

# Innovations by the Faculty in Teaching and Learning

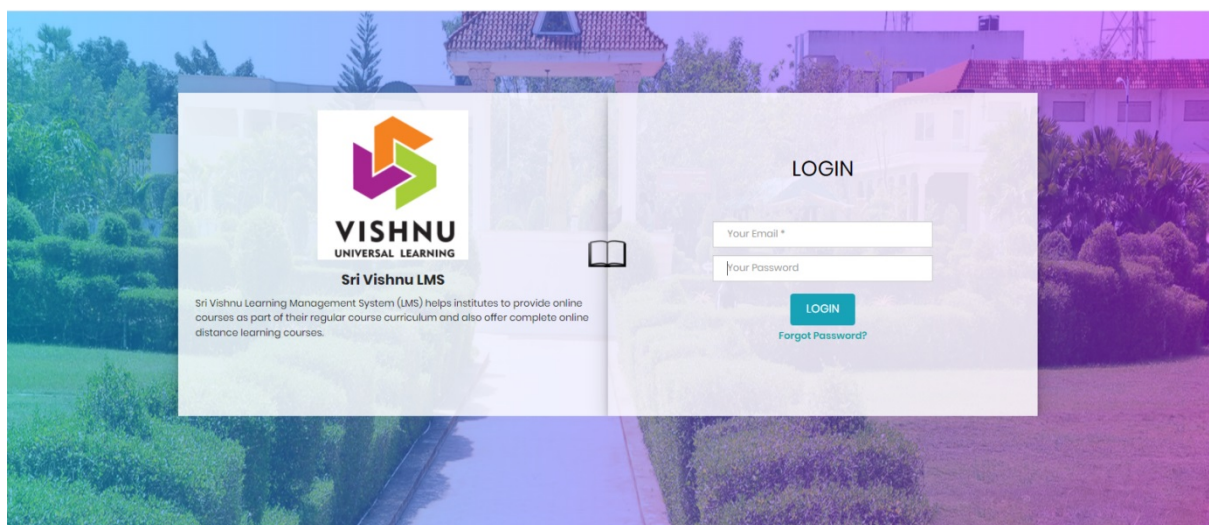
The Faculty of the department has been implementing both Information , Communication and Technology (ICT) and activity based teaching methodologies to enhance the learning capabilities of the students. Integrating these methodologies into teaching, students will become more engaged in their work and feel teaching-learning more fun and enjoyable. As a consequence of this increased engagement, they will be able to retain knowledge more effectively and efficiently.

S.No	Teaching Methods	Types of Activity	Purpose/Description
1	ICT based Teaching	Vishnu Institute of Technology has been implementing own Learning management system platforms like <a href="http://www.vishnulearning.in">www.vishnulearning.in</a> <a href="http://www.vishnuplacements.in">www.vishnuplacements.in</a> <a href="http://www.skill2030.com">www.skill2030.com</a>	Vishnu learning management platforms are designed as user friendly LMS where the students can access the entire data base on a single click.
		Google Classrooms, Google forms, MS Teams, Mentimeter, Kahoot, Edpuzzle, Socrative, Plickers LMS	Best online platforms for lectures, discussions, group conversations, quizzes and assessment tools.
		Mobile Applications for real time and Practical understanding.	Tinkercad Circuits, Circuit Solver are software tool applications for building and creating circuits. Teachers can make the students to build, analyse and verify the circuits for better understanding.
2	Activity based Teaching	Think Aloud Pair Problem Solving(TAPPS)	Think Aloud Pair Problem Solving is one of the best practices in scientific education where the students are paired up like one in the role of problem solver and other as listener, later the roles are exchanged between them. TAPPS provides great scope to solve problem collectively by thinking and sharing their individual thoughts.
		Role Play	Role playing is a learning structure that allows students to immediately apply content of the given topic. This technique is an excellent tool for engaging students and allowing them to interact with their peers as they try to complete the task assigned to them in their specific role.
		Mind Maps	Mind Mapping is a learning technique which uses a non-linear approach that encourages the students to think and explore concepts using visual-spatial relationships. The great advantage of a Mind Map is that it literally "maps" the way a student's brain sees and

