



K.RAMAKRISHNAN COLLEGE OF ENGINEERING

An Autonomous Institution

Permanently Affiliated to Anna University Chennai, Approved by AICTE New Delhi,
ISO 9001:2015, 14001:2015 certified institution, Accredited by NBA and with A grade by NAAC

Samayapuram, Tiruchirappalli – 621 112, Tamilnadu, India.



**Dream big,
work hard,
stay focused....!!!**

2023 - 2024

July - March



Krce.ac.in



Dr. K. Ramakrishnan

CHAIRMAN

Dr. K. Ramakrishnan, a vibrant person filled with dynamism is a shining and definite role model for the budding engineers of this institution. A production engineer with B.E degree from Annamalai University, Tamil Nadu, he was brought up with a vision to make this rural pocket as a hub of technocrats. His ardent faith in discipline and hard work has been winning him success one after the other in all his ventures. He has high aims and lofty ideals to secure a worthy place for this college amongst the renowned colleges in India and abroad. Education has to be taken to the common people; it has to be rooted in a new pedagogy that fosters innovation and leadership in each individual.

Dr.S.Kuppusamy



DIRECTOR

Dr.S.Kuppusamy took up his career in academics out of his passion for the profession and his commitment combined with a zeal for success elevated him to this position. He did his bachelor's degree in Electronics at Erode Arts College, Erode and Master's degree in Business Administration at Kongu Engineering College, Perundurai and Ph.D. in Management at Bharathiar University, Coimbatore



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Dr.D.SRINIVASAN

PRINCIPAL

Dr.D.Srinivasan, The Principal of K.Ramakrishnan College of Engineering, Tiruchirappalli, is a vibrant leader with his ground-breaking approach and proven administrative process produces many young engineering professionals to this society. He received his Ph.D. and Post-Graduation in Manufacturing Technology from the nation's top grade institution NIT, Trichy. Education is not just a process of giving knowledge for a future job but a lifelong process which builds an understanding of moral and ethical values to guide one's life in a right path. KRCE not only focuses on the academic front, but also helps in the development of a student's personality, extra-curricular activities and over all perspective. Everything that makes a good institution - well equipped R&D Cells, Lab facilities for all the departments, Wi-Fi enabled campus, well stacked library with digital facility, career guidance, unique teaching methods, training for competitive examinations, liberty to think and express themselves all are available to mould them to face the challenges confidently

Dr.M.MAHESWARI



HEAD OF THE DEPARTMENT

I am deeply thankful to the Board of management, Director Principal, and the Heads of various departments. Faculty members for their consistent support and active involvement in motivational activities of our department. I extend my heart full thanks to the editorial committee members and students for their tireless effort towards releasing this magazine. Choosing electronics field as profession needs challenging creative and extraordinary mind it gives me pleasure to lead such innovative students, who are the future experts of India



