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ESTD : 2005

Summary of Innovative Teaching learning brought in by the faculty for Academic Year: 2024 – 25 (CAY)

S. No.	Faculty Name	Class-Year	Course	Topics	Methodology / AID
1	A Mahendar	II-I	Data Structures	Arrays and Linked Lists	Harness in the power of technology
2	Dr. N. Chandramouli	II-I	Object Oriented Programming through Java	Exception Handling, Multithreading	Flipped Class Room
3	Dr. Md Sirajuddin	III-II	Machine Learning	Supervised and unsupervised	Group Discussions
4	Shabnoor Zeba	III-I	Devops	Devops Life Cycle	PPT Presentation

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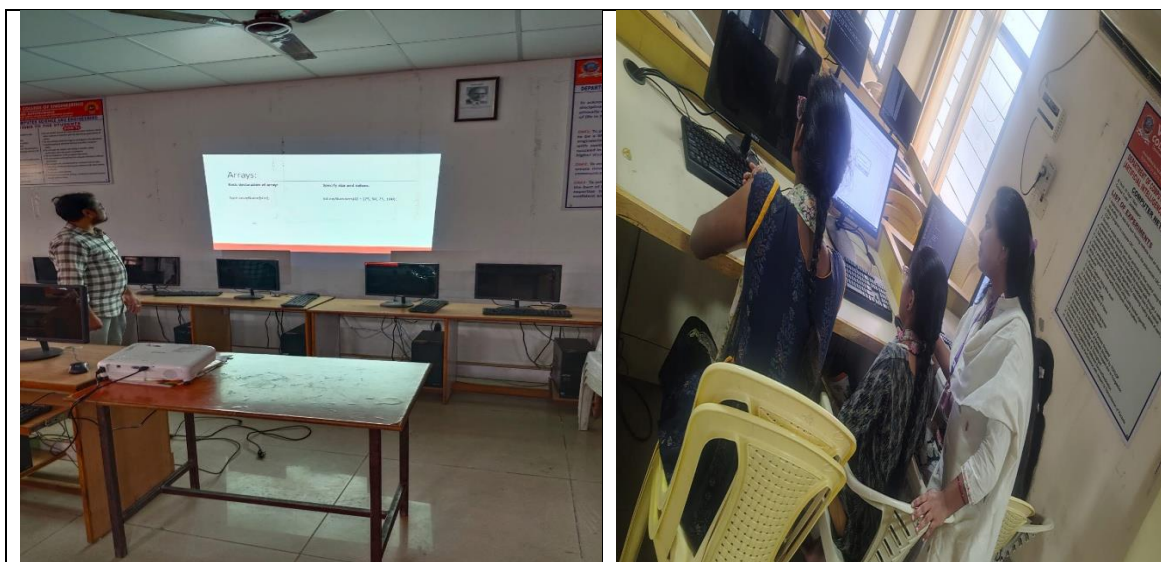
ESTD : 2005

DEPARMENT OF COMPUTER SCIENCE AND ENGINEERING

Harness in the power of technology:

In this method, the faculty uses technology to make teaching more effective and interesting. Concepts are explained using computers, projectors, and digital tools instead of only the blackboard. The faculty shows live examples, runs programs, uses animations or diagrams, and explains step-by-step so that students can understand the topic clearly. Technology helps students see how concepts work in real time and improves their learning and problem-solving skills.

What happens in Harness in the power of technology?

1) Programs or examples are shown on the screen instead of only writing on the board.
2) The faculty runs the program, explains each step, and shows the output.
3) Visuals, diagrams, or animations are used to help students understand the concept better.
4) Students watch, ask questions, and sometimes try the same examples on their own systems. This makes learning more clear, practical, and interesting.

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ESTD : 2005

DEPARMENT OF COMPUTER SCIENCE AND ENGINEERING

Flipped classroom :

A flipped classroom is a modern teaching method where the traditional way of learning is reversed.

Explanation:

In a normal classroom, faculty teaches the lesson in class. Students do homework after class Students learn the lesson at home (through videos, presentations, readings), Students do activities, discussions, problem-solving in class with the faculty help.

It Works

1. Before class: Students watch recorded lectures, audio–video lessons, or read materials.

2. During class: Students do activities, group work, problem-solving, Teacher guides, clarifies doubts, and helps individually, More interactive and practical learning

It is useful

Students learn at their own pace, More time for discussion and doubt-clearing, Encourages active learning, Better engagement and understanding.

Example: A math teacher records a video explaining algebra basics. Students watch it at home. Next day in class, they solve algebra problems in groups while the teacher helps.

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ESTD : 2005

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Group Discussions:

In the group discussion method, the faculty divides students into small groups and gives them a topic related to the subject. Students discuss the topic among themselves, share ideas, and solve problems together. The faculty acts as a guide, listens to the discussions, asks questions, and clears doubts when needed. After discussion, one student from each group may present the group's points to the class. This method helps students improve their understanding, communication skills, teamwork, and confidence.
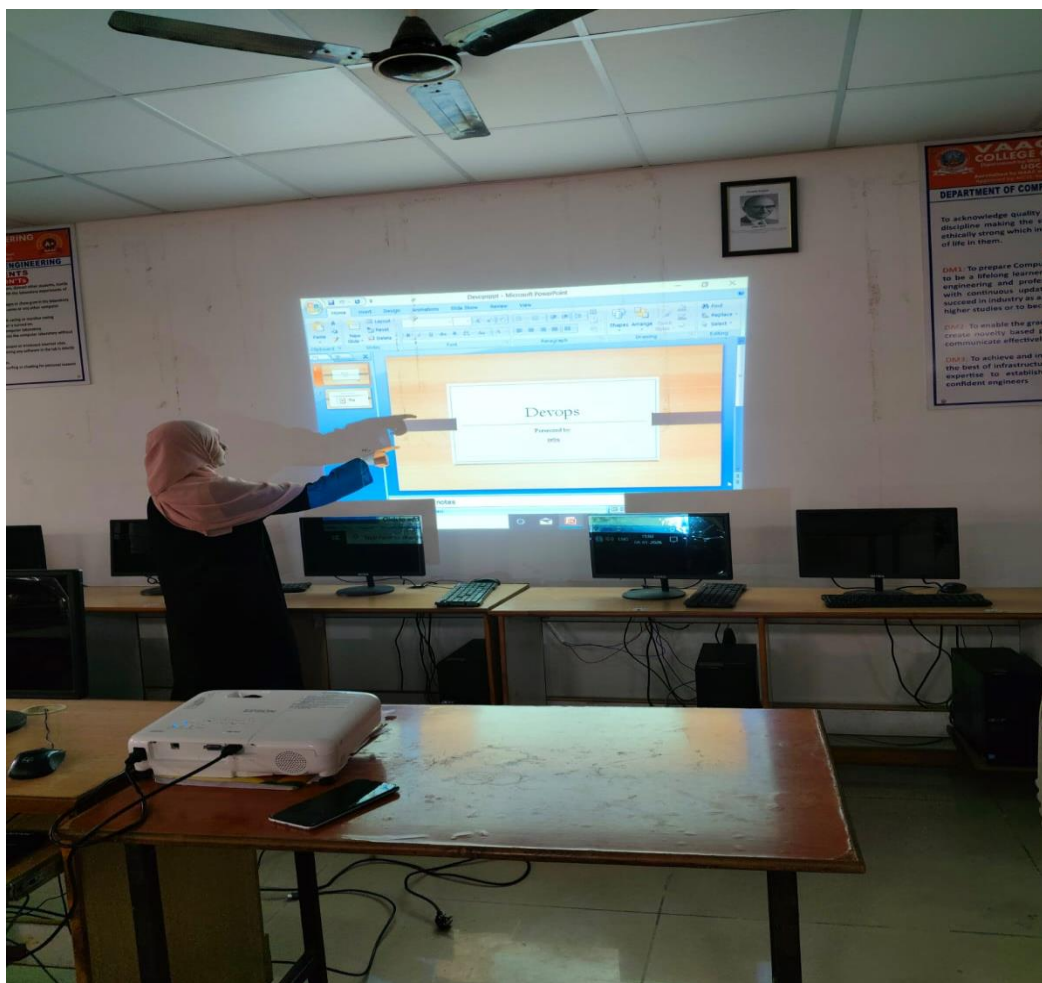

