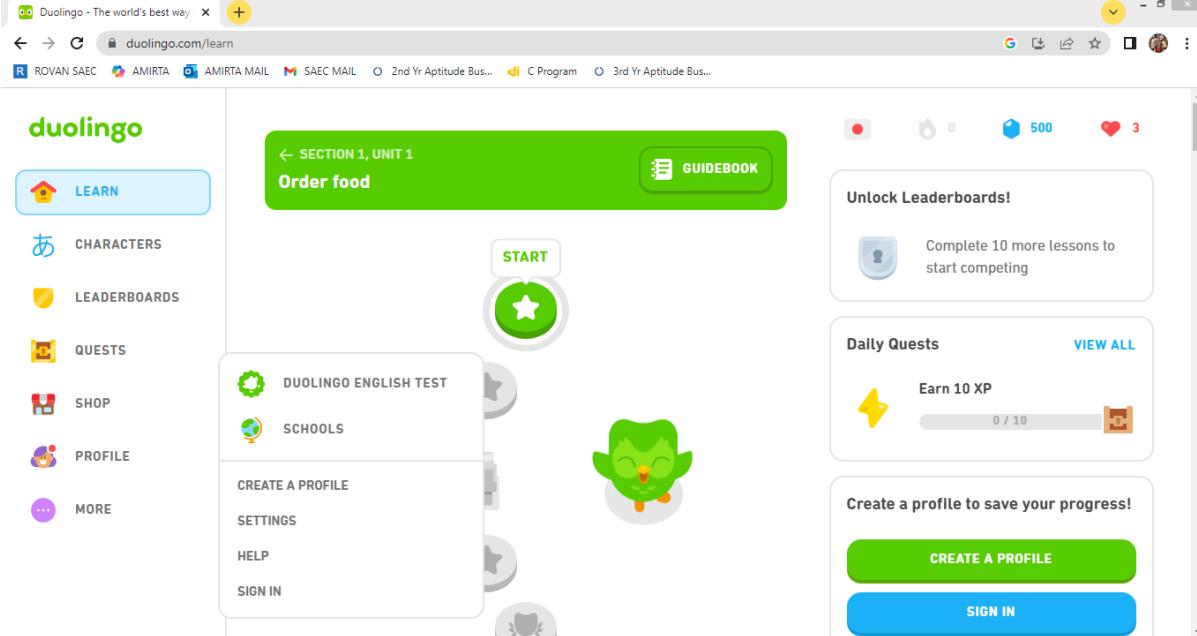


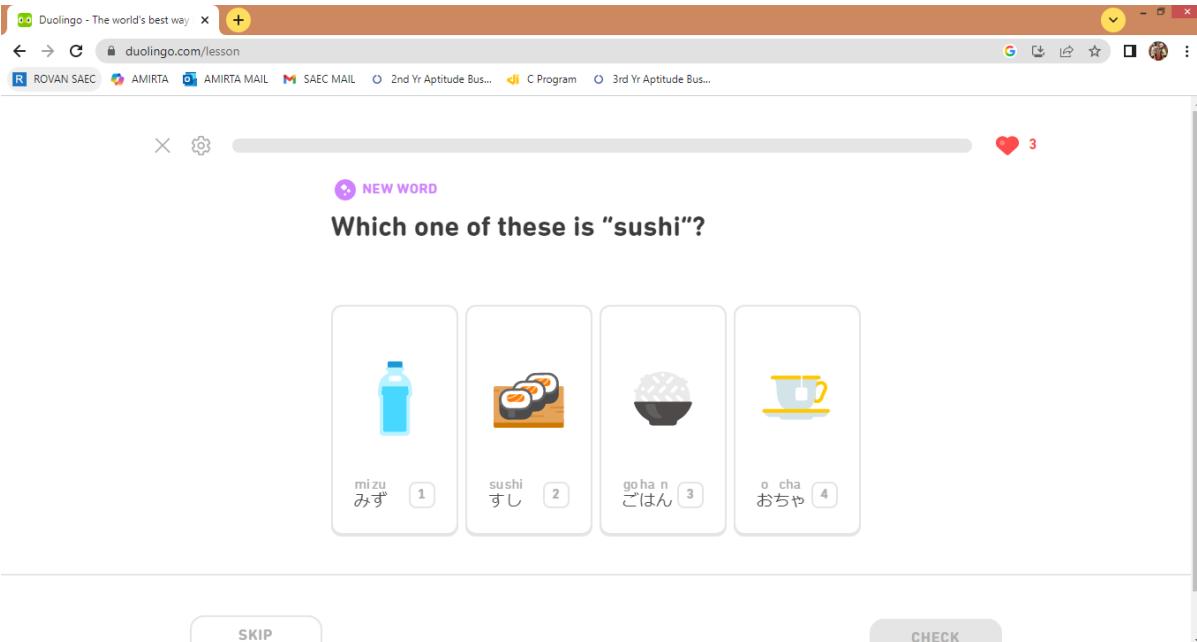
GAME-BASED LEARNING



Learning with Duolingo is fun, and With quick, bite-sized lessons, you'll earn points and unlock new levels while gaining real-world communication skills.

