SARANATHAN COLLEGE OF ENGINEERING

Vision of the Department

To evolve as a centre of academic excellence and advanced research in Computer Science and Engineering discipline.

Mission of the Department

- To inculcate in students a profound understanding of fundamentals related to discipline.
- To inculcate skills, attitudes and their applications in solving real world problems with an inclination towards societal issues and research.
- To promote research in the emerging areas of computer science and technology

Program Educational Objectives:

PEO1: Acquire strong foundation in the mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze engineering-problems.

PEO2: Develop the ability to analyze the requirements of the software, understand the technical specifications, design and provide novel engineering solutions and efficient software/hardware designs.

PEO3: Have exposure to emerging cutting edge technologies, adequate training & opportunities to work as teams on multidisciplinary projects with effective communication skills and leadership qualities.

PEO4: Have awareness on the life-long learning and prepare them for research development and consultancy.

PEO5: Have a successful career and work with values & social concern bridging the digital divide and meet the requirements of Indian and multinational companies.

Program Specific Outcomes

PSO1:Foundation of mathematical concepts: To use mathematical methodologies to crack problem using suitable mathematical analysis, data structure and suitable algorithm.

PSO2:Foundation of Computer System: the ability to interpret the fundamental concepts and methodology of computer systems. Students can understand the functionality of hardware and software aspects of computer systems.

PSO3:Foundations of Software development: the ability to grasp the software development lifecycle and methodologies of software systems. Possess competent skills and knowledge of software design process. Familiarity and practical proficiency with a broad area of programming concepts and provide new ideas and innovations towards research

Events Organized:

Departments of Computer Science and Engineering had organized various Technical events to motivate CSE Students and encourage them to develop their professional skills in IT fields. These events were conducted for II Year and III Year students. Around 200 students actively participated in various contests and exhibited their technical skills. Various Technical events like QUIZ, CODING contest, PAPERPRESENTATION and PROJECT COMPETITION were conducted. This competition was a good form of knowledge-building and social development for students to upgrade them with new technology and to come up with innovative ideas. We have furnished the details of the competition held on various dates below.

Event No.	Name of the Event	Department / Year of the students	Date
1	Quiz Competition	II year	09.11.2021
2	Coding Competition	III Year	09.11.2021
3	Project Competition	II year & III Year	19.11.2021
4	Paper Presentation	IV Year	18.11.2021

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QUIZ COMPETITION:

Quiz Competition for II YEAR Students was held on09.11.2021. 15 teams from II CSEA Section and 25 teams from II CSE B Section registered for the event and 80 students actively participated in the event. The Quiz competition was conducted in 3 rounds namely Pre-Qualifying Round, Rapid Fire Round and Final Round. The "QUIZIZZ" tool was used for conducting the entire event. All rounds were conducted as per the schedule. 40 teams were appeared for Pre-Qualifying Round and Top 20 teams were selected for next round based on quiz score and submission time through Quizizz Leader board. Time-bound MCQ questions were given to top 20 teams in round-2 and score was awarded based on correctness of their answer and submission time. From Round-2, Top 13 teams were selected for Final Round where they asked to find the output for giving code snippet, locate the bugs in given program and solve the logical reasoning questions.

Final round was conducted on 9th Nov 2021 and Top 3 teams were selected in Final Round and they are titled as "WINNER", 1st RUNNER-UP and 2nd RUNNER UP.

The Top 3 teams details as follows.

