

### 2.3.2 Teachers Use ICT enabled tools for effective Teaching-Learning Process

The Institution uses a number of cutting-edge teaching techniques that grab students' attention in the classroom, pique their interest in the material, inspire a desire to learn more, stimulate their minds, help them comprehend the material rather than just memories it, encourage student interaction, and enhance their capacity to apply what they have learned. Also, the new assignments boost students' participation in the class.



The Innovative teaching methods followed for various courses

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### TEACHING AND LEARNING METHODOLOGIES

The Contributions made by Faculty towards inculcating innovative methods in Teaching and Learning are clearly elucidated both in our Department Records and on the Institute Website for peer review and critique. Our work is opened to be enhanced or reproduced.

**Some of our inclusive ways are listed below:**

1. Video Lectures
2. Google Class Room
3. Flipped Class Room
4. Activity based Learning
5. Learning by Doing
6. Digital Library
7. Content Delivery by Official College Website
8. Reproducibility of Ph.D. Work
9. Strategic Lesson Plan
10. Life Skills at SMSK
11. NPTEL and other Online Learning
12. Methodologies to Support Weak Students and Encourage Bright Students
13. Mind Map
14. Quiz

  
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## 1. The work must be made available on institution website:

Teaching & Learning methodologies followed by our department is found at our college website in the following:

1. <https://www.youtube.com/@ravindarn8052>
2. <https://www.youtube.com/watch?v=oAJs4IW4MS4>
3. <https://www.youtube.com/watch?v=Ea0M7PG2uCc>
4. <https://www.youtube.com/watch?v=2CTMJqvwAo4>
5. <https://www.powtoon.com/account/info>

## 2. Availability of work for peer review and critique

Peers (students & faculties) of our institute are allowed to give feedback on the teaching and learning methodologies followed by our department. This can be found at the URL

[https://www.samskruti.ac.in/engineering/ece\\_course\\_content\\_handout/teaching-and-learning](https://www.samskruti.ac.in/engineering/ece_course_content_handout/teaching-and-learning).

S.N O	NAME OF FACULTY	PLATFORM LINK
1	Dr.K.Vanisee	<a href="https://scholar.google.com/citations?user=gIsCp4cAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=gIsCp4cAAAAJ&amp;hl=en</a>
1	Y.Jalajakshi	<a href="https://www.youtube.com/@ravindarn8052">https://www.youtube.com/@ravindarn8052</a>
2	V.Shankar	<a href="https://www.youtube.com/watch?v=oAJs4IW4MS4">https://www.youtube.com/watch?v=oAJs4IW4MS4</a>
3	M.Swapna	<a href="https://www.youtube.com/watch?v=Ea0M7PG2uCc">https://www.youtube.com/watch?v=Ea0M7PG2uCc</a>
4	M.Swapna	<a href="https://www.youtube.com/watch?v=2CTMJqvwAo4">https://www.youtube.com/watch?v=2CTMJqvwAo4</a>
5	N.Ravindar	<a href="https://www.webofscience.com/wos/author/record/JRX-2409-2023">https://www.webofscience.com/wos/author/record/JRX-2409-2023</a>
6	K Ganesh	<a href="https://scholar.google.com/citations?hl=en&amp;user=0mkCrtkAAAAJ">https://scholar.google.com/citations?hl=en&amp;user=0mkCrtkAAAAJ</a>

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### Peer Review and Critique

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  - MPMC by Y.JALAJAKSHI 0:38
  - MPMC JALAJAKSHI MADAM 1:03
  - MWOC-SWAPNA MADAM 1:39
  - PCB BY M.V.SHANKAR 0:49
  - OOOS-Stack Organization 0:46

## 190 Comments

Sort by



**@abcdshikor998**

2 years ago

This lesson is a complete group of whole information. We search and found part by part information but here it's totally in a package. Thanks Mam

13

Reply



3 replies



**@RaviPatel-bi2wq**

2 years ago

*[Signature]*  
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Amazing, your teaching style is very good and explanation of each topic is better than my college professor . I will recommend this channel to my friends.



