2021
OPEN COURSE REPORT

BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road, Bengaluru - 560064

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Report on Open course 2020-21

Preamble: Programme Outcomes (POs) are the accomplishments of graduates of a programme immediately after their graduation. POs are formulated broadly based on knowledge, skill and attitude. Knowledge and skills are imparted through the curriculum. In principle, the curriculum, pedagogy and assessment should support the attainment of this set of outcomes in order to make the programme a truly outcome-based one.

Curriculum mapping is a tool for checking the extent to which the outcomes are achieved. A curriculum mapping can be conceptualised as an analysis of the provision of opportunities for learning in a curriculum in relation to the curriculum's intended learning outcomes. By constructing a curriculum map, you will have an overview of how far and where in your programme each intended outcome is being addressed. We can then determine whether the learning opportunities provided are sufficient and in appropriate sequence so that adjustments can be made accordingly.

Value Added Programs / Open Courses: These are additional (over and above the curriculum) courses where the faculty/department can offer to bridge the gap found in the curriculum. These courses add value to the existing courses which enable the students acquire all the graduate attributes (POs) to become successful professionals. Therefore open course conduction for this semester as per Calendar of events was decided between **1.6.2021 to 5.06.2021.**

I. Initiation:

There may be some gaps in the curriculum prescribed by the university. Hence, identifying the gaps based on Programme Outcomes (POs) /Graduate Attributes (GAs) of the UG/PG programme was taken up. The PAC (Programme Assessment Committee) of the department was asked to adopt the following procedure for identification of gaps and to decide the Value-Added Programmes / Open courses (VAPs):

- *The departments (PAC) to discuss the **additional learning** requirements (Open Courses) for the students/representatives of each semester to bridge the gaps of curriculum.*
- *Programme Assessment Committee (PAC)to hold the meetings with the faculty members to decide or identify the required VAPs/Open Courses.*
- *PAC to identify the appropriate resource persons / experts to teach the value-added programmes/Open courses*
- *Approval of the **additional learning** requirements (Courses) by Internal Quality Assurance Cell (IQAC) / Principal to ensure quality is essential.*

II. Implementation of Open-Course(Instruction given to the Departments):

- Depending on the nature of the course, the teaching methodology may be adopted.

- Minimum of 25 hours should be engaged (with Maximum hands-on sessions).
- 50% of the experts / resource persons must be from Industry(external). Remaining 50% from the hosting department (Internal). Remuneration/TA for external experts may be paid as per the institutional norms. There shall be no remuneration for internal experts.
- There shall be minimum of 10 students and maximum of 60 students.
- Information about the course must be notified to all the students of the institute well in advance.
- The interested faculty members of the department/institute may be attended.

Note:

- *Each department to identify and nominate the coordinator (Faculty member) for Open Courses.*
- *Open Course is made mandatory for all 2nd and 3rd year students of BMSIT&M and it's the responsibility of respective HODs to motivate the students to register for Open Course.*
- *Registration is through ONLINE only. Maximum permissible number of students for each course is 60.*

Following procedure were asked to follow in conducting VAPs/Open Courses:

- Request letter / mail along with the course contents of the Open Course from the department to the expert/resource person shall reach at least two weeks prior to the event.
- Receiving the acceptance from the Expert / Resource Person with his requirements (Lab/ICT).
- HoDs to arrange the required lab facilities / Infrastructure.
- Share the contents of the course with the students well in advance.

III. Impact Analysis to be done:

- Quiz/Assignment/Test shall be conducted on 5th day (Saturday) of the Programme, and the results must be considered for PO attainment of the programme.
- Feedback from the students on the quality of the course delivery must be taken.

Note: All the supporting documents of each phase (Initiation, Implementation and Impact Analysis) must be maintained in the Department.

SCHEDULE of the Open-course Execution:

- Conduction of PAC meeting to identify the gaps (To decide the Courses): **24.5.2021**
- Identification of Courses and preparation of Course Contents: **25.5.2021**

- Define the Course Outcomes (COs) and mapping to POs: **25.5.2021**
- Identification of resource Persons (Industry): **27.05.2021**
- Duration of Conduction: **1.6.2021 - 5.6.2021**
- Assessment and Evaluation (Test/Quiz and Feedback): **5.6.2021**
- Online Registration Opens on: **27.05.2021**
- Registration Fee (decided by the Department): **29.5.2021**

Note:

- Upon successful completion of the Course, the Certificates shall be issued to the students who have scored at least 60% of the marks.
- The excess amount remained after the event shall be utilised for the Departmental Tech-Fest.

No. of Courses to be offered by the departments were decided as follows:

Department	Intake (IV/ VI) Semester	No. of Open Courses (at least)
Electronics & Communication Engineering	180	6
	180	
Computer Science & Engineering	180	9
	180	
Mechanical Engineering	60	
	60	2
Electronics & Telecommunication Engineering	60	
	60	2
Electrical & Electronics Engineering	60	2
	60	
Information Science & Engineering	120	5
	180	
Civil Engineering	60	2
	60	
Master of Computer Applications	60	2
	60	
Artificial Intelligence & Machine Learning	-	1
Physics	-	1
Chemistry	-	1
Mathematics	-	1

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OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

List of Open Course offered and Registered by participants

Sl no.	Dept	Open Course Title	Registrations	Coordinator name
1	AI&ML	***Deep Learning with Python***	60	Dr. Vishwa Kiran S
2	CHEM	***Applies Design thinking and NANO Research***	17	Dr. Jyoti Roy Choudhuri
3	CSE	***Cyber Security and Block Chain Technology***	60	Dr. Anjan Krishnamurthy
4	CSE	***Build Instagram in 5 Days-Full Stack Web Development***	60	Dr. Sunanda Dixit
5	CSE	***C programming for placement***	60	Prof. A. Mari Kirthima
6	CSE	***Object Oriented Programming with Java for Industry***	60	Prof. Anand R, Prof.Jagadish .P, Prof. Srivani
7	CSE	***Machine Learning for Beginners***	48	Dr. HemaMalini B H
8	CSE	***Project and Finance Management***	60	Prof. Rajesh N V
9	CSE	***Python with Machine learning***	60	Dr. HemaMalini B H
10	CSE	***Full Web stack development***	33	Dr. Sunanda Dixit
11	CSE	***Cyber security: Challenges and Solutions***	32	Dr. Anjan Krishnamurthy
12	CIV	***Revit Architecture for beginners***	60	Prof. Shobha, Prof. Vinod B R
13	CIV	***Advanced Surveying using Total Station, E-Surveying Software and Drone***	68	Dr. Chandrashekharappa Agasnalli, Dr. Anupkumar Ekbote
14	ECE	***Fundamentals of IOT and Circuit Simulation***	30	Dr. Dankan Gowda V
15	ECE	***8085 Microprocessor Basics***	4	Prof. Thyagaraj T
16	ECE	***Design and analysis of Microwave and Electronic devices***	9	Dr. Amit Kumar, Dr. Prachi Sharma
17	ECE	***Machine Learning for Image Analysis***	38	Dr. Vijayalakshmi G V, Prof. Chandraprabha R, Prof. Shilpa Hiremath
18	ECE	***Applied Embedded system and IoT***	39	Dr. Anil kumar D, Prof. Saneesh C T, Dr. Mala C S
19	ECE	***Cryptocurrencies and the Technology Behind it!***	62	Dr. M. C. Hanumantharaju
20	EEE	***Application of Multilevel Inverters***	11	Dr. Sanjay Lakshminarayanan

21	EEE	***MATLAB Applications In Electrical Engineering***	52	Dr. Prashant A Athavale Prof. Vikram Chekuri Prof. Rajnikanth
22	ETE	***Advanced Networking and IOT Applications***	44	Prof. Saritha I G
23	ETE	***MATLAB Programming on Engineering Applications***	42	Prof. Thejaswini S
24	ISE	***ANDROID Application Development***	60	Dr. Geeta Patil, Prof. Shanthi D L
25	ISE	***Programming for IT Career***	60	Prof. Mahalakshmi S, Dr. Veena N, Prof. Ambika R Subhash
26	ISE	***Internet of Things with Hands-on***	44	Dr. Surekha K B, Dr. Narasimha Murthy M S, Dr. Shridhar Sanshi
27	ISE	***Robotics with Artificial Intelligence***	60	Dr. Sheela Kathavate, Dr. Rudresh Shirwaikar, Prof. Swetha, Prof. Vinutha
28	ISE	***Data Science Using Python***	68	Dr.Manjunath T N, Dr.Pushpa S K, Prof. Gireesh Babu, Prof. Chandrashekar
29	MATH	***Essential Mathematics for Data Science and Machine Learning***	59	Dr. Jojy Joseph Idicula, Dr. Pushpa B V
30	MECH	***Introduction to Computational Fluid Dynamics***	43	Dr. Avinash
31	MECH	***Data Analysis using Excel***	61	Dr. Keerthi Kumar N, Dr. Madhu M C
32	PHY	***Materials for Devices: An idea to Engineering Start-Ups***	8	Dr. C. Kavitha, Dr. N. Dhananjaya

We are happy to inform that the total participants registered for various courses were 1360, out of which 55 were external participants. The experts, both internal and external had put in great efforts in delivering topics that were in leading technologies. This initiative will enhance the student's employability and also creates a talent pool at the department and the college level.

Interestingly, for some courses, there is a high demand from the students to increase the course period and teach them the advanced topics in that courses. Having understood their eagerness and interest in learning the topics, an honest attempt was made to collect feedback from students so as to improvise on conduction, preparedness, offering the right courses, engaging the right resources persons, etc... in the times to come. This feedback will certainly shape the planning process of conducting open course nest time. The details of all the open courses are given form the next page.

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

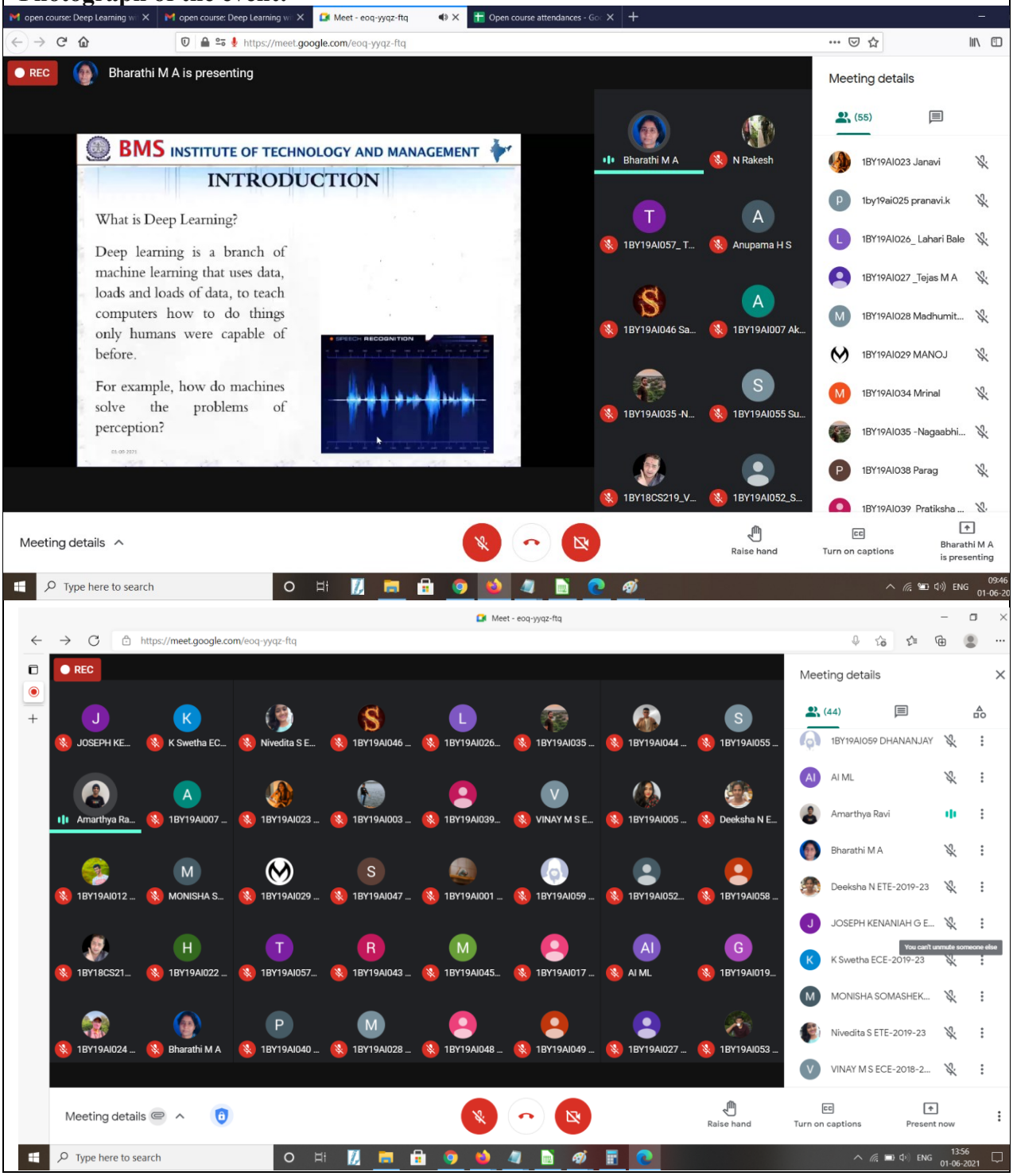
Department: Artificial Intelligence and Machine Learning		
Title of the Open Course		**Deep Learning with Python**
Targeted Students from Branches		**CSE/ISE/EC/ETE/MCA**
Registration Fee		**Rs. 300**
No. of students attended		**51**
Software/Hardware Tools used		**Anaconda/IDLE**
Delivery Methods		**ppt/programming/projects**
Assessment Methods (e.g.: Quiz, test, mini- project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details	Name	**Dr. Vishwa Kiran S**
	Mobile No.	**9845105680**
	Email ID	**vishwakiran@bmsit.in**
Internal Resource Person Details	Name	**Dr. Bharathi Malakreddy A**
	Designation	**Professor**
	Mobile Number	**8660358175**
	Name	**Dr. Vishwa Kiran S**
	Designation	**Associate Professor**
	Mobile Number	**9845105680**
	Name	**Dr. Anupama H.S**
	Designation	**Associate Professor**
	Mobile Number	**9741043410**
External Resource Person Details	Name	**Mr. Amarthya**
	Designation	**Full Stack Web Developer**
	Company/Organization	**Impavid Technologies**
	Mobile Number/email-id	**8147485107**
	Name	**Dr. Santi Natarajan**
	Designation	**Honorary Professor**
	Company/Organization	
	Mobile Number/email-id	**9739185291**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs) **PO5, PO6, PO9, PO10, PO12, PSO1, PSO2**		
Abstract	The department of Artificial Intelligence and Machine Learning successfully conducted 5 days training on Deep learning with Python. Dr. Bharathi M A, delivered introductory session deep learning and it's applications. Followed by introductory session an external Speaker Mr. Amarthya delivered a hands on session for three full days covering major topics of deep learning which includes CNN, ANN, working of Artificial Neural networks, building ANN using Tensorflow and Keras, RNN, LSTM, building self-organizing maps. Participants were made to identify specifici animals from a dataset of 10000 pictures. One of the assignment was to predict stock market with a dataset. Later participants were to trained to build credit card fraud detection system. The	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

	internal speakers Dr. Vishwa Kiran S and Dr. Anupama H S, covered basics of Python required for Deep Learning.

Photograph of the event:



Open Course Outcomes	**CO-1**	Explain basic principles of Deep Learning and Python programming language
	CO-2	Classify data by applying various clustering algorithms using python programming.
	CO-3	Identify and apply the appropriate deep learning technique for classification, pattern recognition, and optimization and decision problems.
	CO-4	Evaluate the performance of various Classification algorithms in deep learning using python programming.