WINNERS
- ➤ FELICIA A   231028
- ➤ KAVYA. S   231048

1ST RUNNER UP
- SHYAM SUNDER. S   231098
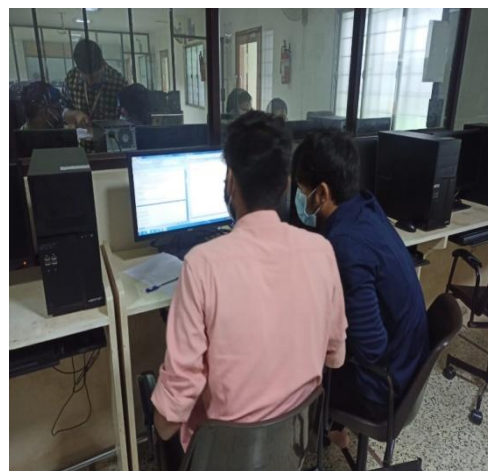- VIGNESHWARAN. NB   231114

2ND RUNNER UP
- ➤ GURUPRAMODH. R231034
- ➤ HARISH. R   231037

CODING COMPETITION

Coding Competition was held on09.11.2021 for the students of third year CSE to enrich their programming skills, which motivated them for their placements preparation. Nearly 60 students from third year had shown their interest by registering their teams for competition and they participated actively in the competition. The competition was conducted in three rounds, with duration of one hour for each round. At Round-1, all 30 teams' participated,6 simple programs based on logical thinking was given. Since students were allowed to crack the given code in their own programming language of interest, they participated enthusiastically and most participants solved all 6 questions. Based on their performance and coding standards, 13 teams have been shortlisted and allowed to participate in Round-2 of the competition.

In Round-2, analytical based programs which was little bit complex was given to students. The students tried harder to crack the code. Based on their performance, 7 teams were shortlisted to participate in Round-3.In Round-3, real time scenario based questions were asked, which made the competition tougher. Finally 4 teams have come up with the solution for the problem given.

Top three teams were selected based on the optimized code and time taken for completion and the efficiency of the program.

WINNERS	1ST RUNNER UP	2ND RUNNER UP
1.HARIHARAN. A T – (221034) III CSE A	1.ROHIT.M – (221077) – III CSE B	VARUN. G A – (221113) – III CSE B
2.KARTHIKEYAN. S – (221043) III CSE A	2.SOMAKARTHI.P – (221096) III CSE B	SUJJIT. D S – (221103) – III CSE B

PROJECT COMPETITION

"Project Presentation Event was conducted on 19th November 2021 for II Year and III Year CSE Students in the view of motivating them to develop their professional skills and showcase their new ideas and implementation. 5 teams from II CSE and 6 teams from III CSE registered for the event and 36 students actively participated in the event.

11 teams appeared for Pre-Qualifying Round to present their ideas. Based on poster design, abstract of the project and presentation the teams have been selected for next level of presentation. Teams have been selected based on their completion and explanation of their coding also. Remaining teams had done well with their ideas and half implementation part. Three teams have been selected which met the above mentioned criteria.

WINNERS	1ST RUNNER UP	2ND RUNNER UP
1. SOMAKARTHI.P	1. PRIYADHARSHAN. V	1. VIGNESHWARAN. N
2. ROHIT.M	2. JUFFIN HASSAN. H	2.SUBIN RAJ.P
3.VISHWANATH SUBRAMANIAM.K	3.ASWIN VISVESWAR.S	3.SHYAM SUNDAR
	4.MUTHURAAJ K.J	4.NADHAMUNI S.R

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PAPER PRESENTATION

 "Paper Launch 2k'21" event was conducted by the Department of Computer Science and engineering on 18th November 2021 .The call for abstract submission is done through department circular and the event is scheduled (Thursday). The responses received were scrutinized by the subject matter experts and fourteen teams were selected for the presentation. The event is organized at CSE Seminar Hall on 18th Nov 2021 between 2.15 pm – 4.15 pm. There are twelve team turned up for the event. The event is inaugurated with the welcome address proposed by Dr. Lakshmi Kanthan N and a special motivational speech by Dr. Sahaaya Arul Mary (HoD/CSE).

The students displayed a wide range of technicality in the modern fields of computing like AI, ML and IoT etc. The presentation was evaluated byMr. Venkatasubramanian S – ASP/CSE, Mr. Chandrasekaran K S - ASP/CSE and Mr. Dineshkumar P - AP/CSE along with the panel the faculty members of the department and they provided valuable comments and suggestions to the presenters.

