A., Prasanna, M., Sravani, M.	"Image Encryption Using Diffusion and Confusion Properties of Chaotic Algorithm", Lecture Notes on Data Engineering and Communications Technologies, 75, 305-312, 10.1007/978-981-16-3728-5_22	0.42	-

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PATENTS 2021-2022

S.No	INVENTORS	Title of the Patent	Patent. no	Year
1	**R. Praveen Kumar K. Suriya B. Arivuselvam R. Hema K. Abirami Dr. Jessintha**	A badge-shaped microstrip antenna for X-Band application	202141024860 A	June 2021
2	**P. Bini Palas Ms. S. Uma Maheswari**	Lung Pulmonary Disease with Coronavirus (COVID-19) Infection Identification And Classification	202141043919	October 2021
3	**Dr. S. Sudha Dr. R. Senthamizh Selvi Dr. Resmi R Nair Mrs. Bindu Babu Mrs. Caroline Jebakumari**	A system based on three dimensional thermal imaging and image processing for analysing dermatological disease and disorder	202141055032	December 2021
4	**Dr. D. Sivakumar, Mr. M. Premanand**	Compact Antenna Arrays for MIMO	20224102370	Filed on 22.04.2022
5	**1)Dr.S.Sudha 2)Dr.S.Saranya 3)Dr.S.Vanaja 4)Mrs. Bindu Babu 5)Mr.V.Dinesh 6)Mr.M.Kirankumar 7)Dr.S.R.Sriram 8)Dr.D.C.Diana 9)Dr.A.Ponraj**	Techniques to Protect Electronic Circuit Boards from Maturization	202241021369 A	Filed on 09/04/2022, Published on 22/04/2022

	10)Mr.B.Arivuselvam			
6	**Dr. R. Senthamizh Selvi** **Dr. K. Rahimunnisa** **Dr. D. Jessintha** **Mrs. A. Abirami** **Dr. A. Ponraj**	A Low-cost System for Screening Patients with Diabetic Retinopathy using Machine Learning	202241020826	06.04.2022 25.04.2022
7	**Dr. Resmi R Nair** **Dr. S. Sudha** **Dr. R. Senthamizh Selvi** **Ms. R. Hema** **Ms. T. Gophika** **Ms. S. Suruthi**	Development of device for recognising speech from an audio signal	202241027259 A	17/06/2022
8	Dr. B. Suresh Chander Kapali Dr. B. Suresh Chander Kapali **Mrs. S. Uma Maheswari** **Mrs. P. Bini Palas** Mrs. J. Johnsi	Design of Precise Diagnostic Medical Probe for Detection of Colorecta Cancer	202241050129 A	09/09/2022
9	Dr. K. Mala Dr. Chandrakala **T. Gophika** **Dr. S. Sudha**	Electronic device and Internet based dynamic authentication method	202241041136	19/07/2022
10	Thiyagarajan Anitha Dr.S.Sunderarajan M.Renuga K.V.Mahalakshmi Dr.R.Venketeshkumar K.S.Mohan **V Dinesh** Dr.Bethanny Janney J Dr.M.Udhayamoorthi	A Novel Portable Machine to Sanitize Footware	202241052384 A	Published on 14.10.2022

	Dr.Dishore Shanmugam Vanaja			

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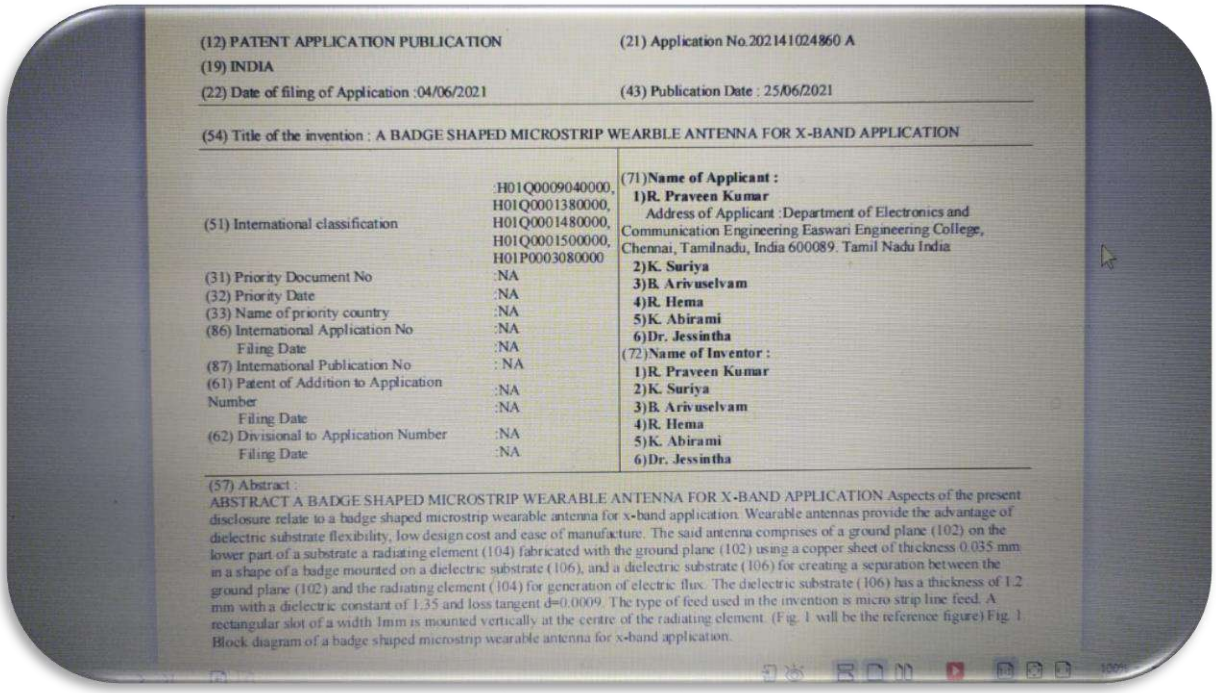
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PATENTS 2021-2022 PROOFS



