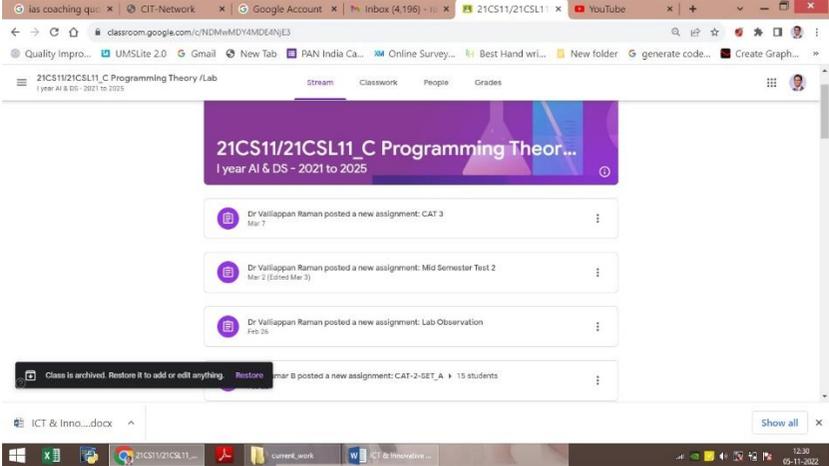


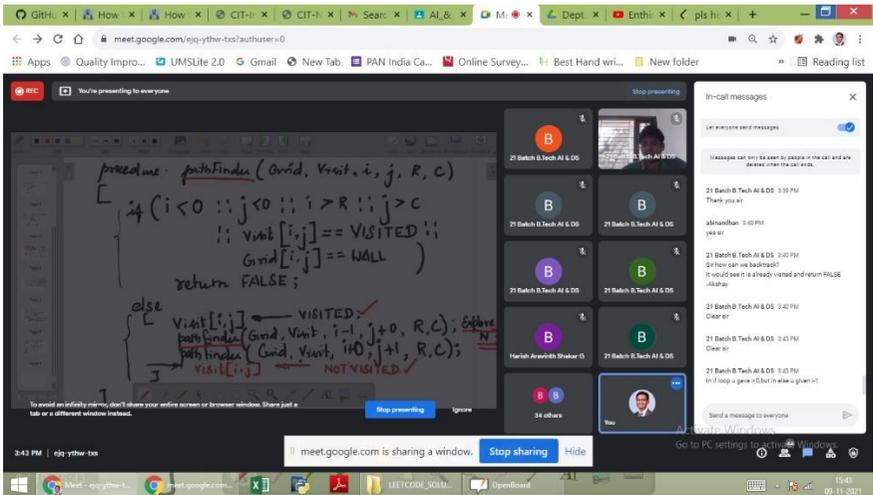
COIMBATORE INSTITUTE OF TECHNOLOGY, COIMBATORE – 641014
DEPARTMENT OF AI & DS
INNOVATION TEACHING PRACTICES AND ICT TOOLS

Innovative Teaching practices

Commencement & Semester	Year	Course Code / Name	Innovative Approach Adopted	Description	Venue
2021-2022 & SEM I	1 st Year	21CS11 – C Programming and 21CSL11 – C Programming Laboratory	Flipped Classroom	<ul style="list-style-type: none"> • Students are encouraged to learn concepts at home. • Classroom sessions are utilized to provide demonstrations / practice the concepts. 	Online
		21CS11 – C Programming and 21CSL11 – C Programming Laboratory	Collaborative Learning	<ul style="list-style-type: none"> • In a think-pair-share learning technique, the students are encouraged for reading based question-answer sessions. 	Online
		21CS11 – C Programming	Project based learning	<ul style="list-style-type: none"> • Encouraged to advance their knowledge and horn problem solving ability by offering a few interesting projects relevant to the course. 	Online
		21CS11 – C Programming	Jigsaw Method	<ul style="list-style-type: none"> • In this approach, students are divided into groups. • Each group focusses on a particular assignment topic. • The group completes the assignment task, synthesizes it • Evaluation is based on the group performance. 	Online
		21CSL11 – C Programming Laboratory	Question based learning	<ul style="list-style-type: none"> • In question-based learning, the learner is led by creating and fine-tuning a leading question. • Responses to questions are evaluated and graded 	Online / off-line

RELEVANT PROOFS

S.No	Course Code / Name	Innovative Approach Adopted	Proof as Pictures
1	21CS11 – C Programming and 21CSL11 – C Programming Laboratory	Flipped Classroom	
2	21CS11 – C Programming and Laboratory	Collaborative Learning	