CO-PO Mapping for open course of "Deep Learning with Python"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1					2							2	
CO2			2									2	
CO3	3								2	2		3	
CO4		3			2							2	

Feedback from external expert:
1. External Speaker apprecited the participants for being interactive

Feedback (critical) from students:
1. Python Course must be conducted before Deep learning
2. Some of the sessions handled by external speaker should have been clearer

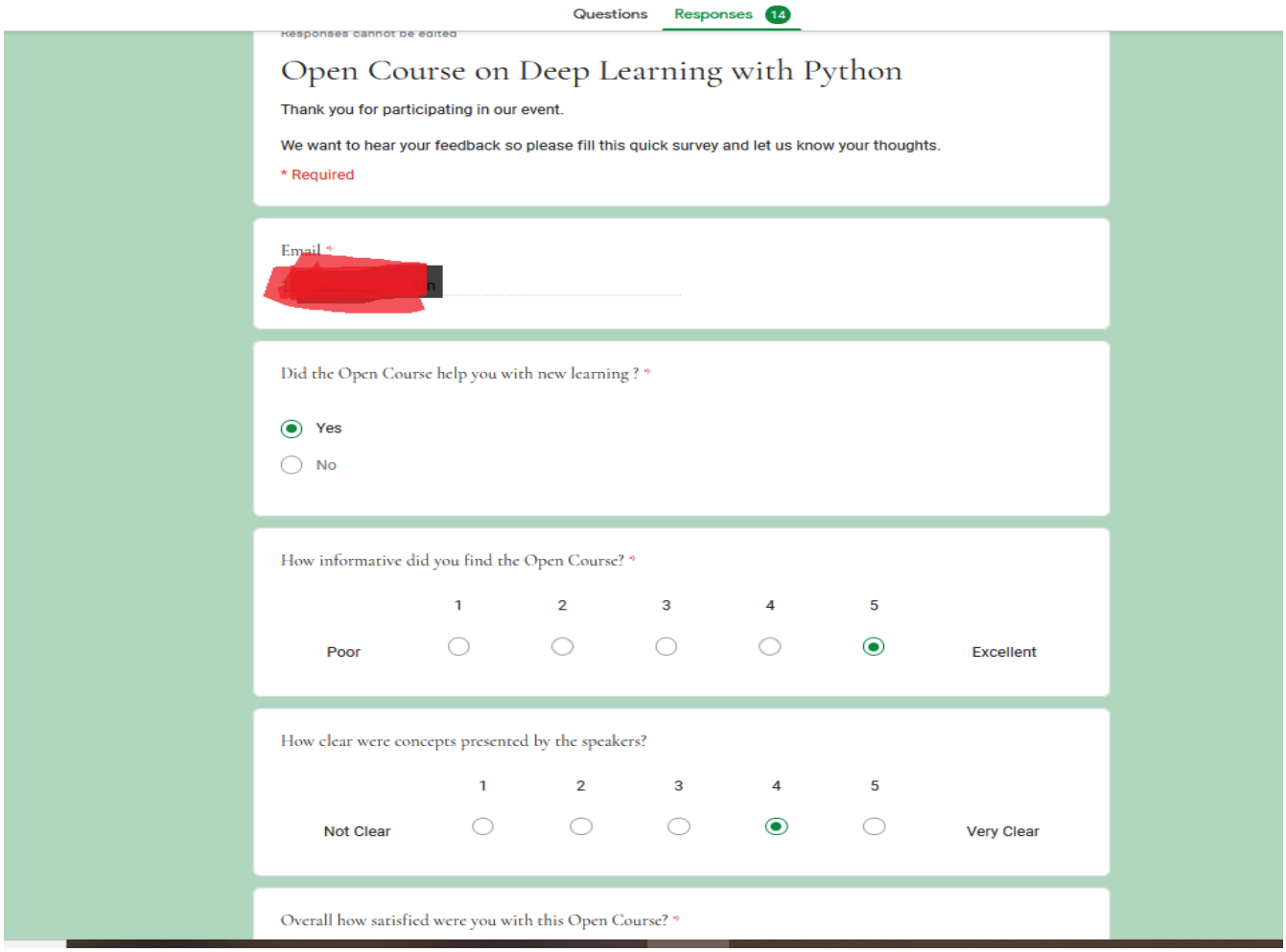
Feedback from External participants (if any):
1. – NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1. Pre -requisite to be covered first
2. Sufficient time must be given to participants to complete their assignment

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Sample course feedback form



Questions Responses 14

Responses cannot be edited

Open Course on Deep Learning with Python

Thank you for participating in our event.

We want to hear your feedback so please fill this quick survey and let us know your thoughts.

* Required

Email *

Did the Open Course help you with new learning ? *

- (•) Yes
- ( ) No

How informative did you find the Open Course? *

	1	2	3	4	5	
Poor	( )	( )	( )	( )	(•)	Excellent

How clear were concepts presented by the speakers?

	1	2	3	4	5	
Not Clear	( )	( )	( )	(•)	( )	Very Clear

Overall how satisfied were you with this Open Course? *

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

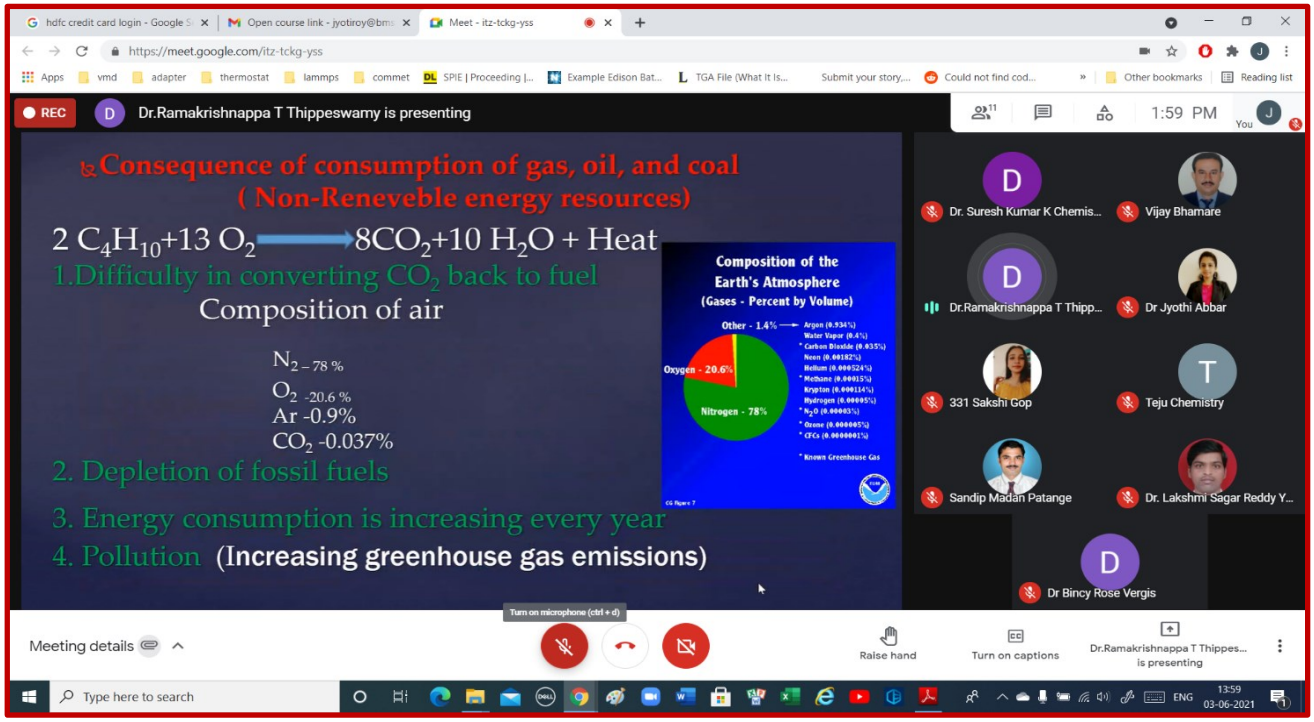
Department: CHEMISTRY		
Title of the Open Course		**APPLIED DESIGN THINKING & NANO RESEARCH**
Targeted Students from Branches		**ECE, ME**
Registration Fee		**Rs 100**
No. of students attended		**15**
Software/Hardware Tools used		**Google meet**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**Ppt presentation and videos**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz and Assignment**
Open Course Chief Coordinator Details	Name	**Dr. Jyoti Roy Choudhuri**
	Mobile No.	**8296799794**
	Email ID	**jyotiroy@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Ramakrishnappa T**
	Designation	**Associate Professor**
	Name	**Dr. Bincy Rose Vergis**
	Designation	**Assistant Professor**
	Name	**Dr. K H. Sudheer Kumar**
	Designation	**Assistant Professor**
	Name	**Mrs. Swetha G. A.**
	Designation	**Assistant Professor**
	Name	**Dr. Jyoti Roy Choudhuri**
	Designation	**Assistant Professor**
	Name	**Dr. Jyothi C Abbar**
	Designation	**Assistant Professor**
	Name	**Dr. Sureshkumar K**
	Designation	**Assistant Professor**
External Resource Person Details	Name	**Prof. Siddappa A Patil**
	Designation	**Professor**
	Company/Organization	**Department of Nanocatalysis and Drug Molecules, CNMS, Jain University**
	Name	**Dr. Srinivasa Budagumpi**
	Designation	**Associate Professor**
	Company/Organization	**Department of Organic Chemistry, Jain University**
Curriculum Gaps:	**Not Applicable.**	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Abstract	This course provides an introduction to Nanotechnology and Design Thinking. Nano research involves the materials having unique properties which make them suitable candidates for technological improvement and thus can be used in various applications. Nanomaterials are cornerstones of nanoscience and nanotechnology. The use of revolutionized techniques helps us to improve the methods of preparation of such materials with improved functionality. Nanomaterials have already shown a significant influence in the field of battery technology, in catalysis, in biomedical and various other technologies. The students of all engineering branches can find application of these materials in their field.

Photograph of the event:



Open Course Outcomes	**CO-1**	**Acquire and understanding the nanoscience and its applications.**
	CO-2	**Understand the synthesis of nanomaterials, and the impact of nanomaterials on environment.**
	CO-3	**To evaluate the use of advanced materials in engineering applications.**
	CO-4	**Apply the design thinking approach and model to real world problems.**

CO-PO Mapping for open course of "APPLIED DESIGN THINKING & NANO RESEARCH"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	3	2											
CO2		2	1										
CO3				2									
CO4			3	1		2		3					

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Feedback from external expert:

1. Well planned open course
2. Good research topics identified

Feedback (critical) from students:

1. Very Helpful course
2. Can utilize in PBL

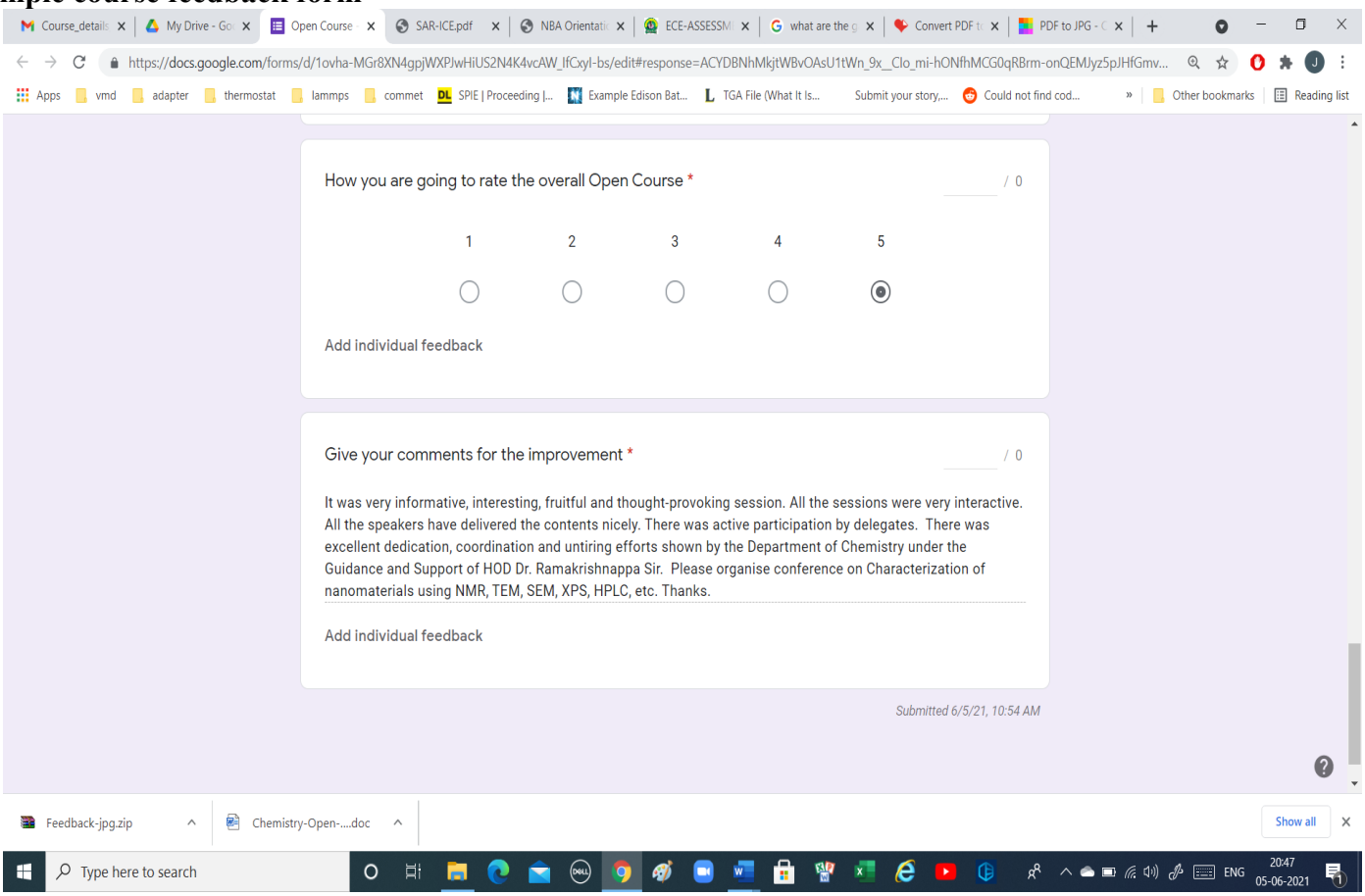
Feedback from External participants (if any):

1. Very helpful course
2. External resource person are very good

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Live lab demo will be helpful
2. Include nanocomposite material application in battery

Sample course feedback form



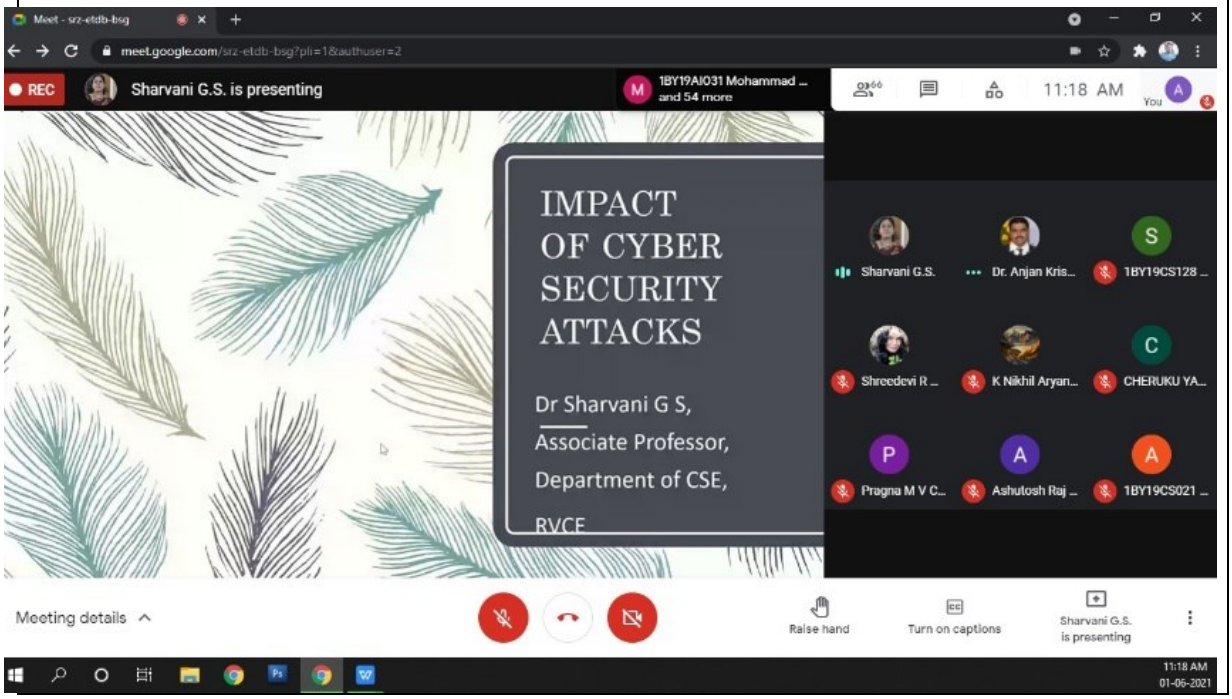
OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Department: Computer Science and Engineering.		
Title of the Open Course		**Cyber Security & Block Chain**
Targeted Students from Branches		**All**
Registration Fee		**200**
No. of students attended		**60**
Software/Hardware Tools used		**Software**
Delivery Methods (e.g.: ppt presentation, chalk &talk, simulation, videos, project, etc.)		**PPT Presentation.**
Assessment Methods (e.g.: Quiz, test, mini-Project, report submission, etc.)		**Quizzes**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Anjan Krishnamurthy.**
	Mobile No.	**9731317861**
	Email ID	**anjank-cse@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Arun Kumar B R**
	Designation	**Professor**
	Mobile Number	**9886008210**
	Name	**Dr. Anjan Krishnamurthy.**
	Designation	**Associate Professor and PG Coordinator**
	Mobile Number	**9731317861**
	Name	**Prof. Durga Devi G Y**
	Designation	**Assistant Professor**
	Mobile Number	**9480613001**
	Name	**Prof. Shivakumara T**
	Designation	**Assistant Professor**
	Mobile Number	**9060900986**
External Resource Person Details (Please use additional	Name	**Ms. Nalini Kanan**
	Designation	**Senior Technical Architect**
	Company/Organization	**IBM ISL**
	Mobile Number/email-id	**+91-98808-42087**
	Name	**Mr. Parameswaran Selvam**
	Designation	**Blockchain Technology Specialist**
	Company/Organization	**IBM India Ltd.,**
	Mobile Number/email-id	**parselva@in.ibm.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	M.Tech CSE, Curriculars Gaps was observed in PO1, PO3 as per the discussed held in the PAC meeting on 21st May 2021. Curricular Gaps were seen in PO6-12 in the UG program.	
Abstract (Brief Details of the open course with less than 250 words)	Cyber Security plays an important role in the field of information technology .Securing the information have become one of the biggest challenges in the present day. Whenever we think about the cyber security the first thing that comes to our mind is 'cyber crimes' which are increasing immensely day by day. Various	

	Governments and companies are taking many measures in order to prevent these cybercrimes. Besides various measures cyber security is still a very big concern to many. This course mainly focuses on challenges faced by cyber security on the latest technologies .It also focuses on latest about the cyber security techniques, ethics and the trends changing the face of cyber security. Block chain is a technology that is developed using a combination of various techniques such as mathematics, algorithms, cryptography, economic models, and so on. Block chain is a public ledger of all cryptocurrency transactions that are digitized and decentralized. All the transactions of cryptocurrencies are stored in chronological order to help users in tracking the transactions without maintaining any central record of the transactions. This course will discuss the security and privacy of the block chain along with their impact with regards to different trends and applications. The chapter is intended to discuss key security attacks and the enhancements that will help develop a better block chain systems.

Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Open Course Outcomes Of "***Cyber Security and Blockchain Technology***"	**CO-1**	Utilize the different cryptographic techniques for the real time applications.
	CO-2	Apply cybersecurity principles to protect cognitive computing
	CO-3	Assess the pros and cons of security through obscurity for society applications
	CO-4	Develop a lifelong learning plan for potential careers in cognitive security

CO-UG PO Mapping for open course of "*Cyber Security and Blockchain Technology*"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1					X	X		X				X	
CO2				X	X	X		X				X	
CO3			X			X		X				X	
CO4				X	X	X		X	X			X	

CO-PG PO Mapping for open course of "*Cyber Security and Blockchain Technology*"

COs	PO1	PO2	PO3	PO4	PO5	PO6
CO1:Utilize the different cognitive cryptographic techniques for the real life applications	X	X				
CO2:Apply cybersecurity principles to protect			X			

digital infrastructures						
CO3: Assess the pros and cons of security through obscurity for society applications				X		
CO4:Develop a lifelong learning plan for potential careers in cyber security						X

Feedback from external expert:

1. The session are interactive with good spontaneous response.
2. Appreciated the initiatives to bridge the gap between industry and academia.

Feedback (critical) from students:

1. Students have appreciated the session and have given very good rating.
2. Students have expressed the technological coverage was good with practical hands on experience.

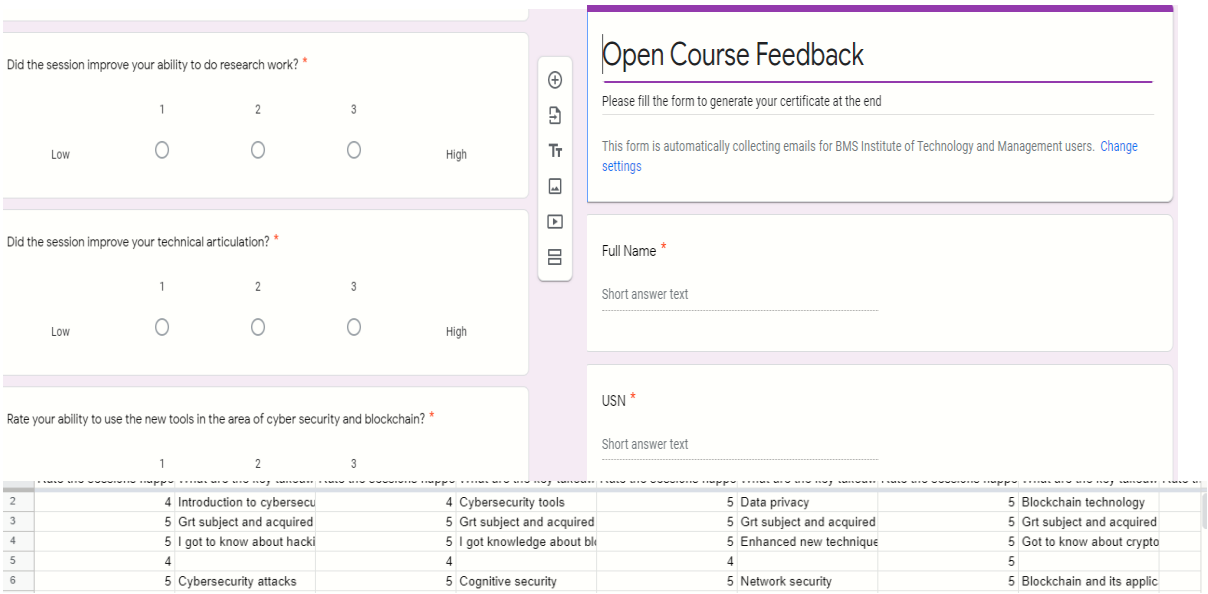
Feedback from External participants (if any):

1. Nil

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. To start the process at least 15 days prior to the commencement of the open course.
2. To have single source format where the data can be upload in a time bound manner.

Sample course feedback form



2	4	Introduction to cybersecu	4	Cybersecurity tools	5	Data privacy	5	Blockchain technology
3	5	Grt subject and acquired	5	Grt subject and acquired	5	Grt subject and acquired	5	Grt subject and acquired
4	5	I got to know about hacki	5	I got knowledge about bl	5	Enhanced new technique	5	Got to know about crypto
5	4		4		4		5	
6	5	Cybersecurity attacks	5	Cognitive security	5	Network security	5	Blockchain and its applic

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Department: Computer Science and Engg		
Title of the Open Course		**Build Instagram in 5 Days! And Web Full stack Development**
Targeted Students from Branches		**ECE,EEE,CSE,ISE**
Registration Fee		**Rs.250 and Rs.350 for Outside BMSIT**
No. of students attended		**73**
Software/Hardware Tools used		**Atom Text Editor, VS Code, Python**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, chalk and talk, Project**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Daily Assignments**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Sunanda Dixit**
	Mobile No.	**+91 83105 29894**
	Email ID	**sunandadixit_cse@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Sunanda Dixit**
	Designation	**Associate Professor**
	Mobile Number	**+91 83105 29894**
	Name	**Dr. Dhanalakshmi B K**
	Designation	**Assistant Professor**
	Mobile Number	**9632744662**
External Resource Person Details (Please use additional	Name	**Ayush Seth**
	Designation	**Frontend Developer**
	Company/Organization	**Styx**
	Mobile Number/email-id	**9793855446, littlebitbot@gmail.com**
	Name	**Ravi Kumar Singh**
	Designation	**Full Stack Developer**
	Company/Organization	**Styx**
	Mobile Number/email-id	**8335978244 , ravikrsngh1999@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)		**1. New project development underlying web principles is shortfall** **2. The Front end development and Back end development together with Django are missing.** **3. Design and Develop Android application by setting up Android development environment.**

Abstract	In the digital realm, a website is an essential element for businesses, irrespective of their size and type. It helps them increase their brand presence via the Internet breaking the geographical boundaries. A professional website design itself can be used to attain various marketing strategies in order to help your business surge. Thoughtfully created website designs have a far outspread reach than any other form of marketing tools. A professional web design arouses the curiosity of the visitors to dive in further. Web design is about deciding on a lot of elements such as the layout, graphics, colors, fonts, structure, content, text styles, interactive features, imagery, interface, standardized code, etc. It involves a wide range of skills and disciplines This 5-days course will mainly focus on forming basics of web development and deployment, which will cover all aspects frontend, backend and deployment to the server. The main focus of the course is the new technology used in industries called Django which is a framework for web development using python. Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. One of the session is on Mobile application development. It is the process to making software for smartphones and digital assistants, most commonly for Android and iOS. The software can be preinstalled on the device, downloaded from a mobile app store or accessed through a mobile web browser. Design and Develop Android application by setting up Android development environment.

OPEN COURSE 2020-2021 (EVEN SEM)

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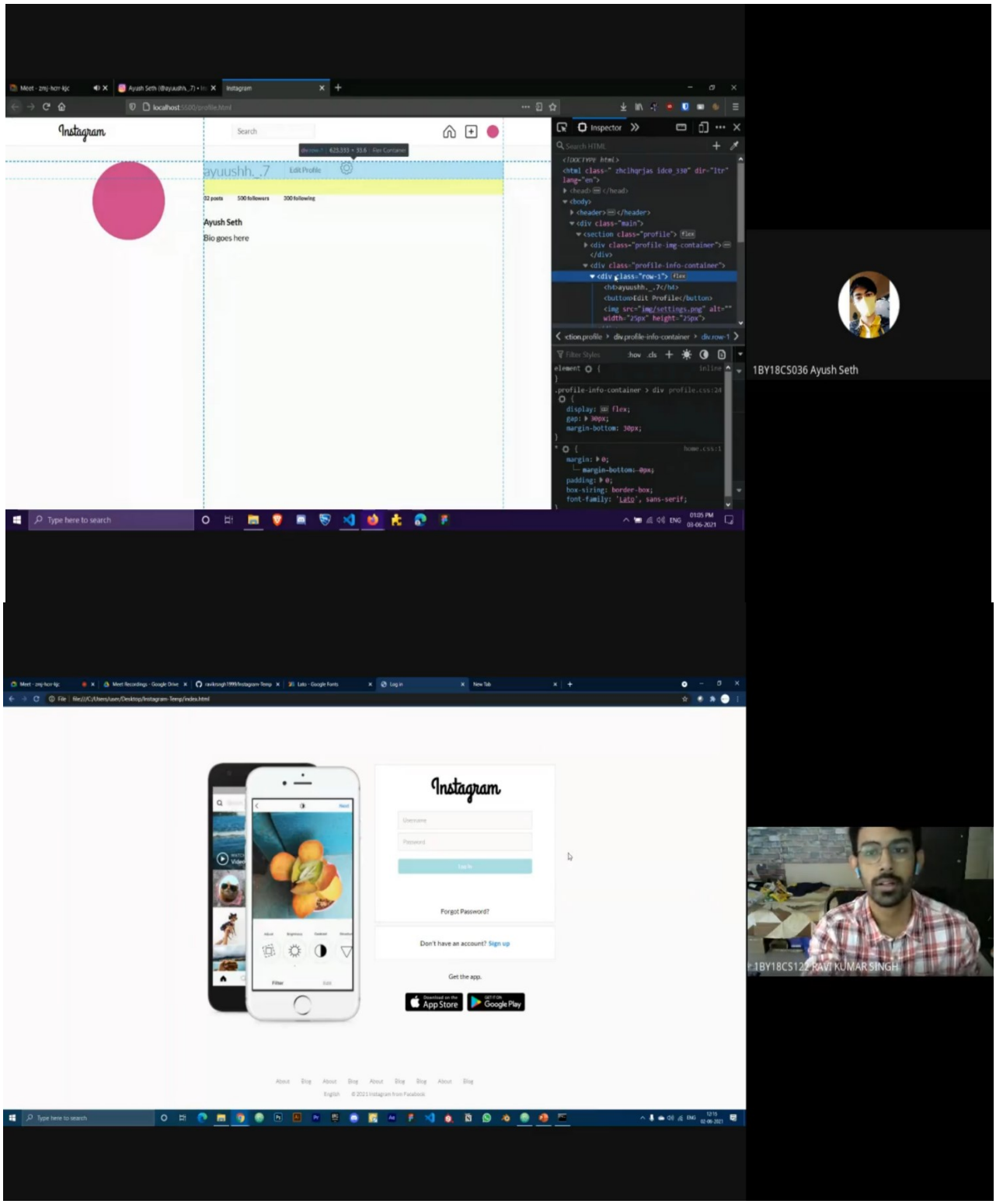
Photograph of the event:



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Open Course Outcomes Of "***Open course Title***"	**CO-1**	**Illustrate the Semantic Structure of HTML and CSS**
	CO-2	**Compose forms and Tables using HTML and CSS**
	CO-3	**Building Backend Using Django**
	CO-4	**Develop Mobile App Development**

CO-PO Mapping for open course of "Building Instagram in 5 Days!"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	x			x		x			x				
CO2	x			x							x	x	
CO3	x			x		x			x		x		
CO4	x			x	x				x		x		

Feedback from external expert:

1. Conducting Open Course is useful to all branches is a very good initiative. Its good to deliver lectures along with hands-on.
2. Participants are very curious and showing lot of interest. It's a good experience to share the knowledge.

Feedback (critical) from students:

1. It was wonderful sessions. Both the resource persons Mr.Ayush and Mr.Ravi did a great job in teaching us. They did excellent work in making us understand concepts, clearing all of our doubts. They presenting was so good that even we were ready to ready extra sessions beyond time limit. It's been very useful effective sessions. Thank you.
2. These sessions were very interesting. The resource persons dedication level & knowledge about the topic is incredible. Thank you so much.

Feedback from External participants (if any):

1. Amazingly informative...
2. It's a useful session where we don't have the background of Web development could able to learn from scratch.

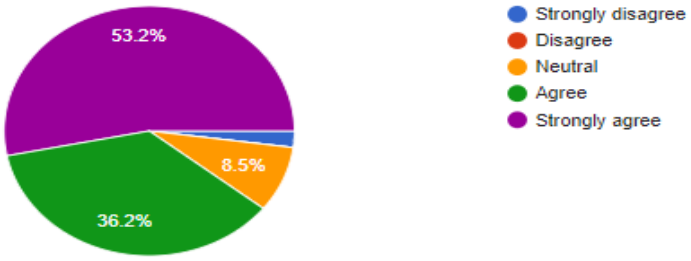
Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. More time to be allotted than it was allotted this time.

Sample course feedback form

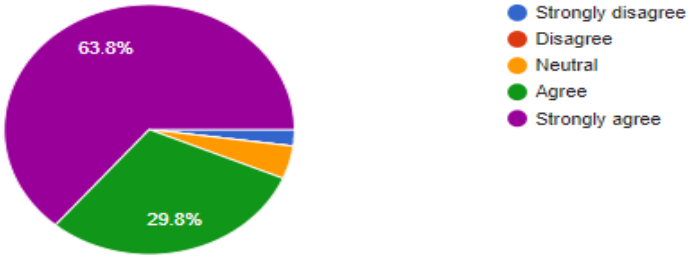
The instructor effectively explained and illustrated course concepts

47 responses



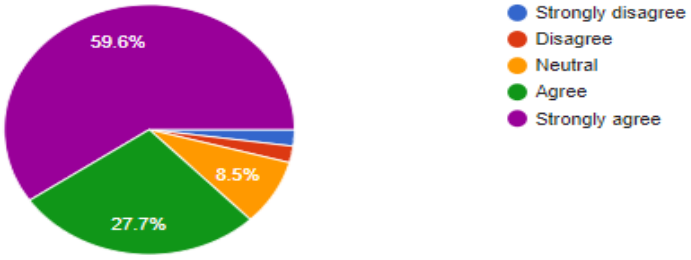
The instructor encouraged student participation in class

47 responses



The instructor communicated clearly and was easy to understand

47 responses



Department: Computer Science and Engineering		
Title of the Open Course		**C Programming for Placements**
Targeted Students from Branches		**CSE, ISE, ECE, ETE, EEE**
Registration Fee		**Rs. 200**
No. of students attended		**49**
Software/Hardware Tools used		**VMware, Ubuntu**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT, hands on by sharing programs on Google Drive. Demo**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz, C Program Execution**
Open Course Chief Coordinator Details	**Name**	**Ms. Vidya R Pai**
	Mobile No.	**7019993919**
	Email ID	**rvidyapai@bmsit.in**
Internal Resource Person Details	Name	**Dr. Archana**
	Designation	**Assiatant Professor**
	Mobile Number	**9663299433**
External Resource Person Details	Name	**Mr. Mohammed Mukhtar Ahmed**
	Designation	**Corporate Trainer**
	Company/Organization	**Corporate Trainer**
	Mobile Number/email-id	**-**
	Name	**Ms. Divyatha Prabhu and Mr. Mayur**
	Designation	**Founder and Co-Founder**
	Company/Organization	**V-DYA**
	Mobile Number/email-id	**8317480860**
	Name	**Ms. Arundhati Shanbhag**
	Designation	**Data Scientist**
	Company/Organization	**AI Enterprise Software Pvt. Ltd**
	Mobile Number/email-id	**89515 36800, arus2396@gmail.com**
Curriculum Gaps:	**PO5,P06,PO7,PO8**	

Abstract	*C is a Middle-Level Language.* The middle-level languages are somewhere between the Low-level machine understandable assembly languages and High-Level user friendly languages. Being a middle-level language, C reduces the gap between the low-level and high-level languages. It can be used for writing operating systems as well as doing application level programming. *Helps to understand the fundamentals of Computer Theories.* Most of the theories related to computers like Computer Networks, Compiler Designing, Computer Architecture and Operating Systems are based on C programming language and requires a good knowledge of C programming if you are working on them. In the modern high level languages, the machine level details are hidden from the user, so in order to work with CPU cache, memory, network adapters, learning C programming is a must. *Fewer Libraries.* C programming language has fewer libraries in comparison with other high-level languages. So, learning C programming also clears programming concepts to a great extent as you have to write lot of things from scratch. You will not be dependent on the programming language entirely for implementing some basic operations and implementing them on your own will also help you to build your analytical skills. *C is very fast in terms of execution time.* Programs written and compiled in C executes much faster than compared to any other programming language. C programming language is very fast in terms of execution as it does not have any additional processing overheads such as garbage collection or preventing memory leaks etc. The programmer must take care of these things on his own. *Embedded Programming. C is extensively used in Embedded Programming.* Embedded Programming is also referred to as micro-controller programming, where C program is used to control micro-controllers. Microcontrollers and embedded programming is widely used in auto-motives, Robotics, Hardware etc.. If a person learns C programming first, it will help him to learn any modern programming language as well. As learning C help to understand a lot of underlying architecture of operating system. Like, pointers, working with memory locations etc. auto-motives, Robotics, hardware etc.. This course is designed to benefit students not only in project building in above specified domains, but also to cater the placement needs.