WINNERS

1. ABDUL WASIV.H (231121)

2. MOHAMMAD AAGIL.N (231125)

1ST RUNNER UP 2ND RUNNER UP

1ST RUNNER UP	2ND RUNNER UP
1. BRUNDASHREE.R (221019) (221071)	1.RAGASUDHA.S
2. RAJARATNAM KAWSHIKA (221045)	2.RAMYA.S (221075)

SARANATHAN COLLEGE OF ENGINEERING

FACULTY CORNER

HonorsReceived:

- ✓ Mr.S.Venkatasubramanian,Associate Professor has received Dr.SarvepalliRadhakrishnan Lifetime achievement National award from IRDP group of journals on December 2021.

Faculty participation in various FDP's:

- ❖ Dr. S.A. Sahaaya Arul Mary Professor & Head has participated in Infosys Campus Connect Conclave – 2021 organised by Infosys on 1/12/2021.
- ❖ Dr.P.L. Rajarajeswari, Associate Professor has participated in 5 days FDP on "Internet of Things in 5G Wireless Communications" organized by ATAL academy from 6th Sep-10th Sep2021.
- ❖ Dr.R.SenthamilSelviAssociate Professor has participated in 5 days FDP on" Deep Learning" organized by ATAL academy from 13th –Dec-2021 to17th –Dec-2021 at Indian Institute of Information Technology, Vadodara.
- ❖ Dr.R.SenthamilSelviAssociate Professor has participated in 5 days FDP on" 5G and IoT applications" organized by ATAL academy from6th –Dec-2021 to 10th Dec-2021at National Institute of Technology, Srinagar
- ❖ Mr.S.Venkatasubramanian Associate Professor has participated in 5 days FDP on Recent Trends in Cyber Security and Forensics organized by E &ICT Academy from 18th Oct-21 -28th Oct-21.
- ❖ Mr.T.Sathishkumar Assistant Professor has participated in 5 days FDP on Recent Trends in Cyber Security and Forensics organized by E &ICT Academy from 18th Oct-to 28th Oct-21.
- ❖ Dr.N.Lakshmikanthan Assistant Professor has participated in 5 days FDP on "Industrial Applications of Machine Learning and Artificial Intelligence" organized by AICTE ATAL at Manipal.
- ❖ Dr.N.Lakshmikanthan Assistant Professor has participated in 5 days FDP on"Applications of Internet of Things (IoT)" organized by AICTE at Gujarat from 13-09-2021 - 17-09-2021

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- ❖ Dr.N.Lakshmikanthan Assistant Professor has participated in 5 days FDP on"Sensor based System Design using Graphical Interface" organized by AICTE at KLS Gogte Institute of Technology from 20-09-2021 - 24-09-2021.

- ❖ Mr.R.Karthik Assistant Professor has participated in 5 days FDP on"IoT" organized by Institute of Technology, Gopeshwar (Online) from 05.10.2021 to 09.10.2021

- ❖ Mr.P.B.Arunprasad Assistant Professor has participated in 5 days FDP on "Blockchain Technology & Its Applications organized by AICTE Training and Learning (ATAL) academy from 6th Sep-21to 10th Sep-2021 atMalviya National Institute Of Technology, Jaipur.

- ❖ Mr.P.B.Arunprasad Assistant Professor has participated in 5 days FDP on Emerging Research Advances and Trends in Intelligent Knowledge Engineering Systems organized by AICTE Training and Learning (ATAL) academy at Sai Ram Institute of Technology.

- ❖ Ms.S.Ranjani, Assistant Professor has participated in 5 days FDPon Industrial Applications of Machine Learning andArtifical Intelligencefrom 6-Sep-21 to10th Sep-21 by AICTE Training and Learning (ATAL) academyat Manipal University

- ❖ Ms.S.Ranjani, Assistant Professor has participated in 5 days FDPon Data Analytics and Machine Learning from20th sep-21 to24th Sep-21by AICTE Training and Learning (ATAL) academy at Central University of Jharkhand (online).