Coordinator   **Head of the department**

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ESTD : 2005

DEPARMENT OF COMPUTER SCIENCE AND ENGINEERING

PPT Presentation

A PowerPoint (PPT) presentation is a visual way to share information using slides. Each slide can include text, images, charts, graphs, and animations to help explain ideas clearly. PPT presentations are commonly used in schools, meetings, and seminars to make topics easier to understand and more engaging for the audience. They help presenters organize their thoughts and communicate key points in a simple and effective manner.

Coordinator   **Head of the department**

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Summary of Innovative Teaching learning brought in by the faculty for Academic Year: 2024 – 25 (CAY)

S. No.	Faculty Name	Class-Year	Course	Topics	Methodology / AID
1	Dr. E. Srikanth Reddy	III-I	Principles of Programming Languages	Expressions and Statements and Control Structures	PPT presentation
2	A. Kalpana	II-II	DBMS	Normalization	Collaborative Learning
3	E. Kirankuamar	II-II	Software Engineering	Process models	Flipped Class Room
4	R. Sagar	III-I	Computer Networks	Data Transmission topologies	Think-pair Share
5	Dr. T. Ravi Kumar	IV-I	Data Mining	Association Rule and Classification	Group Discussions

DEPARMENT OF COMPUTER SCIENCE AND ENGINEERING

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Coordinator   **Head of the department**

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Collaborative learning

Collaborative learning is an educational approach in which students learn by working together in small groups. Each student takes part by sharing ideas, asking questions, and helping others understand the topic. Learning becomes more effective because students learn from different viewpoints and support one another.

In collaborative learning, the teacher acts as a guide rather than only giving lectures. This method helps students develop important skills such as communication, teamwork, problem-solving, and critical thinking. It also builds confidence and encourages active participation in the classroom.

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Think-pair Share:

Think-Pair-Share is an interactive teaching strategy that encourages students to actively participate in learning. In this method, the teacher first asks a question or gives a problem. Students are given time to think individually about their answers. Next, they pair up with a partner to discuss their ideas and compare thoughts. Finally, students share their responses with the whole class.

This methodology helps students develop critical thinking, communication, and listening skills. It gives every student a chance to express ideas, builds confidence, and promotes collaborative learning. Think-Pair-Share also helps teachers understand students' thinking and makes classroom learning more engaging and inclusive.

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Group Discussions:

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Table 5.5.3: List of pedagogical initiatives by the faculty members

Academic Year: 2023-24 (CAYm1)

S. No	Name of the Faculty	No. of Teaching Learning methodologies used	Link of webpage/blog/ Google classroom/LMS etc.
1	Dr. E. Srikanth Reddy	1	https://vgsek.ac.in/assets/uploads/PPL-TOTAL.pdf
2	Dr. Gulab Singh	1	https://vgsek.ac.in/assets/uploads/DAA%20Complete%20Notes.pdf
3	Mr. T. Ravi Kumar	1	https://vgsek.ac.in/assets/uploads/Data_Minin_(Hand_Written).pdf
4	Mr. E. Kiran Kumar	1	https://vgsek.ac.in/assets/uploads/Cryptography_and_Network_Security_cmpltd.pdf
5	Mr. Mahesh Thallapelly	1	https://vgsek.ac.in/assets/uploads/Java_BTech%20CSE%202- 2%20Notes_241116_113337.pdf
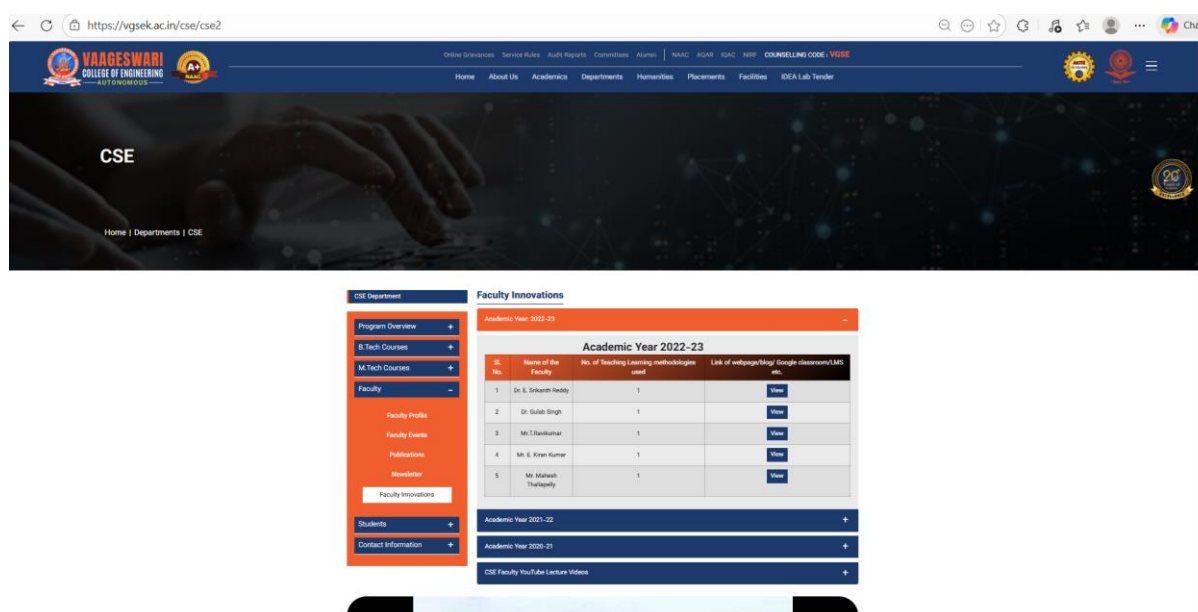
All the Resources are available in our website(https://vgsek.ac.in/cse/cse2)