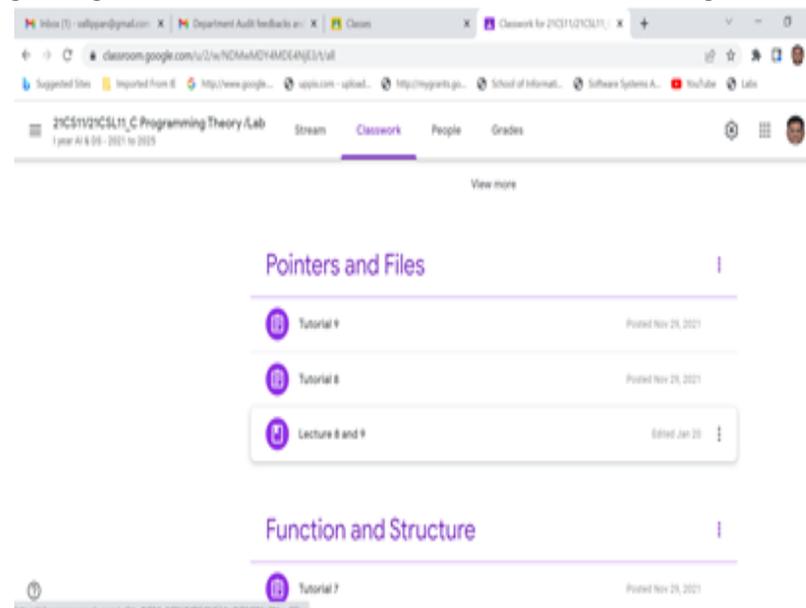
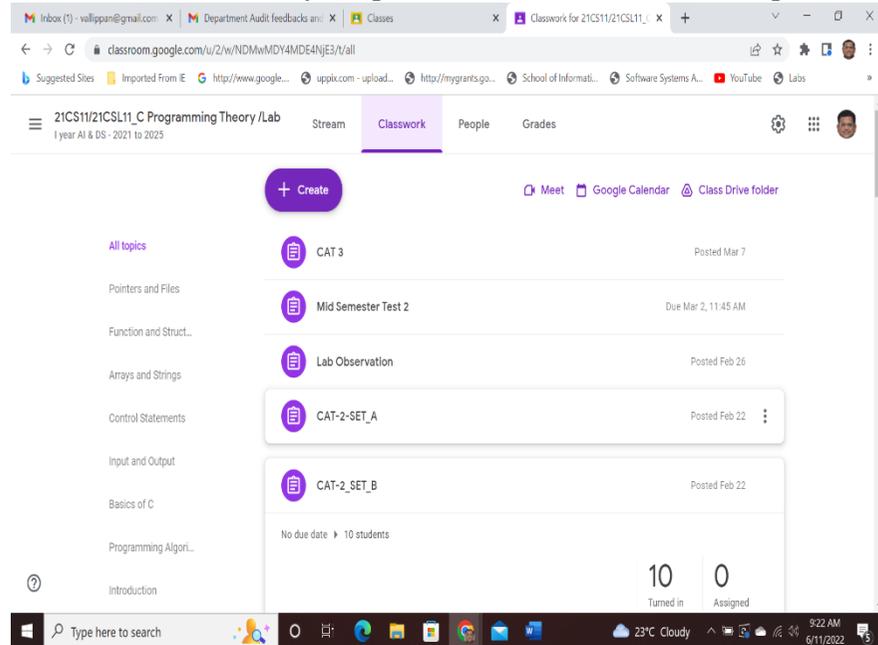
3	<p>21CS11 – C Programming and 21CSL11 – C Programming Laboratory</p>	<p>Project based learning</p>	 <p>The screenshot shows a Google Meet window with a shared screen displaying C++ code for a path-finding algorithm. The code is as follows:</p> <pre> int pathfinder (Grid, Visited, i, j, R, C) { if (i < 0 j < 0 i > R j > C Visited[i][j] == VISITED Grid[i][j] == WALL) return FALSE; else { Visited[i][j] = VISITED; pathfinder (Grid, Visited, i-1, j+0, R, C); pathfinder (Grid, Visited, i+0, j+1, R, C); Visited[i][j] = NOT VISITED; } } </pre> <p>The meeting interface includes a 'REC' indicator, a 'You're presenting to everyone' message, a 'Stop presenting' button, and a list of participants. The chat window on the right shows messages from participants, including 'Thank you sir', 'yes sir', and 'It would see if it is already visited and return FALSE'. The bottom of the screen shows the Windows taskbar with the time 3:43 PM and date 09-11-2021.</p>
4	<p>21CS11 – C Programming</p>	<p>Question-based learning</p>	<p>Conducted quizzes relevant to the course intermittently and evaluated the performance of the students.</p>