Thanks

2

Reply



1 reply

[@rrrealqueen](#)

[3 years ago](#)

This lesson was amazing! Keep it up

6

Reply



1 reply



[@samking9504](#)

[2 years ago](#)

you r the best on this subject, no one can batter explain then you..... my whole year-mates are depending upon your videos, "thank you" , this word is not capable to give you an idea of our expressions... all we wanna say is we love you so much mam,

3

Reply



[@107\\_faizanalam2](#)

[5 months ago](#)

Great lecture thanks a lot for this type of content



  
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1  
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1 reply



[@prakhargoel7166](#)

[2 years ago](#)



Thanks mam for these lectures. Saved many lives



2

Reply



1 reply



[@shafiullah8105](#)

[2 years ago](#)

Mashallah may Allah give you more success

3

Reply



1 reply



[@aparnadesh4056](#)

[3 years ago](#)

It was easy to understand with animation and example

2

Reply



  
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12/28/24, 2:03 AM



**Dr.K.Vanisree**

Professor of Wireless Communication,  
Samskruti college of Engineering Technology  
Signals and Systems  
Digital Signal processing  
Electronics Circuits

Dr.K.Vanisree - Google Scholar

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TITLE	CITED BY	YEAR
Field evaluation of certain newer insecticides against chilli thrips, <i>Scirtothrips dorsalis</i> (Hood) K Vanisree, S Upendhar, P Rajasekhar, G Ramachandra Rao, ... Science park research journal 1 (20), 1-13	30	2013
Studies on mycosis of <i>Metarhizium (Nomuraea) rileyi</i> on <i>Spodoptera frugiperda</i> infesting maize in Andhra Pradesh, India M Visalakshi, PK Varma, VC Sekhar, M Bharathalaxmi, BL Manisha, ... Egyptian Journal of Biological Pest Control 30, 1-10	27	2020
Effect of newer insecticides against chilli thrips, <i>Scirtothrips dorsalis</i> (Hood) K Vanisree, S Upendhar, P Rajasekhar, G Ramachandra Rao Journal of Entomology and Zoology studies 5 (2), 277-284	26	2017
<i>Cladosporium cladosporioides</i> : A new report of parasitism on sugarcane woolly aphid, <i>Ceratovacuna lanigera</i> Zehntner PK Varma, VC Sekhar, B Bhavani, S Upendhar J. Entomol. Zool. Stud 7, 1122-1126	11	2019
Relationship between thrips population, sunflower necrosis disease (SND) incidence and weather parameters S Upendhar, TVK Singh, R Rao Journal of Oilseeds Research 23 (2), 267	11	2006
Survey for the occurrence of various thrips and sunflower necrosis disease in Andhra Pradesh S Upendhar, TVK Singh, R Prasada Rao Indian Journal of Plant Protection 35 (1), 73-75	10	2007
Seasonal incidence of thrips and its natural enemies on chilli ( <i>Capsicum annum</i> L.) in Andhra Pradesh K Vanisree, P Rajasekar, GR Rao, VS Rao The Andhra Agricultural Journal 58 (2), 185-191	8	2011
Seasonal incidence of pumpkin caterpillar <i>Diaphania indica</i> (Saunders) on cucumber in Krishna-Godavari zone. K Vamsree, P Rajasekhar, VRS Rao, VS Rao	8	2005
Insecticide resistance in chilli thrips, <i>Scirtothrips dorsalis</i> (Hood) in Andhra Pradesh.	7	2011

<https://scholar.google.com/citations?user=glsCp4cAAAAJ&hl=en>

1/3

  
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12/24/24, 1:02 AM



**Vuyyala Shankar**

Vuyyala Shankar - Google Scholar

Assistant Professor of Electronics and  
Communication

EMBEDDED SYSTEMS  
COMMUNICATIONS  
IOT

TITLE	CITED BY	YEAR
Execution Experience with MANET Routing Protocols 1V Shankar,2 G Venu 3K Vittal, 4D Kiran Kumar, 5Dhanaraju Athina Sambodhi (UGC Care Journal) 43, 111-115		2020
Design of Planar Inverted-F Antenna (PIFA) for Mobile Communication VS Golluri.Venu International Journal of Management, Technology And Engineering 9 (Issue III ...		2019
Design of an Intelligent Combat Robot for War Fields MV Shankar IJSETR 4 (Issue.55, December-2015, Pages:11875-11880), Pages: 11875-11880		2015
DESIGN A STOP WATCH USING BINARY ADDERS IN QCA SSS 1 V. Shankar CTCNSF-2014 3 (Special Issue (CTCNSF-2014)), 161-165		2014

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### **3. Reproducibility and Reusability by other scholars for further development**

Department of ECE focuses on reproducibility and reusability of the work performed by the Doctorates of the Department. Doctorates present their Ph.D. research works to the students and faculties. The same would be reproduced by our faculties and students to validate the results obtained by Doctorates. Also they will check for any scope that can be expanded as a future work.