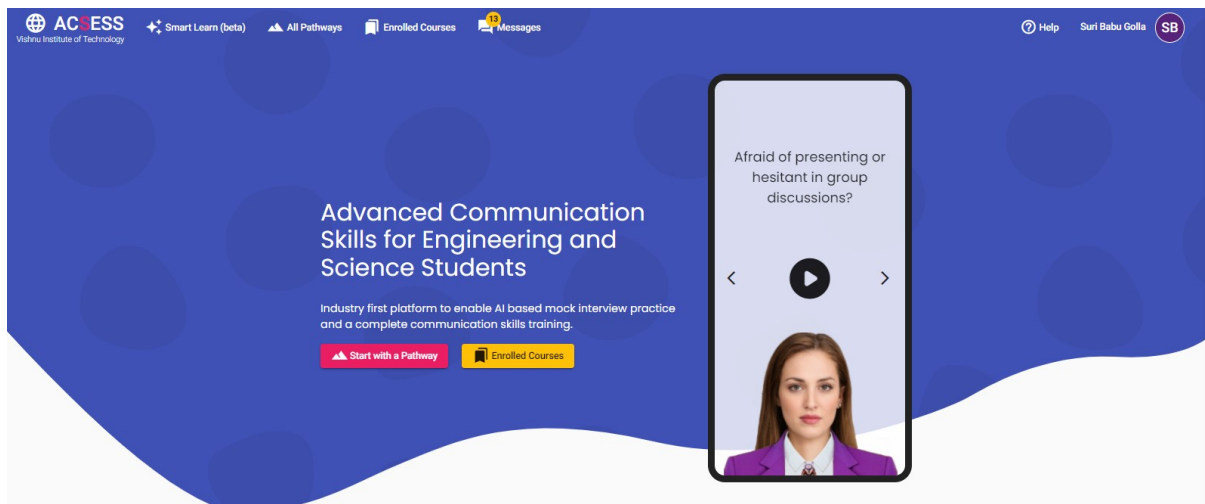
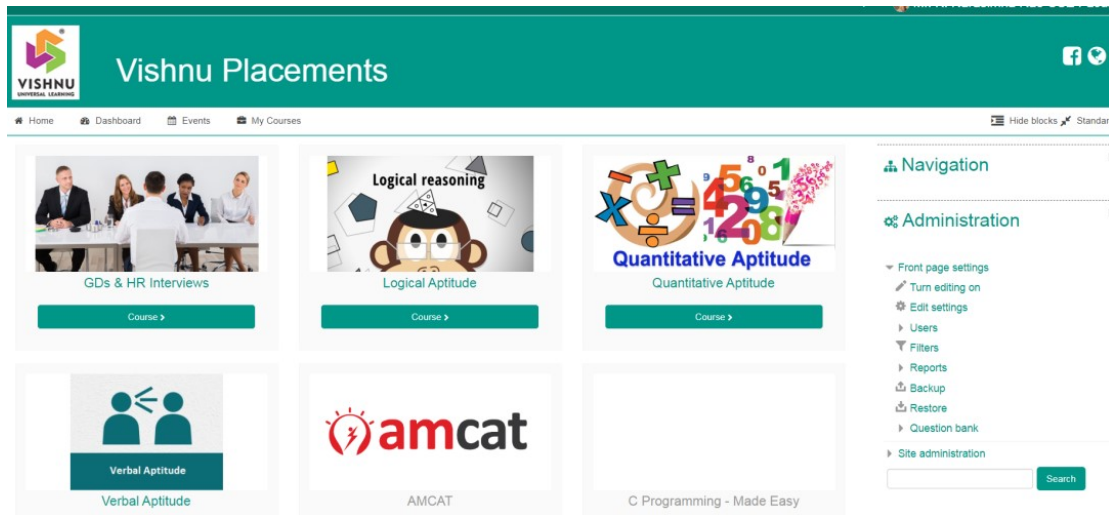
			creates connections, once mastered, it brings incredible clarity, understanding and ease to decision-making process
		Flipped Classroom	Flipped Classroom is an instructional strategy where students are introduced to the learning material before class with classroom time then being used to deepen understanding through discussion with peers and problem-solving activities facilitated by teachers.
3	e-Learning	EDX ,Coursera and NPTEL courses.	The Institute sponsored both the faculty and students to register online courses on advanced technologies authorized by different technical universities around the world in EDX and Coursera platforms. The students and faculty are also encouraged to register for NPTEL swayam courses in every academic year for understanding the potential concepts much effectively. Also, e-sources available in digital library to access various reputed journals and books for teaching and learning.