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ESTD : 2005
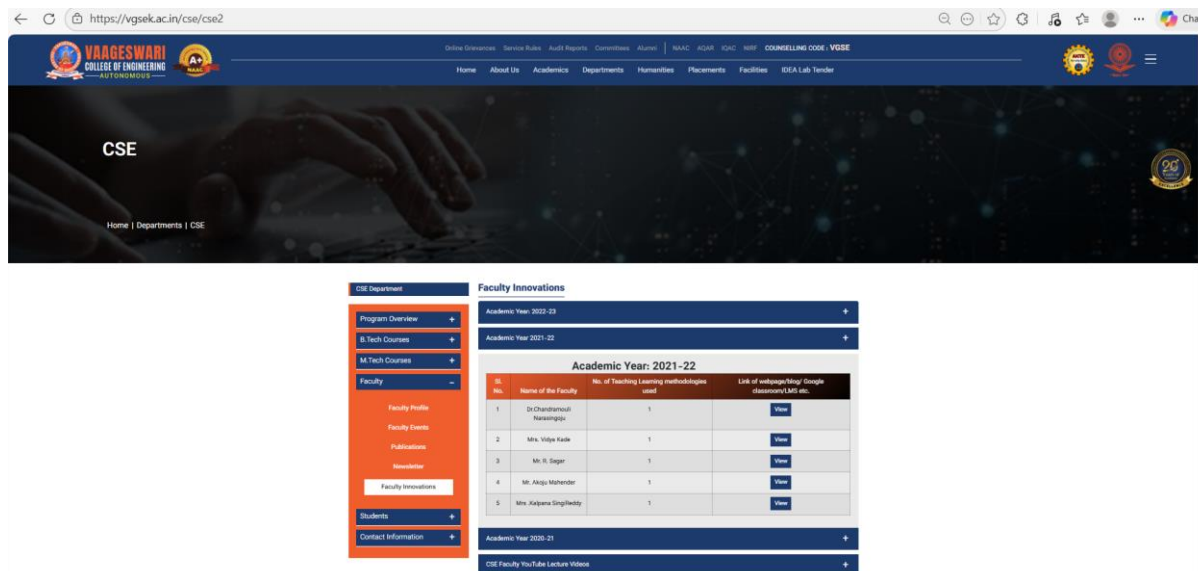
Table 5.5.4: List of pedagogical initiatives by the faculty members

Academic Year: 2022-23 (CAYm2)

S. No	Name of the Faculty	No. of Teaching Learning methodologies used	Link of webpage/blog/ Google classroom/LMS etc.
1	Dr. Chandramouli Narasingoju	1	https://vgsek.ac.in/assets/uploads/DAA%20Complete%20Notes.pdf
2	Mrs. Vidya Kade	1	https://vgsek.ac.in/assets/uploads/IRS%20Notes.pd f
3	Mr. R. Sagar	1	https://vgsek.ac.in/assets/uploads/Cryptography_and_Network_Security_cmpltd.pdf
4	Mr. Akoju Mahender	1	https://vgsek.ac.in/assets/uploads/Software%20Engineering%20notes.pdf
5	Mrs. Kalpana Singi Reddy	1	https://vgsek.ac.in/assets/uploads/Compiler%20Design%20Complete%20notes_241116_112203.pdf

All the Resources are available in our website(https://vgsek.ac.in/cse/cse2)

Coordinator   **Head of the department**

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ESTD : 2005
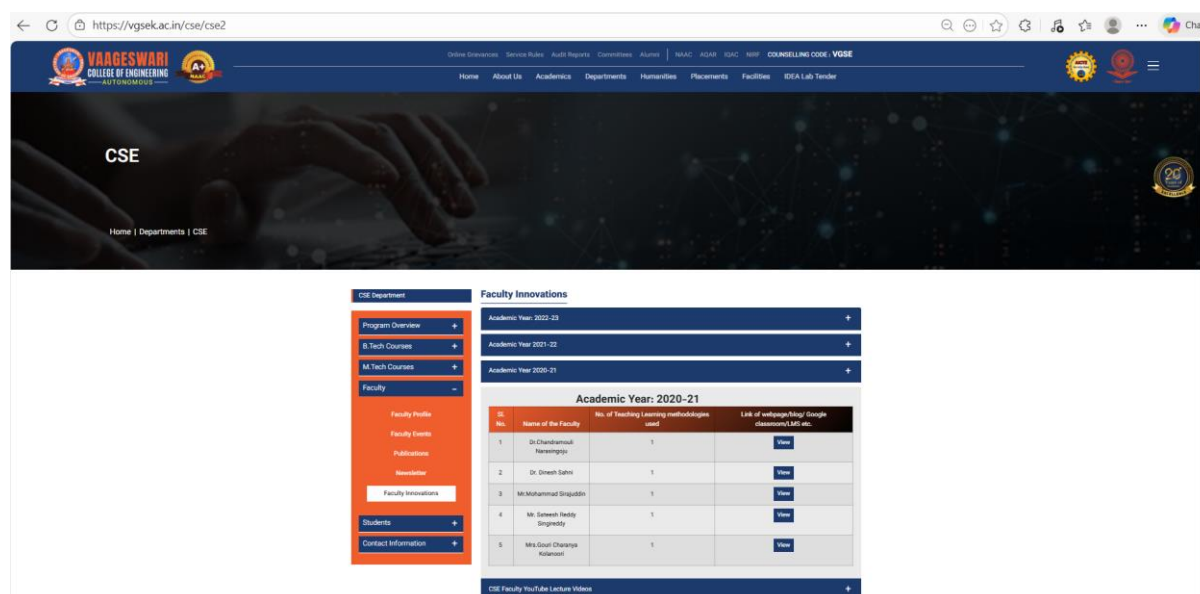
Table 5.5.5: List of pedagogical initiatives by the faculty members

Academic Year: 2021-22 (CAYm3)

S. No	Name of the Faculty	No. of Teaching Learning methodologies used	Link of webpage/blog/ Google classroom/LMS etc.
1	Dr. Chandramouli Narasingoju	1	https://vgsek.ac.in/assets/uploads/Java_BTech%20CSE%202-2%20Notes_241116_113337.pdf
2	Dr. Dinesh Sahni	1	https://vgsek.ac.in/assets/uploads/FLAT%20COMPLETE%20NOTES.pdf
3	Mr. Mohammad Sirajuddin	1	https://vgsek.ac.in/assets/uploads/Cryptography_and_Network_Security_cmpltd.pdf
4	Mr. Sateesh Reddy Singireddy	1	https://vgsek.ac.in/assets/uploads/Compiler%20Design%20Complete%20notes_241116_112203.pdf
5	Mrs. Gouri Charanya Kolanoori	1	https://vgsek.ac.in/assets/uploads/HCI_Complete_notes.pdf

All the Resources are available in our website(https://vgsek.ac.in/cse/cse2)

Coordinator   **Head of the department**

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ESTD : 2005

5.5. (B). The work must be available for peer review and critique

The Department of Computer Science and Engineering ensures that the research work carried out by faculty members is made available for peer review and critique through publication in peer-reviewed journals and presentation at national and international conferences. All submitted research papers undergo a formal review process by subject experts to assess originality, technical quality, and relevance. Reviewer comments are addressed before final publication, thereby ensuring research quality and academic integrity.
Evidence Available:

• Copies of published papers in peer-reviewed journals

• Conference acceptance letters with review confirmation

• Indexing proof (Scopus / UGC-CARE / Web of Science)

• DOI details and publication certificates

Details of the paper:

Journal of Science and Technology (SCOPUS)

ISSN: 2456-5660 Volume 8, Issue 07 (July -2023)

A Machine Learning Framework for Data Poisoning Attacks

Dr. D. Srinivas Reddy

A Machine Learning Framework For Data Poisoning Attacks

Priyanka Narsingoju[1] | Dr.D.Srinivas Reddy[2] | Dr.V.Bapuji[3]

[1]Department of MCA,Vaageswari College Of Engineering, Karimnagar.
[2]Associate Professor,Department of MCA,Vaageswari College Of Engineering, Karimnagar.
[3]Professor & HoD, Department of MCA,Vaageswari College Of Engineering, Karimnagar.