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1

PAPER PUBLICATION



2

PATENT PUBLICATION



3

ACHIVEMENTS



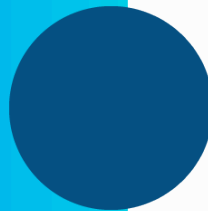
4

**ACTIVITIES
& WORKHOP**



5

FUND RECIVED



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PAPER PUBLICATION 23-24

TOTAL PUBLICATION: 51

- ★ Mr.K.Vigneshwaran Melanoma Malignancy Prognosis using Deep Transfer Learning
- ★ Mr.R.Balamurugan Design of high efficient low power static logic circuit using SG FinFET
- ★ Ms.R.Mahima A Comparative Analysis of the Most Commonly Used Activation Functions in Deep Neural Network
- ★ Ms.R.Mahima Reconfigurable Rounding based Approximate Multiplier for Floating Point Numbers up the branding
- ★ Dr.K.Priyadarshini - Hybrid RNN-FFBPNN Optimized with Glowworm Swarm Algorithm for Lung Cancer Prediction
- ★ Mr.R.Balamurugan Emotion-driven Activity Detection: Detecting Activities Perception through Facial Feature Analysis in Educational Environments
- ★ Dr.C.Jeyalakshmi TTS System for Deafened and Vocally impaired persons in Native Language
- ★ Ms.P.Malini An Efficient Full Adder by Investigating XOR and XNOR Logics with PMOS and NMOS
- ★ Dr.M.Maheswari An optimal channel coding scheme for high-speed data communication
- ★ Dr.R.Samson Daniel A CPW Fed Monopole Antenna Loaded with Metamaterial Unit Cell for Wireless Application
- ★ Mr.T.Muruganatham Deep Learning based Autonomous Transport System for Secure Vehicle and Cargo Matching
- ★ Mr. K. Vigneshwaran Predicting Student Performance and its Outcomes in the Modern Education Systems using Attention based BiRNN and CNN Method
- ★ Mr.M.Karthick Optimizing Energy Usage and Data Storage in Industrial IoT Settings Through Heuristic-Based Data-Rate Processors
- ★ Mrs.J Roselin Suganthi Evaluation of Muscle fatigue based on sEMG using Deep Learning Techniques
- ★ Dr.K.PRIYADARSHINI A Cloud-Connected Digital System for Type-1 Diabetes Prediction using Time Series LSTM Model
- ★ Mr.Syed Hussain A Novel Approach for Detection and Classification of Fish Species
- ★ Dr.M.Vinoth A 2x1 wearable periodical array antenna for IEEE standards
- ★ Ms.N.Radha An empirical analysis of concatenated polar codes for 5G wireless communication
- ★ Dr.S.Stephe Adaptive Wind Driven Optimization based Energy Aware Clustering Scheme for Wireless sensor networks
- ★ Ms.S.Rajapriya Multiband Planar Antenna Employing Open Complementary Split Ring Resonator Metamaterial Element

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PATENT PUBLICATION

TOTAL PATENT : 12

S.NO	Name Of the Faculty	Topic	Year
1	Dr.M.Maheswari R.B.Shreyah roshini S.preetica	A Magnetic Pendrive system	2024
2	Ranjani J R. S .Varsini Dr. M. Maheshwari Dr. G. Kalpanadevi S.H. Shanawaz G. Dhanush	A System For Testing Bio Lavatory Sample For Abdominal tendency Affected People	2024
3	Dr.M.Vinoth Dr.B.Viswanathan Mr.N.R.Nagarajan Mr.K.Vigneswaran	Slot Antenna for 5G V2X Applications	2023
4	T. Muruganantham N. R. Nagarajan M.Karthick P. Ragul S.Dheepak S.Karthik S.Thameem Raja M. Diwakar	System To Filter Waste From River Water	2023
5	Dr.M.Maheswari Dr.D.Srinivasan	Methods and Systems for Making use of Helmets Mandatory	2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

6	K. Vigneshwaran(one of the holder)	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: A MODEL FOR ENHANCING FACULTY PERFORMANCE RELIABILITY	2024
7	Dr.G.Kalpanadevi	A System for Testing biolavatorySample for Abdominal Tendency affected People	2024
8	P.Malini	PREDICTIVE ANALYSIS OF STOCK MARKET TRENDS USING AI AND MACHINE LEARNING TECHNIQUES	2024
9	Dr.H.Sudarsan	REAL-TIME EARLY WARNING SYSTEMS IN EDUCATION: A DEEP LEARNING PERSPECTIVE	2024
10	Mr.R.Balamurugan	A NOVEL METHOD FOR IDENTIFYING HIDDEN PATTERN IN LARGE DATASETS USING DEEP LEARNING TECHNIQUES	2024
11	Dr. M. Vinoth, Dr. B. Viswanathan	HEXAGON SERIES L SLOT ANTENNA FOR 5G APPLICATION	2024
12	S.Anusuya(one of the holder)	THE PSYCHOMETRIC PROPERTIES AND PERFORMANCES OF TEACHER-MADE TESTS IN MEASURING STUDENTS' ACADEMIC PERFORMANCE: A MACHINE LEARNING APPROACH	2024