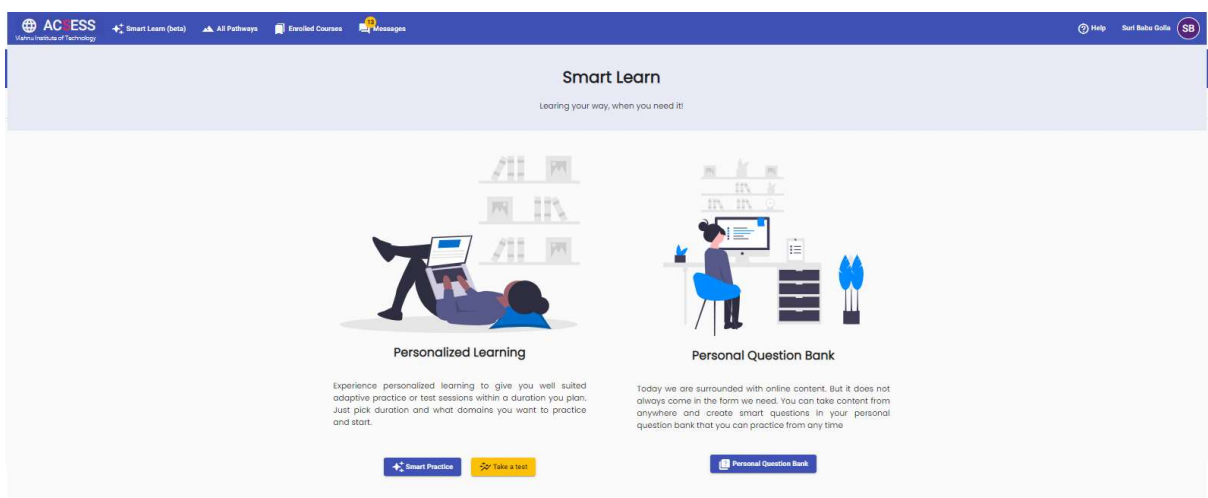
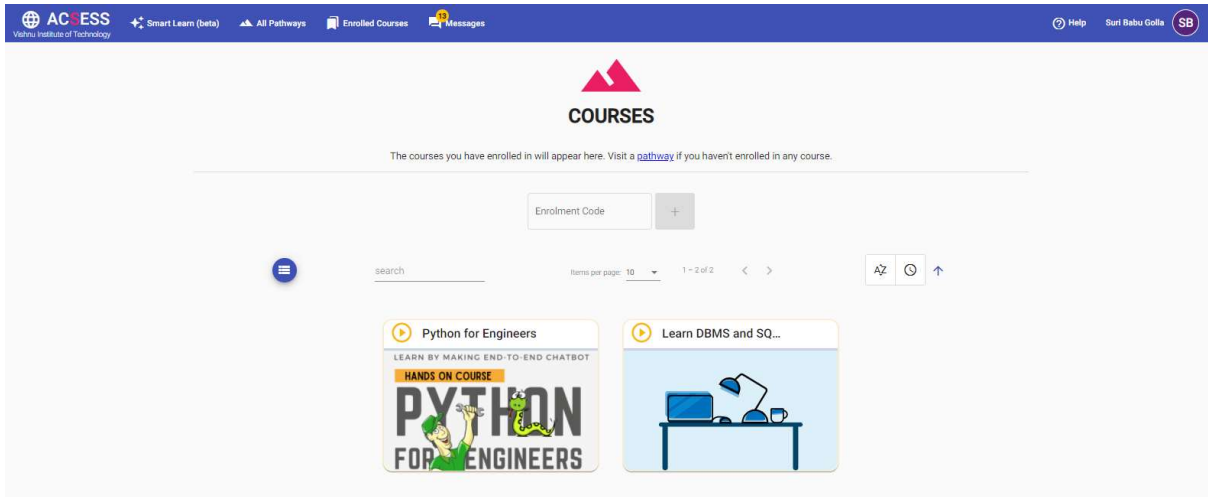
### ICT Based Teaching

The college is maintaining own learning management system for easy access and user friendly. The different college LMS platforms are [www.vishnulearning.com](http://www.vishnulearning.com), [www.vishnuplacements.in](http://www.vishnuplacements.in) and [www.skill2030.com](http://www.skill2030.com). Students are able to access these platforms through college mail id's from any location.