ABSTRACT

Federated models are built by collecting model changes from participants. To maintain the secrecy of the training data, the aggregator has no visibility into how these updates are made by design.. This paper aims to explore the vulnerability of federated machine learning, focusing on attacking a federated multitasking learning framework. The framework enables resource-constrained node devices, such as mobile phones and IOT devices, to learn a shared model while keeping the training However, the communication protocol among attackers may take advantage of various nodes to conduct data poisoning assaults, which has been shown to pose a serious danger to the majority of machine learning models. The paper formulates the problem of computing optimal poisoning attacks on federated multitask learning as a bi-level program that is adaptive to arbitrary choice of target nodes and source attacking nodes.The authors propose a novel systems-aware optimization method, Attack confederated Learning(AT2FL), which is efficiency to derive the implicit gradients for poisoned data and further compute optimal attack strategies in the federated machine learning.

KEYWORDS: Federated machine learning, Vulnerability,Arbitrary, Attack on federated machine learning(AT2FL), Gradients.

Details of the paper:

k – Means Clustering Algorithms for Vehicular Ad Hoc Networks using Certificate Revocation List Validation Scheme

Dr.D. Srinivas Reddy

k – Means Clustering Algorithms for Vehicular Ad Hoc Networks using Certificate Revocation List Validation Scheme

D. Srinivas Reddy[1]   Prof. A. Govardhan[2]   Dr.V.Bapuji[3]

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[2]Dept of CSE, JNTUH

1. INTRODUCTION

Vehicular ad hoc networks (VANETs) play an important role in wireless communications among vehicles, which raises the popularity of safety and drivers assistance applications [1,2]. In order to establish a reliable vehicular communication environment, the guarantee of nodes credibility is required. Security in vehicular networks is critical and indispensable. The figure 1 shows the secured structure of vehicular communication system.
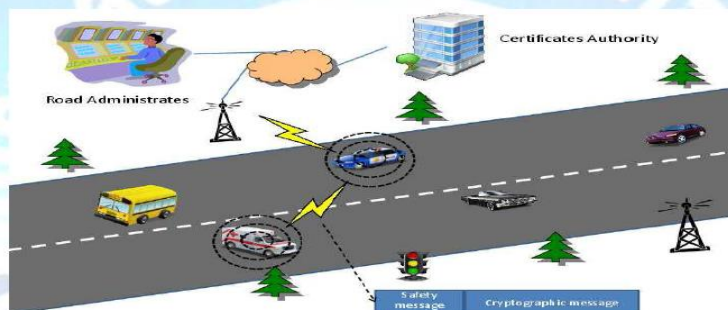

Figure 1. Overview of the secured structure of VANETs.

Usually authentication and digital certificates act as the major tools used to validate the identification of each communicating entity. The entity's certificate can be validated by checking its digital certificates. However, the promptness of validation would be much more important for VANETs when compared to conventional networks, because it is not unusual that every vehicle receives a large number of messages in a short time.

Moreover keeping connections live between different entities could be extremely hard to achieve, because of the high speed of moving vehicles as well as the increasing distance between these vehicles since they may move in different directions. Hence it is necessary to find an efficient scheme to expedite the certificate validation process.

Dr.D.Srinivas Reddy

A DATA INTEGRITY VERIFICATION SCHEME FOR CLOUD COMPUTING USING DISTRIBUTED MACHINE LEARNING

A DATA INTEGRITY VERIFICATION SCHEME FOR CLOUD COMPUTING USING DISTRIBUTED MACHINE LEARNING

P Ajay
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Professor & Head, Department of MCA
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:
Dr.D.Srinivas Reddy
Associate Professor, Department of CSE
Vaageswari College of Engineering, Karimnagar

ABSTRACT

Distributed machine learning is one of the many foundational technologies upon which artificial intelligence rests. However, the existing distributed machine learning architecture does not take data integrity into account. If data is falsified, altered, or deleted by network attackers, it will have a major influence on the training model of the distributed machine learning system and lead to inaccurate training outcomes. Therefore, it is critical to guarantee data integrity in the DML. Our distributed machine learning oriented data integrity verification approach (DML-DIV) is presented here to ensure the reliability of training data. As a first step in providing data integrity verification, we use the Provable Data Possession (PDP) sample auditing approach. This allows our DML-DIV system to resist attacks of forgery and manipulation. Second, we employ the discrete logarithm problem (DLP) to generate a random number, the blinding factor, which ensures privacy protection throughout the TPA verification process and provides proof. In the third phase, we use identity-based cryptography and two-step key generation technologies to create a public/private key pair for the data owner. Because of this, our DML-DIV system may reduce the expense of certificate administration while simultaneously solving the key escrow problem. The effectiveness and security of our DML-DIV system are shown by its actual results and careful theoretical analysis.

Index-Terms: Distributed machine learning, data integrity verification, Provable Data Possession (PDP), discrete logarithm problem (DLP), identity-based cryptography, key generation.

Details of the paper:

Journal name: Scientific Programming (SCOPUS)

Volume **2022, Article ID 1757888**

Rice Disease Detection Using AI & ML Techniques to Improvise Argo-Business

Dr.N.Chandramouli

Research Article

Rice Disease Detection Using Artificial Intelligence and Machine Learning Techniques to Improvise Agro-Business

Shruti Aggarwal [iD],[1] M. Suchithra,[2] N. Chandramouli,[3] Macha Sarada,[4] Amit Verma,[5] D. Vetrithangam,[6] Bhaskar Pant,[7] and Biruk Ambachew Adugna [iD][8]

[1]*Department of Computer Science and Engineering, Thapar University, Patiala 147004, India*
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[4]*Department of Computer Science and Engineering, Priyadarshini Institute of Science and Technology for Women, Peddathanda, Telangana 507003, India*
[5]*University Center of Research and Development, Chandigarh University, Mohali 140413, India*
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Agro-business is highly dependent on rice quality and its protection from diseases. There are several prerequisites for the procedures and the strategies that are productive and efficient for expanding the harvest yield. The advancement in computer science has supported various domains; agricultural innovation is one of them. The apparatuses which utilize the strategies of advanced artificial intelligence and machine learning have been featured in this paper. These techniques attain abnormally productive outcomes for the recognition of infections engrossing the images of leaves, fields of harvest, or seeds. In this context, this work presents a survey that focuses on accuracy agribusiness for expanding the conception of rice, which is one of the main harvests on the planet. In this paper, the overview and examination of various papers distributed in the most recent eight years with various methodologies identified with crop diseases identification, the health of seedlings, and quality of grain have been introduced. Experiments are performed for knowledge extraction using Web of Science and Scopus databases to analyze research trends in the domain of rice disease identification using artificial intelligence using global analysis, year-wise and country-wise citations, and so on to support various researchers working in this domain.