(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/06/2021

(21) Application No.202141024860 A
(43) Publication Date : 25/06/2021

(54) Title of the invention : A BADGE SHAPED MICROSTRIP WEARABLE ANTENNA FOR X-BAND APPLICATION

(51) International classification	:H01Q0009040000, H01Q0001380000, H01Q0001480000, H01Q0001500000, H01P0003080000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
1)R. Praveen Kumar
Address of Applicant :Department of Electronics and Communication Engineering Easwari Engineering College, Chennai, Tamilnadu, India 600089. Tamil Nadu India
2)K. Suriya
3)B. Arivuselvam
4)R. Hema
5)K. Abirami
6)Dr. Jessintha
(72)**Name of Inventor :**
1)R. Praveen Kumar
2)K. Suriya
3)B. Arivuselvam
4)R. Hema
5)K. Abirami
6)Dr. Jessintha

(57) Abstract :
ABSTRACT A BADGE SHAPED MICROSTRIP WEARABLE ANTENNA FOR X-BAND APPLICATION Aspects of the present disclosure relate to a badge shaped microstrip wearable antenna for x-band application. Wearable antennas provide the advantage of dielectric substrate flexibility, low design cost and ease of manufacture. The said antenna comprises of a ground plane (102) on the lower part of a substrate a radiating element (104) fabricated with the ground plane (102) using a copper sheet of thickness 0.035 mm in a shape of a badge mounted on a dielectric substrate (106), and a dielectric substrate (106) for creating a separation between the ground plane (102) and the radiating element (104) for generation of electric flux. The dielectric substrate (106) has a thickness of 1.2 mm with a dielectric constant of 1.35 and loss tangent d=0.0009. The type of feed used in the invention is micro strip line feed. A rectangular slot of a width 1mm is mounted vertically at the centre of the radiating element. (Fig. 1 will be the reference figure) Fig. 1 Block diagram of a badge shaped microstrip wearable antenna for x-band application.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :28/09/2021

(21) Application No.202141043919 A
(43) Publication Date : 05/11/2021

(54) Title of the invention : LUNG PULMONARY DISEASE WITH CORONAVIRUS (COVID-19) INFECTION IDENTIFICATION AND CLASSIFICATION USING

(51) International classification :G06T0007000000, G06N0003040000, G06K0009620000, A61B0006030000, A61B0006000000
(86) International Application No :NA
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Filing Date :NA

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(57) Abstract :
Abstract The entire lung image, including the pulmonary images, is acquired from the efficient Computed Tomography (CT) device plays a vital role in early lung disease diagnosis and treatment based on the real-time application. Convolutional Neural Network (CNN) based analysis and classification of the deadly lung pulmonary disease using the CT medical images employing the Deep Learning (DL) tools. The lung tissue contrast of morphological structures of the thoracic images helps the specialists in diagnosing and treating all lung diseases more effectively. This image processing model consists of the deep learning classifier with the training datasets stored in the database are compared to the testing samples. The COVID-19 infection is identified using the temperature sensor embedded with Internet of Things (IoT) cloud and the image processor. Since the symptoms of the pulmonary disease are same as the coronavirus except that of the temperature raise added to COVID-19 infection is predicted earlier and shall proceed to further treatment.

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :28/11/2021

(21) Application No.202141055032 A
(43) Publication Date : 10/12/2021

(54) Title of the invention : A SYSTEM BASED ON THREE-DIMENSIONAL THERMAL IMAGING AND IMAGE PROCESSING FOR ANALYSING DERMATOLOGICAL DISEASE AND DISORDER

(51) International classification :H04N0007180000, G01V0003120000, G06K0009000000, G01C0011000000, G06F0003000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
[035] The present invention discloses a system based on three-dimensional thermal imaging and image processing for analysing dermatological disease and disorder. The system includes, but not limited to, an image capturing device adapted to utilize the computer vision storehouse to read the camera data, and be converted to spectral intensity digital image data file; a processing unit to process a matrix class for the converted spectral intensity digital image Data file, realize that spectrum matrix iteration rebuilds computing through the thermal image processing, obtain three-dimensional emission coefficient of the skin lesion; and a database storage to receive the transferred obtain three-dimensional emission coefficient data in rebuilding object space coordinate points to further creating function library, realize final three-dimensional IR image display based on processed captured image data for detecting dermatological disease and disorder. Accompanied Drawing [FIG. 1]