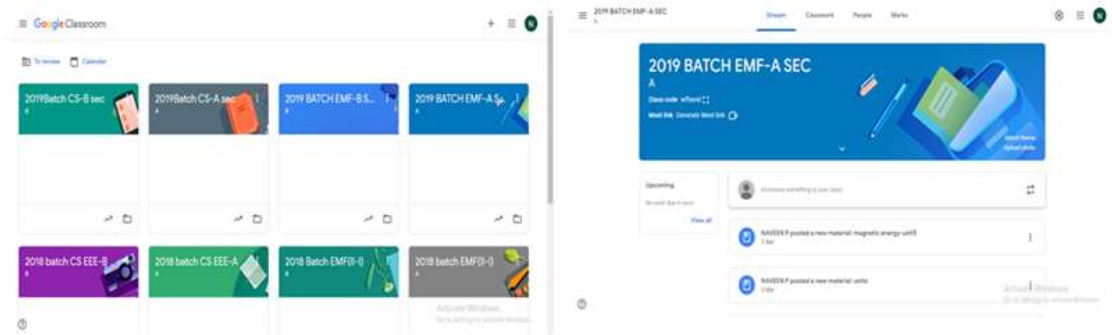


The entire campus recruitment training is given to the students through this platform. The course material includes Aptitude, Reasoning, Verbal, Competitive Coding, HR& TR interviews. Students can enrol the courses and can access huge set of practice tests as per their requirements or Company wise.

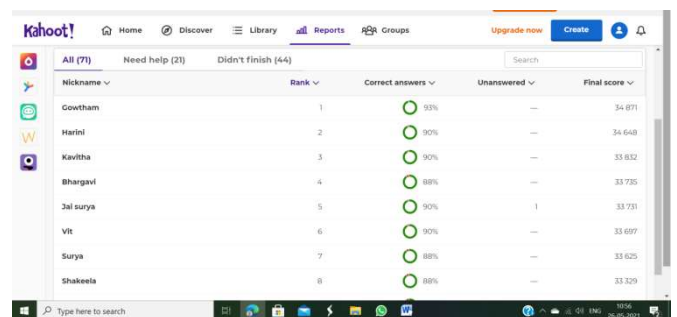
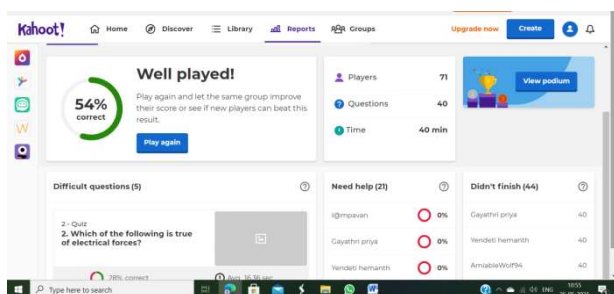




## Google Classroom

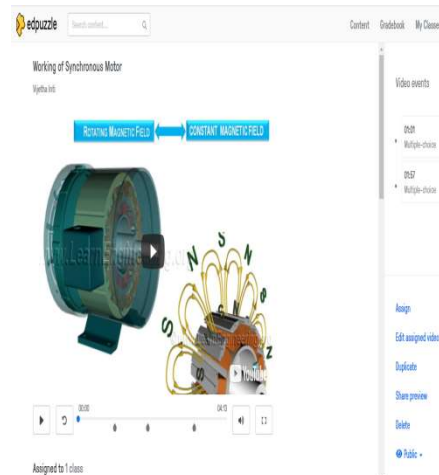
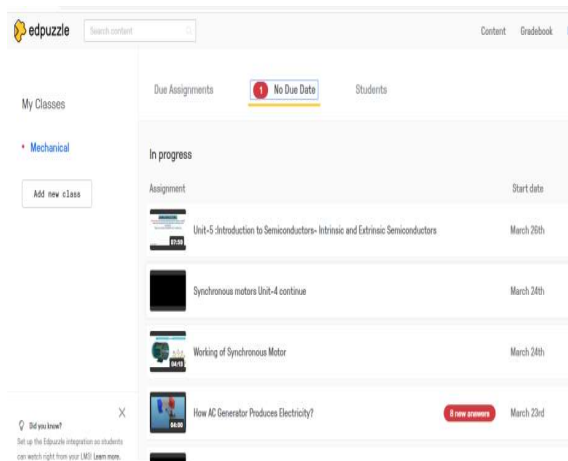


## Kahoot!



## Edpuzzle

EdPuzzle is a free assessment-centered tool that allows teachers and students to create interactive online videos by embedding either open-ended or multiple-choice questions, audio notes, audio tracks, or comments on a video.