ICT Tools Adopted

1. Google Classroom

Accelerate learning with differentiated learning paths for each student with **Classroom**. Helping educators easily manage and deliver performance assessments at no cost. In order to handle communication between students and teachers, Google Classroom combines a number of different Google Applications for Education, including Google Docs, Google Sheets, Google Slides, Gmail, and Google Calendar. A private "class code" can be used to invite students to join a class, or students can be imported automatically from a school domain. Within the Google domain, teachers can create, distribute, and grade assignments. Each class makes a unique folder on the user's Google Drive where students can turn in assignments to be graded by instructors.

Google Calendar is updated with assignments and due dates, and each assignment is given a category or topic. By looking at the modification history of a document, teachers may keep track of each student's development. After grading, teachers can return work with comments and grades.



2. Online compilers

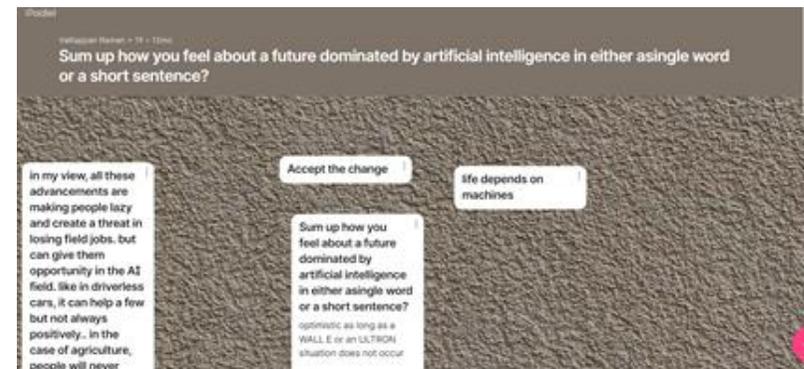
With the aid of online compilers, you may compile source code in a variety of computer languages and run it online. There are numerous online compilers for languages including C, C++, Java, and Python. These online compilers are used by students to run every programme provided in any programming language.



```
main.c
1- /******
2
3           OnLine C Compiler.
4           Code, Compile, Run and Debug C program online.
5           Write your code in this editor and press "Run" button to compile and execute it.
6
7- /******
8
9 #include <stdio.h>
10
11 int main()
12 {
13     printf("Hello World");
14
15     return 0;
16 }
17
```

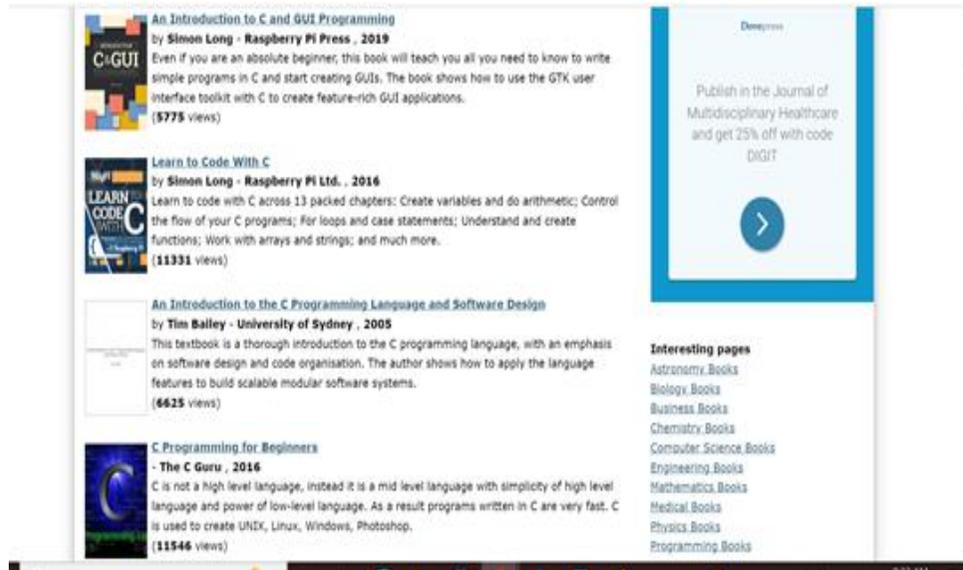
3. Padlet

On the Padlet platform, you can design one or more walls that can hold all the posts you want to share. This makes an educational environment where professors and students can interact better than it is in the real world. Everything can be shared with a certain group, made public, or kept secret. This is merely one of the features geared at educators that demonstrate how the product was developed with teachers' and students' needs in mind.