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :22/04/2022

(21) Application No.202241023706 A
(43) Publication Date : 13/05/2022

(54) Title of the invention : COMPACT ANTENNA ARRAYS FOR MIMO APPLICATIONS

(51) International classification :A61C0007000000, H01Q0019060000, A61L0031140000, B42B0004020000, A61C0007280000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
The Multiple-input multiple-output (MIMO) radio wire framework is an essential report in the present Wireless correspondence framework particularly when the sign proliferates through a few adulterated conditions. In our invention, another methodology of a MIMO radio wire is proposed. It is worked in the recurrence band of 9.45 GHz. This radio wire is reasonable to neutralize the blurring impact brought about by multipath proliferation. We use antenna-antenna connections to diminish spatial relationships among receiving wire components, which takes into account firmly stuffed exhibits for MIMO applications in little convenient gadgets. The decrease in spatial connections is a consequence of the adjustment of the receiving wires' radiation design when the components are carried near one another. We show how a specific dielectric receiving wire component can be controlled so that firmly positioned components have either almost isotropic radiation examples or more anisotropic ones.

No. of Pages : 13 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :09/04/2022

(21) Application No.202241021369 A
(43) Publication Date : 22/04/2022

(54) Title of the invention : TECHNIQUES TO PROTECT ELECTRONIC CIRCUIT BOARDS FROM MATURIZATION

(51) International classification :H05K0001020000, H05K0005000000, H05K0005020000, E05B0049000000, H05K0001160000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Circuit boards of electronics are used in a variety of devices. Such as - TV, music system, computer, vehicle, fan and air conditioner, medical machine, industrial machine etc. The most important thing is that the circuit boards of electronics also deteriorate very quickly. There are many reasons for their deterioration. For example, over-voltage supply and moisture. To solve this problem, we consider a technique due to which the electronic circuit board can be easily protected from moisture. We describe this technique in drawing and detailed description, for study. To avoid moisture to the electronic circuit board, we use a small size square 2 cm thick, cardboard made of cotton in this new technique. We put this cardboard on the electronics circuit board. The speciality of cotton cardboard is that it absorbs moisture. Whenever moisture will enter inside a circuit board, this cotton-made cardboard will absorb the moisture immediately.

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :07/04/2022

(21) Application No.202241020826 A
(43) Publication Date : 22/04/2022

(54) Title of the invention : A Low-cost System for Screening Patients with Diabetic Retinopathy using Machine Learning

(51) International classification :A61B0003120000, G06N0003040000, A61B0003140000, G16H0050200000, G06K0009660000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
[010] Diabetes is an important global disease, with impacts mainly on primary health care, which can present several complications, including diabetic retinopathy. Diabetic Retinopathy (DR) is one of the leading causes of blindness worldwide. Diabetic retinopathy is diagnosed using funduscopy, but the equipment to perform such an examination is difficult to access, especially in less developed countries. Therefore, this work aims to analyze and propose a system for screening patients with diabetic retinopathy, using fundus images obtained by a cell phone in conjunction with lenses. Lenses and methods for obtaining the fundus image were analyzed, in addition to the analysis of machine learning techniques and neural networks for image processing. As a result, the most suitable lens was the non-attachable VOLK 20 diopter lens. The proposed method for image acquisition, composed of a stable and mobile physical structure in all axes, with the presence of three variables (eye, lens, and cell phone), was developed by 3D modeling and printing. For processing, the Tensorflow framework was chosen, due to its very active community and its good results for two-dimensional images. For the integration of the system, a mobile application was developed, in order to perform the interface between the image acquisition and the neural network. Tests were performed on Fantons, using the images from the EyePacs-1 database. After processing, the integrated system returns to the user, through the application, the probability of the existence of diabetic retinopathy. An f-score of 0.64 was obtained. With this, it is possible to develop a method of screening for diabetic retinopathy, for use in primary care in locations with little access to eye care. Accompanied Drawing [FIG. 1] [FIG. 2] [FIG. 3] [FIG. 4] [FIG. 5] [FIG. 6] [FIG. 7] [FIG. 8] [FIG. 9] [FIG. 10]

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/05/2022

(21) Application No.202241027259 A
(43) Publication Date : 17/06/2022

(54) Title of the invention : Development of device for recognising speech from an audio signal

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(51) International classification :G10L0025780000, G10L0021021600, G10L0021020800, G10L0025210000, G10L0025840000

(86) International Application No :PCT// Filing Date :01/01/1900

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(61) Patent of Addition :NA -- to Application Number :NA Filing Date

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(19) INDIA
(22) Date of filing of Application :02/09/2022

(21) Application No.202241050129 A
(43) Publication Date : 09/09/2022

(54) Title of the invention : DESIGN OF PRECISE DIAGNOSTIC MEDICAL PROBE FOR DETECTION OF COLORECTAL CANCER

(51) International classification :C07C0067055000, H04R0025000000, A61P0025220000, C07K0014470000, A61P0031000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Early diagnosis of colorectal cancer with customized treatment is possible by detecting oncogene mutation. In this research we focus on a sensitive and rapid detection of specific mutation assay using modern clinical probe able to detect specific hot spots. This clinical probe is able to recognize mutation that occurs in DNA of the tissues of colorectal cancer by integrating it with PCR (polymerase chain reaction). Amplification of the target mutation is provided by the designed hot spot detecting clinical probe in the analysis using PCR which detects genetic material. The efficiency of mutation detection is obtained by calculating the threshold of the cyclic reaction. The detection limit is 5% to 10% of threshold value. Several sample tissues of various patients affected by colorectal cancer is analyzed by the proposed clinical probe, which is able to provide 80% efficiency compared to conventional techniques.