## Socrative

**Socrative** is a formative assessment tool that helps teachers and learners to assess understanding and progress in real time in class through the use of quizzes, questions and reflection questions. The whole purpose of Socrative is to track learning. Teachers can use it to assess the whole class rather than just a dominant few.

<b>Name of the Faculty:</b> Mrs.I.V.V.Vijetha	<b>Designation:</b> Asst.Prof	<b>Subject:</b> Micro Processors and Micro Controllers
<b>Year/Semester:</b> III /II Sem	<b>Section:</b> EEE A	<b>No. of Students Participated:</b> 55
<b>Name of the Activity:</b> Assessment through Socrative application.	<b>Topic:</b> 8086 Microprocessor Addressing mode	

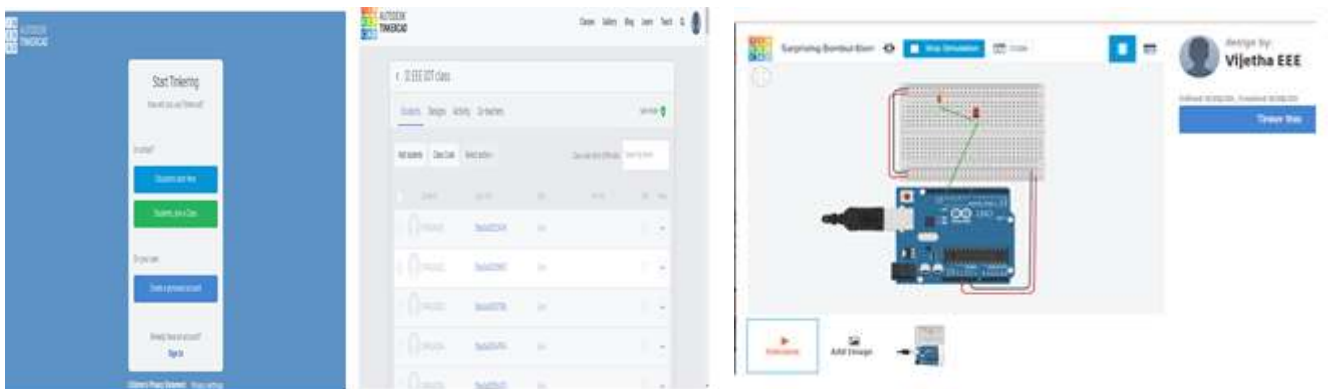




## Tinkercad

Tinkercad is an easy-to-use web application that enables the students to design circuits to arduino programming using in built components.

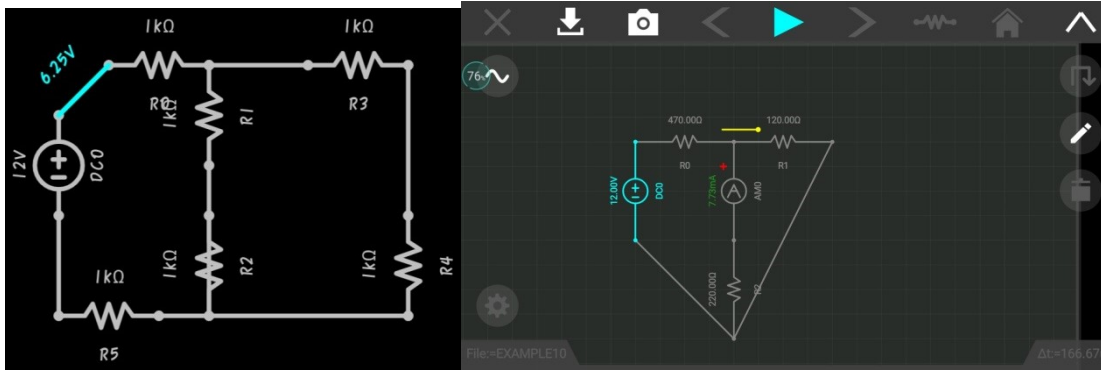
<b>Name of the Faculty:</b> Mrs.I.V.V.Vijetha	<b>Designation:</b> Asst.Prof	<b>Subject:</b> Internet of Things Laboratory
<b>Year/Semester:</b> II /I Sem	<b>Section:</b> EEE A	<b>No. of Students Participated:</b> 103
<b>Name of the Activity:</b> Tinkercad application	<b>Topic:</b> LED Switching with two switches	