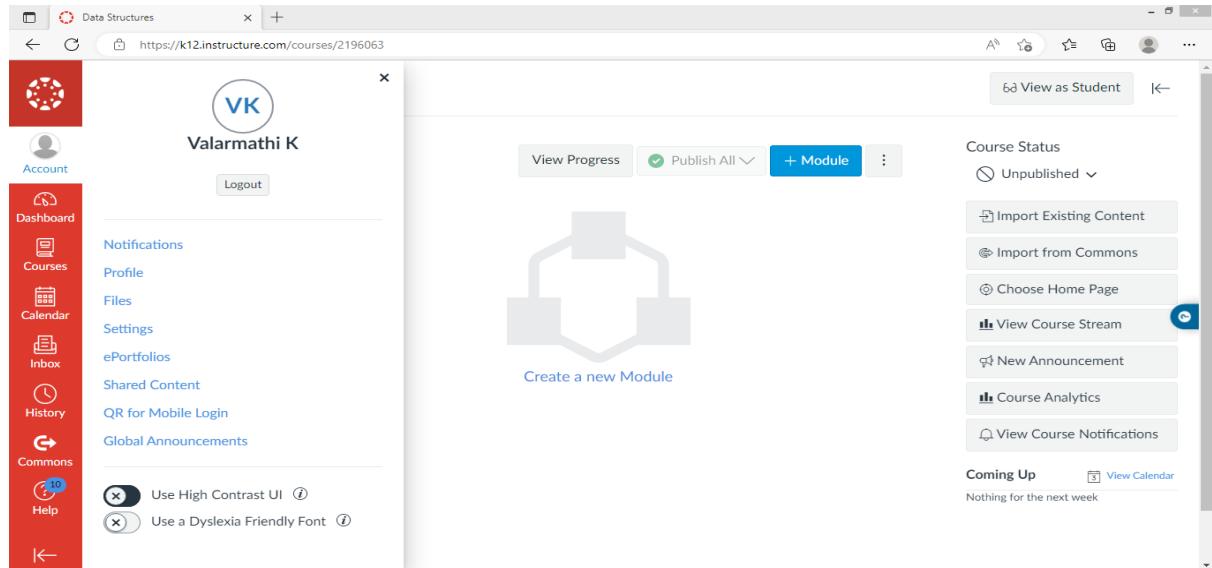
A screenshot of the Duolingo dashboard. The top navigation bar shows "duolingo - The world's best way" and the URL "duolingo.com/learn". The dashboard features a green header bar with "← SECTION 1, UNIT 1" and "Order food" buttons, and a "GUIDEBOOK" button. On the left, a sidebar menu includes "LEARN" (selected), "CHARACTERS", "LEADERBOARDS", "QUESTS", "SHOP", "PROFILE", and "MORE". The main area has a "START" button with a star icon. To the right, there are sections for "Unlock Leaderboards!", "Daily Quests" (with a "VIEW ALL" button), and a call to action to "Create a profile to save your progress!" with "CREATE A PROFILE" and "SIGN IN" buttons. A green owl icon is in the center.

Teaching professionals incorporating interactive digital tools into their curriculum using duolingo dashboard

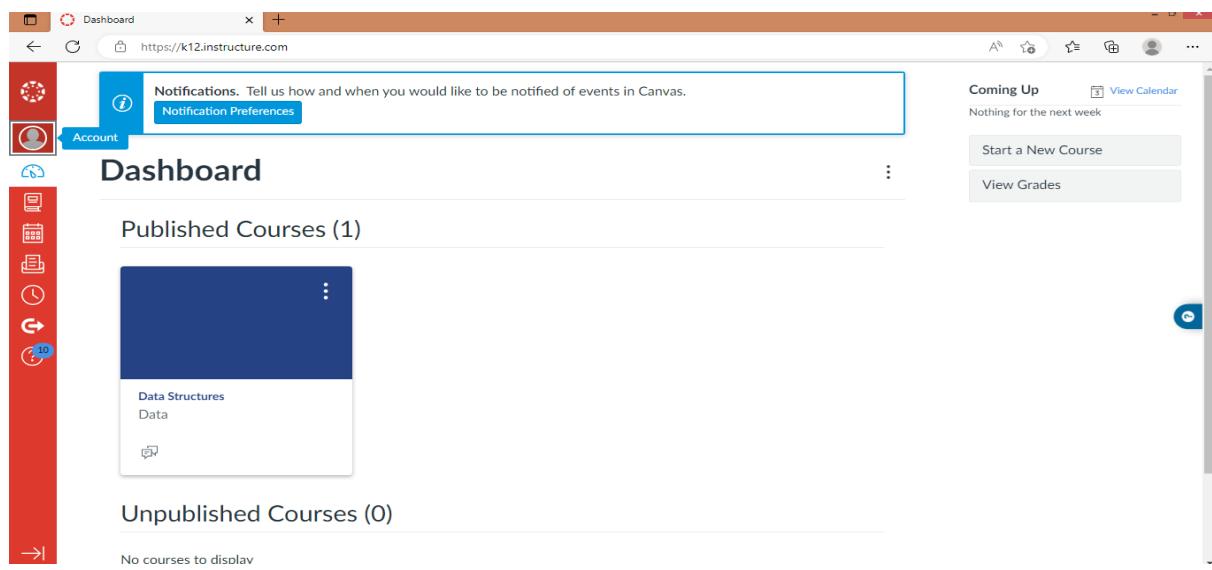
A screenshot of a Duolingo lesson. The top navigation bar shows "duolingo - The world's best way" and the URL "duolingo.com/lesson". The lesson title is "NEW WORD" and the question is "Which one of these is "sushi""? Below the question are four options: 1. A blue water bottle labeled "mizu" (みず) with a number 1. 2. A stack of three sushi rolls labeled "sushi" (すし) with a number 2. 3. A bowl of rice labeled "go ha n" (ごはん) with a number 3. 4. A cup of tea labeled "o cha" (おちゃ) with a number 4. At the bottom, there are "SKIP" and "CHECK" buttons.



Equitable, accessible learning with a strong commitment to accessibility standards and inclusive design at its core, Canvas helps institutions meet diverse learner needs.