Supporting materials for teaching and learning methodologies prepared by our faculties are subject to enhancement throughout the academic year at any time. A better version of the learning material is always aimed for the betterment of our student's learning experience. In this regard, course materials like lecture notes, mind maps, lesson plans, course files are always being prepared by keeping reusability and reproducibility aspects in mind.

  
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## List of Research scholars Reusable & Reproducibility of Existing Work

S. N O	NAME OF RESEARCH SCHOLAR	Platform Link	Platform	REUSABILTY WORK
1	V.Shankar	<a href="https://drive.google.com/file/d/1UetUzHijMq1QGzybkE55h9hBcjl1_bZA/view?usp=sharing">https://drive.google.com/file/d/1UetUzHijMq1QGzybkE55h9hBcjl1_bZA/view?usp=sharing</a>	UGC CARE	WIRELESS SENSOR NETWORKS
2	V.Shankar	<a href="https://drive.google.com/file/d/16BjiJhfl-DPyVw8xVRf2dlbhh3ovrfST/view?usp=sharing">https://drive.google.com/file/d/16BjiJhfl-DPyVw8xVRf2dlbhh3ovrfST/view?usp=sharing</a>	IJMERT	ANTENNA DESIGN
3	N.Ravindar	<a href="https://www.scopus.com/dashboard.uri?origin=&amp;zone=TopNavBar">https://www.scopus.com/dashboard.uri?origin=&amp;zone=TopNavBar</a>	SCOPUS	Internet of things
4	N.Ravinda	<a href="https://ugccare.unipune.ac.in/Apps1/User/WebA/Submission">https://ugccare.unipune.ac.in/Apps1/User/WebA/Submission</a>	UGC CARE	Computer Organization
5.	Mrs.Ch.Rekha	<a href="https://mail.google.com/mail/u/1/#inbox/FMfcgzQXKqkbQBFdwzlhZlScbHttNnPB?projector=1&amp;messagePartId=0.1">https://mail.google.com/mail/u/1/#inbox/FMfcgzQXKqkbQBFdwzlhZlScbHttNnPB?projector=1&amp;messagePartId=0.1</a>	IRACST	Image Processing

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

### Statement of clear goals:

- To motivate the students towards attentive learning and active participation.
- To Make them get their hands on the latest technology.

  
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**Below are the Short Descriptions on above Innovative means in Teaching and Learning:**

### **1.Mind Map:**

A mind map is a diagram used to visually organize information. A mind map is hierarchical and shows relationships among pieces of the whole. It is often created around a single concept, drawn as an image in the center of a blank page, to

which associated representations of ideas such as images, words and parts of words are added. Major ideas are connected directly to the central concept, and other ideas branch out from those.

### **Mind Map for Ensemble Classifier in Machine Learning**

#### **Objectives:**

- 1.To generate, visualize, structure, and classify ideas, and as an aid to studying and organizing information, solving problems, making decisions, and writing.
- 2.To help students with critical and creative thinking and improve their problem-solving ability at the same time.

#### **Outcomes:**

- 1.The study ability of both students and faculty will get accelerated by improving and enhancing their retention with the combination of photography and information.
2. Problem Solving ability of students will get improved.

### **2. Flipped Classroom**

  
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A flipped classroom is an instructional strategy and a type of blended learning ([https://en.wikipedia.org/wiki/Blended\\_learning](https://en.wikipedia.org/wiki/Blended_learning)), which aims to increase student engagement and learning by having students complete readings at their home and work on live problem-solving during class time. It moves activities, including those that may have traditionally been considered homework, into the classroom. In a flipped classroom, students watch online lectures ([https://en.wikipedia.org/wiki/Online\\_lecture](https://en.wikipedia.org/wiki/Online_lecture)), collaborate in online discussions, or carry out research at home while engaging in concepts in the classroom with the guidance of a mentor.