## Circuit Solver: Simulator & Schematic Editor

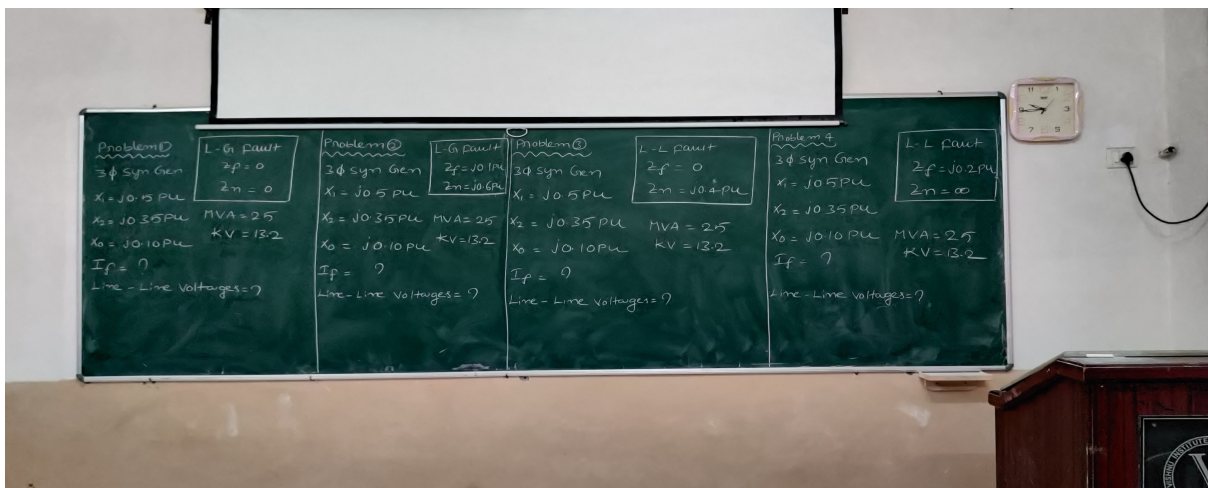
Circuit Solver is an electronic circuit board application where students can build the circuits by connecting inbuilt electrical components. To simulate the circuits, a matrix is defined based on all the components inside the circuit and this application solves the circuit using matrix manipulations such as LU-Decomposition and matrix inversion. Students can simulate DC simulation, transient simulation and non-linear simulation and can visualize the waveforms through the use of built in oscilloscope.

<b>Name of the Faculty:</b> Mrs.D.Mamata	<b>Designation:</b> Asst.Prof	<b>Subject:</b> Electrical Circuits
<b>Year/Semester:</b> II /I Sem	<b>Section:</b> EEE A	<b>No. of Students Participated:</b> 30
<b>Name of the Activity:</b> Circuit Solver application	<b>Topic:</b> KVL and KCL	



**Think Aloud Pair Problem Solving (TAPPS)**

<b>Name of the Faculty:</b> K.N.S.DurgaPrakash	<b>Designation:</b> Asst.Prof	<b>Subject:</b> Power System Analysis
<b>Year/Semester:</b> III /I Sem	<b>Section:</b> EEE A	<b>No. of Students Participated:</b> 60
<b>Name of the Activity:</b> TAPPS	<b>Topic:</b> Unsymmetrical fault analysis of Synchronous Generator	





Vishnu Institute of Technology(Autonomous)  
 TAPS (Think Ahead For Problem Solving)

