



SARANATHAN COLLEGE OF ENGINEERING

Department of Computer Science and 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

Certifications by Faculty

The listed faculty members have successfully completed their NPTEL certifications:

1. Mr.R.Karthik-Demystifying Networks
2. Ms.K.Mohanappriya- Introduction to Operating Systems
3. Ms.J.SathiaParkavi- Internet of Things
4. Mr.A.T.BaraniVijayakumar-Machine Learning
5. Mr.P.Dineshkumar-Demystifying Networks
6. Mr.P.B.Arunprasad-Demystifying Networking

Webinar Series

International Webinar on E-PAYMENTS: A View of Authorisation, Clearing and Settlement

**Mr.Sadheesh Radhakrishnan,
Payment cards SME, Worldspay/FIS,London,UK.**

The Department of CSE conducted an International Webinar on 13.07.2020 between 6:00 p.m and 7:30 p.m. The webinar was convened by Dr.S.A.Sahaaya Arul Mary, HoD/CSE and coordinated by Dr.S.Mohana and Dr.R.Senthamil Selvi.

Mr.Sadheesh Radhakrishnan, Payment Cards SME,WorldPay/Fis,London-UK delivered a talk titled “ e-payments: A view of Authorization, Clearing and Settlement.” During the session he explained how an e-payment gets authorized, cleared and settled to a merchant. He also explained each step of the process involving an exchange of transaction data and money that must be settled and balanced. The session also covered various types of e-payments and how they differ in their business terms. He also covered the changes involved behind every card transaction that we are make in our everyday life.

128 participants from various colleges attended the webinar and gave a positive feedback. Some participants raised their queries in the QA session at the end of the lecture. These doubts were cleared by Mr Sadheesh. Earlier Dr.S.A.Sahaaya Arul Mary welcomed the gathering and Dr.R.Senthamil Selvi concluded the meeting with a vote of thanks.



Webinar on “Cognitive Cloud Computing

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The Department of CSE organized a Webinar on 20.07.2020 between 11.00 AM and 1.00 PM. The webinar was convened by Dr.S.A.Sahaaya Arul Mary, HoD/CSE and coordinated by Ms.V.Punitha , Dr.N.Kavitha and Ms.J.SathiaParkavi.

Dr. N. Renugadevi, Assistant Professor, Indian Institute of Information Technology, Trichy, presented a webinar session on “Cognitive Cloud Computing” to the webinar participants. The participants were students, faculty members, research scholars from colleges from different states in India. Totally 85 members have participated in this webinar and which in itself made this event a grand success. The main objective of this webinar was to impart in all participants the basics of cognitive cloud computing concepts and its field of application through various examples thus providing them with an opportunity to enhance their relevant skills and become strong in this technology. The Session started with the Introduction of Cognitive Cloud Computing and then explained how it has brought the power of next generation wireless networks to enterprises across the globe. She also covered about the Cryptographic Key Exchange and Encryption algorithms. Finally she took the participants on a virtual walk through the application areas of Cognitive Cloud Computing. Her clarifications of the various doubts raised by the participants made the session more interactive. She expressed her thanks to the Management, Principal Sir, HoD/CSE and faculty members for providing her this opportunity through this webinar to be among all these participants from various Institutions.

Cognitive Cloud Computing
Presented by
Dr. N. Renugadevi
Assistant Professor
Department of Computer Science and Engineering
Indian Institute of Information Technology
Trichy (IIT T)
Trichy (TTP)
20-7-2020

CRN Model and Cognitive Cycle
Characteristics of CR
• Cognitive capability
• Reconfigurable capability
Main functions of CR
• Spectrum Sensing
• Spectrum Detection
• Spectrum Sharing
• Spectrum Mobility
Cognitive Cycle
Figure 1: CRN Model
Figure 2: Cognitive Cycle

Dynamic Spectrum Access (DSA)
Figure 2: DSA in CRN

Dr. Syed Shahul Hanneed
In Distributed SKM all the members are sharing their keys, but the centralized server has to combined all their keys and has to find a unique key for all members... In that case again the third party security issues comes.

Dr. Syed Shahul Hanneed
To get a high security in distributed SKM, what we use the Blockchain concept?

Mahesh Kohlia
Feedback: Sir mam

Dr. S. A. Sahaaya Arul Mary
We will post feedback link, once the session is over. I.e. within 2 min.

International webinar on “Covid’19 Analysis using Machine Learning”

The Department of CSE organised an International Webinar on 14.07.2020 between 10.00 AM and 11.00 AM. The webinar was convened by Dr.S.A.Sahaaya Arul Mary, HoD/CSE and coordinated by Mr.P.B ArunPrasad , Mr.R.Karthik and Ms.K.Mohanappriya.