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ESTD : 2005

Details of the paper:

Journal of Theoretical and Applied Information Technology(SCOPUS)

ISSN:1992-8645,E-ISSN:1817-3195

A Novel Methodology For Secure Duplication Of Image Data In Cloud Computing Using Compressive Sensing And Random Pixel Exchanging

Dr.N.Chandramouli

A NOVEL METHODOLOGY FOR SECURE DEDUPLICATION OF IMAGE DATA IN CLOUD COMPUTING USING COMPRESSIVE SENSING AND RANDOM PIXEL EXCHANGING

[1]PRATHAP ABBAREDDY, [2]SREEDHAR BHUKYA, [3]CHANDRAMOULI NARSINGOJU, [4]B NARSIMHULU

[1]Staff Software Engineer
[2]Professor, Department of CSE , Sreenidhi Institute of Science and Technology, Hyderabad.
[3]Assistant Professor, Department of CSE, Vaageswari College of engineering, Karimnagar
[4]Assistant Professor, Department of CSE , SR University, Warangal

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[4]bnreddy25@gmail.com

ABSTRACT

With cloud computing technology, managing multimedia content became easier for organizations in general and commercial content owners. However, duplication of data causes unnecessary burden over cloud resources. At the same time, there is security to be provided to multimedia content so as to ensure data integrity. In this paper we considered these two concerns while proposing a novel methodology for secure deduplication of image data in cloud computing. We proposed a framework known as Image Security and Deduplication Framework (ISDF) which exploits compressive sensing and random pixel exchanging for security and a deduplication mechanism for getting rid of duplicate images while storing in cloud resources. Compressive sensing is a signal processing technique used to leverage image processing and image security. We proposed an algorithm named Deduplication and Secure Image Storage and Retrieval in Cloud (DSISRC). This algorithm exploits deduplication mechanisms and security mechanisms for efficient management of image content in the cloud. Besides the deduplication process benefits Cloud Service Provider (CSP) with optimal storage and processing leading to conservation of resources. A benchmark dataset is used for our empirical study. Experimental results revealed that the proposed algorithm performs well in terms of image security and deduplication.

Keywords – *Secure Deduplication, Compressive Sensing, Data Anonymization, Cloud Computing, Image Security*

Coordinator   **Head of the department**

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ESTD : 2005

5.5. (C). The work must be reproducible and developed further by other scholars (2)

Dr. N. Chandramouli

Faculty Citations

Academic Year	Total Number of citations	Total Number of i index	Total Number of h index
CAY (2025-26)	3	2	3
CAY (2024-25)	64	2	3
CAYm1(2023-24)	44	2	3
CAYm2(2022-23)	52	2	3
CAYm3(2021-22)	4	2	3
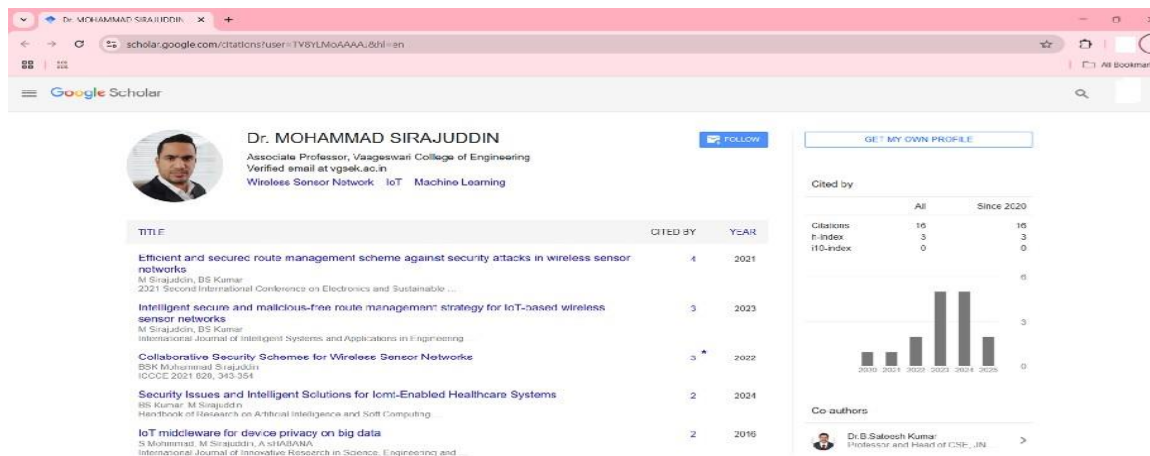
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Dr. Mohammad Sirajuddin

Faculty Citations

Academic Year	Total Number of citations	Total Number of i index	Total Number of h index
CAY (2024-25)	12	1	4
CAYm1(2023-24)	10	1	4
CAYm2(2022-23)	10	1	4
CAYm3(2021-22)	6	1	4

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Dr. D. Srinivas Reddy

Faculty Citations

Academic Year	Total Number of citations	Total Number of i index	Total Number of h index
CAY (2024-25)	1	2	4
CAYm1(2023-24)	0	2	4
CAYm2(2022-23)	5	1	3
CAYm3(2021-22)	1	1	3

Dr. Srikanth Reddy E

Faculty Citations

Academic Year	Total Number of citations	Total Number of i index	Total Number of h index
CAY (2024-25)	0	0	2
CAYm1(2023-24)	0	0	2
CAYm2(2022-23)	6	0	2
CAYm3(2021-22)	0	0	2

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Dr. Ravikumar Thallapalli

Faculty Citations

Academic Year	Total Number of citations	Total Number of i index	Total Number of h index
CAY (2024-25)	3	1	2
CAYm1(2023-24)	7	1	2
CAYm2(2022-23)	6	1	2
CAYm3(2021-22)	2	0	2

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5.5. (D). Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique

Teaching and learning innovative practices are introduced to raise the curiosity of a student in wide domain and to encourage the students to increase the interaction in the class. Rapid advancement in technology is one of the major issues that affect the teaching/learning process. The lecturers find it difficult to keep pace with the techno- savvy learners. Further rapid change is taking place in technology which boosts up the problem. It is a challenge for the faculty to hold the interest and attention of the students throughout the lecture. The use of teaching and learning process makes the students to actively engage in the classroom. It bridges the gap between a faculty and student. Student came to know each other, learn from their peers and also it improves the communication skills.

The implementation of teaching and learning methods improves ethical behaviour and desire to understand. Also it changes the overall perspective towards life. It also improves academic performance and motivates participation in co-curricular activities.

The following teaching and learning activities are implemented by the faculty in the class room.
- ✓ Collaborative Learning. Think-Pair Share.
- ✓ Group Discussions.
- ✓ Flipped Classroom. Note Check.
- ✓ Concept Tests.
- ✓ Harnessing the Power of Technology. Dynamic Class Room.

Instructional methods

- ✓ **Lecturing:** Addressing all the students at once, in the most appropriate manner to convey the information, according to the lesson plan for better understanding of the student.
- ✓ **Demonstrating:** Is the process of teaching through examples or experiments.
- ✓ **Collaborating:** It allows the students to actively participate in the learning processes by talking with each other and listening to their peer views.
- ✓ **Classroom Discussion**: It is a way of handling a class, where each student is given equal opportunity to interact and put fore forth their views. The discussion in the classroom can be either facilitated by a teacher or a student.