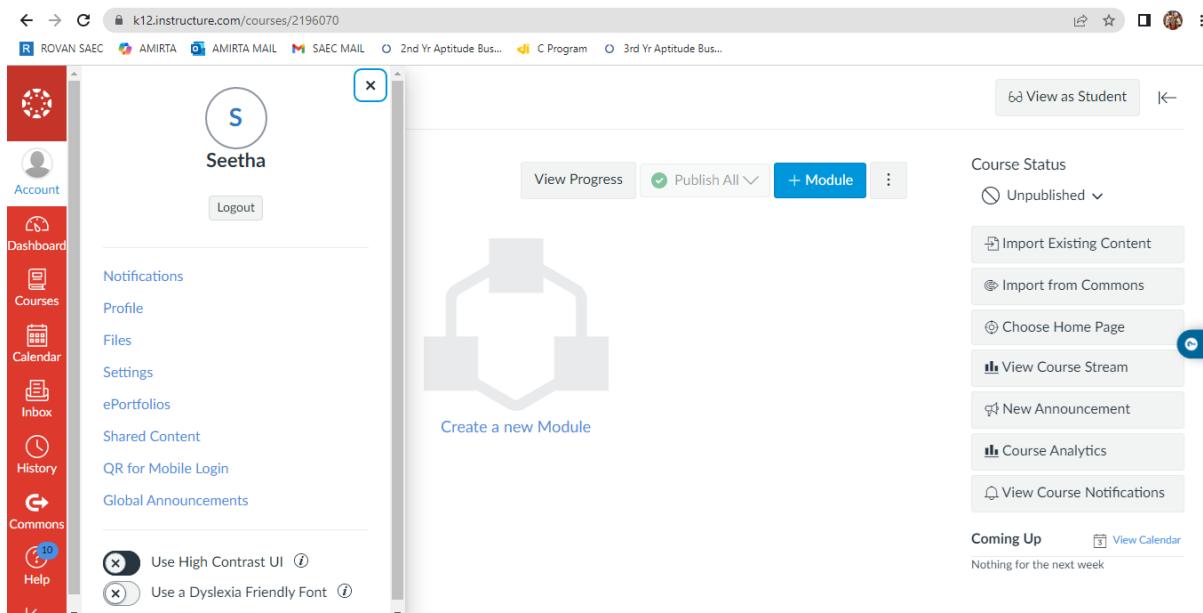
A screenshot of a web browser showing the Canvas course creation interface. The URL is https://k12.instructure.com/courses/2196063. The interface includes a sidebar with user profile information (Valarmathi K), account settings, and accessibility options. The main area shows a "Create a new Module" button with a circular icon. On the right, there are buttons for "View Progress", "Publish All", and "Module". A sidebar on the right lists course status (Unpublished), import options, and course analytics. A "Coming Up" section indicates "Nothing for the next week".

Asst. Prof. K. Valaramthi leveraging Canvas to implement differentiated instruction and experiential learning

A screenshot of the Canvas learning dashboard. The URL is https://k12.instructure.com. The dashboard features a sidebar with account and course management options. The main area shows a "Published Courses (1)" section with a card for "Data Structures" and a "Unpublished Courses (0)" section with a message "No courses to display". On the right, there are buttons for "Coming Up", "Start a New Course", and "View Grades".

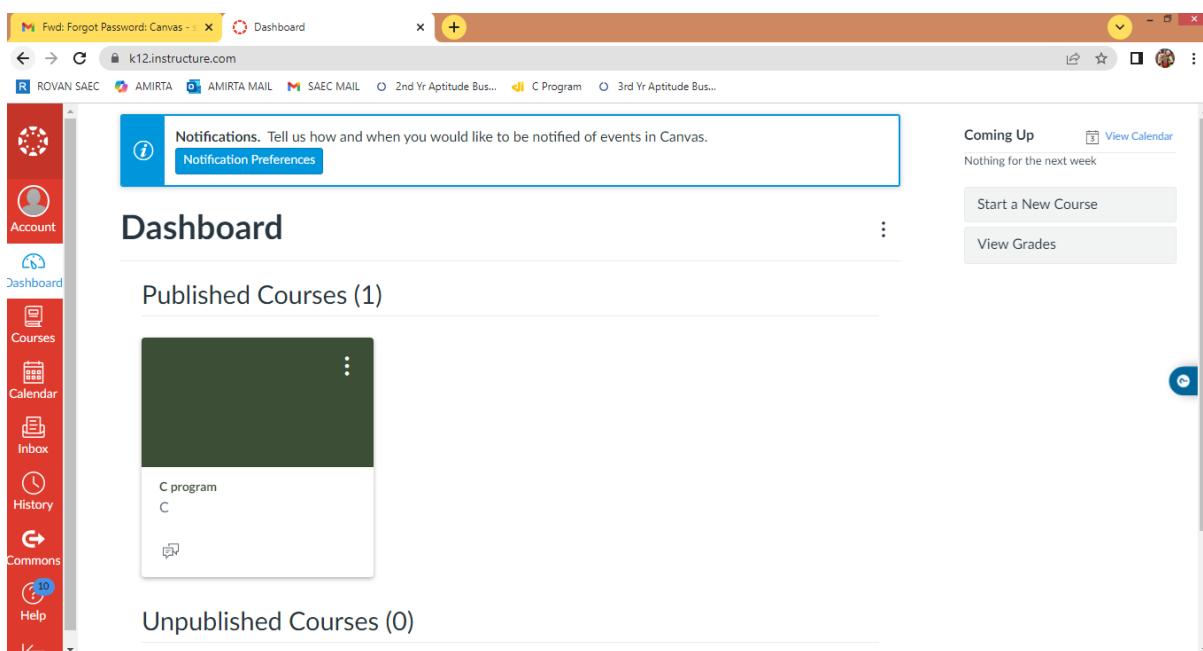
Asst. Prof. K. Valaramthi Canvas learning dashboard structured and customized for instructional delivery

Asst. Prof. A.Seetha Canvas platform facilitating multimodal instruction and contextual learning



The screenshot shows a course page on the Canvas platform. The course is titled 'Seetha'. The main area features a large 'Create a new Module' button with a plus sign icon. To the right, there is a 'Course Status' section showing 'Unpublished'. Below this are several buttons for managing content: 'Import Existing Content', 'Import from Commons', 'Choose Home Page', 'View Course Stream', 'New Announcement', 'Course Analytics', and 'View Course Notifications'. At the bottom, a 'Coming Up' section indicates 'Nothing for the next week'. The left sidebar contains a navigation menu with options like 'Dashboard', 'Courses', 'Calendar', 'Inbox', 'History', 'Commons', and 'Help'. The 'Courses' option is currently selected. The top navigation bar shows the URL 'k12.instructure.com/courses/2196070' and several course links: 'ROVAN SAEC', 'AMIRTA', 'AMIRTA MAIL', 'SAEC MAIL', '2nd Yr Aptitude Bus...', 'C Program', and '3rd Yr Aptitude Bus...'. There are also 'View Progress' and 'Publish All' buttons.