Sl.No	Batch Number	Student Roll Number	Problem Number	Remarks
1	BATCH-1	13PA1A0223 13PA1A0224	1	Doing Good
2	BATCH-2	13PA1A0225 13PA1A0226	2	Doing Good
3	BATCH-3	13PA1A0227 13PA1A0228	3	Doing Good
4	BATCH-4	13PA1A0229 13PA1A0230	4	Doing Good
5	BATCH-5	13PA1A0231 13PA1A0232	1	Doing Good
6	BATCH-6	13PA1A0233 13PA1A0234	2	Doing Good
7	BATCH-7	13PA1A0235 13PA1A0236	3	Doing Good
8	BATCH-8	13PA1A0237 13PA1A0238	4	Doing Good

Sl.No	Batch Number	Student Roll Number	Problem Number	Remarks
17	BATCH-17	13PA1A0236 13PA1A0245 13PA1A0201	1	Doing Good
18	BATCH-18	13PA1A0252 13PA1A0212 13PA1A0253	2	Doing difficult to calculate some values
19	BATCH-19	13PA1A0240 13PA1A0237	4	Doing difficult to identify the first condition
20	BATCH-20	13PA1A0214 13PA1A0248	1	Doing Good
21	BATCH-21	13PA1A0240 13PA1A0209	2	Doing Good

Sl.No	Batch Number	Student Roll Number	Problem Number	Remarks
9	BATCH-9	13PA1A0213 13PA1A0202	1	Doing Good
10	BATCH-10	13PA1A0206 13PA1A0220 13PA1A0214	2	Doing difficult to calculate some values
11	BATCH-11	13PA1A0241 13PA1A0233	3	Doing Good
12	BATCH-12	13PA1A0211 13PA1A0205	4	Doing difficult to calculate some values
13	BATCH-13	13PA1A0207 13PA1A0204 13PA1A0219	1	Doing good calculate values
14	BATCH-14	13PA1A0215 13PA1A0243	2	Doing Good
15	BATCH-15	13PA1A0208 13PA1A0232	3	Doing Good
16	BATCH-16	13PA1A0204 13PA1A0203 13PA1A0216	4	Doing difficult to calculate some values

Before activity	After activity
Around 46% students doing mistakes	Around 13% are only doing mistakes

### Role Play

Name of the Faculty: P.Naveen	Designation: Asst.Prof	Subject: Control Systems
Year/Semester: II / I Sem	Section: EEE B	No. of Students Participated: 50
Name of the Activity: Role Play	Topic: Effect of PID Controller	





**Mind Maps**

<b>Name of the Faculty:</b> Dr.S.Pragaspathy	<b>Designation:</b> Professor	<b>Subject:</b> Renewable Energy Sources
<b>Year/Semester:</b> III /I Sem	<b>Section:</b> EEE B	<b>No. of Students Participated:</b> 35
<b>Name of the Activity:</b> Mind Maps		<b>Topic:</b> Renewable Energy Sources



## e-learning

The faculty and students are encouraged to register online courses on advanced technologies authorized by different technical universities around the world in EDX and Coursera platforms. The students and faculty are also encouraged to register for NPTEL SWAYAM courses in every academic year for understanding the potential concepts much effectively.

Academic Year	Total no. of Courses done by the Faculty in EDX platform.	Total no. of Courses done by Faculty in the Coursera platform.	Total no. of Courses done by the Faculty in NPTEL SWAYAM	Total no. of courses done by the Faculty in Various skilled Programs
2020-2021	07	17	04	13
2019-2020	00	16	14	06
2018-2019	00	00	06	00

The screenshot displays the Coursera user interface. At the top, there are navigation categories: Arts and Humanities, Business, Computer Science, Data Science, Information Technology, Health, Math and Logic, and Personal Development. Below this is a banner for the 'Coursera Response Program for VITB' with the text 'Welcome to Coursera for Campus Basic plan'. Navigation links include 'Browse Catalog', 'My Courses', and 'How it works'. The main header features the Coursera logo, an 'Explore' button, a search bar with the placeholder 'What do you want to learn?', and links for 'Online Degrees', 'Find your New Career', and 'For Enterprise'. The user's name 'suri babu golla' is visible in the top right. A 'Welcome back!' message is prominently displayed. A 'Tell us about yourself' section shows the user is currently a 'Teacher/Tutor/Instructor' with options to 'Save To Profile', 'Change my career', and 'Level up my skills'. Below this, a progress bar shows 'Completed' as the active status. A course completion notification for 'Introduction to solar cells' from the Technical University of Denmark (DTU) is shown, with a 'View certificate' button and a 'Rate course' link. The notification text reads: 'Great Work! You have passed all requirements and can view your course certificate now.'