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(22) Date of filing of Application :14/09/2022

(21) Application No.202241052384 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : A NOVEL PORTABLE MACHINE TO SANITIZE FOOTWEAR

(51) International classification :A47L0023260000, F24F0003160000, A61L0002100000, A61B0050300000, A01K0001010000
(86) International Application No : /PCT//
Filing Date : 01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
Filing Date : NA
(62) Divisional to Application Number : NA
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(57) Abstract :
Generally, the floor mat is widely accepted for cleaning the underneath of footwear and adopted even in various sensitive locations, for example, Intensive Care Units (ICU), surgery wings, sterile areas of a pharmaceutical manufacturing unit, food packaging and manufacturing locations etc. The user wearing the footwear walks on roads, public toilets, malls, parks, and other open areas from where the footwear is more prone to nosocomial infections/microorganisms. People having these infections embedded in the footwear when they visit these sensitive locations, contaminate the floor and at times become a primary source of spreading serious diseases to other people. In this invention, a sanitization device for sanitization of a footwear that comprises: a back panel housing having an inner surface, an outer surface and surrounding edges; a front panel housing having an inner surface, an outer surface and surrounding edges; a coupling means included along a portion of the surrounding edges of each housing panel arranged to foldably couple the back panel housing and the front panel housing to i) permit the folding of the housings toward each other to enable the inner surface of the front panel to face the inner surface of the back panel to form a closed sanitation device and ii) to permit the unfolding of the housings away from each other to enable the outer surface of the front panel and the outer surface of the back panel to be substantially coplanar to rest on a floor and form an open sanitation device; the back panel housing comprises: a dirt removal mat mounted to the inner surface of the back panel, wherein the dirt removal mat comprises one or more dirt removal means to remove the dirt from the footwear; the front panel housing comprises a first compartment and a second compartment, wherein the second compartment is arranged on top of the first compartment; the first compartment comprises: a battery for direct current (DC) supply; a ballast arranged to receive the direct current (DC) supply from the battery and convert the direct current (DC) supply into alternating current (AC) supply; the second compartment comprises: one or more ultraviolet (UV) radiation emitting sources, which when the UV radiation emitting sources receive the AC current supply, emit UV radiation; one or more limit switches.

No. of Pages : 11 No. of Claims : 3

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SMART INDIA HACKATHON 2022

S.No	Name of the Students	MENTOR	Problem Statement/Topic	Participated/Award
1	D Aarthy Ajitkumar M Akshaya M Charulatha S Charulatha T S Gopalakrishnan T	Mr V Dinesh, AP/ECE	ST888- Automated feedback system of Non-functioning of street lights in the rural areas of central India.	Participated, selected for the grand finale, received the certificate of participation with a consolation prize for best competency, and Team Mentor received the certificate for his exceptional contribution as a mentor in Smart India Hackathon '2022.

2	M.S.Vaaraghi Esther Rani P T Akash K Dhanavarshini K Jayashree S Thilagavathy E	MRS. A.T.MADHAVI	STUDENT INNOVATION	Participated
3	Sherlee B P Sushmitha R Tamizh Vanan K Thirumalai Raj M Vishanth R Vithun N M	Dr.S.Vanaja/AP; Dr.S.R.Sriram/AP	Continuous monitoring of Blood pressure using ECG and PPG sensor	Participated
4	PUVIYARASI K SAI KEERTHI A SOWMIYA A SMIRITI SHREE C.S SOWMIYA N	Dr.S.Vanaja/AP; Dr.S.R.Sriram/AP	Non-invasive Glucometer	Participated

	SUPRAJA R			
5	NANDINI R PRIYADHARSHINI R CHARUPRIYA HARIHARASUDHAN T ARUN K S DEEKSHIGA G	Ms.S. Suruthi /AP, Mr. M. Kirankumar/ AP	ML1189 Waste management system	Participated
6	BHUVANESHWARAN L JESSICA ACHAMMA JOE JOAN AASHRITHA A HIRESH R GOKULAKRISHNAN ANAGHA RAGUNATH	Ms.S. Suruthi /AP, Dr.Resmi Nair/ASP	SM943 Smart Automation	Participated
7	THIRUKSHA G SRIRANJANI T VASANTH B SWETHA S VITTAL S	Gophika T,Dr.D.Jessintha	Secure wireless controller for hand-held remote operation of traffic signals in peak hours	Participated