Asst. Prof. A.Seetha Canvas integration fostering equitable and experiential learning environments



The screenshot shows the Canvas dashboard. At the top, there is a notification about 'Forgot Password: Canvas' and a 'Dashboard' button. The main content area is titled 'Dashboard' and shows 'Published Courses (1)'. A single course card is visible, titled 'C program' with the letter 'C' below it. Below this, there is a section for 'Unpublished Courses (0)'. To the right, there is a 'Coming Up' section with a 'View Calendar' button, which indicates 'Nothing for the next week'. The left sidebar is identical to the previous screenshot, showing the 'Courses' option as selected. The top navigation bar is identical to the previous screenshot, showing the same course links and buttons.



Learn to code and use AI, all through the power of play



Programming workspace facilitating applied learning of computational concepts





Claude

Understanding linear linked lists

what is linear linked list

A linear linked list is a data structure where elements (called nodes) are stored in a sequence, with each node containing:

- Data** - the actual value or information you want to store
- Pointer/Reference** - a link to the next node in the sequence

The key characteristics are:

Structure: Nodes are connected in a single direction, forming a chain. The first node is called the "head" and the last node points to null (indicating the end).

Example visualization:

Head → [Data|Next] → [Data|Next] → [Data|Next] → null

Why "linear"?: You traverse it sequentially. To reach the 5th element, you must go through elements 1, 2, 3, and 4 first. There's no direct access like in arrays.

Reply to Claude...

Students utilizing Claude AI for clarification of concepts and information retrieval during examination readiness



Inbox

My Trello board

Today

This Week

Later

Inbox **Planner** **Board** **Switch boards**

**Capture, organize, and tackle your to-dos from anywhere and escape the clutter and chaos
unleash your productivity with Trello**



The place to get support, ask and answer questions and contribute to the open-source learning platform, Moodle LMS.

A screenshot of a web browser showing a Moodle forum discussion. The URL is <https://moodle.org/mod/forum/discuss.php?d=469989>. The page title is "Moodle in English: comment on". The left sidebar shows a navigation menu with "User experience (UX)" selected. The main content area displays two comments. The first comment is by "John Provasnik" on September 22, 2025, at 11:02 PM, with the text: "The core Comment Block does this for content level - add it to the course page, choose the "Any Page" setting, and it will treat the block as unique for the course page and for each activity. However, it does not treat course "Sections" as unique." The second comment is by "Yacine ABANOU" on September 27, 2025, at 8:19 PM, with the text: "thank you for the reply it was very helpful, though i would like to know if there's an option where the comment section always get created when a content is created, so i don't have to create it manually each time." Both comments have "Report to moderator", "Permalink", and "Reply" buttons.

Asst. Prof. G. Saravana Gokul integrating Moodle to accommodate heterogeneous learning pathways

A screenshot of a web browser showing a Moodle user profile page. The URL is <https://moodle.org/user/profile.php>. The page title is "SARAVANA GOKUL G IT TEACHING". The left sidebar shows a navigation menu with "User details" selected. The main content area displays user details, reports, and login activity. The user details section shows an email address "saravanagokulg@saec.ac.in" and a timezone "Australia/Perth". The reports section shows "Browser sessions", "Grades overview", and "Grades". The login activity section shows "First access to site" on Thursday, October 2, 2025, at 4:04 PM (37 secs) and "Last access to site" on the same day at 4:04 PM (37 secs). There are "Edit profile", "Message", "Reset page to default", and "Edit mode" buttons.

Asst. Prof. G. Saravana Gokul cultivating inclusive learning opportunities through Moodle integration with dashboard



Get from brainstorm to breakthrough with Miro where teams and AI ideate, plan, and build the right things faster

A screenshot of the Miro dashboard. At the top, there's a navigation bar with a back arrow, a search bar, and user profile information. Below the bar is a toolbar with various icons. The main area is a table titled 'Discover' with columns for 'Title', 'Team', 'Project Manager', and 'Start date'. It lists two items: '1 Product Brief' (Mar 30, 2025) and '2 Research' (Apr 7, 2025). A '+' button is available to add more items. Below this is a section titled 'Define'.

Miro dashboard used for the content to display and arranging in the virtual rack inside platform

A screenshot of the Miro flowchart dashboard. The left sidebar contains a 'Diagramming shapes' section with a search bar and categories for 'Basic Shapes' and 'Flowchart'. A 'Create diagram' button is at the bottom. The main workspace shows a 'Flowchart Diagram' with various shapes: rectangles, diamonds, and a central decision diamond. The flow starts with a 'Start' rectangle, followed by a sequence of rectangles labeled 'Find', 'Process', 'Decision', 'Process', 'Process', and 'End'. A feedback loop from the 'Decision' diamond goes back to the 'Find' rectangle. The entire diagram is enclosed in a blue border.