4. Digital Library resources

A digital library resource is an internet-accessible library or online database of digital objects, such as text, still photographs, audio, video, documents, or other digital media forms. Digitally reproduced content, such as printed materials or images, as well as digitally created content, such as word processing documents or social networking postings, can both be included in an object. The key advantages of a digital library are instant access to information, a lack of geographical restrictions, resource preservation, real-time interactions, and more.



The screenshot displays a search results page for C programming books. On the left, there are three book listings:

- An Introduction to C and GUI Programming** by Simon Long - Raspberry Pi Press, 2019. Description: Even if you are an absolute beginner, this book will teach you all you need to know to write simple programs in C and start creating GUIs. The book shows how to use the GTK user interface toolkit with C to create feature-rich GUI applications. (5775 views)
- Learn to Code With C** by Simon Long - Raspberry Pi Ltd., 2016. Description: Learn to code with C across 13 packed chapters: Create variables and do arithmetic; Control the flow of your C programs; For loops and case statements; Understand and create functions; Work with arrays and strings; and much more. (11331 views)
- An Introduction to the C Programming Language and Software Design** by Tim Bailey - University of Sydney, 2005. Description: This textbook is a thorough introduction to the C programming language, with an emphasis on software design and code organisation. The author shows how to apply the language features to build scalable modular software systems. (6625 views)

On the right side, there is a promotional banner for the Journal of Multidisciplinary Healthcare, offering a 25% discount with code DIGIT. Below this is a section titled "Interesting pages" with a list of subjects: Astronomy, Books, Biology, Books, Business, Books, Chemistry, Books, Computer Science, Books, Engineering, Books, Mathematics, Books, Medical, Books, Physics, Books, and Programming, Books.



The screenshot shows the homepage of the National Digital Library of India. The header includes navigation options like "Browse", "Search", "Video (Hindi)", "Video (English)", "NEW Disability Knowledge", "NDUI Club", "Language", and "Log In". The main banner features the logo of the National Digital Library of India, the tagline "One Library All of India", and a search bar with the text "Search over 88,604,176 resources". Below the banner, there are two main sections: "NEW TEST PREPARATION" and "STUDY AT HOME".

The "NEW TEST PREPARATION" section includes buttons for:

- CBSE Examination Preparatory
- BT-JEE/NEET
- Joint Admission for Masters (JAM)
- Graduate Aptitude in Engineering (GATE)
- National Eligibility Test (NET)
- Career Development and Recruitment

The "STUDY AT HOME" section includes buttons for:

- School
- Engineering
- Science
- Humanities
- Literature
- Law & Management

Teachers use ICT-enabled tools including online resources for effective teaching and learning:

2.3.2 ICT TOOLS USED

S.N	Faculty name	Subject code	Subject Name	Class	sem	ICT Tools use Link
1	Mohana D	15CI11	Computer Networks	III YR B.E(CSE V		Google Classr https://meet.google.com/lookup/gvwg-mre3wa?authuser=0&hs=179
2	Mohana D	15CI11	Computer Networks	III YR B.E(CSE V		BodhiTree, IIT Bombay
3	Mohana D	15CS10	Microprocessors & Interfacing	III YR B.E(CSE V		Google Classr https://meet.google.com/lookup/asgj2x-33ci?authuser=0&hs=179 Google classroom Google meet presentation
4	A.Priyadharshini	15CI08	Data communication	III YR B.E(CSE V		Forms https://meet.google.com/exz-ynmu-wia?authuser=1&hs=179 Google classroom Google meet Google Slide
5	A.Punidha	15CI20	Web Technology	IV BE CSE	VII	Forms https://classroom.google.com/u/4/c/MTIyNjUwMTYxODI1 Google classroom Google meet Google Slide
6	A.Punidha	15CI22	Web Programming Laboratory	IV BE CSE	VII	Forms https://classroom.google.com/u/4/c/MTIyNjUwMTYyMjA1 https://classroom.google.com/c/MTQzMDQ2NTA3MDI0 Google http://meet.google.com/gox-ybsy-dtc Classroom https://docs.google.com/forms/d/e/1FAIpQLSfQLRQkLOdSr5IqKvJZi8IIK598y Goole meet rSU4YTDTYiSsvKeSxvf8A/viewform
9	K.Amshakala	19CI32	Digital design	II YR B.E CSE	III	Google forms
10	Navaneeth Kumar	19MCSE15	Deep Learning	II YR M.E CSE	III	Google meet https://meet.google.com/lookup/hcqeqy6itj