Dr. G. Suganya, Associate Professor, Department of Computer Science and Engineering, VIT University, Chennai and Assistant Director – S/W Development Cell presented a webinar session on “COVID’19 - Analysis using Machine Learning” to the webinar participants. The participants were students, faculty members, research scholars from colleges from different states in India. Totally 101 members have participated in this webinar and which in itself made this event a grand success. The main objective of this webinar was to impart in all participants the basics of machine learning concepts and provide hands-on experience in using covid ’19 datasets thus providing them with an opportunity to enhance their relevant skills and become strong in this technology. The Session started with the Introduction of Machine learning and then on to a comparison between ML & Traditional programming. She went on into explaining the comparison between ML, DL & AI. She also covered about the packages available in python and taught how to explore in Jupyter Notebook. Finally she took the participants on a virtual walk through the analysis using ML methods and covid’19 dataset. Her clarifications of the various doubts raised by the participants made the session more interactive. She expressed her thanks to the management, Principal Sir, HoD/CSE and faculty members for providing her this opportunity through this webinar to be among all these participants from various Institutions.

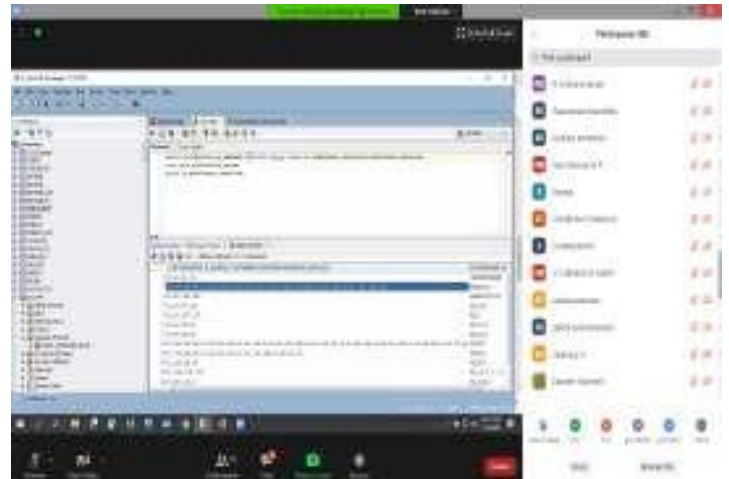
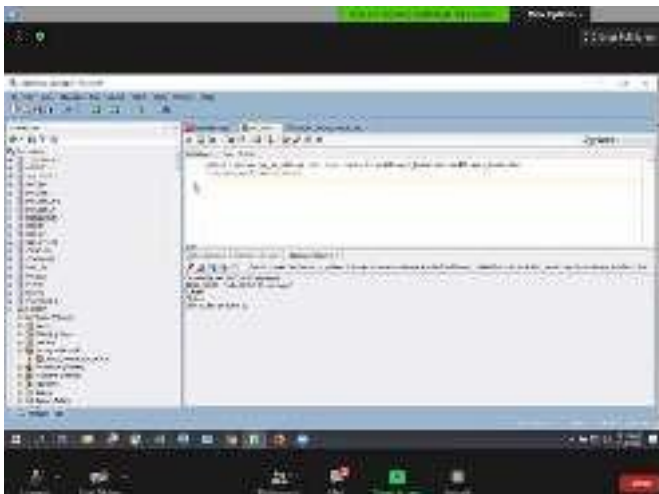


Technical Webinar on “Dimensification of Data using DBMS

To help the students and faculty enhance their knowledge about Database Management System the Department of Computer Science and Engineering at Saranathan College of Engineering, Trichy organized on **14th July 2020**, Tuesday between **10.00 am** and **11.00 am** a technical webinar titled “**Dimensification of Data using DBMS**”.

Mr. P. Santhiyagu Antony Raj, Principal Consultant, Financial Oracle Services, Bengaluru presented the session to students, faculty members, research scholars from colleges from different states in India.

He demonstrated various Oracle developer tools and developed the database for a simple application. He also reinforced to the participants the importance of making use of the available free oracle tools. **110** participants participated in the event. The doubt clearing session at the end of the lecture was interactive and lively. Feedback and suggestions were collected from participants through Google Form.



Title of the webinar	INTRODUCTION TO TEXT MINING
Resource Person details	Mr. Xavier Babu, M.E., M.B.A, (Ph.D) Senior Director in a cloud-based Digital Marketing Technology at Publicis Groupe, Boston, MA, US 20+ years of experience in I.T. industry
Date of webinar	16-July-2020
Duration	1 hour (4 - 5 pm IST)
No. of participants	87 (24 external participants +63 internal participants)
Medium of webinar	Online through Google meet

The resource person was introduced to the participants. The webinar started with the introductory topic of what is mining and terminologies used. Every day, we generate huge amounts of text online, creating vast quantities of data about what is happening in the world and what people think. All of this text data act as an invaluable resource that can be mined in order to generate meaningful business insights for analysts and organizations.