**Objectives:**

1. To promote flexible learning among students.
2. To facilitate increased engagement between students and faculty.
3. To provide prompt and timely feedback to students based on their out of class assessment performance.

**Outcomes:**

- Resonate well with those who are high performers and those who tend to underperform.
- Enhance Faculty interaction with students by scheduled class meetings for dialogue.

**Activity Based Learning**

Activity method is a technique adopted by a teacher to emphasize his or her method of teaching through activity in which the students participate rigorously and bring about efficient learning experiences. Learning by doing is the main focus in this method. Activity based learning is imperative in successful learning since it is well proved that the more the senses are stimulated, the more a person learns and longer he/she retains. Activity based learning includes Gamification, Role plays, Skits, Debates, Group Discussion, Participation in Seminars/ Workshops.

**Objectives:**

1. To enhance creative aspect of experience.
2. To build the student's self-confidence and to develop understanding through work in their group.

**Outcomes:**

1. Happy relationship between students and students, teachers and students will be developed.

**4. Learning by Doing:**

Our ECE department has one dedicated lab for implementing "Learning by Doing" methodology. The lab is located at first floor of SMSK. In these labs, students are provided with hands on training on various technologies for better learning experience. Labs and classes are held together to implement "Learning by Doing". Also, curriculum is equipped with industry oriented Mini project, Major project and Internships to implement "Learning by Doing" pedagogy method.

**Objectives:**

1. To present real-life problems to the students and then guide the students to solve the problem by providing them with a hands-on activity to learn the solution.

  
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2. To curate, develop, use, and share appropriate educational resources.
3. To discern the possibilities and limitations of technology to support teaching and learning.

**Outcomes:**

5. Making more engaging and motivating activities for students.
6. Pulsing the real state of the knowledge students have acquired.
7. Expediting students to interact with their environment in order to adapt and learn.

**5. National Digital Library:**

SMSK is registered as a NDLI Club under the National Digital Library of India. So, students can access the contents available on National Digital Library website anytime.

**Objectives:**

1. To make quality digital educational resources available to all citizens of the country to empower, inspire and encourage learning.
2. To search for content using various parameters like subject matter, source, content type and more.
3. To enable single window platform that collects and collates metadata from premier learning institutions in India and abroad, as well as other relevant sources.

**Outcomes:**

1. Integrating contents from different Indian Institutional Repositories.
2. Availing Educational materials for users ranging from primary to post-graduate levels.
3. Information can be personalized based on the education level, choice of language, difficulty level, media of content and such other factors.

**6. Content Delivery by Official College Website:**

Study materials related to any ECE department Course are made available online in our **official** web site. Refer <https://www.samskruti.ac.in/engineering/ece>

**Objectives:**

1. To enable students to download all course related materials from the college website.
2. To assist flipped class learning.
3. To ensure that students receive the same levels of support that they would receive on campus.
4. To promote learning remotely.

**Outcomes:**

1. Making students to connect with course content in a consistent format.
2. Navigation of the course content will be simplified to keep students stay focused.

  
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### **7. Extension of Ph.D. work.**

The Reproducibility and Reusability define the ability of any researcher to refer the previous results achieved by the original investigator. Dept. of CSE focuses on reproducibility and reusability of the work performed by the Doctorates of the Department. Doctorates present their Ph.D. research works to the students and faculties. This in the future helps the students as well as faculties to decide their research areas for further studies. They can carry out further extension of the work if they feel interested in the topic. Data reproducibility is significant to create more opportunities for new insights in research. It helps a researcher to achieve a better outcome of any research which was initiated by the previous researcher.

#### **Objectives:**

1. To confirm that the original results of past research works are indeed correct
2. To give step by step process for reproducing the research.
3. To enable students to follow the process themselves and come to their own conclusions.

#### **Outcomes:**

1. Data reproducibility is achieved
2. Various experiments can be identified to arrive at the same conclusion.

#### **Reproducibility from the PhD Thesis:**

1. Designing an Energy Efficient Scheduling using Mac Protocol in Wireless Sensor Network
2. A Hybrid Approach in autonomic service-oriented delivery platform for next generation network

### **8. Strategic Lesson Plan:**

- Course content's delivery method is properly planned prior to the commencement of course.
- This information on instruction delivery is maintained in course file.
- Instruction delivery is done through Blackboard, ppts, videos, website references, interactive activities, and also through social media.

  
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