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



PATENT GRANT

S.NO	NAME	TITLE	YEAR
1	Dr.Sivanantham Mr.Krishnamoorthy Dr.Sakthivel Dr.Prasad Dr.Vinoth Dr.Poomparai Dr.Elakkiya	Smart mirror with Personalized Information Display	2023
2	Dr.Gnanasankaran Dr.Devika Dr.Vijayakumari Dr.M.Vinoth Dr.Suhashini Ms.Arundevi Ms.Rajalakshmi	Agricultural drone for crop Health Monitoring	2023
3	Mr.N.R.Nagarajan Mr.T.Muruganatham Dr.M.Maheswari S.Sudhersun D.Santhosh S R Susmitha T.Janani D.Bhuvanendran	Wearable Health Monitoring Device	2024
4	Dr.M.Vinoth Dr.B.Viswanathan Mr.N.R.Nagarajan Mr.K.Vigneswaran	Slot Antenna for 5G V2X Applications	2024

 **ACHIVEMENTS**

S.SUDHERSUN, R.VENKATESH,
S.VASUNDARA OF FINAL YEAR ECE
RECEIVED
RS.20,000 CASHPRIZE INSTART UP MELA
5.0 ON 05-03-2023 CONDUCTED BY St.
JOSEPH INSTITUTE OF
MANAGEMENT,Trichy



S.SUDHERSUN, R.VENKATESH,OF FINAL
YEARECE RECEIVEDIII rd PRIZE WITH
10,000 CASHAWARD INSTART UP TN –
OLIMAYAN 2.0 ON 31-03-2023
CONDUCTED BY KNOWLEDMENT INSTITUTE OF
TECHNOLOGY,SALEM

ACHIVEMENTS



SANTHOSH KUMAR S, SUDHERSAN S, INFANT STANKO, SURESHKUMAR M, SUSHMITHA R K, SWARNAMALIGA P J VASIKARAN J, VIGNESHWAR S SUBASHRAM S, THARUN N T, SRIRANJANI K SOUNDHARIYA P R, SARAN KUMAR S, VISHNUPRIYA V, SOWMIYA N M, UTHRA S, VIJAY R, AJEETH OF IV YEAR ECE HAVE SHORTLISTED FOR SMART INDIA HACKATHON CONDUCTED IN INDORE, HUBBLI, JAIPUR AT 2022 RESPECTIVELY

A. PRAVEEN, T. RAKSHITHA,S. PRIYADHARSHINI,G. RAJALAKSHMI,S. VASIKARAN, SHREE RAM RR OF II YEAR ECE HAVE SHORTLISTED FOR SMART INDIA HACKATHON IN HARDWARE EDITION AND THE EVENT WILL BE HELDFROM 19TH DEC-23RD DEC IN LOVELY PROFESSIONAL UNIVERSITY, PUNJAB.



Dear Priyadharshini S,

Congratulations. Your team has been nominated as one of the participating teams for Smart India Hackathon 2023.

Your institute has nominated you as a Team Leader for DREAM_EPIC.

Please note that the idea will be submitted by Team Leader only. The other team members will not receive login credentials.

Please use the following credentials to login into your [SIH](#) dashboard and submit your idea.



ACHIVEMENTS



Sub: Intimation of Approval for R&D Project entitled: "Dynamic Health Monitoring: Pioneering Early Disease Detection through Motion Analysis"

This has reference to your subject project proposal submitted to The Institution of Engineers (Ind) for funding under IEI R&D Grant-in-Aid Scheme.

We are pleased to inform that the same has been approved by the competent authority as per details mentioned below:

Project ID:	UG20240204	Category:	UG	Financial Year:	2023-24
Guide(s):	Dr. G. Kalpanadevi	Applicant(s):	1. J. Ranjani 2. R.S. Varsini 3. S.H. Shanawaz		
College / Institute / University:	K Ramakrishnan College of Engineering	Total Grant Sanctioned:	₹32,000/-	Number of Instalment(s):	1

Kindly quote your project ID all your future correspondence.

J. RANJANI, VARSINI R S, SHANAWAZ S H OF III-YEAR ECE WITH THE GUIDANCE OF Dr.G.KALPANADEV I (A/P OF ECE , PROJECT GUIDE) HAVE RECEIVED RS.32,000 IN IEI - 2024

RAKSHITHA T, S.THIRUVENGADAM A. PRAVEEN, S. PRIYADHARSHINI, R.R .SHREERAM OF III YEAR ECE HAS RECEIVED RS.1,00000 IN FINAL PHASE OF NIRAL THIRUVIZHA 2024.