				Google Classroom	https://classroom.google.com/u/0/c/MTlzMDkzOTU5NTI5
	15CS17	Compiler Laboratory	IV YR B.E CSE VII	Google meet	https://meet.google.com/lookup/gogyjajffw?authuser=0&hs=179
				Google Classroom	https://classroom.google.com/u/0/c/MT1ODE4NTA0NjQx
	15CS11	Microprocessor Laboratory	III YR B.E CSE V	Google meet	https://meet.google.com/lookup/f2kbs6aagk
	19CSL21	C Programming and database	I YR B.E EE II	Google Classroom	https://classroom.google.com/u/1/c/Njg1NTY2NTQ4NTda
	15CS14	Embedded Systems Laboratory	III YR B.E C VI	Google Classroom	https://classroom.google.com/u/1/c/Njg1MjqxMjlxNDIa
	15CI09	Data Structures and Algorithms Laboratory	II YR B.E C IV	Google Classroom	https://classroom.google.com/u/1/c/Njg3MTg5NTEyNjda
				Google Classroom	https://classroom.google.com/u/0/c/MTQyMzIzOTMxNjMy
11	Dr. R. Prabhakar	19CI31	Data Structures and Algorithms - I	II YR B.E CSE III	Google meet https://meet.google.com/lookup/e5q3skidmm?authuser=0&hs=179
				Google Classroom	https://meet.google.com/lookup/dhpbuky5gz?authuser=0&hs=179
12	Mr. Karthikeyan G	15IT09	Cloud and Virtualization	III YR B.E C V	Google meet https://meet.google.com/lookup/cjr22jzwqu
				Google Classroom	https://classroom.google.com/u/0/c/MTcxNDM1OTY3NzEy
13	Ms.S.Nithya	15CIE05	Digital Forensics	IV BE CSE VII	Google meet https://classroom.google.com/u/0/c/MTlyOTEwMjYxNjU5
				Google Classroom	https://meet.google.com/lookup/c52mbnamzp
				Google Classroom	https://classroom.google.com/u/0/c/MTgxMjE3ODQ0NjMw
				Google meet	https://meet.google.com/lookup/d6lsipvj2m
14	Dr,A.Kunthavai	19CI34	Digital Design Lab Digital Design	II BE CSE S2 IV II BE cse S2 IV	Google Classr https://meet.google.com/lookup/hm4ecnsb7l?authuser=0&hs=179
					https://classroom.google.com/u/0/c/MTQyMDE3Njc0MzY1
				Google Classroom	
15	M.Prabhavathy	19CIE12	INFORMATION STORAGE MANAGEMENT	IV BE CSE S1 VII	Google meet https://meet.google.com/lookup/clb5u22pu2?authuser=1&hs=179

	15CI22	Web Programming Laboratory	IV BE CSE S1 VII	Google classroom Google meet Google Forms Google Classroom Google meet	https://meet.google.com/lookup/hou6v3u4th?authuser=1&hs=179
	19CI34	Digital Design Laboratory	II BE CSE S1 IV	GOOGLE FORMS Google Classroom Google meet	https://meet.google.com/lookup/au6y5slpta?authuser=1&hs=179
16 N.Gayathriy	15ITOE07	Enterprise Resource planning Concepts	Iv CSE sec-2 IV	GOOGLE FORMS Google Classroom	http://meet.google.com/ejn-wmxf-fhj Google Classroom Code: es5qkxj ;
17 G.Priyadharshini	19HSS01	Science of Creativity and Professional Ethics	II BE CSE S2 III	Google Meet Google Forms Google Classroom	Gmeet link: https://meet.google.com/lookup/hfjzcrodti?authuser=0&hs=179 Google Classroom Code: z2oaukf ;
	15CS11	Microprocessors Laboratory	III BE CSE S1 V	Google Meet Google Forms Google Classroom	Gmeet link: https://meet.google.com/lookup/f2kbs6aagk?authuser=0&hs=179
	15CIE06	Object Oriented Analysis and Design	III BE CSE(CB VI	Google Forms Google Classroom,	Google Classroom: jyt7yq
18 R Nedunchezian	19CI31	Data Structures and Algorithms - I	II CSE III	Google Meet Google Classroom,	
	15CSE03	Customer Relationship Management	II CSE VI	Google Meet Google Classroom Code: ak5vjlz	
19 S.Priya	15CS16	Introduction to Compiler Design	IV Year VII	Google Classr	Meeitng link : https://meet.google.com/ofq-htzy-qsz