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Activities used in Teaching& Learning:

S. No	Activity Conducted	Name of the Faculty	Course	Academic Year
1	Data Structures	A. Mahendar	Arrays and Linked Lists	2024-25
2	Object Oriented Programming through Java	Dr. N. Chandramouli	Exception Handling, Multithreading	2024-25
3	Machine Learning	Dr. Md Sirajuddin	Supervised and unsupervised	2024-25
4	Devops	Shabnoor Zeba	Devops Life Cycle	2024-25
5	Principles of Programming Languages	Dr. E. Srikanth Reddy	Expressions and Statements and Control Structures	2023-24
6	DBMS	A. Kalpana	Normalization	2023-24
7	SOFTWARE ENGINEERING	E. Kirankuamar	Process models	2023-24
8	Computer Networks	R. Sagar	Data Transmission topologies	2023-24
9	Data Mining	Dr. T. Ravi Kumar	Association Rule and Classification	2023-24
10	Collaborative Learning (STAD)	Dr. Gulab Singh	Data Base Management System	2022-23
11	Harnessing the Power of Technology	Mahesh Thallapelly	Data Structures	2022-23
12	Flipped Class Room	Vidya Kade	Software Engineering	2021-22
13	Note -Check	Dr. Chandramouli Narasingoju	Design and analysis of algorithms.	2021-22

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14	Think-Pair Share	Dr. E. Srikanth Reddy	Principles of Programming Languages	2022-23
15	Flipped Class Room	E. Kiran Kumar	Oops through Java	2022-23
16	Flipped Class Room	Mohammad Sirajuddin	Cloud Computing	2020-21
17	Think-Pair Share	R. Sagar	Computer Networks	2021-22
18	Group Discussions	T. Ravi Kumar	Data Mining	2022-23
19	Harnessing the Power of Technology	Akoju Mahender	DS through C++	2021-22
20	Concept Tests	Dr. DINESH SAHNI	Formal Languages and Automata Theory	2020-21

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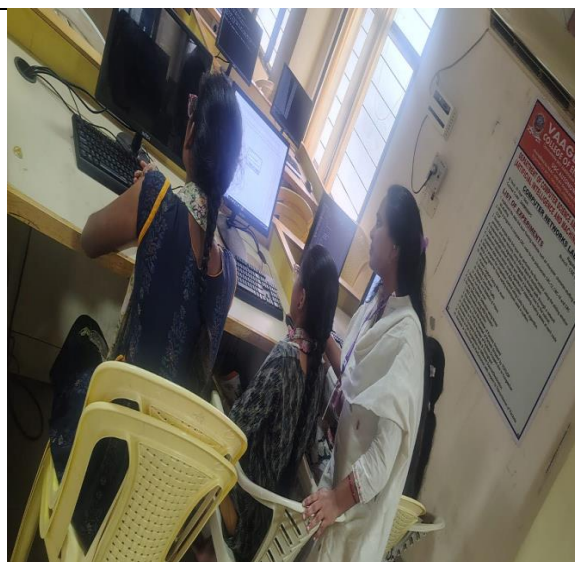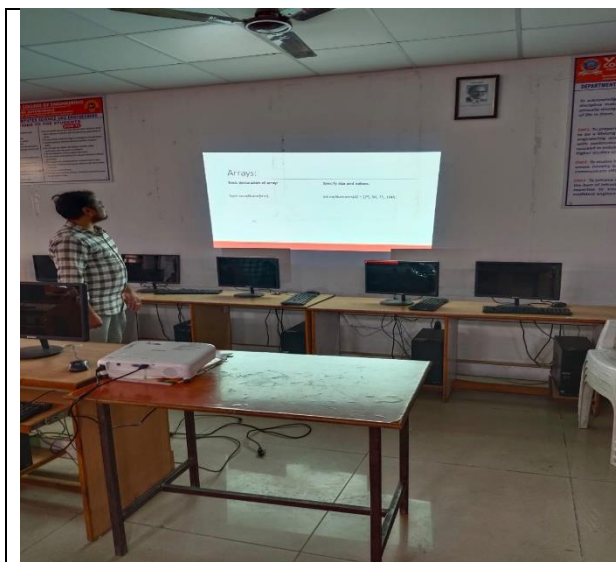Listed faculties are used below different types of activities for the academic year

(2024-25)

Harness in the power of technology:

In this method, the faculty uses technology to make teaching more effective and interesting. Concepts are explained using computers, projectors, and digital tools instead of only the blackboard. The faculty shows live examples, runs programs, uses animations or diagrams, and explains step-by-step so that students can understand the topic clearly. Technology helps students see how concepts work in real time and improves their learning and problem-solving skills.

What happens in Harness in the power of technology?

5) Programs or examples are shown on the screen instead of only writing on the board.
6) The faculty runs the program, explains each step, and shows the output.
7) Visuals, diagrams, or animations are used to help students understand the concept better.
8) Students watch, ask questions, and sometimes try the same examples on their own systems. This makes learning more clear, practical, and interesting.

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Flipped classroom :

A flipped classroom is a modern teaching method where the traditional way of learning is reversed.

Explanation:

In a normal classroom, faculty teaches the lesson in class. Students do homework after class Students learn the lesson at home (through videos, presentations, readings), Students do activities, discussions, problem-solving in class with the faculty help.

It Works

1. Before class: Students watch recorded lectures, audio–video lessons, or read materials.
2. During class: Students do activities, group work, problem-solving, Teacher guides, clarifies doubts, and helps individually, More interactive and practical learning

It is useful

Students learn at their own pace, More time for discussion and doubt-clearing, Encourages active learning, Better engagement and understanding.

Example: A math teacher records a video explaining algebra basics. Students watch it at home. Next day in class, they solve algebra problems in groups while the teacher helps.

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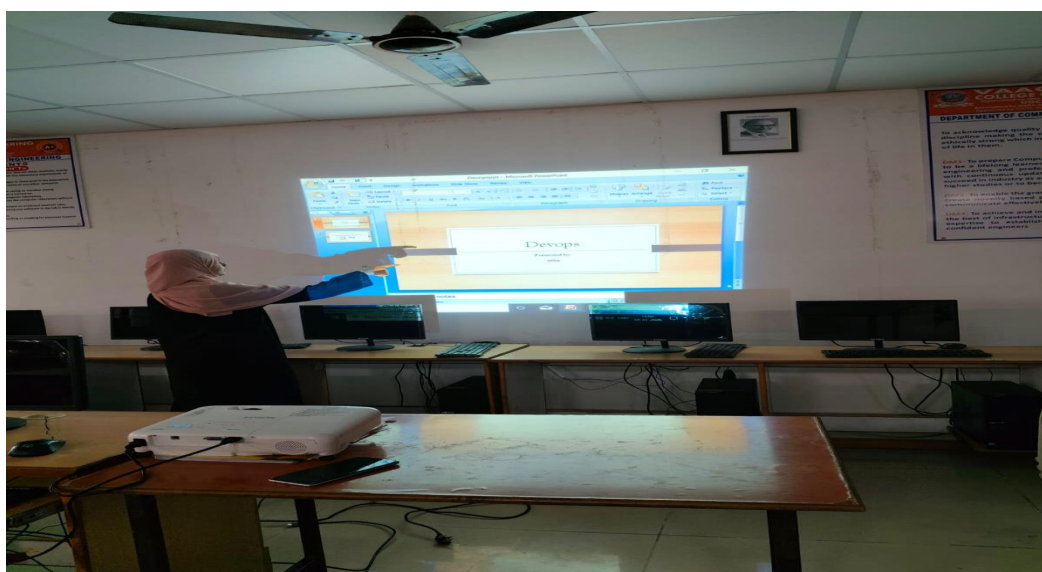
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Group Discussions:

In the group discussion method, the faculty divides students into small groups and gives them a topic related to the subject. Students discuss the topic among themselves, share ideas, and solve problems together. The faculty acts as a guide, listens to the discussions, asks questions, and clears doubts when needed. After discussion, one student from each group may present the group's points to the class. This method helps students improve their understanding, communication skills, teamwork, and confidence.