Miro flowchart dashboard used for drawing the algorithm concepts

**5.6.D. SUMMARY OF INNOVATION METHODS ALONG WITH THEIR GOALS
AND OUTCOMES**

CONSOLIDATION SHEET

S.No	Innovations	Goals	Methodology Used	Outcomes
1	Usage of Interactive Panel Board	Enhance interactive and visual learning for better engagement	Smart boards with touch-enabled interactive learning, real-time annotations with good internet	Improved student participation and better conceptual understanding
2	Flipped Classroom	Improve conceptual clarity before lectures	Video lectures, pre-reading materials	Increased student engagement & participation
3	Virtual Labs	Provide hands-on experience in coding & engineering concepts	Online simulations (NPTEL, MATLAB)	Improved problem-solving skills
4	Gamified Learning	Enhance interactive learning and retention	Kahoot, Quizz	Higher student motivation & better performance
5	Project-Based Learning (PBL)	Develop real-world problem-solving skills	Industry projects, capstone courses	Increased employability & innovation
6	Usage of Online Platforms	Provide flexibility in learning and assessment	Google Classroom, Moodle, Zoom, Microsoft Teams for virtual classes, quizzes, and discussions	Enhanced accessibility, self-paced learning, and continuous assessment
7	Usage of Modern Tools	Improve hands-on experience and industry readiness	Interactive Panel, LCD Projectors, Power Point Laser Presenter, Slide Changer, Wi-Fi enabled laptops.	Better practical exposure and skill development
8	Academic Reinforcement Based on Project-Based Model	Encourage problem-solving and real-world application of concepts	Capstone projects, live industry-based assignments, hackathons	Improved analytical thinking and innovation among students

9	Semester Break Internship	Provide industry exposure and real-world skill application	Internships with industry partners, online internship portals, certification-based projects	Increased employability and professional skill enhancement
10	Reinforcement through Student Club Activities	Foster peer learning, leadership, and technical skills	Technical clubs (coding, AI, robotics), hackathons, paper presentations, tech talks	Increased student engagement and participation in co-curricular activities
11	Usage of Animated Videos, Models, Charts in TLP Process	Enhance concept visualization and retention	Animated videos, 3D models, physical charts, and graphical presentations	Better understanding of complex topics and improved retention
12	Usage of Visual Library, Digital Library & Open-Source Platforms	Provide access to vast educational resources	NPTEL, Coursera, MIT OpenCourseWare, Khan Academy, institutional digital library	Self-learning, exposure to diverse resources, and deeper subject knowledge
13	Train the Trainer Using Short-Term Courses, MOOC Courses, Staff Development Programs, Conferences, and Workshops	Improve faculty knowledge and teaching effectiveness	FDPs, MOOCs (NPTEL, Udemy, Coursera), workshops, industry collaborations	Enhanced faculty expertise, leading to improved teaching quality and student learning outcomes

Co-ordinator

HOD/IT



S.A. ENGINEERING COLLEGE

(Autonomous - Institute Level Research Centre, Affiliated to Anna University, Chennai)

Accredited by NAAC 'A' Grade & ISO 9001:2015 Certified Institution

Consolidated Sheet of Innovations by the Faculty in Teaching and Learning

S.NO	Teaching and Learning Categorization	Methods	Tools and Technologies utilized
1	Innovations by the Faculty in Teaching and Learning	ICT-Based Tools & E-Learning	Moodle, Google Classroom and Canvas, Kahoot, Quizizz
			Zoom, Microsoft Teams, Google Meet
		Interactive & Visualization	Digital Board with Internet
			MATLAB, Simulink
			Virtual Labs (NPTEL, CodeTantra , Labster)
		Content Sharing & Knowledge	SlideShare, Prezi
			YouTube
			Google Drive
		Gamification & AI-Based Learning	Duolingo & CodeCombat (for programming),
		Virtual Assistants	AI-Powered Chatbots & Virtual Assistants
2	Technology-Enhanced Teaching Learning Process	Peer Learning & Collaboration	Miro, Padlet, Trello
		Smart Classroom	Parakh Learning Portal, Digital board with internet
		Flipped Classroom	You Tube Content in Website
		Game-Based Learning	Duolingo, CodeCombat, Kahoot, Quizizz (for programming),
		Virtual Lab-Enhanced Learning	Microsoft Azure
		E. Learning Management Software	LMS Portal
		Research-Based Teaching Learning Process	Nalaiya Thiran Project, Student Publication, Student Conference attended

		Online Based Teaching Learning Process	Google Workspace/Library (Google sheet, Drive, Forms, Classroom, Slides), NPTEL, Coursera, MATLAB,
		NPTEL	NPTEL Course
3	Experimental Based Teaching Learning Process	Expert Talk	Cyber security, cloud computing
		Industrial Visit	Technovoation
		Skill Enhancement Course	Aptitude Buster, Skill Rack, Mepro-Pearson
		Industry-Driven Teaching Learning Process	Pumo Technovation, VEI Technologies
4	Faculty-Driven Video Teaching Learning Process	You-Tube Videos	You Tube Links
5	Institute Website	Research	Links available in website
		E-Contents	Hyperlinked resources
		Individual Faculty Profile	Hyperlinked resources
		Innovative Teaching & Learning	Hyperlinked resources
		You-Tube	You-Tube videos
		Peer Review & Critique	You-Tube videos comments and likes
		Paper published in SCI/Scopus Journals	Hyperlinked resources
		List of Conference Publications	Hyperlinked resources
		Plagiarism Check	Turnitin Software
6	Reproducible and Developed Further by Other Scholars	You-Tube Videos	You Tube Links
		SlideShare	SlideShare Links
7	Clear Goals and Outcomes for appropriate methods		

Co-ordinator

HOD/IT



Sample Turnitin Software for checking the plagiarism

Originality

My Files

Trash

Settings

Sermakani A.M

turnitin

My Files

Manage files Add Folder Edit Move Delete

		Similarity	Date added	Actions
<input type="checkbox"/>	batch_5_article1[1].pdf	72%	Jan 26, 2025	
<input type="checkbox"/>	Survey paper.pdf	17%	Jan 23, 2025	
<input type="checkbox"/>	kavipaper-plagfree.pdf	11%	Jan 21, 2025	
<input type="checkbox"/>	conference 1-3.docx	12%	Jan 21, 2025	
<input type="checkbox"/>	Survey Paper-julia.docx	40%	Jan 09, 2025	
<input type="checkbox"/>	AI-driven deception in cybersecurity-Harish Team.docx	Juli	Jan 09, 2025	
<input type="checkbox"/>	conference 1-1.docx	Chehra	Jan 09, 2025	