But analysing all of this content isn't easy, since converting text produced by people into structured information to analyse with a machine is a complex task. In recent years though, Natural Language Processing and Text Mining has become a lot more accessible to data scientists, analysts, and developers alike.



Webinar On Unveiling Unstructured Data

**Dr.J.C.Miraclin Joyce Pamila,
Professor & Head /CSE, Government college of
Technology,Coimbatore.**

The Department of CSE conducted an International Webinar on 15.07.2020 between 3:00 p.m and 4:30 p.m. The webinar was convened by Dr.S.A.Sahaaya Arul Mary, HoD/CSE and coordinated by Dr.S.Mohana and Dr.R.Senthamil Selvi.

Dr.J.C.Miraclin Joyce Pamila, Professor & Head /CSE, Government college of Technology, Coimbatore, delivered a talk titled “Unveiling Unstructured Data.”

During the session she explained what unstructured data is and how to handle unstructured data which is coming from various kinds of external resources. She also explained the challenges that are faced when one deals with unstructured data in various domains. The session also covered usage of Natural Language tool kit for Natural language processing. She also explained NLTK platform for building python programs to work with human language data.

138 participants from various colleges attended the webinar and gave a positive feedback. Some participants raised their queries in the QA session at the end of the lecture. These doubts were cleared by Dr. J.C.Miraclin Joyce Pamila. Earlier Dr.S.A.Sahaaya Arul Mary welcomed the gathering and Dr.R.Senthamil Selvi concluded the meeting with a vote of thanks.



Faculty Participations in FDP/STTP/Training Programmes

S.No	Name of the faculty Member	Seminar / Conference / Workshop / FDP / Short-term Course	From Dt	To Dt	Organizer
1	Dr. S.Mohana	Sensor,IoT & Machine Learning	1-Jun-20	5-Jun-20	Dept.of CSE
2	Dr.P.L. Rajarajeswari	Webinar Series "Learning Experience"	16-Jun-20	29-Jun-20	Infosys
3	Mr.S.Venkatasubramanian	Cloud Technologies	26-Oct-20	30-Oct-20	AICTE Training and Learning (ATAL) academy
		Vitural Workshop on "Role of Internet of Things in Startup India Mission"	20/7/2020	25/7/2020	Dept of CSE
		React JS-Bootcamp	13-Jul-20	18-Jul-20	Codegnan IT Solutions
		Python MTA Certification Bootcamp	14-Jun-20	20-Jun-20	Codegnan IT Solutions

		BlockChain Technology and Cyber Security	9-Jul-20	12-Jul-20	Dept.of CSE
		E-Learning Tools, Methodologies and Content Management	8-Jun-20	13-Jun-20	Dept of CSE in association with CSI
		IoT Applications	1-Jun-20	5-Jun-20	Dept of CSE
4	Dr.V.Punitha	Webinar Series "Learning Experience"	16-Jun-20	29-Jun-20	Infosys
5	Dr.R.Thillaikarasi	Smart Cities	12-Oct-20	16-Oct-20	AICTE Training and Learning (ATAL) academy
5	Dr.R.SenthamilSelvi	BlockChain Technology	2-Nov-20	6-Nov-20	AICTE Training and Learning (ATAL) academy
		Webinar Series "Learning Experience"	16-Jun-20	29-Jun-20	Infosys
		Sensor,IoT & Machine Learning	1-Jun-20	5-Jun-20	Dept.of CSE

6	Mr.T.Sathiskumar	Quantum Computing	1-Jun-20	5-Jun-20	Dept. of CSE
7	Mr.M.Anbazhagan	Python for DataScience	24-Jun-20	28-Jun-20	Dept of Computer Applications
8	Ms.K.Mohanappriya	Speech Processing using Deep learnig	28-Dec-20	1-Jan-21	AICTE Training and Learning (ATAL) academy
		DataSciences	7-Sep-20	11-Sep-20	AICTE Training and Learning (ATAL) academy
		DataHandling and DataVisualization using Python	6-Jul-20	10-Jul-20	Dept. of CSE
9	Ms.J.Sathiaparkavi	Internet of Things	1-Sep-20	1-Dec-20	NPTEL- FDP
		Internet of Things	14-Dec-20	18-Dec-20	AICTE Training and Learning (ATAL) academy
		Internet of Things	30-Nov-20	12-Apr-20	AICTE Training and Learning (ATAL) academy
		Internet of Things	7-Dec-20	11-Dec-20	AICTE Training and Learning (ATAL) academy