My Courses



**Electronic, Optical, and Magnetic Properties of Materials**  
MIT - 3.024x  
Ended - Feb 24, 2022

View Archived Course

Related Programs: xMinor in Materials for Electronic, Optical, and Magnetic Devices XSeries

Browse recently launched courses and see what's new in your favorite subjects.

Explore New Courses

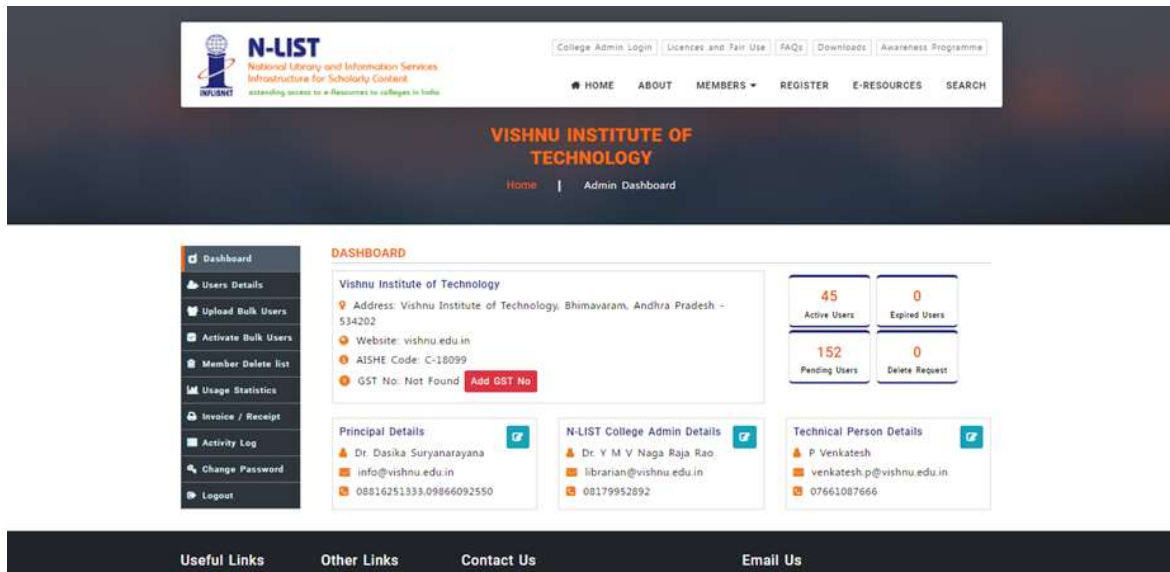


**Nano-Device for Energy Harvesting and Sensing**  
PurdueX - CE597.3-NDE  
Access expired on Feb 07, 2022

Related Programs: Materials Engineering for Intelligent Infrastructure MicroMasters

The following are some of the e-sources available in digital library to access various reputed journals and books for teaching and learning.

S. No.	Name of the Online E-Source Package
1	N-List Programme : <a href="http://nlist.inflibnet.ac.in">http://nlist.inflibnet.ac.in</a>
2	DELNET: <a href="http://www.delnet.in">www.delnet.in</a>
3	National Digital Library of India : <a href="https://ndl.iitkgp.ac.in/">https://ndl.iitkgp.ac.in/</a>
4	NDLI Club: <a href="https://nlist.inflibnet.ac.in/veresources.php">https://nlist.inflibnet.ac.in/veresources.php</a>



**N-LIST**  
National Library and Information Services  
Infrastructure for Scholarship Coolidge  
ensuring access to e-Resources to colleges in India

College Admin Login | Licences and Fair Use | FAQs | Downloads | Awareness Programme

HOME ABOUT MEMBERS REGISTER E-RESOURCES SEARCH

**VISHNU INSTITUTE OF TECHNOLOGY**  
Home | Admin Dashboard

**DASHBOARD**

Vishnu Institute of Technology  
Address: Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh - 534202  
Website: vishnu.edu.in  
AISHE Code: C-18099  
GST No: Not Found [Add GST No.](#)

45 Active Users	0 Expired Users
152 Pending Users	0 Delete Request

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