- ❖ Ms.S.Ranjani, Assistant Professor has participated in 5 days FDPon Internet of Things(IoT):Architecture and System Level Designfrom27th Sep-21 to1st Oct-21 by AICTE Training and Learning (ATAL) academy at USIC&T,GuruGobind Singh Indraprastha University

PATENTS FILLED:

- Dr.S.A.Sahaaya Arul Mary, has submitted a patent proposal on" An IoT based Smart Intelligent Traffic Management System" (Status: Application number : 202241002459A)

- Dr.S.A.Sahaaya Arul Mary, has submitted a patent proposal on "IOT Driven ML-based Automated Water Quality Monitoring System for Industrial building "Status: Application number : 202241011687)

- S.Venkatasubramanian, has submitted a patent proposal on " ADVANCED TRAFFIC LIGHT VIOLATION MONITORING SYSTEM BASED ON GSM TECHNOLOGY" (Status: Awaiting for Examination, Application No.202141043270 dt. 1/10/2021)

- S.Venkatasubramanian, has submitted a patent proposal on, The Internet of Things (IoT) based cost-effective and simple solutions for energy robbery finding and error analysis (Status: Awaiting for Examination, Application 202141042813 dt. 22/09/2021)

- S.Venkatasubramanian, Dr.P.L.Rajarajeswari, Arun Prasad P B,Dr. LakshmiKanthan Narayanan, has submitted a patent proposal on"Internet of Things (IoT) based Intelligent Streetlights in Smart-City" (Status: Awaiting for Examination, Application 202141046345, dt. 11/10/2021).

- Dr. LakshmiKanthan Narayanan, has published an Indian Patents "An IoT BASED WATER DISTRIBUTION AND LEAKAGE MONITORING SYSTEM"

- Dr. LakshmiKanthan Narayanan, has published an Indian Patents "MULTI AGENT ENABLED WATER DISTRIBUTION AND MONITORING SYSTEM USING IoT"

BOOKS PUBLISHED:

- Dr. S. A. Sahaaya Arul Mary has authored a book titled "F**UNDAMENTALS of COMPUTING and PROGRAMMING"**
- Dr. S.A. Sahaaya Arul Mary, has authored a book titled "**Computer Practice Laboratory"** ISBN 9789380757711.

  - Dr. S.A. Sahaaya Arul Mary, has authored a book titled "**Programming and Data   Structures I, "**,ISBN 978-81-90879-50-7.

- S.Venkatasubramanian, has co-authored a book titled "**Basic Electrical, Electronics and Instrumentation Engineering"**,First Edition 2022, Scientific International Publications, ISBN: 978-93-94002-37-1.

- S.Venkatasubramanian, has authored a book titled "**Sustainable Communication Networks and Application"**,First Edition 2021, ICSCN 2021, ISSN: 978-981-16-6604-9.

- Mr.S.Venkatasubramanian,has authored a book titled. "**Ad Hoc and Wireless Sensor Networks"**,First Edition 2022, Scientific International Publications, ISBN: 978-93-94002-19-7.

- Mr.S.Venkatasubramanian,Dr.P.L.Rajarajeswari&Dr.N.LakshmiKanthan   hasco-authored a book titled. "**Fundamentals of mobile and pervasive computing"**,First Edition 2021, Scientific International Publications, ISBN: 978-93-92992-17-9.

- Mr.S.Venkatasubramanian&Dr.TSathis Kumarhas co-authored a book titled. "**Software Engineering"**,First Edition 2021, Scientific International Publications, ISBN: 978-93-92992-18-6.

- Mr.S.Venkatasubramanian,has authored a book titled. "**Fundamentals of Python Programming"**,First Edition 2021, Scientific International Publications, ISBN: 978-93-92992-88-9.