PPT Presentation

A PowerPoint (PPT) presentation is a visual way to share information using slides. Each slide can include text, images, charts, graphs, and animations to help explain ideas clearly. PPT presentations are commonly used in schools, meetings, and seminars to make topics easier to understand and more engaging for the audience. They help presenters organize their thoughts and communicate key points in a simple and effective manner.
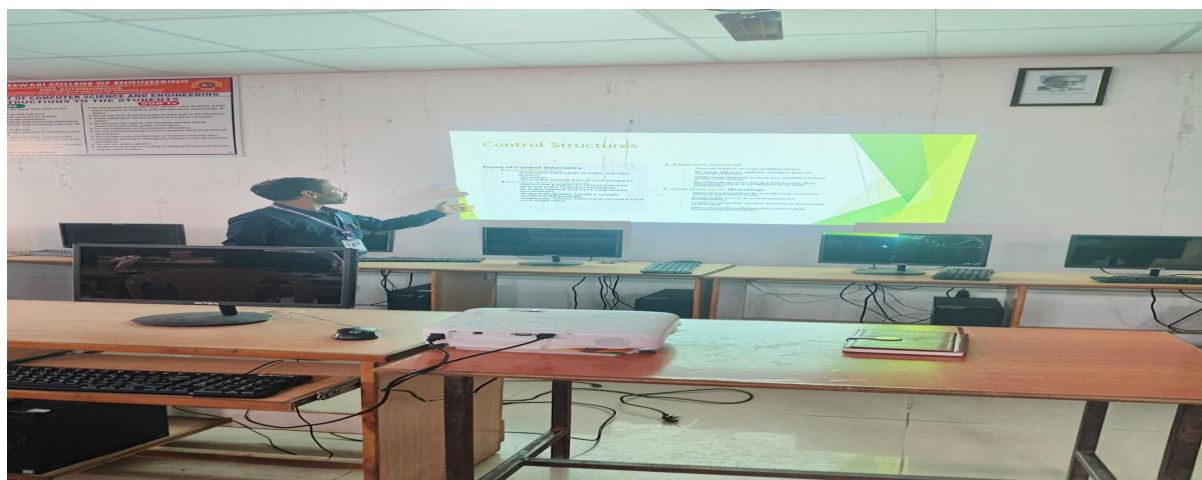

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Listed faculties are used below different types of activities for the academic year (2023-24)

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Collaborative learning

Collaborative learning is an educational approach in which students learn by working together in small groups. Each student takes part by sharing ideas, asking questions, and helping others understand the topic. Learning becomes more effective because students learn from different viewpoints and support one another.

In collaborative learning, the teacher acts as a guide rather than only giving lectures. This method helps students develop important skills such as communication, teamwork, problem-solving, and critical thinking. It also builds confidence and encourages active participation in the classroom.

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Think-pair Share:

Think-Pair-Share is an interactive teaching strategy that encourages students to actively participate in learning. In this method, the teacher first asks a question or gives a problem. Students are given time to think individually about their answers. Next, they pair up with a partner to discuss their ideas and compare thoughts. Finally, students share their responses with the whole class.

This methodology helps students develop critical thinking, communication, and listening skills. It gives every student a chance to express ideas, builds confidence, and promotes collaborative learning. Think-Pair-Share also helps teachers understand students' thinking and makes classroom learning more engaging and inclusive.

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(2022-23)

Collaborative learning(STAD)

Collaborative learning is an educational approach in which students learn by working together in small groups. Each student takes part by sharing ideas, asking questions, and helping others understand the topic. Learning becomes more effective because students learn from different viewpoints and support one another.

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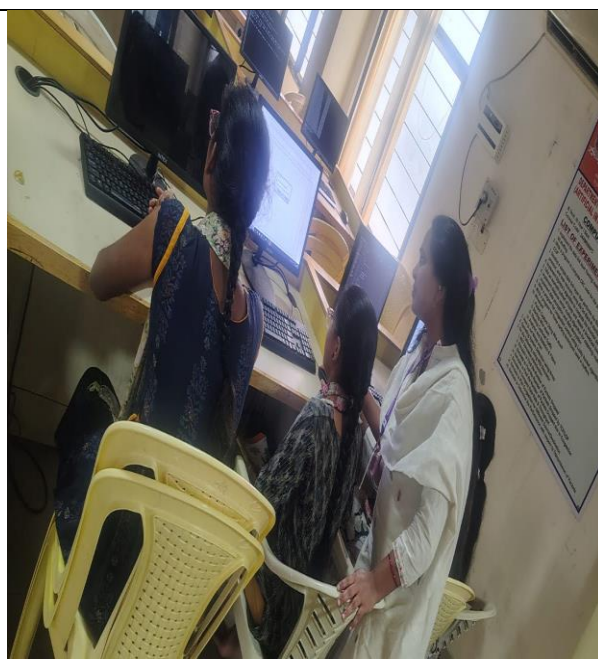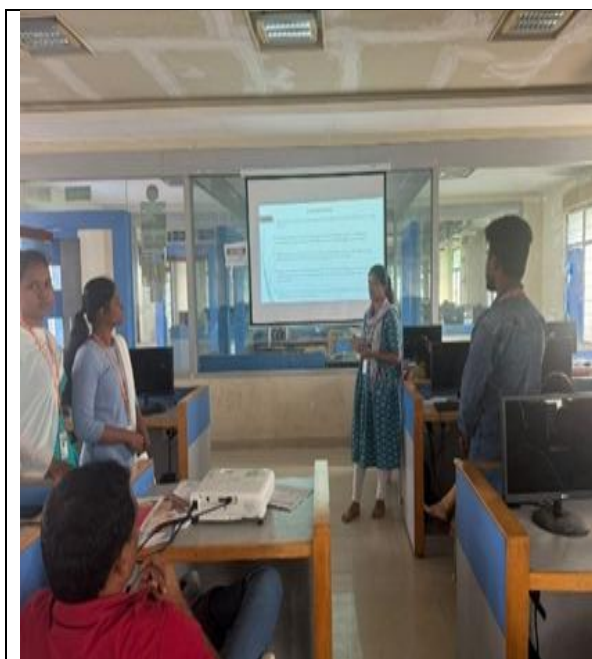
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Listed faculties are used below different types of activities for the academic year

(2021-22)

Note -Check:

The teaching methodology has been reviewed to ensure clarity, appropriateness, and alignment with the course objectives. follows different rules for this methodology.

- The teaching methodology has been reviewed for effectiveness and relevance.
- The adopted teaching methods were checked for suitability to the subject.
- Teaching methodology was examined and found appropriate.

Flipped classroom :
A flipped classroom is a modern teaching method where the traditional way of learning is reversed.
Explanation:
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Listed faculties are used below different types of activities for the academic year

(2020-21)

Concept tests:

Concept tests encouraged student engagement and critical thinking by assessing understanding in real time. Concept tests were incorporated as an active learning strategy to evaluate students' understanding, identify learning gaps, and provide immediate feedback. Below rules are followed to conducting feedbacks.

- Concept tests were employed to evaluate students' grasp of fundamental concepts and principles.
- Conceptual assessments were conducted to ensure clarity and retention of subject matter.
- Concept tests were integrated into instruction to assess learning effectiveness.

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Collaborative learning (TAI)

A cooperative learning method combining individualized instruction with team support.

Students work on individualized materials suited to their level. It assesses with Individual tests; team rewards based on individual progress. It improves individual mastery and confidence. Team-Assisted Individualization was used to support individualized learning through peer collaboration.