15CS17 Compiler Laboratory IV YR B.E CSE VII Google
Classroom <https://classroom.google.com/c/MTQy>
Google meet [Nzk1MzYxMjU5?cjc=j2miodo](https://meet.google.com/Nzk1MzYxMjU5?cjc=j2miodo)

Department of CSE

JUN_2021 to Dec 2021 Jan 2022-May2022

Faculty name	Subject c	Subject Name	Semeste	Google Classroom
S.Saranya Rubini	19CS51	Unix Internals	5	https://meet.google.com/lookup/hsnddib7urclass code: bq33sod
	19CI41	Data Structures and Algo	4	class code: sfcqj4y
	19CI43	Computer Architecture	4	class code: c6agd3v
S.Ravisankar	15CI20	Web Technology	7	https://meet.google.com/lookup/fd6qmvj6ei
	15CIE11	Internet of Things	8	Class Code : qfrl76u
Karthikeyan G	15CIE13	Software Metrics and Me	8	https://meet.google.com/rry-pjuj-sbh
K.N Apinaya Prethi	19CI45	Software Engineering	4	https://classroom.google.com/u/1/c/NDc0ODI1MjE2MjA3
	19MCS2	Database Engineering	2	https://classroom.google.com/u/1/c/MzcxODg2MjEzNDEy
G.Priyadharshini	15IT06	Software Testing and Qu	7	https://meet.google.com/qth-eagz-ona Google Classroom Code: v4shuyu
	19CS61	Internet of Things and its	6	https://classroom.google.com/c/NDY4MjcyNjE2Njgy?cjc=aky3skc
S.Saranya	19MCSE	Computer Vision	2	https://classroom.google.com/c/Mzc0OTE0NTAwNTgw?cjc=ju3ev5b
	19CSL12	Python Theory	1	https://classroom.google.com/c/MzgxMDQzNjU0MTg3?cjc=zltd5r
	19CS62	Machine Learning	6	https://classroom.google.com/c/NDc1MTQyNTAzNzk0?cjc=jbwfiqz
D. Mohana	15CIE13	Wireless Sensor Network	7	https://meet.google.com/pjs-sbha-grd
	19CI51	Computer Networks	5	https://meet.google.com/tep-eoq-q-xco
	19CI53	Embedded Systems	6	https://meet.google.com/znk-cdzd-mrp
	19CI43	Computer Architecture	4	https://meet.google.com/sgr-ijov-noz
M.Maranco	19IT61	Mobile Computing	6	https://meet.google.com/osj-ajcb-ghx
	19CIE06	DIGITAL FORENSICS	5	https://meet.google.com/ieq-muys-gda
	19HSS01	SCIENCE OF CREATIVI	3	https://meet.google.com/rra-cbdv-gfw
K.Amshakala	19CS62	Machine Learning	6	https://classroom.google.com/c/NDc0NzM2MzI2MjY2
	19CS21	C Programming	2	https://classroom.google.com/c/NDk1NjAwODk1MzYw
R.Saveeth	15CIE01	Graphics and Multimedia	7	https://classroom.google.com/u/0/c/MzcyMDk2NjkyNDM4
	19CI42	Database Management S	4	https://classroom.google.com/u/0/c/NDY4MDA2OTc4MzYy
Punidha A	15CI20	Web Technology	7	https://classroom.google.com/c/Mzc1MTEyMzI1OTQx?cjc=2yagqug
S.Sangeetha Marian	15CI19	Cryptography and Netwoi	8	https://classroom.google.com/c/NDc0ODI1OTE4NzY2?cjc=4wbcriy
	19CIE14	Object Oriented Analysis	6	https://classroom.google.com/c/NDc3NTM1NjM2MjQ4?cjc=otdeamh