Naan Mudhalvan Niral Thiruvizha 1.0 - Results - Top 50 Teams - Reg [Inbox](#)

J Jesu Raja 30/09/2024
to principle, prin...

Dear Sir / Madam,

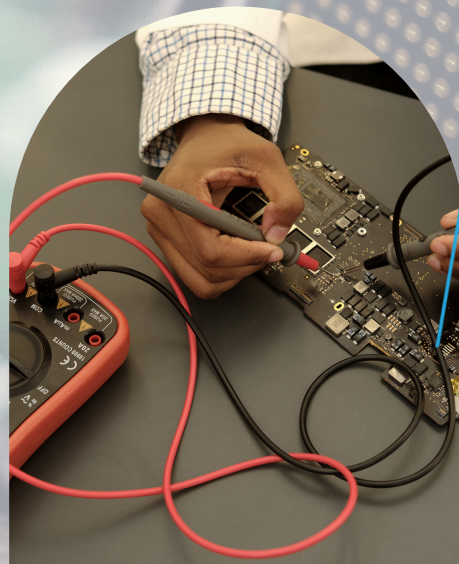
Warm Greetings from Tamil Nadu Skill Development Corporation!

On behalf of the Managing Director, TNSDC, Officials from Naan Mudhalvan and Anna University, We wholeheartedly congratulate the winners of Naan Mudhalvan Niral Thiruvizha - First Edition (Naan Mudhalvan Niral Thiruvizha 1.0)

Tamil Nadu Skill Development Corporation, launched Naan Mudhalvan Niral Thiruvizha Hackathon for the final year engineering students to kindle the innovative and entrepreneurial minds of our students to address the persisting issues and real-time problems with technology-enabled solutions which will improve quality of life. In total, TNSDC received 8486 Idea submissions consisting of 28,450 students from 290 Engineering Institutions across 65 Problem Statements under 10 themes. 9032 Faculties from these 290 Institutions are enrolled as

 **EVENTS**

09-05-2023 EINSTACTOMIA – 2K23
SENIOR PROFESSORS FROM ECE
AND OTHER DEPARTEMENT
OFFLINE MODE



02-12-2023 ALUMNI MEET - 2023 ALUMNUS
FROM BATCH 2012 TO 2020
OFFLINE MODE

10-05-2024 PROEXPOTHON – INTRA
COLLEGE PROJECT
PRESENTATION SENIOR PROFESSORS
FROM ECE AND OTHER
DEPARTMENTS - OFFLINE MODE





Activities

Event name: EINSTACTOMIA-2K23 Chief guest: SENIOR PROFESSORS FROM ECE AND OTHER DEPARTEMENT

Participants: IInd and IIIrd year students. Department of Electronics & communication Engineering & The Institution Innovation Council of KRCE jointly organized “EINSTACTOMIA- 2K23”(Intra college Project contest) on 09.05.2023. The event was coordinated by Mr.R.Balamurugan.AP/ECE, Mr.T..Muruganantham.AP/ECE, Mr.M.Karthick.AP/ECE, Mr.N.R.Nagarajan.AP/ECE .The event was inaugurated by Dr. D. Srinivasan, Principal/KRCE & President IIC, and welcome address was given by Dr. M. Maheswari HOD/ECE.



Event name: ECE Association Inauguration
“ELECTRO ETHNARCH – 2K23” Date: 14-10-2023

Chief guest: Er. APPAS J, Alumnus: 2008 – 2012 Batch, Senior Engineer. Harman Internationals Bangalore, India Participants: 3 rd year students The Department of ECE, K.Ramakrishnan college of Engineering, Trichy has organized a ECE Department Association (Electro Ethnarch ‘23) Inauguration on 14.10.2023. The chief guest called for this function Er. J. APPAS, Senior Engineer, Bangalore called for this inaugural function who is an Alumni (2008 – 2012) of ECE department. Dr. D.Srinivasan, Principal of K.Ramakrishnan College of Engineering presided over the function. The welcome address was presented by Dr M. Maheswari, HOD/ECE, KRCE to address and welcome the gathering.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