	SHREE ARVINDHAN			
8	PREETHI.R JESRINA.M SANJAY S VISHRUTHA R V J BIBIN JOE Vigneshwaraa.R	Dr.S.vanaja/AP; Ms.S. Suruthi /AP,	Segregation of biomedical waste using Deep Learning Techniques	Participated
9	Priyadarshini C R Poovarasan M Kumaran S Monisha A V Meiyarasu V Karthik Madhan	Mrs. S Caroline Jebakumari, Mrs. Bindu Babu	Smart Solar Tracker with Ingenious framework	Participated
10	Sakthi Sneghaa V A Shakthi S P Sona Shiva Sruthi Priya D M Swathy R	Dr O Vignesh ,Mr Praveen Kumar	Accessing visual information (written information) by persons with visual disability.	Participated

	Thilagavathy E			
11	Pramodh Kumar Kaviya V LingaRamkumar Krishnan N Saicharan Nithin V	Mr V Dinesh	Disaster Managment	Participated

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SMART INDIA HACKATHON 2022 REPORT

Date: 25.8.2022

Venue: IIT, Kanpur

Team Selenium from the Department of Electronics and Communication Engineering represented Easwari Engineering College in the Smart India Hackathon 2022 grand finale conducted at IIT, Kanpur, UP on Aug 25th and 26th 2022. The hackathon went on for 36 hours without any break. It was a tough fight between another team and us out of 5 teams under Problem Statement No ST888, statement Title - Automated feedback system of Nonfunctioning of street lights in the rural areas of central India. The Team had a great time in exposing their talents, and showcasing skills and had good exposure to learning professional and management skills. Overall, the evaluators were satisfied with our solution and greeted us

Highlights of the Smart India Hackathon’2022 Grand finale


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Persistent
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SMART INDIA HACKATHON 2022
#SIH Senior Software Edition
GRAND FINALE 2022
August 25-26
Participation
Certificate
This Certificate is awarded to
D Aarthy
for participating in Smart India Hackathon, 2022
Sh. K Sanjay Murthy
Secretary, Higher Education, Ministry of Education
Prof. Anil D. Sahasrabudhe
Chairman, AICTE Ministry of Education
Dr. Abhay Jere
Chief Innovation Officer, Ministry of Education's Innovation Cell
Dr. Anand Deshpande
Chairman and MD, Persistent Systems
Broadcast Partner
MedTech IIT KANPUR
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Ajitkumar M
for participating in Smart India Hackathon, 2022
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Ministry of Education
Dr. Abhay Jere
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SMART INDIA HACKATHON 2022
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Mentor
Certificate
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Gopalakrishnan T.
for exceptional contribution as a Mentor in Smart India Hackathon, 2022
Sh. K Sanjay Murthy
Secretary, Higher Education, Ministry of Education
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Chairman, AICTE
Ministry of Education
Dr. Abhay Jere
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Ministry of Education's Innovation Cell
Dr. Anand Deshpande
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Participation
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Charulatha S
for participating in Smart India Hackathon, 2022
Sh. K Sanjay Murthy
Secretary, Higher Education, Ministry of Education
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Chairman, AICTE Ministry of Education
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SMART INDIA HACKATHON 2022
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Charulatha TS
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Sh. K Sanjay Murthy
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SMART INDIA HACKATHON 2022

#SIH Senior Software Edition

GRAND FINALE 2022
August 25-26

Mentor

Certificate

This Certificate is awarded to

V. Dinesh

for exceptional contribution as a Mentor in Smart India Hackathon, 2022

Sh. K Sanjay Murthy
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Prof. Anil D. Sahasrabudhe
Chairman, AICTE
Ministry of Education

Dr. Abhay Jere
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e-Sim Contest

S. No	Organization / Agency / Scheme Name	Team Members with Class	Name of the Faculty Guide	Project Title	Type of project (application, product, research, review, etc.)	Participation/Winning Details	Details of POs and PSOs addressed through the projects
1	Mixed Signal Circuit Design and Simulation Marathon	Shakthi SP Sakthi Sneghaa V A Sona Shiva Sruthi priya Samyuktha sruthi Soundarya	Dr.R.Senthamizh selvi	e-SIM Marathon	Design	Won excellency award	PO1 PO9 PO11 PSO1 PO1 PO9

	using e-Sim	Srividya Sooraj Sruthi Priya M. S. Vaaraghi Shruthi .S. S Vignesh. R Varsha. B Yogapriya. 8 B					PO11 PSO1 PO1 PO9 PO11 PSO1
2	Mixed Signal Circuit Design and Simulation Marathon using e-Sim	Lokesh. M Gokula Krishnan.E Vasanth. M.S Swathy. R Sudev.G Triniton Simon Paul E.Surya Subhishwar	Dr.Resmi R Nair	e-SIM Marathon	Design	Participated	PO1 PO9 PO11 PSO1 PO1 PO9 PO11 PSO1 PO1 PO9 PO11 PSO1
3	Mixed Signal Circuit Design and Simulation Marathon using e-Sim	Yashwanth Vishwwa. S Vignesh. B sujidhan.s.j yogaverma.v	Ms. Bindhu Babu	e-SIM Marathon	Design	Participated	PO1 PO9 PO11 PSO1 PO1 PO9 PO11