Rows: 25 Page 1 of 1 < >

Originality

My Files

Trash

Settings

Sermakani A.M

turnitin

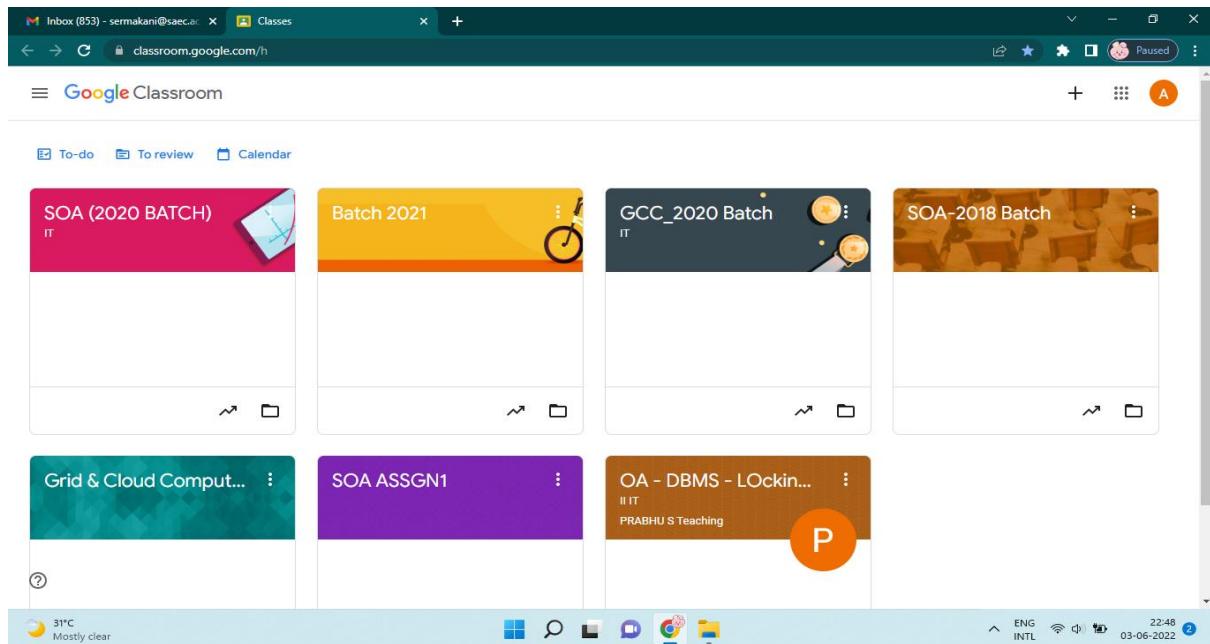
My Files

Manage files Add Folder Edit Move Delete

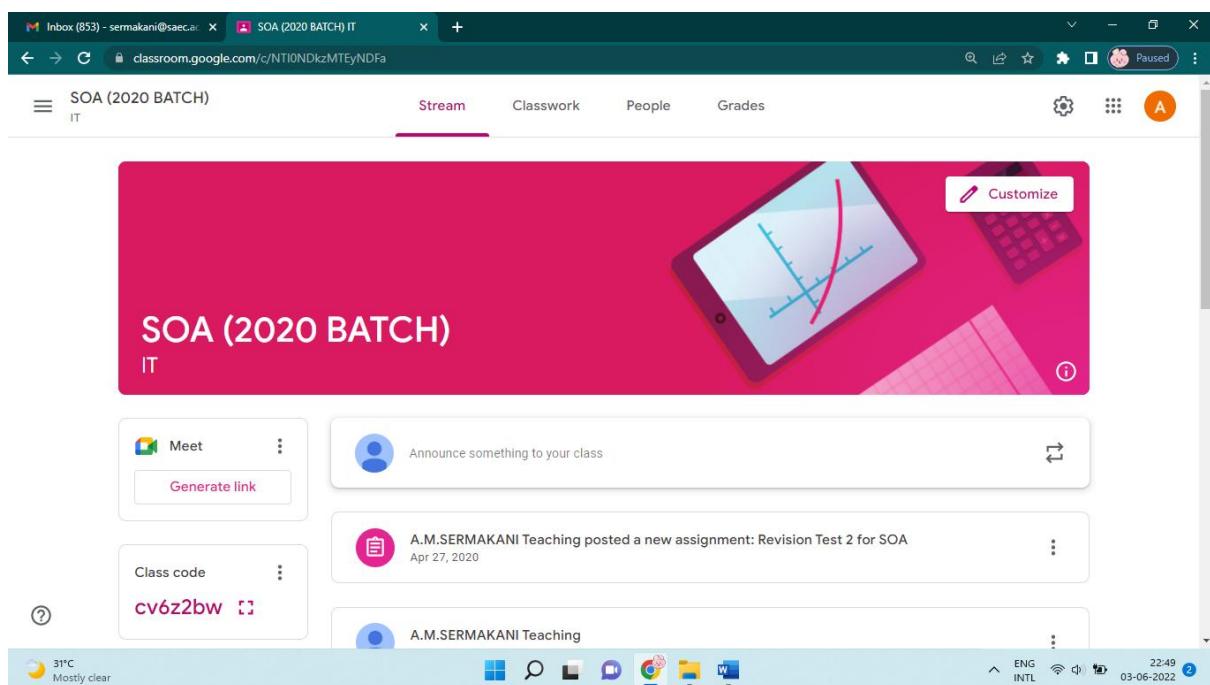
	Title	Author	Similarity	Date added	Actions
<input type="checkbox"/>	Agarian Conf Paper.docx		6%	Feb 04, 2025	
<input type="checkbox"/>	Conf_Ppr-3.pdf		14%	Feb 04, 2025	
<input type="checkbox"/>	Batch-9-Article.pdf		18%	Jan 28, 2025	
<input type="checkbox"/>	conference_1[1].docx		6%	Jan 28, 2025	
<input type="checkbox"/>	kavipaper-plagfree_final.pdf		9%	Jan 26, 2025	
<input type="checkbox"/>	conference1-26.1.25.docx		9%	Jan 26, 2025	

Students and faculty can access Turnitin's plagiarism detection tool through the integrated LMS portal to ensure academic integrity. The platform enables users to submit assignments and receive comprehensive originality reports for evaluation. Turnitin provides accessible plagiarism checking capabilities directly within the learning management system for seamless assignment submission. Users can authenticate and utilize the tool to verify content originality and maintain scholarly standards.