Activities



Event name: WEBINAR ON SKILL DEVELOPMENT Date: 19.08.2023 Chief guest: Ms.T.Abinaya, Digital Content Associate, Amazon Prime Video, Chennai Participants: 60 students of ECE department The Department of ECE in association with Institution's Innovation Council, K.Ramakrishnan College of Engineering, Trichy has organized a webinar on "SKILL DEVELOPMENT" on 19/08/2023. The Webinar was coordinated by Ms.S.Rajapriya, AP/ECE. The welcome address was given by Dr.M.Maheswari , HOD /ECE. The Webinar was delivered by Ms.T.Abinaya, Digital Content Associate, Amazon Prime Video, Chennai. She was an alumna of ECE [2016-2020 Batch]. Nearly 60 students of ECE have participated and benefited.

Event name: ALUMNI MEET

Date: 02.12.23

Resource Person: Alumna from batch 2012 to 2020

Participants: ECE Department students

Our Department of ECE Organized The Alumni Meet On 2.12.23 For this academic Year 2023-2024. Alumni from 2012 batch to 2020 batch students were invited for this function. We received nearly 150 responses from the alumni students. Our Honourable principal sir Dr.D.Srinivasan gave felicitation address. Our distinguished HoD Dr.M.Maheswari mam gave welcome address.various Events were conducted during this function





Activities



Tiruchirappalli, Tamil Nadu, India
WPHQ+M54, Tamil Nadu 621112, India
Lat 10.929193°
Long 78.7379°
29/04/24 11:18 AM GMT +05:30

.Event name: INDEED INNOVATION - IDEA PRESENTATION
Date: 20.02.2024 to 29.04.2024 Resource Person: Dr. C Jeyalakshmi Professor/ECE and Mr. Albert Francis Participants: ECE Department students The Institution Innovation Council of K.Ramakrishnan College of Engineering organized “INDEED INNOVATION - IDEA PRESENTATION” on 29.04.2024. The event was coordinated by Ms.Radha N, Mrs.M.Kalaivani, Mrs.J.RoselinSuganthi AP/ECE, Principal & President- IIC, Dr.S.Titus, Professor/ EEE & IIC convener along with the coordinators.

Event name: Symposium INTERPRONIX 24

Date: 13.03.2024 to 15.03.2024

Resource Person: Er.S.SANJAYKUMARAN , DIRECTOR – PACIFIC CREATIONS ,

Trichy Participants: ECE Department students Department of Electronics and communication has been organizing intra and inter technical symposium every year. This year also INTERPRONIX 24 was conducted in March 13, 14, 15 three- day events first time of it kind, which was an amalgamation of various technical, non-technical and on spot events. It gave a platform to young brains to showcase their innovative ideas and compete with their peers.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Activities

Event name: IEI Students Chapter Inauguration -ECE Branch

Date: 25.05.2024

Resource Person: Dr.S.Ravimaran, Chairman, IEI, Tiruchirappalli Local Centre, Trichy

Participants: ECE Department students
Student Chapter of IEI was inaugurated at Department of Electronics and Communication Engineering, K. Ramakrishnan College of Engineering, Trichy, Tamil Nadu on 25 th May 2024. Dr.S.Ravimaran, Chairman, IEI, Tiruchirappalli Local Centre, Trichy was Chief Guest and Dr.D.Srinivasan, Principal, KRCE felicitated the function. Dr.M.Maheswari, Professor & HOD of Electronics and Communication Engineering, KRCE welcomed the guests and participants for the program and briefed about the departmental activities and achievements.