							PSO1 PO1 PO9 PO11 PSO1
4	Circuit Design and Simulation Marathon using eSim	Krishnamoorthy, III ECE B, M.Aakash Ece III Year A Section, Samyuktha Surithy-II ECE C, Yogapriya. B- II ECE C, Suruthy Priya D M.- II ECE C	Dr.R. Senthamizh Selvi, ASP/ECE	Marathon using eSim	Application	**Won -5 National level awards**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12. PSO1,PSO2,PSO3
5	Open Innovation Challenge	M. Subiksha, S. Ramadevi, P.Supritha	Mrs. Bindu Babu	Smart AI Bus	Application	**Best team Work Award**	PO1, PO2, PO3, PO4, PO5, PO9, PO10,

							PO11, PO12. PSO1,PSO2,PSO3
6	Open Innovation Challenge	M. Subiksha, S. Ramadevi, P.Supritha	Mrs. Bindu Babu	Smart AI Bus	Application	**Best team Work Award**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12. PSO1,PSO2,PSO3
7	Grand Innovation challenge	5. Sona Shiva Varsha B Swathy R 6.Samyuktha Shrruthi K R (team leader) 2. Yogapriya B 3 Sri Malini R	R.Praveen Kumar Dr.R.SENTHAMIZHSELVI Gophika T	Design of Bluetooth or USB Headset. Design of low cost wireles	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10,

		7. S.Suruthuka (team leader) V.S.Sneha 8. M.Rushmitha Soundarya.R (team lead) Roopa Shree.V 9.Srividya.R Vishrutha R V Sherlee B P Vishnu Priya G		s charger Wireless charger To design a low cost bluetooth speaker			PO11, PO12. PSO1,PSO2,PSO3
8	Grand Innovation challenge	10. THIRUKSHA G SOWMIYA A SUPRAJA R 11. Shivani. S Sri Harini. K Vasanth. B G R Priyavarshini(Team Leader) B Kiruthiga	DR.O. VIGNESH Mrs.R. Hema .	Design of low cost power bank P-003: To design a Low-cost wireless Charger	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12.

							PSO1,PSO2,PSO3
9	CII Young Designer Awards 2021	M. Subhiksha N. Shrija S. Rama Devi P. Supritha	Bindu Babu	SUSTAINABLE BUS TRANSPORT SYSTEM	Application	**Grand Finale**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12. PSO1,PSO2,PSO3
10	CII Young Designer Awards 2021	SHIVAANIM	Mrs. S. Suruthi,	Moble App for Health care	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12.

							PSO1,PSO2,PSO3
11	CII Young Designer Awards 2021	Sooraj.I	Mr. R. Praveen Kumar.	Propeller clock	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12. PSO1,PSO2,PSO3
12	CII Young Designer Awards 2021	Samyuktha Shrruthi, Yogapriya.E	Mrs.K. Gopika	Pothole detection and intimation system	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12.

							PSO1,PSO2,PSO3
13	CII Young Designer Awards 2021	Vaaraghi M.S	Mrs.Madhavi	Agriness	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12. PSO1,PSO2,PSO3
14	CII Young Designer Awards 2021	Srinidhi R Sneha V S	Mr.R. Praveen	Autotem	Application	**Registered**	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12.

							PSO1,PSO2,PSO3

ACADEMIC YEAR

2020-2021

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TNSCST PROJECTS (2020-2021)

S. No	Title of the Project	Investigators	Department	Funding Agency	Date of Application	Amount (lakhs)
1	BORDER CROSSING ALERT TO SOLDIERS	SWETHA.G, SIVAGAMI.K , SRIKALA.V, Dr.M.DEVARAJU	ECE	TNSCST	21.01.2021	0.0780
3	Message sharing through optical communication using cipher encryption method in python.	S. VenkataSubramanian S. Vishwesh Vaideeswaran, Dr.M.DEVARAJU	ECE	TNSCST	21.01.2021	0.1
3	FIREFIGHTER SAFETY USING IoT	AARTHI K DARSHAN S KARAN S, Mrs. S. Caroline Jebakumari	ECE	TNSCST	21.01.2021	0.04545
4	Real time Automated CPR device based on Arrhythmia Detection	Durgavani C Indiramalinee Jane Carline M , Mrs. S. Caroline Jebakumari	ECE	TNSCST	21.01.2021	0.061
5	GESTURE RECOGNITION ROBOT ASSISTING CAFETERIA	ADITYAA.V ABISHEK.S ANURUTH SREE.V, DR.D.JESSINTHA	ECE	TNSCST	21.01.2021	0.1077