- Dr.TSathis Kumar, has authored a book titled. "**Future Trends in 5G and 6G"**,First Edition 2021, Taylor & Francis(CRC Press), ISBN: 978-1-003-17515-5.

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JOURNALPUBLICATIONS

1. S.Venkatasubramanian, has published a paper titled "**Efficient Data Verification Systems for Privacy Networks in Handbook of Research on Technologies and Systems for E-Collaboration During Global Crises"**, First Edition 2022, ICSCN 2021, https://doi.org/10.4018/978-1-7998-9640-1.ch011.

2. S.Venkatasubramanain, has published a paper titled "Optimized Gaming based Multipath Routing Protocol with QoS Support for High-Speed MANET", International Journal of Advanced Research in Science, Communication and Technology (IJARSCT), pp. 62-73, Vol. 9, Issue. 1, SEP 2021

3. S. Venkatasubramanian, has published a paper titled "A Chaotic Salp Swarm Feature Selection Algorithm for Apple and Tomato Plant Leaf Disease Detection", International Journal of Advanced Trends in Computer Science and Engineering(IJATCSE), pp. 3037-3045, Vol. 10, Issue. 5, OCT 2021, ISSN: 2278-3091 DOI: https://doi.org/10.30534/ijatcse/2021/161052021

4. S.Venkatasubramanian, has published a paper titled "Multistage Optimized Fuzzy Based Intrusion Detection protocol for NIDS in MANET", International Journal of Innovative Research in Technology(IJIRT), pp. 301-311, Vol. 8, Issue. 6, Nov 2021, ISSN: 2349-6002 (UGC approved 47859)

5. S.Venkatasubramanian&R.MohanKumar, has published a paper titled "A deep Convolutional Neural Network Based speech to Text Conversion for Multilingual Languages" in the proceedings of "5th International Conference on Computational Vision and Bio Inspired Computing (ICCVBIC-2021) - Springer" Organized by RVS Technical Campus, Coimbatore on 25-Nov-2021.

6. S.Venkatasubramanian, has published a paper titled, "A Sparrow Search Algorithm for Detecting the Attack in Mobile Ad hoc Network (MANET) Environment" in the proceedings of "4th International Conference on Computer Networks, Big Data and IoT- ICCBI-2021" Organized by Care College of Engineering in association with Springer on 09-10 Dec 2021.

7. K.S Chandrasekaran, has published a paper titled "Forecasting Parameter Strategy Using Data Analytics in Supply Chain Management", Ingénierie des Systèmesd'Information, pp. 2116-7125, OCT 2021, SCOPUS

8. Dr.LakshmiKanthan N, S Iswarya, has published a paper titled "IoT-Fog Intergrated Voice of the Plant Based Smart Irrigation and Power Management Systems for Smart Farming", Natural Volatile and Essential Oils, pp. 2148-9637, OCT 2021, Indexing: Scopus

9. Dr.LakshmiKanthan N, has published a paper titled "Smart Infant and Child Monitoring System using Integrated IoT and GIS", Design Engineering, pp. 9311-9342, OCT 2021, Indexing: Scopus

10. Dr.N Lakshmi Kanthan, has published a paper titled "Fake News Detection in Social Media using Deep Learning" in the proceedings of "International Conference on Advanced Computer Science and Technologies" on OCT 2021.

11. Dr.N Lakshmi Kanthan, has published a paper titled "IoT-Fog Assisted Smart Irrigation and Power Management System in Agriculture" in the proceedings of "International Conference on Advanced Computer Science and Technologies" on OCT 2021. ISSN: 978-93-5578-005-8

12. Dr.N Lakshmi Kanthan, has published a paper titled "Block chain-based Fictitious Detection in Social Media" in the proceedings of "13th Soft Computing and Pattern Recognition" on OCT 2021. ISSN: 978-93-5578-005-8

SARANATHAN COLLEGE OF ENGINEERING

FACULTY – STUDENT EDITORIAL TEAM

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2. Ms. E.SapnaRani Assistant Professor / CSE

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