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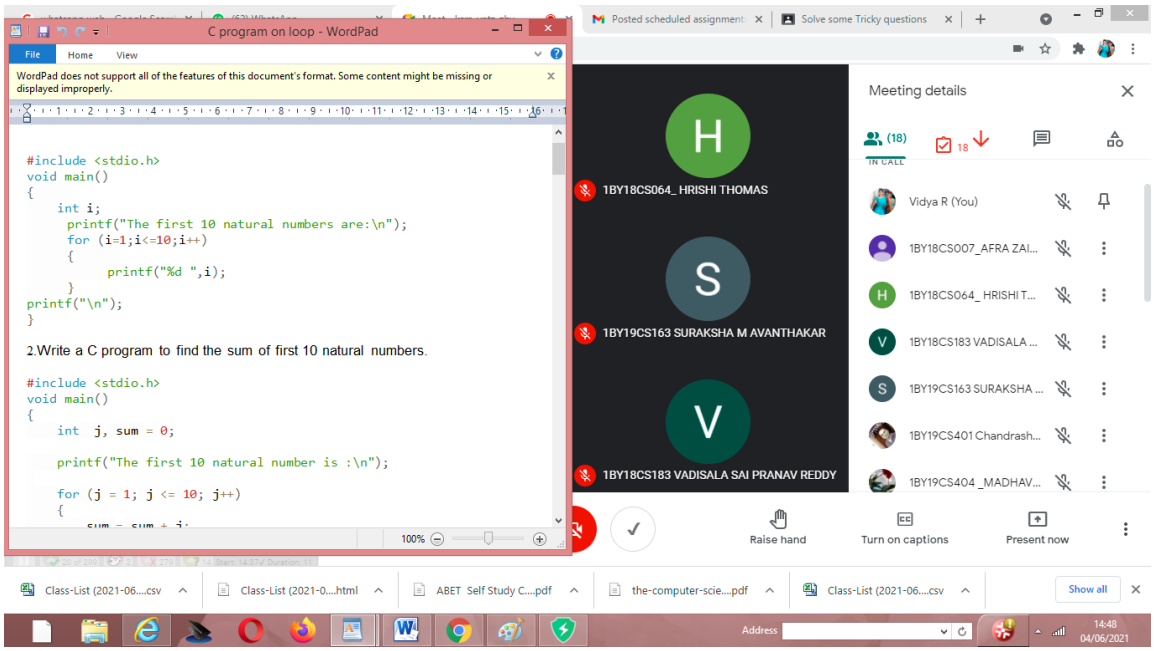
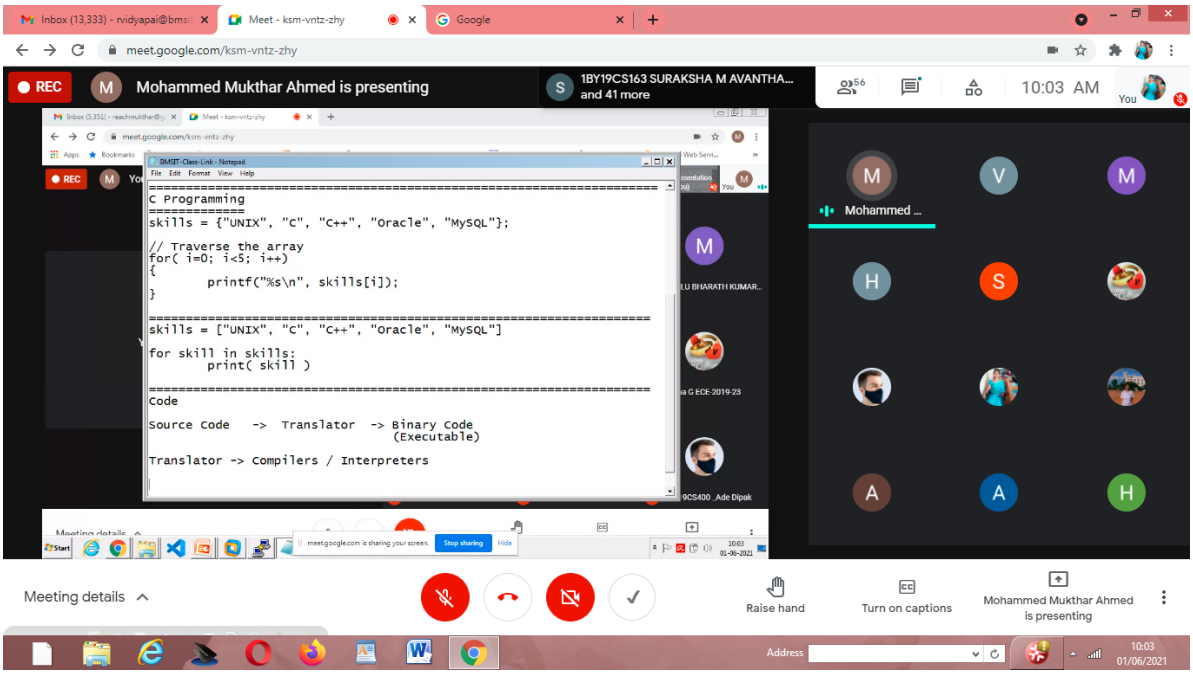
	The external resource person is a company trainer with a decade of experience in training software engineers and researchers.

Photograph of the event:





Open Course Outcomes Of "***C Programming for Placements***"	**CO-1**	Illustrate the fundamental and C programming concepts
	CO-2	Demonstrate the use of programming constructs arrays and structures for an inclusive solution to given problem**,**
	CO-3	Organize the given problem by modularizing in to functions and structures.
	CO-4	Analyze the program flow of given problem and present programming solution to with efficiency**.**
	CO-5	Applying problem solving strategies for projects concerning Engineering and Societal domains

CO-PO Mapping for open course of "C Programming for Placements"

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO3**
CO1	2												
CO2	**2**				2								
CO3		2	2		2								
CO4			2	2	2								
CO5						2	2	2					

Feedback from external expert:

1. The session was a very interesting experience for me. It was a good event and helped many students.
2. I enjoyed sharing my experience while conducting the session and interacting with the students. It was well organized by the faculty.

Feedback (critical) from students:

1. It was wonderful sessions. The resource person Mr. Mohammed Mukhtar Ahmed did a great job in teaching us. He did an excellent work in making us understand concepts C, clearing all of our doubts.
2. These sessions were very interesting. The resource persons Mrs. Divyatha Prabhu and Mr Mayur enlightened us regarding placements and how to prepare for placements. Thank you so much.

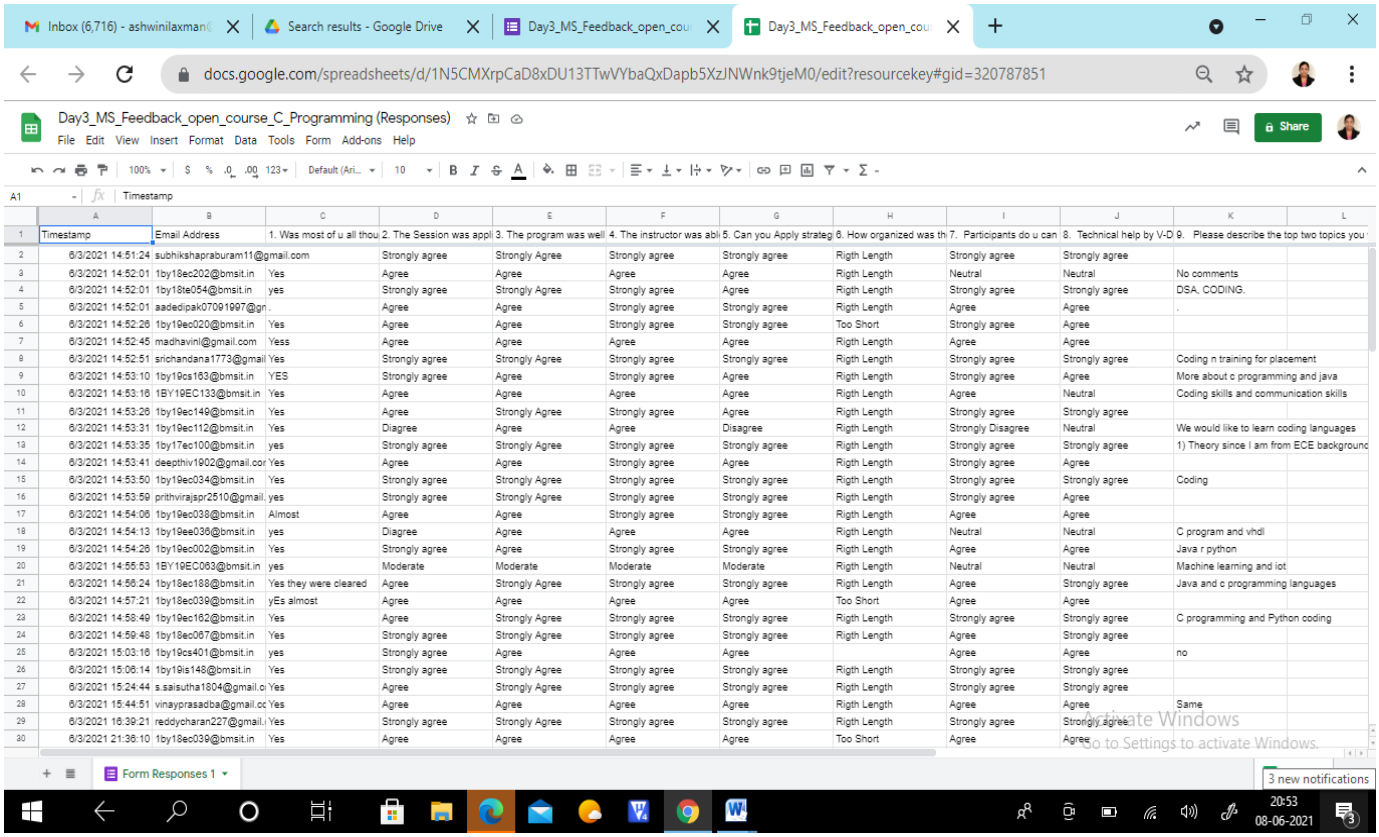
Feedback from External participants (if any):

1. NIL

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. More time to be allotted on placement activities.

Sample course feedback form



Day3_MS_Feedback_open_course_C_Programming (Responses)

Timestamp	Email Address	1. Was most of u all thou	2. The Session was appli	3. The program was well	4. The instructor was abl	5. Can you Apply strateg	6. How organized was th	7. Participants do u can	8. Technical help by V-D	9. Please describe the top two topics you
6/3/2021 14:51:24	subhikshapraburam11@gmail.com	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	
6/3/2021 14:52:01	1by18ec202@bmsit.in	Yes	Agree	Agree	Agree	Agree	Rigth Length	Neutral	Neutral	No comments
6/3/2021 14:52:01	1by18te054@bmsit.in	yes	Strongly agree	Strongly Agree	Strongly agree	Agree	Rigth Length	Strongly agree	Strongly agree	DSA, CODING.
6/3/2021 14:52:01	aadedipak07091997@gm	.	Agree	Agree	Strongly agree	Strongly agree	Rigth Length	Agree	Agree	.
6/3/2021 14:52:26	1by19ec020@bmsit.in	Yes	Agree	Agree	Strongly agree	Strongly agree	Too Short	Strongly agree	Agree	
6/3/2021 14:52:45	madhavinl@gmail.com	Yess	Agree	Agree	Agree	Agree	Rigth Length	Agree	Agree	
6/3/2021 14:52:51	srichandana1773@gmail	Yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	Coding n training for placement
6/3/2021 14:53:10	1by19cs163@bmsit.in	YES	Strongly agree	Agree	Strongly agree	Agree	Rigth Length	Strongly agree	Agree	More about c programming and java
6/3/2021 14:53:16	1BY19EC133@bmsit.in	Yes	Agree	Agree	Agree	Agree	Rigth Length	Agree	Neutral	Coding skills and communication skills
6/3/2021 14:53:26	1by19ec149@bmsit.in	Yes	Agree	Strongly Agree	Strongly agree	Agree	Rigth Length	Strongly agree	Strongly agree	
6/3/2021 14:53:31	1by19ec112@bmsit.in	Yes	Diagree	Agree	Agree	Disagree	Rigth Length	Strongly Disagree	Neutral	We would like to learn coding languages
6/3/2021 14:53:35	1by17ec100@bmsit.in	yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	1) Theory since I am from ECE backgroun
6/3/2021 14:53:41	deepthiv1902@gmail.cor	Yes	Agree	Agree	Strongly agree	Agree	Rigth Length	Strongly agree	Agree	
6/3/2021 14:53:50	1by19ec034@bmsit.in	Yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	Coding
6/3/2021 14:53:59	prithvirajspr2510@gmail.	yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Agree	
6/3/2021 14:54:06	1by19ec038@bmsit.in	Almost	Agree	Agree	Strongly agree	Strongly agree	Rigth Length	Agree	Agree	
6/3/2021 14:54:13	1by19ee036@bmsit.in	yes	Diagree	Agree	Agree	Agree	Rigth Length	Neutral	Neutral	C program and vhdl
6/3/2021 14:54:26	1by19ec002@bmsit.in	Yes	Strongly agree	Agree	Strongly agree	Strongly agree	Rigth Length	Agree	Agree	Java r python
6/3/2021 14:55:53	1BY19EC063@bmsit.in	yes	Moderate	Moderate	Moderate	Moderate	Rigth Length	Neutral	Neutral	Machine learning and iot
6/3/2021 14:56:24	1by18ec188@bmsit.in	Yes they were cleared	Agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Agree	Strongly agree	Java and c programming languages
6/3/2021 14:57:21	1by18ec039@bmsit.in	yEs almost	Agree	Agree	Agree	Agree	Too Short	Agree	Agree	
6/3/2021 14:58:49	1by19ec162@bmsit.in	Yes	Agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	C programming and Python coding
6/3/2021 14:59:48	1by18ec067@bmsit.in	Yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Agree	Strongly agree	
6/3/2021 15:03:16	1by19cs401@bmsit.in	yes	Strongly agree	Agree	Agree	Agree		Agree	Agree	no
6/3/2021 15:06:14	1by19is148@bmsit.in	Yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	
6/3/2021 15:24:44	s.saisutha1804@gmail.c	Yes	Agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	
6/3/2021 15:44:51	vinayprasadba@gmail.cc	Yes	Agree	Agree	Agree	Agree	Rigth Length	Agree	Agree	Same
6/3/2021 16:39:21	reddycharan227@gmail.(	Yes	Strongly agree	Strongly Agree	Strongly agree	Strongly agree	Rigth Length	Strongly agree	Strongly agree	
6/3/2021 21:36:10	1by18ec039@bmsit.in	Yes	Agree	Agree	Agree	Agree	Too Short	Agree	Agree	