6	PEDDLER'S MOTION DETECTION KIT WITH QUICK RESPONSE TECHNOLOGY	SANJAY R, THARUN KUMAR V, TARUN ABHAYE T, DR.D.JESSINTHA	ECE	TNSCST	21.01.2021	0.09
7	Classification of different plant leaf diseases using multiple Convolutional Neural Network and Image processing	SUPRAJAA.A.P SOFIA FARHEEN.B SHIVALI.S, A. T. Madhavi	ECE	TNSCST	21.01.2021	0.09999
8	A cyber safety device to facilitate and take care of people during quarantine using IOT.	Selva Kavya.A Senthurammal. V Shruthilaya.A , Mr.R.PRAVEEN KUMAR.	ECE	TNSCST	21.01.2021	0.05999
9	IOT based COVID-19 testing booth automation	ANUSHA A GOLDEN EV BRAWIN GOKUL KRISHNAN R, Mr.R.PRAVEEN KUMAR.	ECE	TNSCST	21.01.2021	0.06499
10	Personal Assistant for the Visually Impaired	Lasya Ippagunta Preethi Subbusamy Roshni . S, Dr. K. Rahimunnisa	ECE	TNSCST	21.01.2021	0.0900
11	Design of Easy Appliance Control System Based on Virtual Reality	Rahavee P Nethra M Madhan B, Dr. Resmi R Nair	ECE	TNSCST	21.01.2021	0.1200
12	ARTIFICIAL INTELLIGENCE BASED CONFERNCE AUTOMATION SYSTEM INVOLVING IMAGE RECOGNITION	Krishnapriya Prineetha R, Dr. Resmi R Nair	ECE	TNSCST	21.01.2021	0.1000

13	SECURE AND ROBUST FRAGILE WATERMARKING SCHEME FOR MEDICAL IMAGES	GEETHA PRIYA.S HARINI.B HARINI PRIYA.R, Dr. Resmi R Nair	ECE	TNSCST	21.01.2021	0.18
14	Multitasking robot for farmer assistance using IOT	VASANTHAMATHY R SAJITHA BANU R, SHOMIKA N, Dr. S. Saranya	ECE	TNSCST	21.01.2021	0.925
15	Speech Emotion Recognition using Machine Learning for Human Computer Interaction	S.Supriya V.Sangeetha M.Sivaranjani, Dr. Senthamizh Selvi R	ECE	TNSCST	21.01.2021	0.055
16	Novel Speech Enhancement System for Hearing Impaired Listeners	P. SATHISH KUMAR R. SRI KRISHNA S. SURYA RAO, Dr. Senthamizh Selvi R	ECE	TNSCST	21.01.2021	0.18
17	SPORTS GROUND AUDIENCE HEALTH MONITORING SYSTEM [FOR COVID-19] USING SMART WIRELESS SENSOR NETWORK	Aiswarya S, Ashwin R , Dharshini V , A. Usha	ECE	TNSCST	21.01.2021	0.07535
18	SKIN CANCER DETECTOR AND CLASSIFIER USING DEEP LEARNING	TANISHA S SHALINI S SUBHALAKSHMI V S, Arivuselvam B	ECE	TNSCST	21.01.2021	0.06

19	COVID Safety System with Optimum Energy Management Facility	Vignesh.M Saisankar.S, Dr. Senthamizh Selvi R	ECE	TNSCST	21.01.2021	0.1915
20	Automatic Drip Irrigation for Terrace and Indoor Garden using Internet of Things(IoT) for rural TAMILNADU	R.SARAVANAKUMAR P.SRISIVARAM S.YOGESWARAN, K. Abirami	ECE	TNSCST	21.01.2021	0.13
21	A Server - client Application aiding the necessities of the needy	CHANDRU .V HARIOHM VARUSH HARIHARAN .K, P. Bini Pala	ECE	TNSCST	21.01.2021	0.0705

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

e-Sim Contest

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROJECT DAY (2020)

SL.NO.	PROJECT TITLE	TEAM MEMBERS	MENTOR
1	Sign language to text conversion using Machine Learning	Lasya Ippagunta Reshmika Dhanapani	Gophika .T
2	Deep Learning Based Emotion Recognition through EEG for Autism affected person	Mohamed Suhail.B Ashish Babu	Dr. S. Sudha
4	Humanoid Robo Arm	Gokul B Darshan	Dr. R. Senthamizh Selvi
5	Audio Transmission and reception via light using photodetector	1. S. Venkatasubramanian 2. R. Sanjay 3. V. Tharun Kumar 4. S. Vishwesh Vaideeswaran	Bindu Babu
6	Medsol-Digitization of Medical Solutions	B.P.Sibi	Mr. A. Ponraj
7	Voice Controlled Home Automation	Subhalakshmi Sivaranjani	Dr. R. Senthamizh Selvi
8	BlueTooth Controlled Automobile	Supriya	Dr. D. Jessintha
9	Make it Simple-Digital Clock	Ashven Raju P.A Harish V	Dr. S. Sudha

		Jashwanth A D	
10	**Electric Air Purifier**	**Tharun , Suriya Rao**	**Bindu Babu**

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PUBLICATIONS (2020-2021)

TYPE OF PUBLICATION	COUNT
SCOPUS JOURNAL	6
SCI /WOS JOURNAL	6
INTERNATIONAL JOURNAL	55
NATIONAL JOURNAL	Nil
INTERNATIONAL CONFERENCE	54
NATIONAL CONFERENCE	NIL