ICT-BASED TOOLS & E-LEARNING

A screenshot of a web browser showing the Google Classroom homepage. The top navigation bar includes "Inbox (853) - sermakani@saei.ac.in", "Classes", and a search bar. Below the navigation is a "Google Classroom" header with a menu icon and a user icon. A toolbar below the header includes "To-do", "To review", and "Calendar". The main area displays a grid of class cards. From top-left to bottom-right, the cards are: "SOA (2020 BATCH) IT" (pink background), "Batch 2021" (yellow background), "GCC_2020 Batch IT" (dark blue background), "SOA-2018 Batch" (orange background), "Grid & Cloud Comput..." (teal background), "SOA ASSGN1" (purple background), and "OA - DBMS - LOckin..." (brown background). A notification bubble with a "P" is visible over the "OA - DBMS - LOckin..." card. The bottom of the screen shows a taskbar with various icons and system status.

Google Classroom subjects through educator access

A screenshot of a web browser showing the "Stream" tab for the "SOA (2020 BATCH) IT" class. The top navigation bar includes "Inbox (853) - sermakani@saei.ac.in", "SOA (2020 BATCH) IT", and a search bar. Below the navigation is a "Stream" header with a menu icon and a user icon. The main area displays a stream of activity. At the top of the stream is a large red box with the text "SOA (2020 BATCH) IT". Below this are several cards: "Meet" (with "Generate link" button), "Announce something to your class" (with "Customize" button), "Class code" (with "cv6z2bw" and copy icon), and a post from "A.M.SERMAKANI Teaching" dated April 27, 2020, about a new assignment. The bottom of the screen shows a taskbar with various icons and system status.

Google Classroom assignments posted

The screenshot shows a Google Classroom assignment titled 'Revision Test 2 for SOA'. The assignment has 100 points and is currently paused. The 'Student work' tab is selected, showing 32 students have turned in their work and 19 students have assigned work. The list of students includes AASHA M J 2016 - 2020 IT, ABIRAMI V 2016 - 2020 IT, and AKASH KUMAR R 2016 - 2020 IT, each with their respective attachments.

Google Classroom assignment reports generated

The screenshot shows the 'Classwork' tab for the 'SOA (2020 BATCH)' class. It lists five assignments: 'Revision Test 2 for SOA' (Posted Apr 27, 2020), 'REVISION TEST FOR SOA' (3 attachments, Posted Apr 9, 2020), 'ASSIGNMENT 3' (Posted Feb 25, 2020), 'ASSIGNMENT 2' (Edited Feb 25, 2020), and 'ASSIGNMENT 1' (Posted Feb 25, 2020). The interface includes a 'Create' button and links to Google Calendar and Class Drive folder.

Google Classroom classwork details exhibited

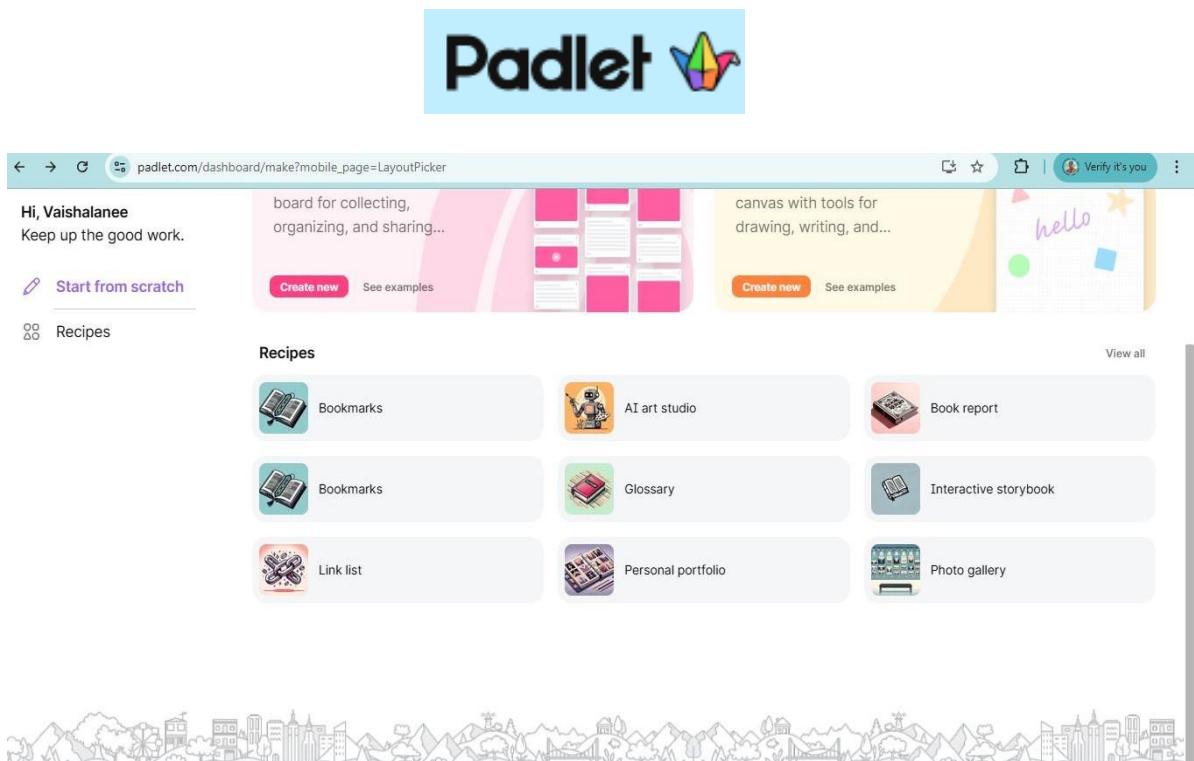
The screenshot shows a Google Classroom interface for a class named 'SOA (2020 BATCH) IT'. The 'People' tab is selected, displaying two sections: 'Teachers' and 'Students'. The 'Teachers' section shows one entry: 'A.M.SERMAKANI Teaching'. The 'Students' section shows 51 registered students, with the first four listed as follows:

Student	Class
AASHA M J	2016 - 2020 IT
ABIRAMI V	2016 - 2020 IT
AKASH KUMAR R	2016 - 2020 IT
ARASAN B	2016 - 2020 IT

At the bottom of the screen, the taskbar shows the date '03-06-2022', time '22:50', and system status including 'ENG INTL' and a battery icon.

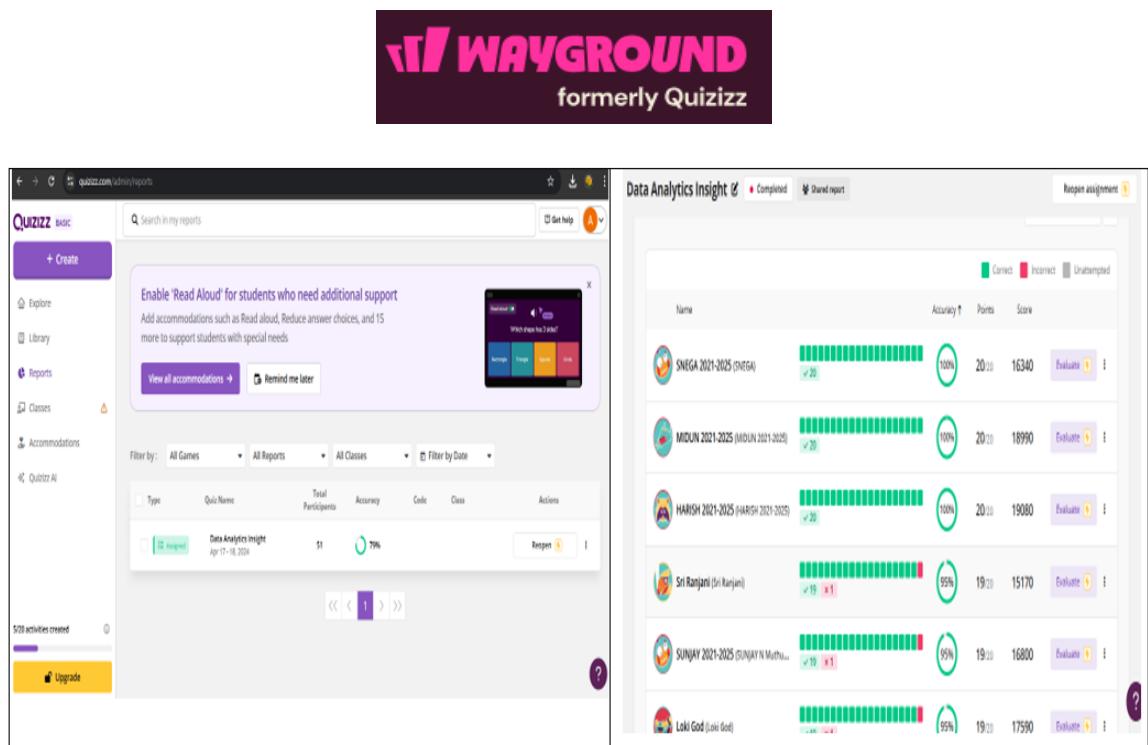
Google Classroom class participants registered

PEER LEARNING & COLLABORATION



The image shows the Padlet dashboard. On the left, there's a message from a user: "Hi, Vaishalanee Keep up the good work." Below it are two buttons: "Start from scratch" and "Recipes". The "Recipes" section is expanded, showing nine pre-made workspace templates: Bookmarks, AI art studio, Book report, Bookmarks, Glossary, Interactive storybook, Link list, Personal portfolio, and Photo gallery. Each template has a small icon and a brief description. At the top, there are two large workspace preview cards: one for a "board for collecting, organizing, and sharing..." and another for a "canvas with tools for drawing, writing, and...". A decorative banner with the word "hello" and colorful shapes is visible on the right.

Students are utilizing Padlet's collaborative workspace for learning



The image shows the Quizz dashboard. On the left, there's a sidebar with options like "Explore", "Library", "Reports", "Classes", "Accommodations", and "Quizz AI". A message box says: "Enable 'Read Aloud' for students who need additional support. Add accommodations such as Read aloud, Reduce answer choices, and 15 more to support students with special needs." Below it is a "Data Analytics Insight" report for "Data Analytics insight Apr 17–18, 2024". The report shows 51 participants with 79% accuracy. On the right, there's a "Data Analytics Insight" table with the following data:

Name	Accuracy	Points	Score
SNEGA 2021-2025 (SNEGA)	100%	20.00	16340
MIDUN 2021-2025 (MIDUN 2021-2025)	100%	20.00	18990
HARISH 2021-2025 (HARISH 2021-2025)	100%	20.00	19080
Sri Rajani (Sri Rajani)	95%	19.20	15170
SUNJAY 2021-2025 (SUNJAY N Muthu)	95%	19.20	16800
Loki God (Loki God)	95%	19.20	17590

Learners are collaborating through Quizz platforms