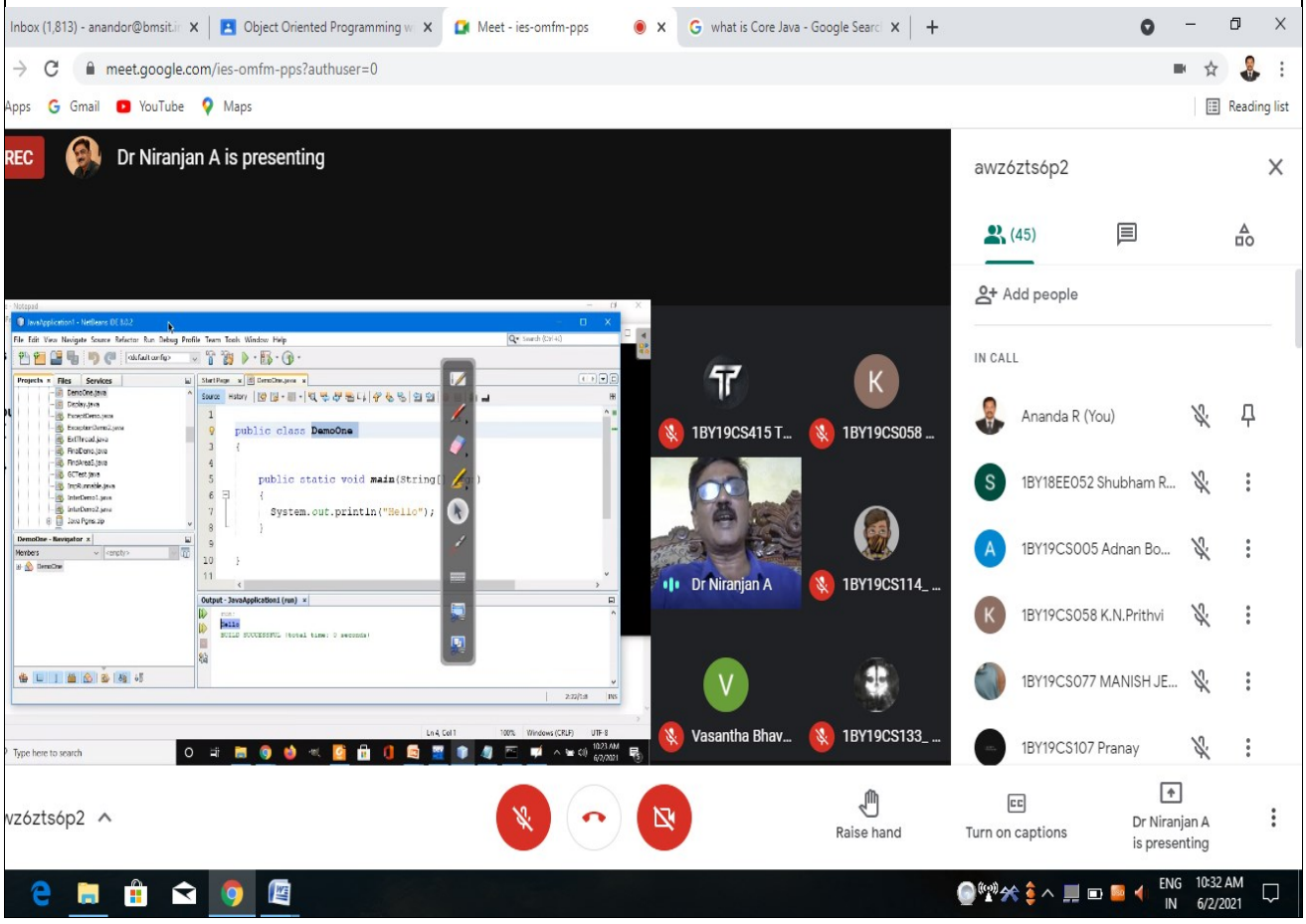
OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Department: Computer Science and Engineering		
Title of the Open Course		**Object Oriented Programming with JAVA for Industry**
Targeted Students from Branches		**CSE,ISE,ECE,EEE**
Registration Fee		**Rs.200/-**
No. of students attended		**50**
Software/Hardware Tools used		**JAVA Compiler/Eclipse IDE**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PowerPoint presentation, videos, project.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Prof.Anand R**
	Mobile No.	**9060687975**
	Email ID	**anandor@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Prof.Srivani**
	Designation	**Assistant Professor**
	Mobile Number	**8904021886**
	Name	**Prof.Shivakumar T**
	Designation	**Assistant Professor**
	Mobile Number	**9060900986**
External Resource Person Details (Please use additional	Name	**Dr Niranjan A**
	Designation	**Professor**
	Company/Organization	**Malla Reddy University , Hyderabad**
	Mobile Number/email-id	**8123033210**
	Name	**Prof.Basavaraju S**
	Designation	**Assistant Professor**
	Company/Organization	**Brindavan College of Engineering,Bangalore**
	Mobile Number/email-id	**9591426287**
	Name	**Prof.Ramesh T**
	Designation	**Assistant Professor**
	Company/Organization	**Presidency University,Bangalore-64**
	Mobile Number/email-id	**9886152115**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	PO5, PO6, PO11, PO12	

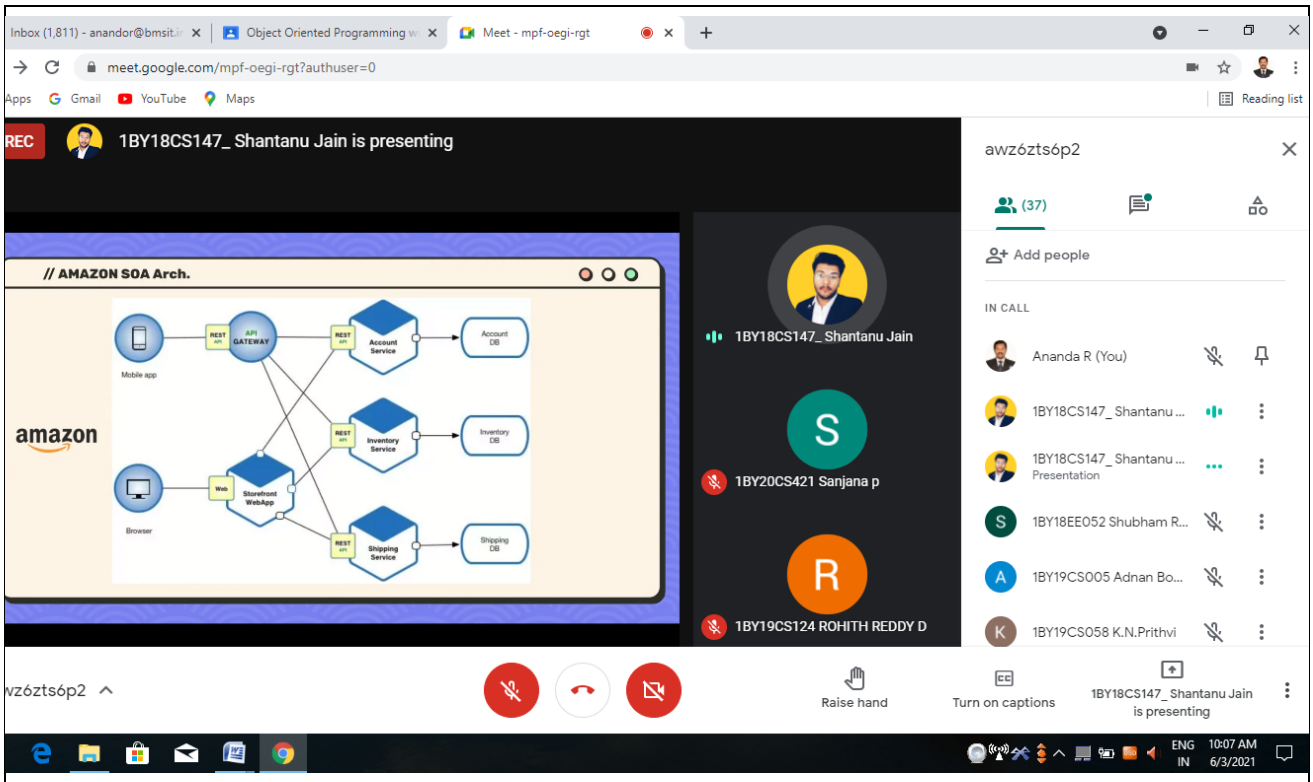
Abstract	Java is the one of the most popular programming languages in the world today. It works on any platform, and is the core language used in developing Android apps. It's a great first language for any aspiring programmer, so whether you want to program Android apps, web apps, or simply learn the foundational skills. This course will introduce you to some of the most powerful programming concepts in Java, including: objects, inheritance and collections. You will learn how to use these object-oriented programming concepts in code examples, discover how these concepts are used in applications that require user input, and understand the benefits of mastering these concepts in Java. By the end of the course, you will understand how and when to apply foundational Java concepts, and will gain a deeper understanding of the tools and logic that professional Java developers use every day.

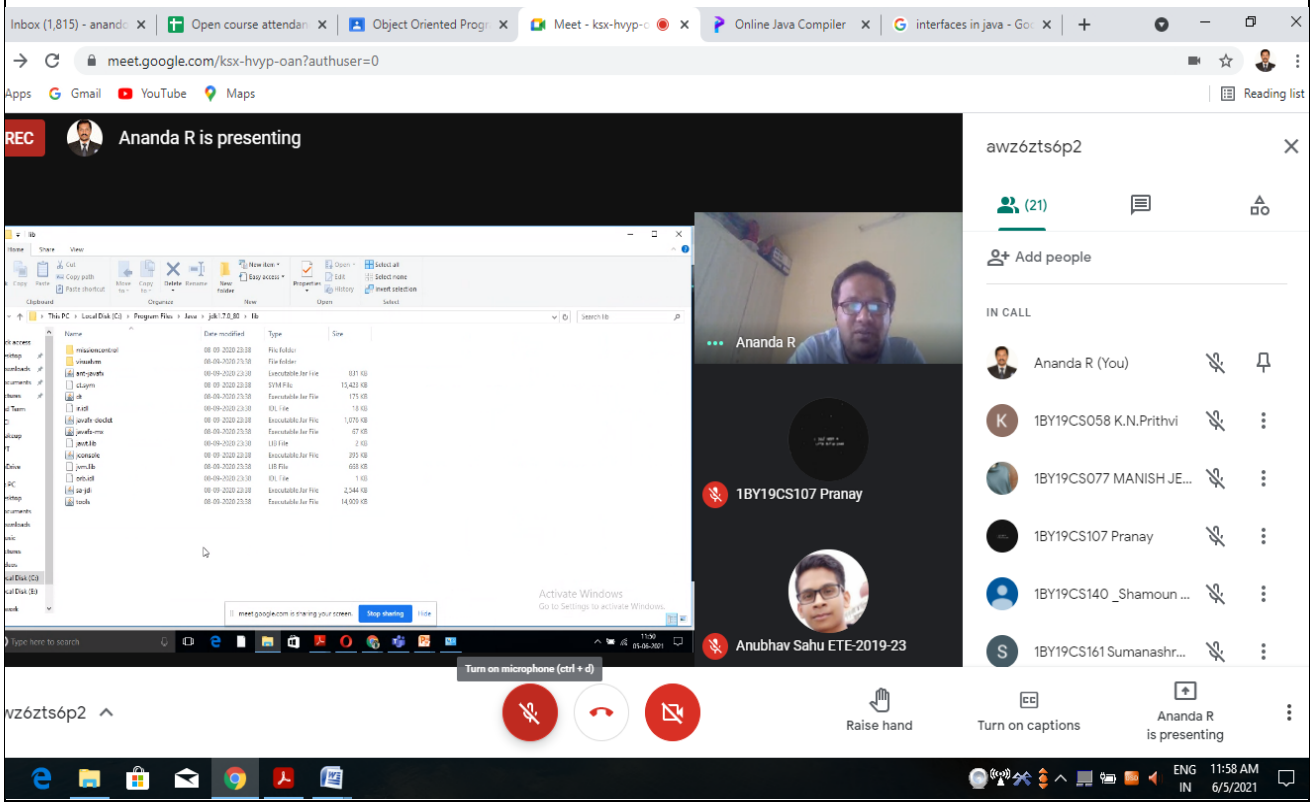
Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021





Open Course Outcomes "**Object Oriented Programming with JAVA for Industry**"	CO1	Explain the object-oriented concepts and JAVA.
	CO2	Apply the object oriented concepts and techniques for the development of the user application.
	CO3	Develop computer programs to solve real world problems in Java .
	CO4	Interpret the need for advanced Java concepts like enumerations and collections in developing modular and efficient programs.
	CO5	Enable project teams to maximise value of software delivered, and ensure customer satisfaction.

CO-PO Mapping for open course of "Object Oriented Programming with JAVA for Industry"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1											X			
CO2											X			
CO3					X						X	X		
CO4						X					X	X		
CO5						X					X			

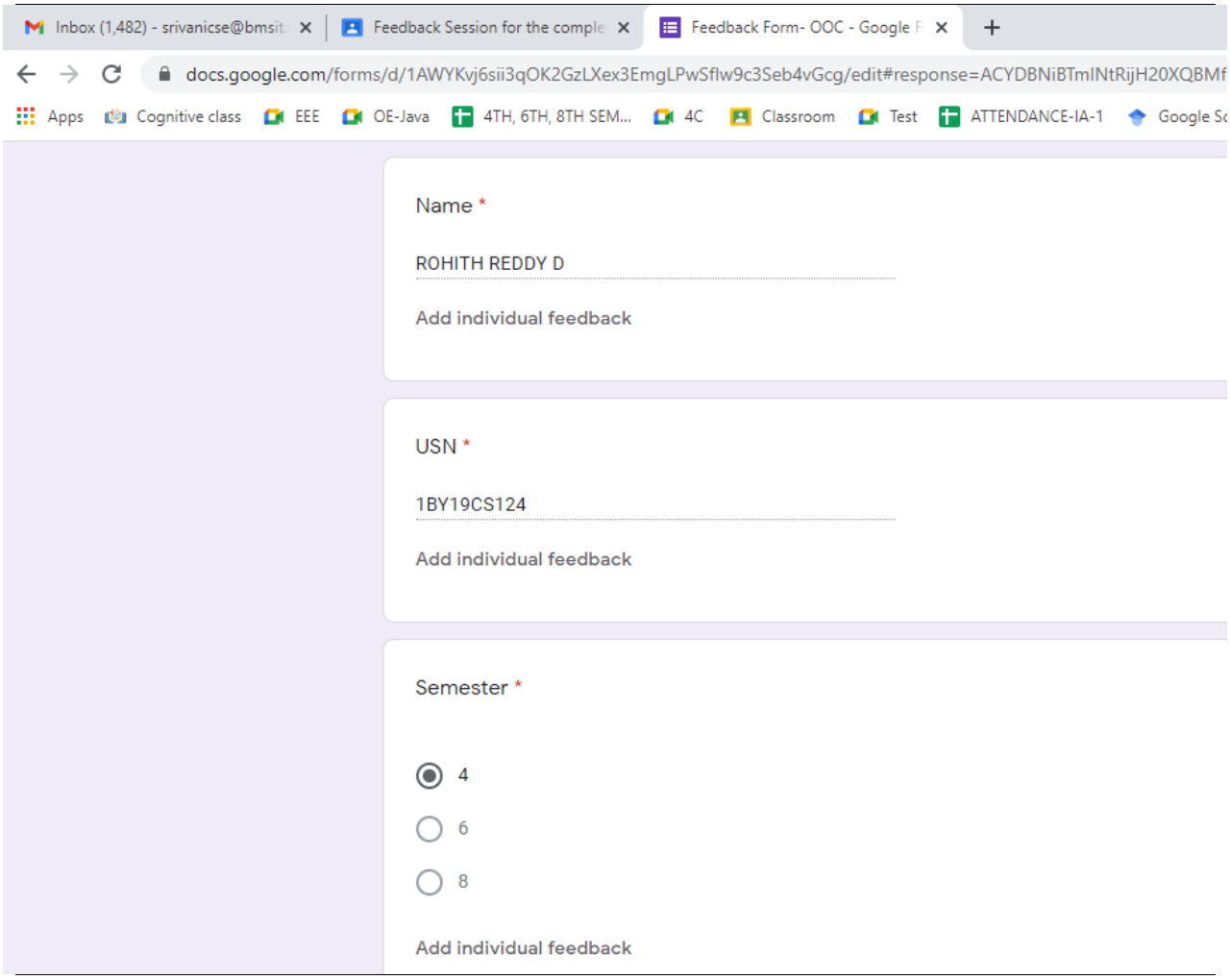
Feedback from external expert:
1.Good effort were put in to bring about a change in the students towards the learning aspects of the language.
2.It was informative and helpful as we gained a lot of knowledge about JAVA and its applications.

Feedback (critical) from students:
1.Students asked to include more practical sessions on basics.
2.It could have been better but good effort from the teachers.