Coordinator   **Head of the department**

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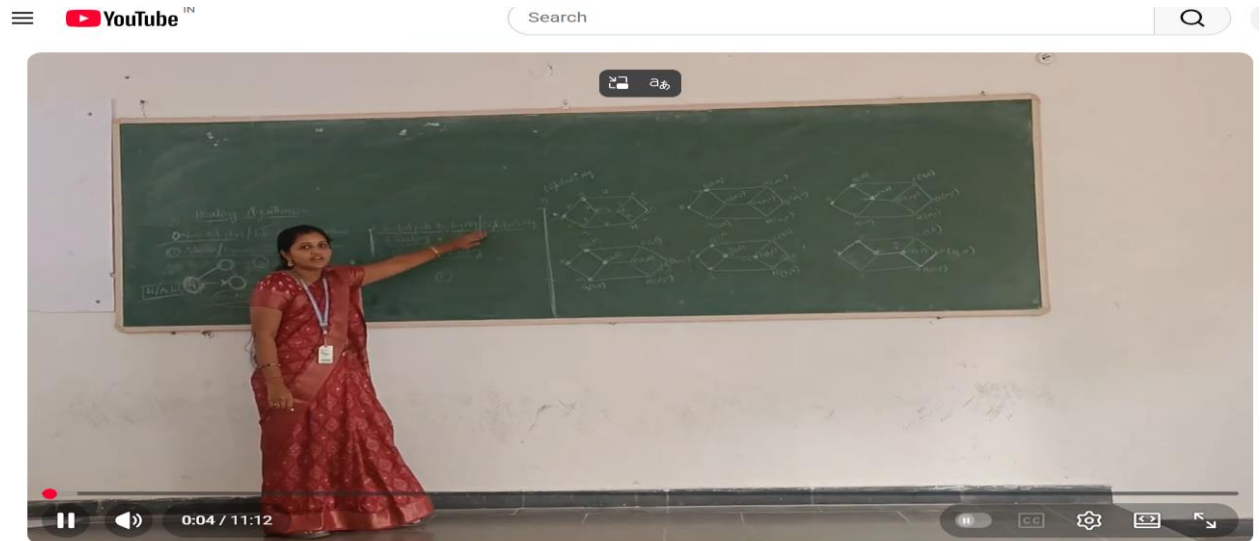Subscribe   👍 2   👎   ➤ Share   ⬇ Download   🔖 Save   •••

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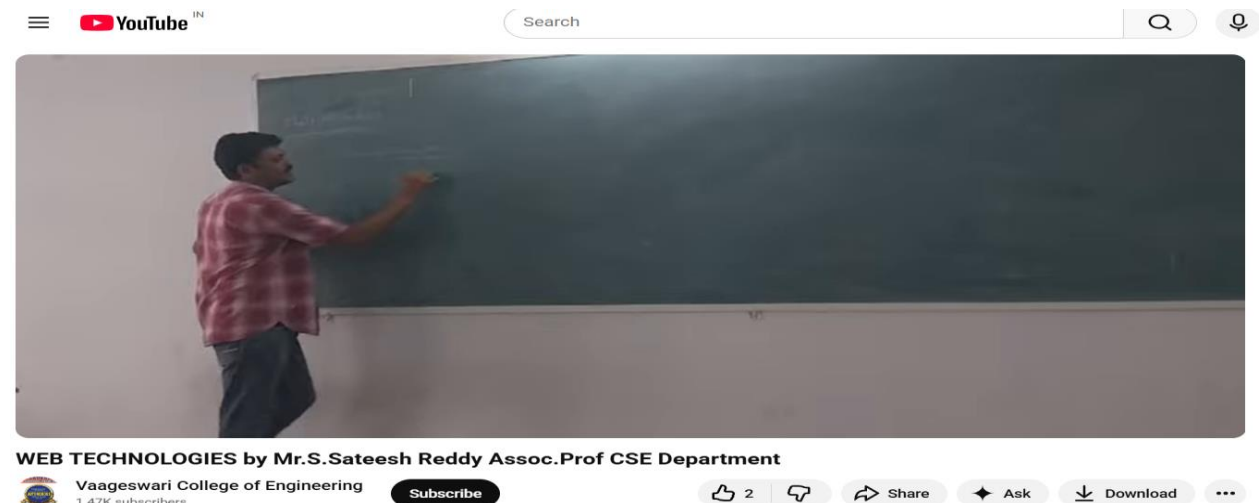**Approved by AICTE New Delhi, Affiliated to JNTUH Hyderabad and Recognised by Govt. of Telangana**

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Routing Algorithms in Computer Networks by Mrs. A. Kalpana

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WEB TECHNOLOGIES by Mr.S.Sateesh Reddy Assoc.Prof CSE Department

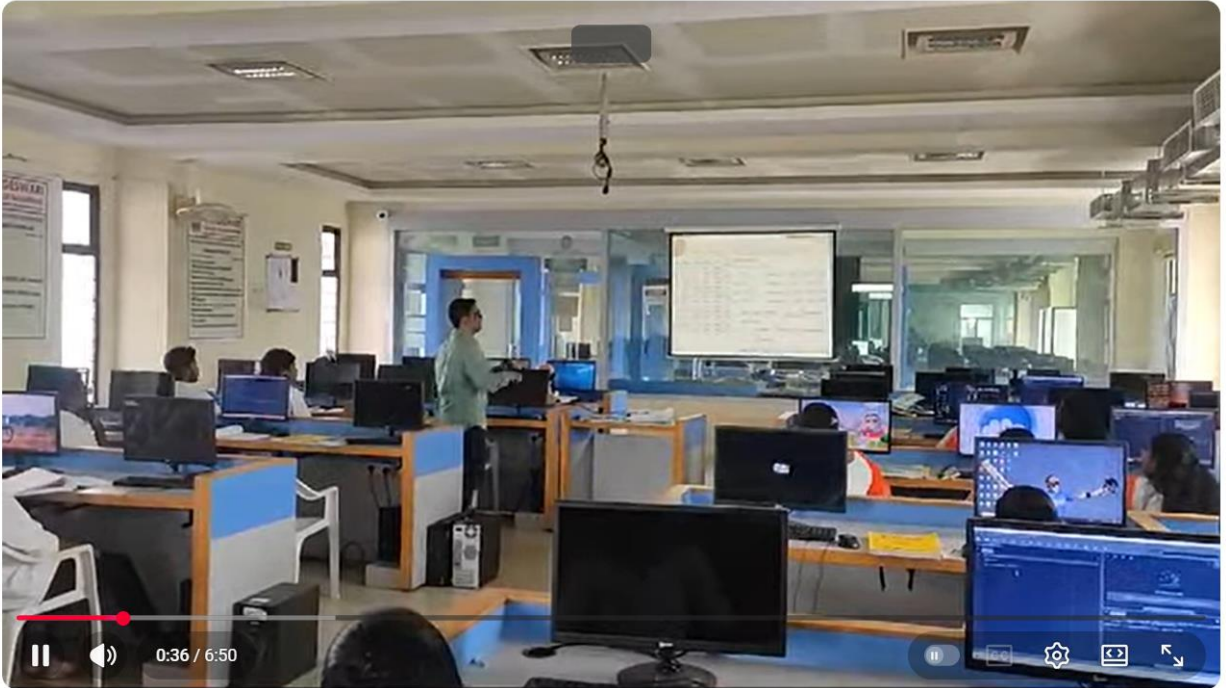Vaageswari College of Engineering
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Cryptography and Network Security by MD. Sirajuddin

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