		Cloud Technologies	2-Nov-20	6-Nov-20	AICTE Training and Learning (ATAL) academy
		Internet of Things based Green energy systems	14-Sep-20	19-Sep-20	Dept of CSE
		IoT and Wireless Sensor Networks	27-Jul-20	31-Jul-20	Dept. of ECE
		Artificial Intelligence applications through Machine learning	14-Jul-20	18-Jul-20	Dept. of CSE
		DataHandling and DataVisualization using Python	6-Jul-20	10-Jul-20	Dept. of CSE
		Quantum Computing	1-Jun-20	5-Jun-20	Dept. of CSE
11	Mr.A.T.Barani Vijayakumar	DataSciences	20-Oct-202	24-Oct-20	AICTE Training and Learning (ATAL) academy

12	Mr.R.Mohankumar	FEP on Database Management Systems through INFYTQ platform	3-Aug-20	7-Aug-20	Infosys
13	Mr.P.DineshKumar	FEP on Database Management Systems through INFYTQ platform	3-Aug-20	7-Aug-20	Infosys
14	Mr.R.Karthik	FEP on Database Management Systems through INFYTQ platform	3-Aug-20	7-Aug-20	Infosys
15	Mr.P.B.Arunprasad	DataSciences	5-Oct-20	9-Oct-20	AICTE Training and Learning (ATAL) academy
		IOT with Machine learning and Artificial Intelligence	14-Sep-20	18-Sep-20	Dept of CSE
		FEP on Database Management Systems through INFYTQ platform	3-Aug-20	7-Aug-20	Infosys
		Embedding Research & Development in Academic Environment	1-Jun-20	3-Jun-20	Dept of EEE

Students Publication in AICTE Sponsored e-Conference on

***“CUTTING EDGE TECHNOLOGIES ON ELECTRICAL,
COMMUNICATION, EMBEDDED SYSTEM AND SOFT COMPUTING
TECHNIQUES”***

Conducted by Department of EEE , Saranathan College of Engineering

<u>S.NO</u>	PRESENTER	TITLE OF THE PAPER
1	Aarthi. M	Spotting of unsolicited messages and deceptive user on social networks
	Jusmitha. N	
	Kavya Priyadharshini. S	
	Keerthana. B	
2	Abirami. V	Blockchain based confidential schema for organized data in distributed servers
	Aruna. C	
	Jothika. S	
	Paven Priah. J P	
3	Anuradha. R	Voice Based medicine prescription in healthcare
	Bavya. P	
	Brahadambal. S	
	Deepashree. M	
4	Aravind Aparajith. K	Face Recognition based attendance system
	Dhinesh Kumar. S	
	Gowtham Krishna. S	
	Immanuel Irwin. N	
5	Harini. R	A simple statistical analysis for security risk management and cyber insurance coverage for cloud services
	Jeba Mary. G	
	Kaleeswari. M	

	Keerthika. S	
	Harini. R	
6	Darshna. S	Driver exhaustion detection based on facial nodal
	Fouzia	points
	Ishwarya. S	
	Madhumitha. K	
7	Alagu. S	Secure Docx
	Beryl Susanna. B	
	Bhavadarani. M	
	Keerthana. S	
8	Dhivakar. S	Secured online purchase system
	Dinesh. T	
	Kisore. S	
	Bhuvanewari. M	Automatic prediction of lung cancer using deep
	Janani. R	learning approach
	Jayashree. S	
	Kasthuri. B	
10	Nandha gopala krishnan.	Voicepad - Java programming by voice
	C	
	Sagul Hameed. M	
	Suhail Yusuff Azees. A	
	Vignesh. K	
11	Naveen. K.S.R	Defense Method for Ddos Attack in IOT Devices
	Nirmal. R	
	Prasanna Kumar. R	
	Raaja Vignesh. C	
12	Nithyasri. K	Enhancing and Evaluating the Privacy of the User in
	Rajalakshmi. G	Bitcoin Transaction
	Revathi. A.U	

13	Shalini. S	Disease Diagnosis System using Machine Learning Technique
	Pragadeesh. P	
	Prasanna Venkatesh. S	
	Sri Gopala Krishnan. R	
14	Sriram. S	An Approach for Job Recommendation by Exploring Job Portal
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	Sanjay. D	
	Venkatramanan. A.S	
15	Vinoth. M	NVEDU
	Rohit Raj	
	Thayalan. G.R	
	Vatsala. R	
	Surya Prakash	

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