Feedback from External participants (if any):NIL

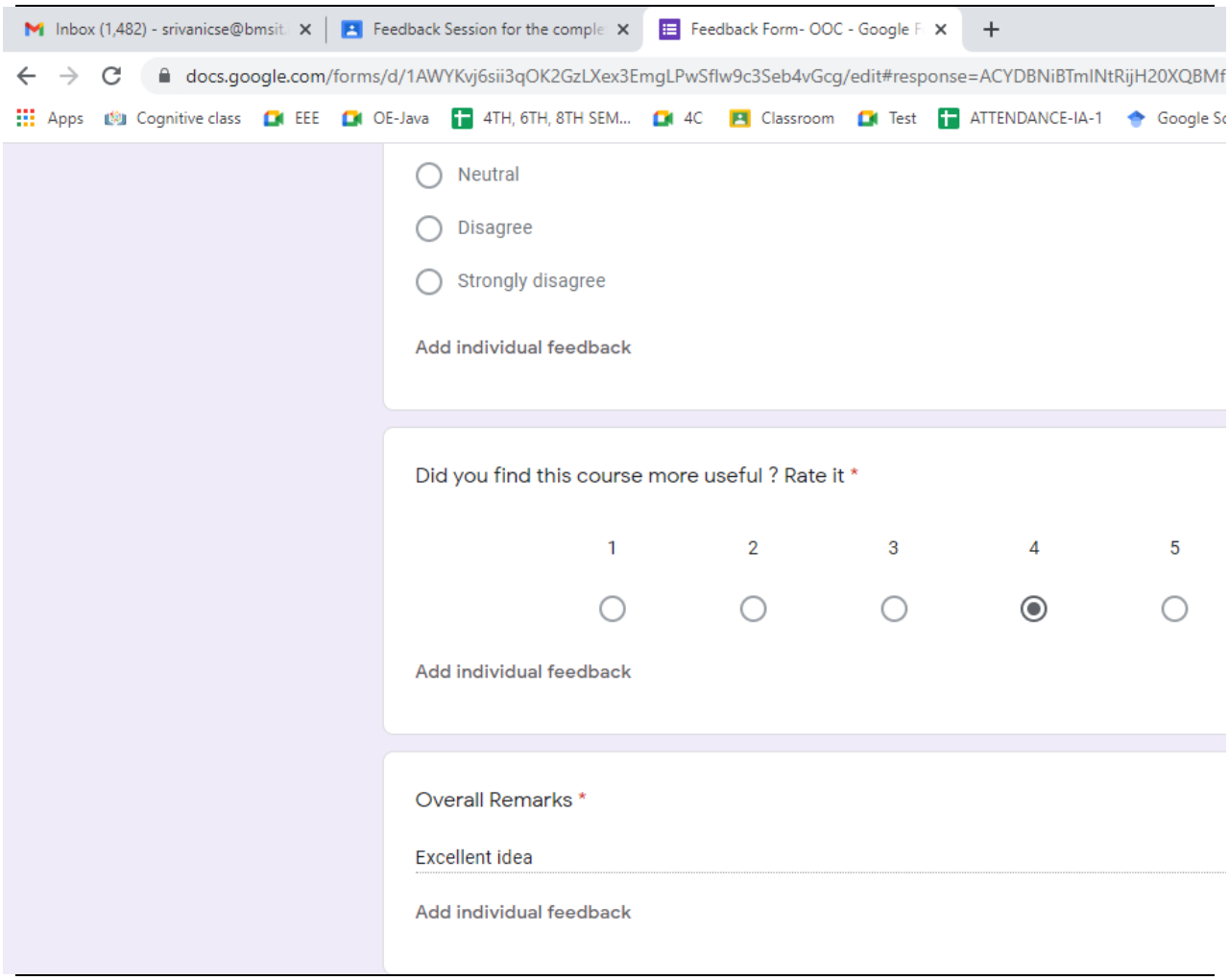
Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1.Sample mini projects.
2.Different IDE used in Industry and its comparison.

Sample course feedback form



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

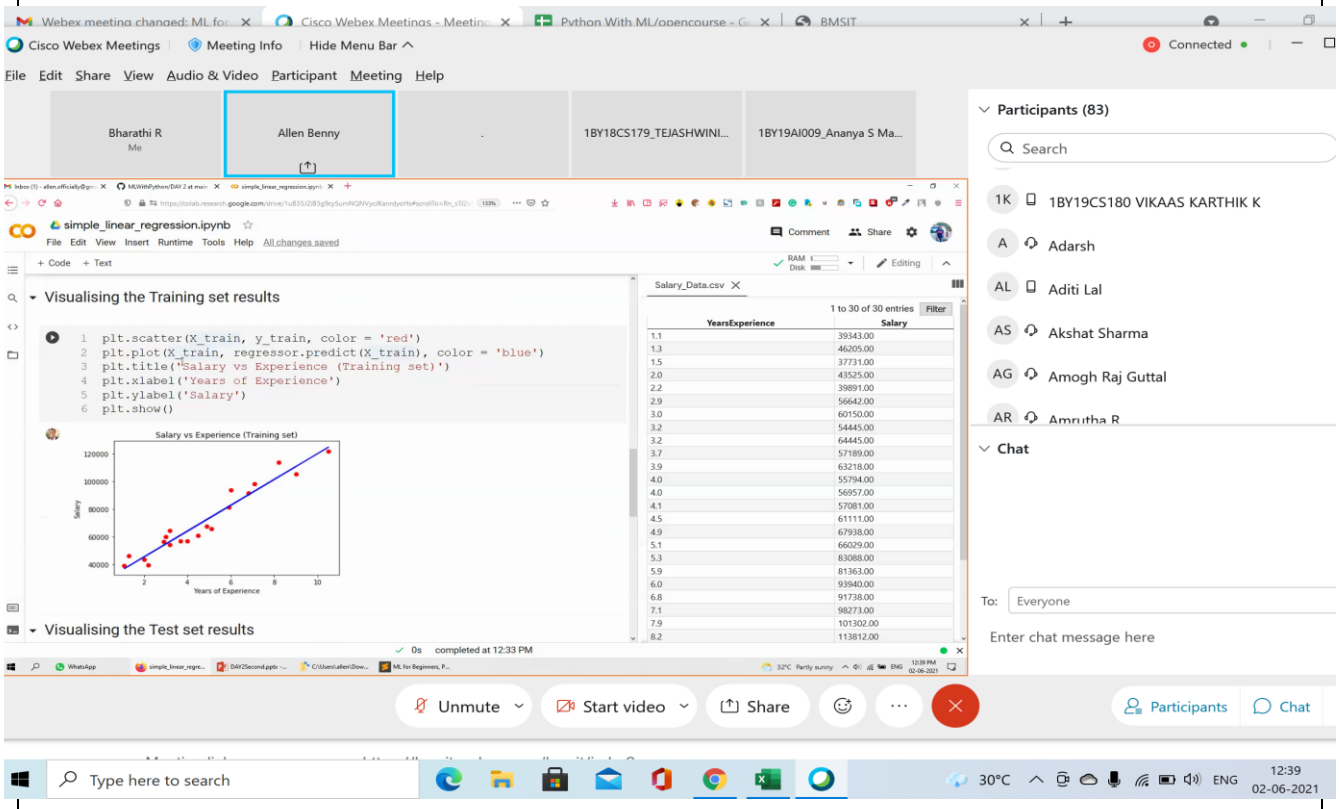
Department: Computer Science and Engineering		
Title of the Open Course		**Machine Learning For Beginners**
Targeted Students from Branches		**CSE, ISE, ECE, ETE, AI&ML, EEE**
Registration Fee		**Rs. 200**
No. of students attended		**60 +60**
Software/Hardware Tools used		**Google Colab, Python IDLE, Jupyter Notebook**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT, hands on by sharing programs on Google Drive. and Links to datasets.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. HemaMalini B H**
	Mobile No.	**7204844628**
	Email ID	**bhhemaraj@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. HemaMalini B H**
	Designation	**Associate Professor**
	Mobile Number	**7204844628**
	Name	**Mr. Allen Benny**
	Designation	**BMSIT Student, Free lancer, Web Developer**
	Mobile Number	**72908 37260, allen.officially@gmail.com**
	Name	**Mr. Aritra Paul, aritra1.paul@gmail.com**
	Designation	**BMSIT Student, Free lancer, Data Scientist**
	Mobile Number	**89682 93922, Aritra1.paul@gmail.com**
	Name	**Mr. Sandeep Kumar**
	Designation	**BMSIT Student, Free lancer, Web Developer**
	Mobile Number	**91355 66028, sandy2864.py@gmail.com**
External Resource Person Details	Name	**Mr. Manoj Kumar**
	Designation	**Data Scientist**
	Company/Organization	**Ex Walmart, Ex-Rolls Royce**
	Mobile Number/email-id	**98449 33228, manhojkummar@gmail.com**
	Name	**Mr. Bhargav Sagiraju**
	Designation	**Data Scientist,**
	Company /Organization	**Money View**
	Mobile Number/email-id	**88610 48971, bhargavsagiraju@gmail.com**

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

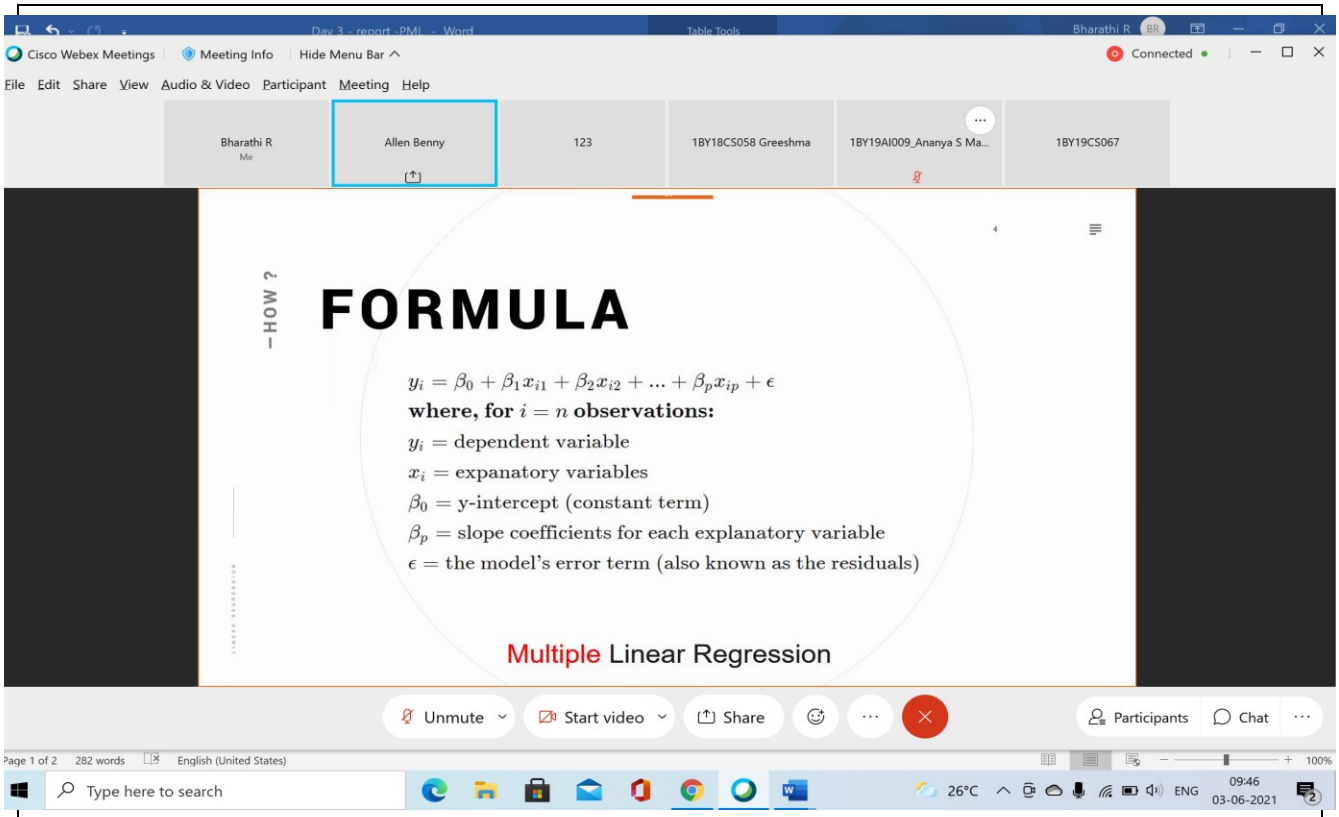
	Name	**Ms. Arundhati Shanbhag**
	Designation	**Data Scientist**
	Company/Organization	**AI Enterprise Software Pvt. Ltd**
	Mobile Number/email-id	**89515 36800, arus2396@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	PO6-PO12 not met This open course helps to bridge this gaps	
Abstract	In this open course the participants dive into the basics of machine learning using Python, an approachable and well-known programming language. The sessions talk about supervised vs. unsupervised learning, look into how statistical modeling relates to machine learning, and do a comparison of each. The sessions also introduced Open CV, use of Open CV in Machine Learning, training and testing the models, the recommendation systems, Ethical hacking, the use of ML in Walmart, Rolls Royce etc.	

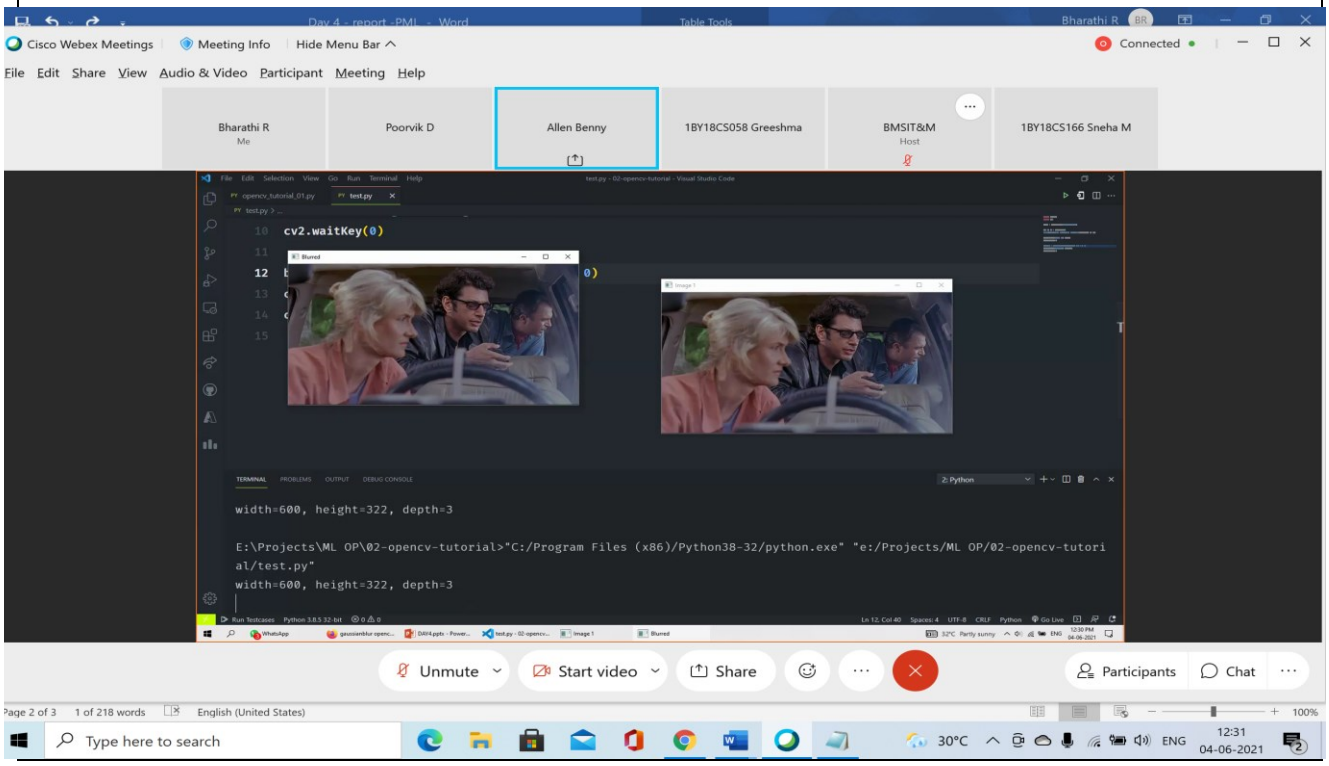
Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021





Open Course Outcomes Of "**Machine Learning For Beginners**"	CO1	Discuss the basic concepts of machine learning.
	CO2	Illustrate concept learning, ID3, ANN, Bayes classifier, k nearest neighbor,
	CO3	Analyze the given data using Machine learning techniques.
	CO4	Devise a solution for complex problems using Machine learning techniques.
	CO5	Develop a code using any suitable language for a real time application

CO-PO Mapping for open course of "Machine Learning For Beginners"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	3												
CO2		3											
CO3			3										
CO4				3									
CO5					3			3	3				3

Feedback from external expert:
1. It was a great experience and we learned a lot too along the way, everything was beautifully organised and the whole process was very systematic.
2. It was a great experience the faculty members were very supportive and conducted the sessions in a systematic manner.
3. It was a really good experience, throughout the session Bharathi ma'am and Hema Malini ma'am both were very supportive.