S. No	Name of the Authors	Details of the Publication	Impact Factor	Citations
1	D. Indumathy, and S. Sudha	"Delineation of Blood Vessels in Coronary Artery Region for Classification of Different Types of Plaques", Journal of Biomaterials and Tissue Engineering, ISSN: 2157-9083 (Print): EISSN: 2157-9091 (Online), Vol. 10, Issue 5 Aug-20, 589–602,	0.824	1
2	B. Jesvin Veancy, P. Yogesh	“Fractional Frequency Reuse with Enhanced Scheduling Strategies", Wireless Personal Communications, Nov. 2020	1.2	5

3	Resmi R Nair	"An Efficient Food Quality Analysis Model (EFQAM) using the Internet of Things (IoT) Technologies", Microprocessors and Microsystems, https://doi.org/10.1016/j.micpro.2021.103972 January 2021.	1.161	2
4	Ranjana Durai, Krithika Selvam, Dr.S.Saranya	"Predictive Analytics Using Deep Neural Networks", IT in Industry, ISSN: 2204-0595, Vol. 9, No.2, 2021, May-21, 1123 - 1127.	-	-
5	Praveen Kumar R	"IoT-Driven Model for Collaboration Based On Learning Paradigms", International Journal of Aquatic Science, 2008-8019, Volume 12, Issue 2, 1725 - 1731.	7.86	-
6	Dr. R. Senthamizh selvi	"Stress Monitoring System using Sensors for Drivers", Bioscience Biotechnology Research Communications P-ISSN: 0974-6455 E-ISSN: 2321-4007, Vol 13 No 13 (2020), pp-317-322.	-	-

ACADEMIC YEAR

2019-2020

EASWARI ENGINEEERING COLLEGE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PUBLICATIONS (2019-2020)

TYPE OF PUBLICATION	COUNT
SCOPUS JOURNAL	3
SCI /WOS JOURNAL	11
INTERNATIONAL JOURNAL	25
NATIONAL JOURNAL	Nil
INTERNATIONAL CONFERENCE	7
NATIONAL CONFERENCE	NIL

S. No	Name of the Authors	Details of the Publication	Impact Factor	Citations
1	D.Sivakumarand V.Murugan,	"Integrated PTS and OSLR (IPTS-OS-LR) Technique for Reducing PAPR in FBMC-based OQAM Systems of MIMO-OFDM", Journal of Electrical Engineering, DOI:10.17265/2328-2223/2018.02.	0.93	-
2	T. H. Feiroz Khan and D sivakumar	" An obstacle aware mobile sink path strategy in WSN", Indonesian Journal of Electrical	1.294	-

		Engineering and computer science (ISSN: 2502-4752) Scopus, Vol.15, no.2, pp.879-887,2019.		
3	N.Noor Alleema and D.Sivakumar	“Cooperative and fresher encounter algorithm for reducing delay in MANET”, Indonesian Journal of Electrical Engineering and computer science (ISSN:2502-4752), Scopus,.pp:1258-1265,2019.	1.294	-
4	N.Noor Alleema and D.Sivakumar	“Volunteer nodes of ant colony optimization routing for minimizing delay in peer to peer MANETs”, Peer to Peer Networking and Applications, Springer, 2019	3.488	5
5	Sri Venketeswaran and D.Sivakumar	“Elliptic Curve Integrated Encryption Scheme combined HACH - PSO algorithm for Energy Balance and Secure Data Aggregation in Wireless Sensor Network”, Journal of electrical Engineering, Vol.4,, 2019	0.93	-
6	N.Legapriyadharshini and D.Sivakumar,	“Enduring and Enhancing A New Adaptive priority based algorithm to maintain QoS for real time data communications in wireless mesh networking”, Journal of Electrical Engineering, Vol. 20, Edition 1, 2020.	0.93	-
7	D. Sivakumar,	"Stepped Slot Patch Antenna with Copper Ground Plane and Solar Cell Ground Plane for Future Mobile Communications", Progress In Electromagnetics Research C,Vol. 98, 187–198, 2020	2.949	2
8	Sriram S. R, Bindu B,	"A physics-based model for LER-induced threshold voltage variations in double-gate MOSFET",Journal of Computational Electronics, 10.1007/s10825-020-01474-w	1.5	3
9	S. UmaMaheswari, V. SrinivasaRaghavan	"Lossless medical image compression algorithm using tetrolet transformation", Journal of Ambient Intelligence and Humanized Computing, Feb. 2020,,https://doi.org/10.1007/s12652-020-01792-8	4.5	18

10	R. Hema, S. Sudha and K. Aarthi	“Performance Studies of MIMO Based DCO OFDM in Underwater Wireless Optical Communication Systems”, Journal of Marine Science and Technology, Springer, ISSN1573-689X (Print) ISSN 0948-4280, 4-7, 2020. https://doi.org/10.1007/s00773-020-0072	1.845	9
11	A.Ponraj, K,Kathiravan,	"Software-Defined Multilayered Admission Control for Quality of Service Assurance in Mobile Ad-hoc Networks"Wireless Communications and Mobile Computing, Wiley,pp.1-23, 2020, https://doi.org/10.1155/2020/2989751	1.396	3