Event name: Project EXPOTHON

Date: 10.05.2024

Resource Person: Dr. D. Srinivasan, Dr. C. Jeyalakshmi, Dr. K. Priyadarshini and Dr. B. Viswanathan

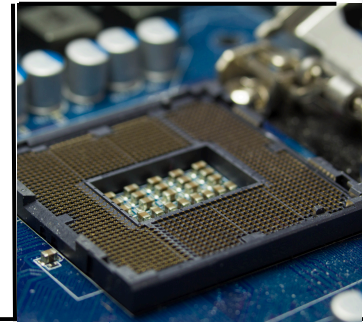
Participants: ECE Department students

An Internal Hackathon "Pro Expothon" was conducted by department of Electronics and Communication Engineering, KRCE, Trichy on 10-05-2024 (Friday) under the guidance of Principal Dr. D. Srinivasan and Chairman Dr. K. Ramakrishnan. In the presence of Executive director Dr. S. Kuppusamy and Principal Dr. D. Srinivasan, Head of the department Dr. M. Maheswari inaugurated this wonderful event. The event showcased 50 different innovative projects by final year students which were examined by respective domain experts. The principal reviewed all the projects and congratulated the students and encouraged them to convert their best works into publications, patents and funding grants. Further he asked students to take up more interdisciplinary projects.



FUND RECEIVED

2023. - 2024



Sub: Intimation of Approval for R&D Project entitled: *"Dynamic Health Monitoring: Pioneering Early Disease Detection through Motion Analysis"*

This has reference to your subject project proposal submitted to The Institution of Engineers (India) for funding under IEI R&D Grant-in-Aid Scheme.




We are pleased to inform that the same has been approved by the competent authority as per the details mentioned below:

Project ID:	UG2024024	Category:	UG	Financial Year:	2023-24
Guide(s):	Dr G Kalpanadevi	Applicant(s):	1. J Ranjani 2. R S Varsini 3. S H Shanawaz		
College / Institute / University:	K Ramakrishnan College of Engineering	Total Grant Sanctioned:	₹32,000/-	Number of Instalment(s):	1

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Dear Sir / Madam,

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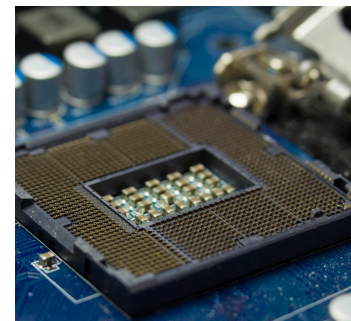
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 **FUND RECEIVED**

2023. - 2024



S.No	Name of the workshop/ seminar	Funding Agency	Date From – To	Type
1	One Day Workshop on "ENTREPRENEURSHIP"		23.08.23	Workshop
2	ELECTRO ETHNARCH- 2023-ASSOCIATION INAUGURATION		14.10.23	Workshop
3	'VLSI chip design from Microscale to Nanoscale devices and beyond'. - ATAL FDP - 6 days	AICTE - ATAL - Rs.3,50,000	16.10.23 to 21.10.23	ATAL FDP Symposium /
4	INTERPRONIX 2K24 - Symposium and Workshop On " Embedded and IOT , VLSI and Antenna "		13.3.24 -15.3.24	Workshop
5	IEI STUDENTS CHAPTER - "Awareness On IEI Students Chapter and Funding"		25.05.24	Workshop



SPORTS

2023. - 2024



S.No	Name	Competition	Prize
1.	G.YOGASHINI	BASKET BALL	2 nd PLACE
2.	ARUN, SHANMUGA	HAND BALL	PATICIPATED
3.	AFSHANA	HAND BALL	PATICIPATED
4.	SRIRAM	TABLE TENNIS	2 nd PLACE
5.	BALAJI . P	BADMINTON	2 nd PLACE
6.	RAJ KUMAR	HOCKEY	2 nd PLACE
7.	SABINESH	KABADI	PATICIPATED
8.	SUHAIL	CHESS	PATICIPATED
9.	SHAHIN ASHIKA	ATHLETICS	3 rd PLACE
10.	SRI AMIRTHA VARSINI	VOLLEY BALL	2 nd PLACE
11.	BHARATH	BASKET BALL	PATICIPATED
12.	DHARANI SHREE P	RELAY, BASKET BALL	2 nd PLACE

Dr.K.RAMAKRISHNAN

CHAIRMAN

Dr.S.KUPPUSAMY

EXECUTIVE DIRECTOR

Dr.D.SRINIVASAN

PRINCIPAL

Dr.M.MAHESWARI

**HEAD OF THE
DEPARTMENT**

Mr.S.SYED HUSSAIN

STAFF COORDINATOR

RANJANI J

EDITOR