Feedback (critical) from students: NIL

Feedback from External participants (if any):
1. NIL

Corrective methods/suggestions to consider while conducting open course next time (at least two points) – NIL-

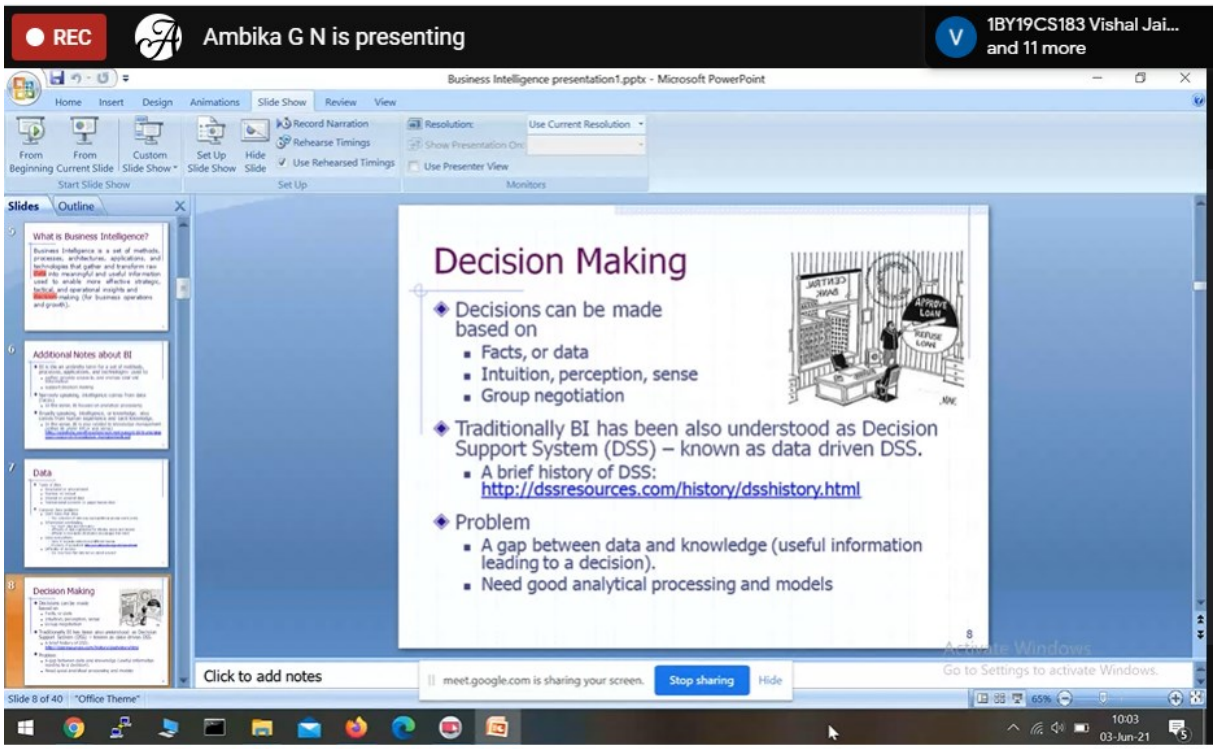
OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Department: COMPUTER SCIENCE AND ENGINEERING		
Title of the Open Course		**PROJECT AND FINANCE MANAGEMENT**
Targeted Students from Branches		**41**
Registration Fee		**200**
No. of students attended		**36**
Software/Hardware Tools used		**MS Project**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT PRESENTATION**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**REPORT SUBMISSION**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Prof Rajesh N V**
	Mobile No.	**8073237035**
	Email ID	**rajesh@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Prof. Ambika G N**
	Designation	**Assistant Professor, CSE**
	Mobile Number	**9902323632**
	Name	**Prof Chethana C**
	Designation	**Assistant Professor, CSE**
	Mobile Number	**9880745545**
	Name	**Prof Rajesh N V**
	Designation	**Assistant Professor, CSE**
	Mobile Number	**8073237035**
External Resource Person Details (Please use additional	Name	**Mrs. Shwetha**
	Designation	**Senior Software Engineer**
	Company/Organization	**HPE, Bangalore**
	Mobile Number/email-id	**9535208300**
	Name	**Dr. Pradeep**
	Designation	**Professor and Placement officer**
	Company/Organization	**SVIT**
	Mobile Number/email-id	**9900100486**
	Name	**Mr. Rajesh**
	Designation	**Dept of Instrumentation and Engineering**
	Company/Organization	**MSRIT**
	Mobile Number/email-id	**9535066843**
	Name	**Mrs. Swathi**
	Designation	**Senior Analyst**
	Company/Organization	**TCS**
	Mobile Number/email-id	**8553491936**

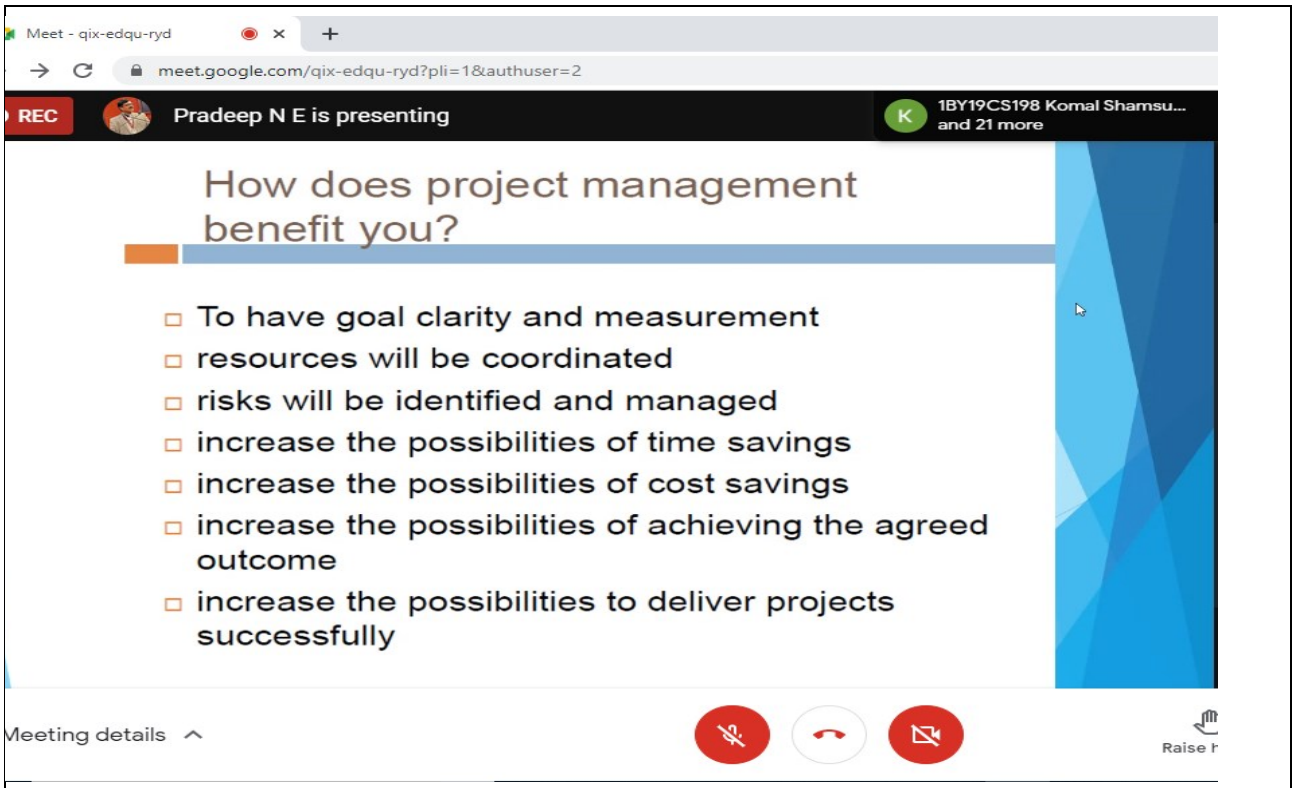
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**Gap found in PO-11 in the curriculum hence the project management and finance course will fill the gap**
Abstract	**Project Management and Finance (PMF)** is an iterative approach to planning and guiding project processes. The main benefit of Project Management is its ability to respond to issues as they arise throughout the course of the project. Making a necessary change to a project at the right time can save resources and, ultimately, help deliver a successful project on time and within budget. Project methodology breaks down projects into small pieces that are completed in work sessions that run from the design phase to testing and quality assurance (QA). These sessions are often called sprints, the term for iteration used in one specific and popular agile development method known as Scrum.

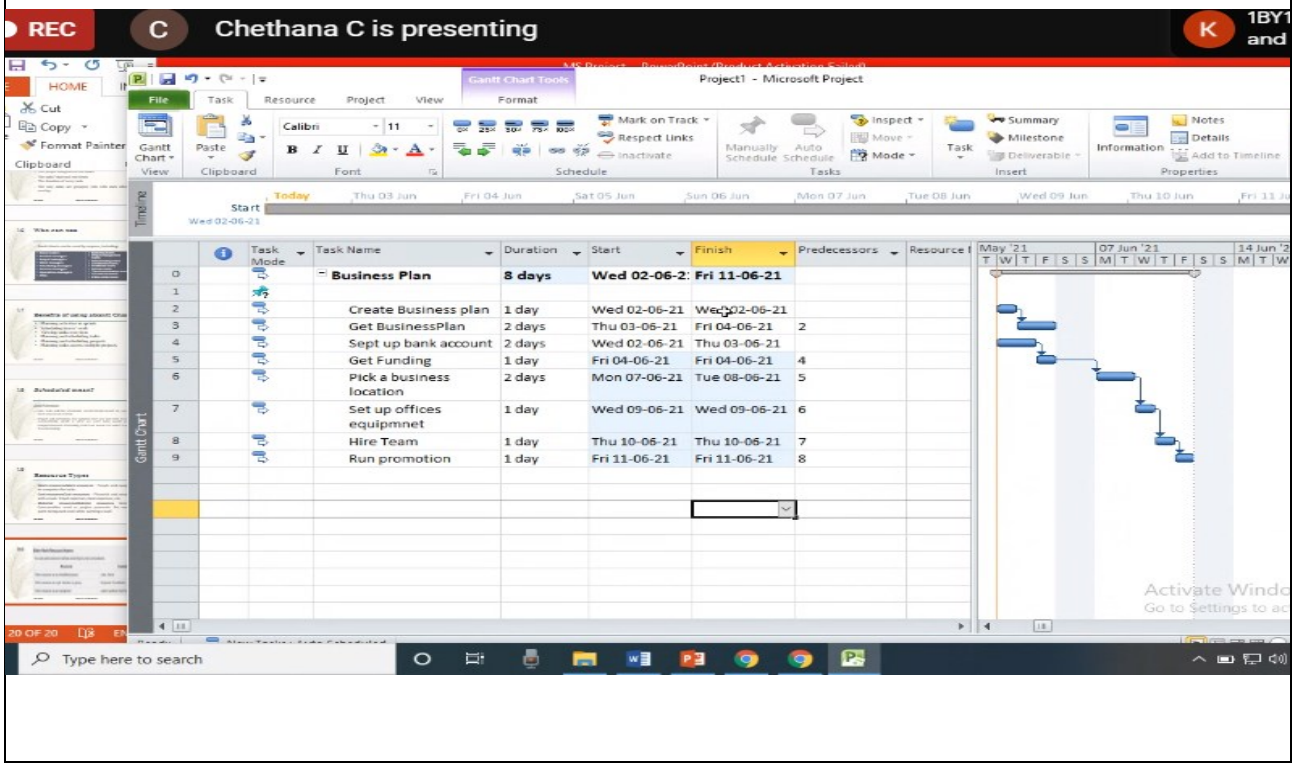
Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021





CO-PO Mapping for open course of "Project and Finance Management"	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1: Understand the principles of project management.											*	
CO2:Apply continuous planning, collaboration and transparency techniques											*	
CO3: Develop the projects which include planning, management and controlling.					*						*	*
CO4:Define the benefits of using an Agile approach to managing projects						*					*	*
CO5:Enable teams to maximise value delivered, and ensure customer and stakeholder satisfaction						*					*	
CO6:Contribute to creating an Agile culture												*

Open Course Outcomes Of "**PROJECT AND FINANCE MANAGEMENT**"		
	CO-1	**Understand the principles of project management.**
	CO-2	**Apply continuous planning, collaboration and transparency techniques**
	CO-3	**Develop the projects which include planning, management and controlling.**
	CO-4	**Define the benefits of using an Agile approach to managing projects**
	CO-5	**Enable teams to maximize value delivered, and ensure customer and stakeholder satisfaction**
	CO-6	**Contribute to create an agile culture**

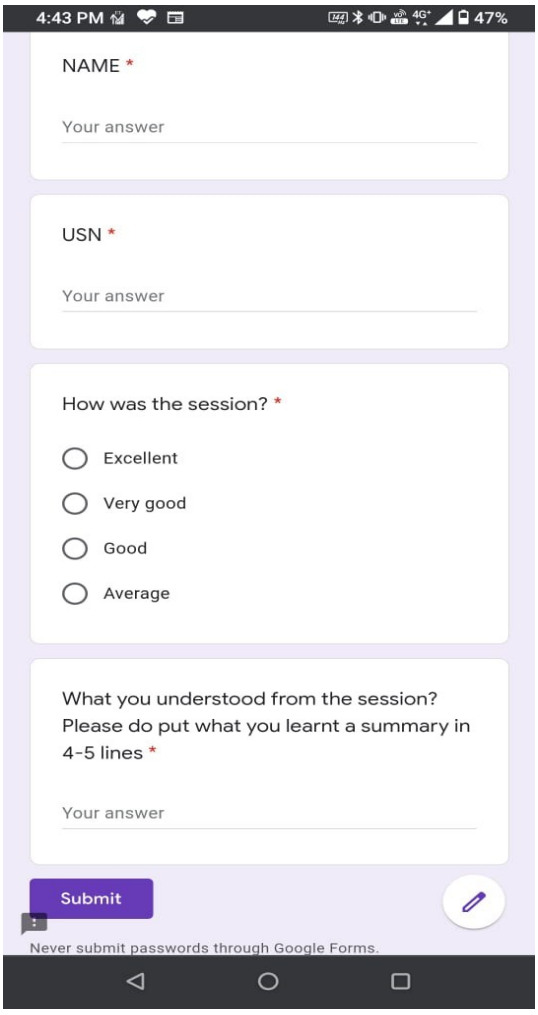
Feedback from external expert:
1. Well organized and students were very interactive
2. Thanks for this wonder full opportunity

Feedback (critical) from students:
1. The session was a little specific to CSE.
2. The first day the session was too general

Feedback from External participants (if any): NIL

Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1. Next time the course should even be specific to other branches.
2. Some of the concepts were CSE oriented.

Sample course feedback form



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

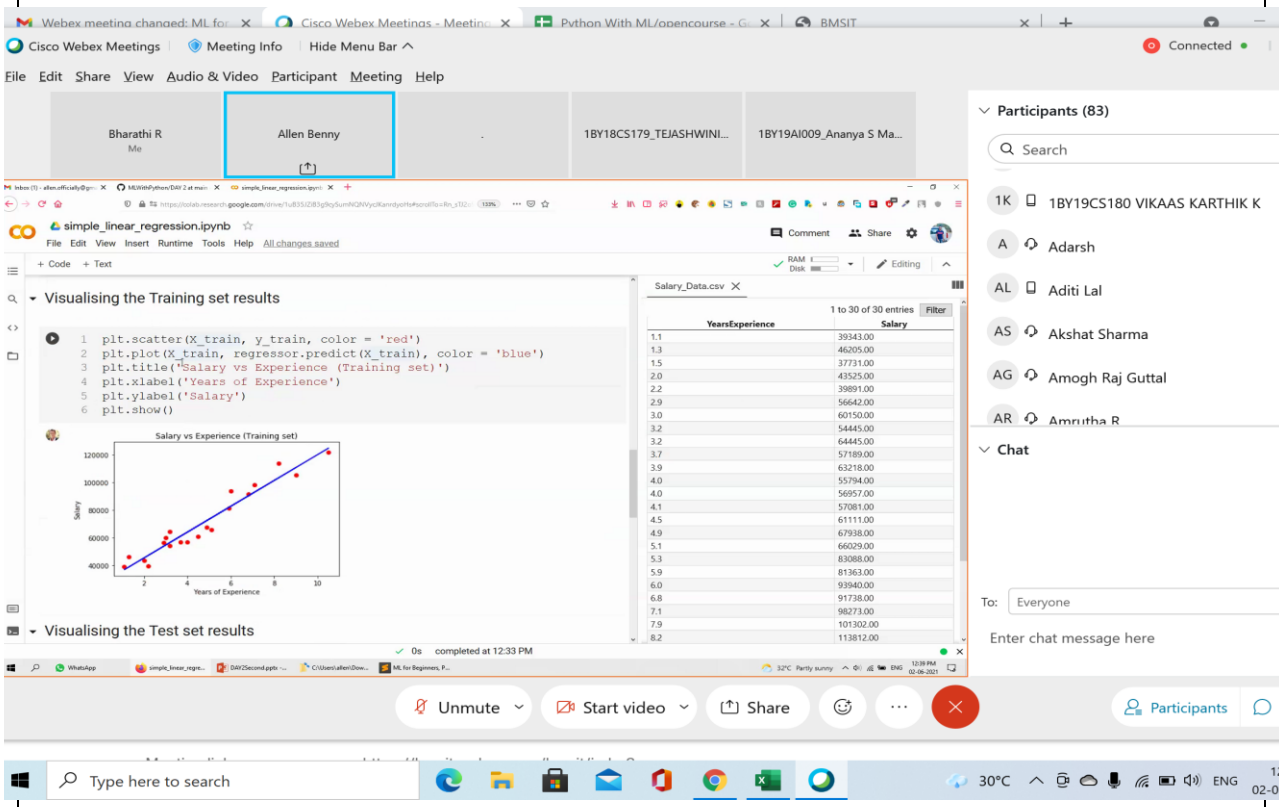
Department: COMPUTER SCIENCE AND ENGINEERING		
Title of the Open Course		**Python With Machine Learning**
Targeted Students from Branches		**CSE, ISE, ECE, ETE, AI&ML, EEE**
Registration Fee		**Rs. 200**
No. of students attended		**60 +60**
Software/Hardware Tools used		**Google Colab, Python IDLE, Jupyter Notebook**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT, hands on by sharing programs on Google Drive. and Links to datasets.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. HemaMalini B H**
	Mobile No.	**7204844628**
	Email ID	**bhhemaraj@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. HemaMalini B H**
	Designation	**Associate Professor**
	Mobile Number	**7204844628**
	Name	**Mr. Allen Benny**
	Designation	**BMSIT Student, Free lancer, Web Developer**
	Mobile Number	**72908 37260, allen.officially@gmail.com**
	Name	**Mr. Aritra Paul, aritra1.paul@gmail.com**
	Designation	**BMSIT Student, Free lancer, Data Scientist**
	Mobile Number	**89682 93922, Aritra1.paul@gmail.com**
	Name	**Mr. Sandeep Kumar**
	Designation	**BMSIT Student, Free lancer, Web Developer**
	Mobile Number	**91355 66028, sandy2864.py@gmail.com**
External Resource Person Details	Name	**Mr. Manoj Kumar**
	Designation	**Data Scientist**
	Company/Organization	**Ex Walmart, Ex-Rolls Royce**
	Mobile Number/email-id	**98449 33228, manhojkummar@gmail.com**
	Name	**Mr. Bhargav Sagiraju**
	Designation	**Data Scientist,**
	Company/Organization	**Money View**
	Mobile Number/email-id	**88610 48971, bhargavsagiraju@gmail.com**
	Name	**Ms. Arundhati Shanbhag**

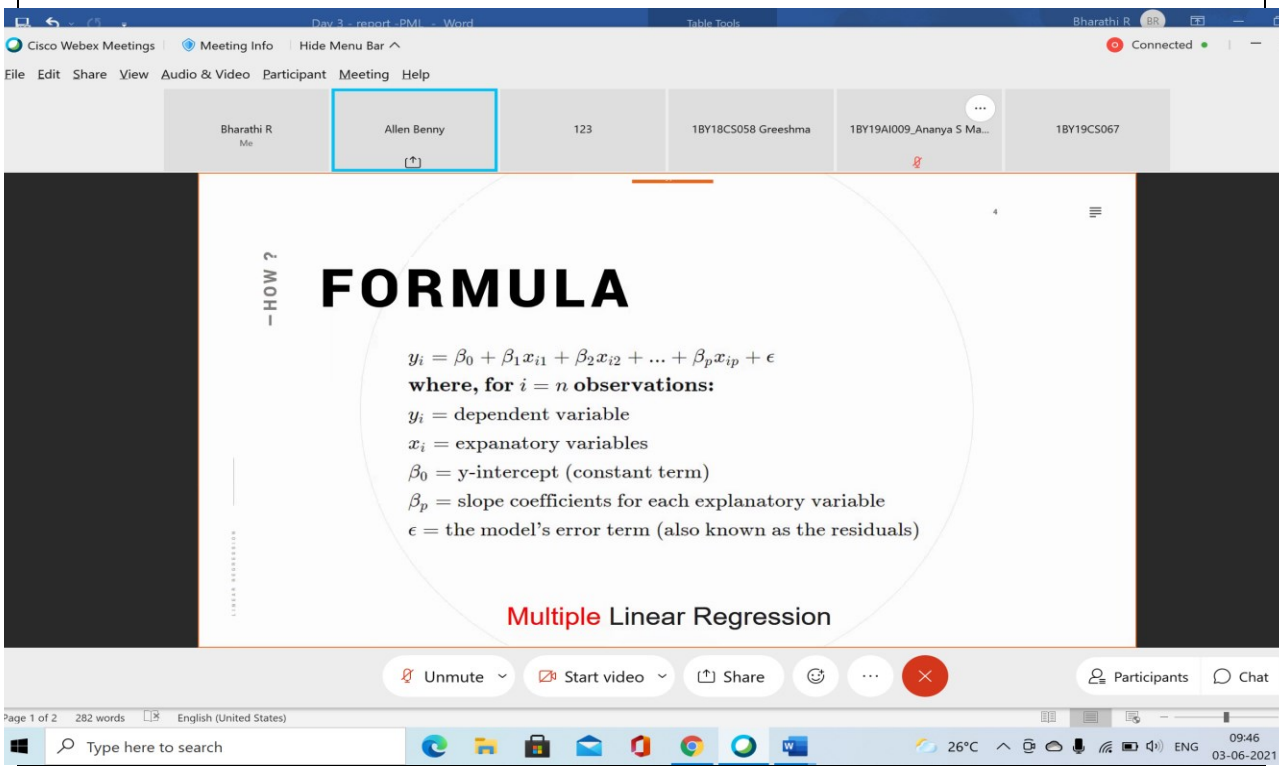
	Designation	**Data Scientist**
	Company/Organization	**AI Enterprise Software Pvt. Ltd**
	Mobile Number/email-id	**89515 36800, arus2396@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO6-PO12 not met** **This open course helps to bridge these gaps**	
Abstract	In this open course the participants dive into the basics of machine learning using Python, an approachable and well-known programming language. The sessions talk about supervised vs. unsupervised learning, look into how statistical modeling relates to machine learning, and do a comparison of each. The sessions also introduced Open CV, use of Open CV in Machine Learning, training and testing the models, the recommendation systems, Ethical hacking, the use of ML in Walmart, Rolls Royce etc.	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Photograph of the event:





Open Course Outcomes Of "**Python With Machine Learning**"	**CO-1**	**Discuss the basic concepts of machine learning.**
	CO-2	**Illustrate concept learning, ID3, ANN, Bayes classifier, k nearest neighbor,**
	CO-3	**Analyze the given data using Machine learning techniques.**
	CO-4	**Devise a solution for complex problems using Machine learning techniques.**
	CO-5	**Develop a code using any suitable language for a real time application**

CO-PO Mapping for open course of "Python with Machine Learning"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	3												
CO2		3											
CO3			3										
CO4				3									
CO5					3			3	3				3

Feedback from external expert:
1. It was a great experience and we learned a lot too along the way, everything was beautifully organised and the whole process was very systematic.
2. It was a great experience the faculty members were very supportive and conducted the sessions in a systematic manner.
3. It was a really good experience, throughout the session Bharathi ma'am and Hema Malini ma'am both were very supportive.

Feedback (critical) from students: -NIL-

Feedback from External participants (if any): NIL

Corrective methods/suggestions to consider while conducting open course next time (at least two points) – NIL –

OPEN COURSE 2020-2021 (EVEN SEM)

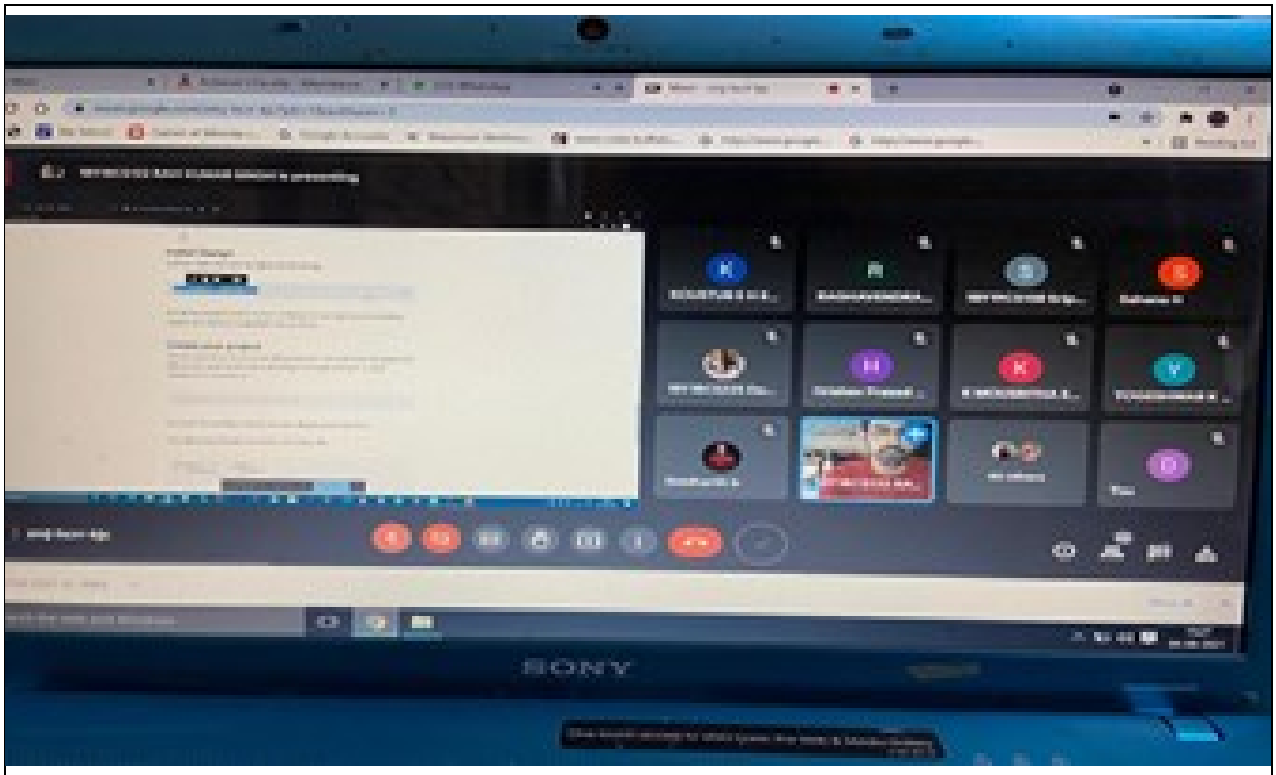
June 1-5, 2021

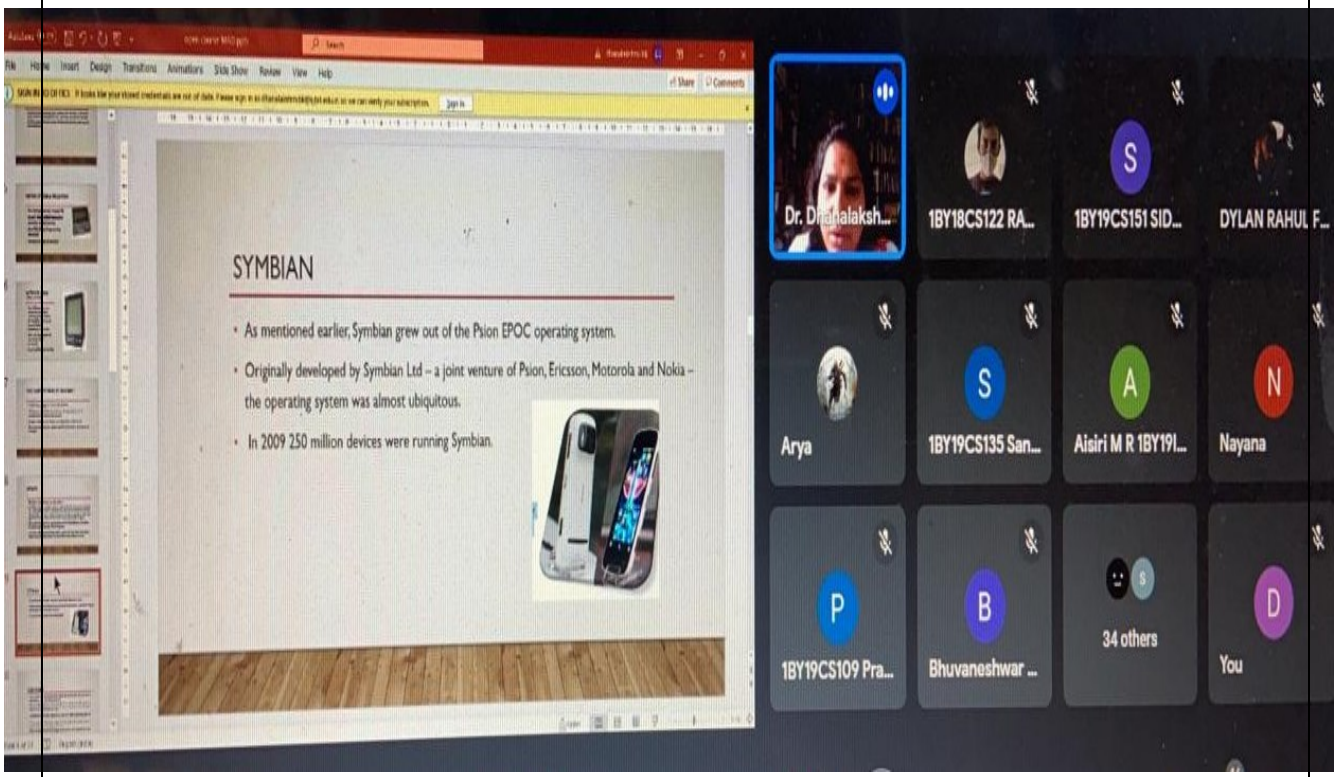
Department: Computer Science and Engg		
Title of the Open Course		**Web Full stack Development**
Targeted Students from Branches		**ECE, EEE, CSE, ISE**
Registration Fee		**Rs.250 and Rs.350 for Outside BMSIT**
No. of students attended		**24**
Software/Hardware Tools used		**Atom Text Editor, VS Code, Python**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, chalk and talk, Project**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Daily Assignments**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Sunanda Dixit**
	Mobile No.	**+91 83105 29894**
	Email ID	**sunandadixit_cse@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Sunanda Dixit**
	Designation	**Associate Professor**
	Mobile Number	**+91 83105 29894**
	Name	**Dr. Dhanalakshmi B K**
	Designation	**Assistant Professor**
	Mobile Number	**9632744662**
External Resource Person Details (Please use additional	Name	**Ayush Seth**
	Designation	**Frontend Developer**
	Company/Organization	**Styx**
	Mobile Number/email-id	**9793855446, littlebitbot@gmail.com**
	Name	**Ravi Kumar Singh**
	Designation	**Full Stack Developer**
	Company/Organization	**Styx**
	Mobile Number/email-id	**8335978244 , ravikrsngh1999@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**1. New project development underlying web principles is shortfall 2. The Front end development and Back end development together with Django are missing. 3. Design and Develop Android application by setting up Android development environment.**	

Abstract (Brief Details of the open course with less than 250 words)	In the digital realm, a website is an essential element for businesses, irrespective of their size and type. It helps them increase their brand presence via the Internet breaking the geographical boundaries. A professional website design itself can be used to attain various marketing strategies in order to help your business surge. Thoughtfully created website designs have a far outspread reach than any other form of marketing tools. A professional web design arouses the curiosity of the visitors to dive in further. Web design is about deciding on a lot of elements such as the layout, graphics, colors, fonts, structure, content, text styles, interactive features, imagery, interface, standardized code, etc. It involves a wide range of skills and disciplines This 5-days course will mainly focus on forming basics of web development and deployment, which will cover all aspects frontend, backend and deployment to the server. The main focus of the course is the new technology used in industries called Django which is a framework for web development using python. Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. One of the session is on Mobile application development. It is the process to making software for smartphones and digital assistants, most commonly for Android and iOS. The software can be preinstalled on the device, downloaded from a mobile app store or accessed through a mobile web browser. Design and Develop Android application by setting up Android development environment.
Photograph of the event:	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021





OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Open Course Outcomes Of "**Web Full stack Development**"	**CO-1**	**Illustrate the Semantic Structure of HTML and CSS**
	CO-2	**Compose forms and Tables using HTML and CSS**
	CO-3	**Building Backend Using Django**
	CO-4	**Develop Mobile App Development**

CO-PO Mapping for open course of "Web Full stack Development"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	x			x		x			x				
CO2	x			x							x	x	
CO3	x			x		x			x		x		
CO4	x			x	x				x		x		

Feedback from external expert:

1. Conducting Open Course is useful to all branches is a very good initiative. Its good to deliver lectures along with hands-on.
2. Participants are very curious and showing lot of interest. It's a good experience to share the knowledge.

Feedback (critical) from students:

1. It was wonderful sessions. Both the resource persons Mr. Ayush and Mr. Ravi did a great job in teaching us. They did excellent work in making us understand concepts, clearing all of our doubts. They presenting was so good that even we were ready to ready extra sessions beyond time limit. It's been very useful effective sessions. Thank you.
2. These sessions were very interesting. The resource persons dedication level & knowledge about the topic is incredible. Thank you so much.

Feedback from External participants (if any):

1. Amazingly informative...
2. It's a useful session where we don't have the background of Web development could able to learn from scratch.

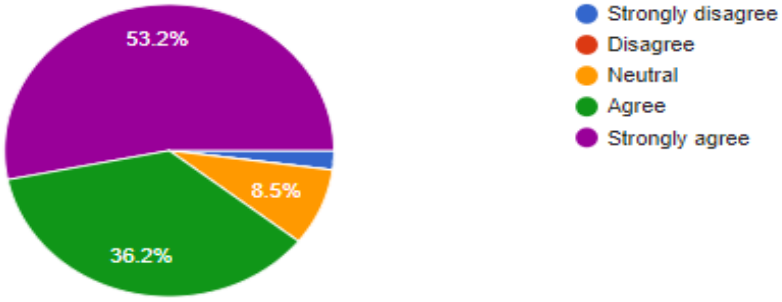
Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. More time to be allotted than it was allotted this time.

Sample course feedback form

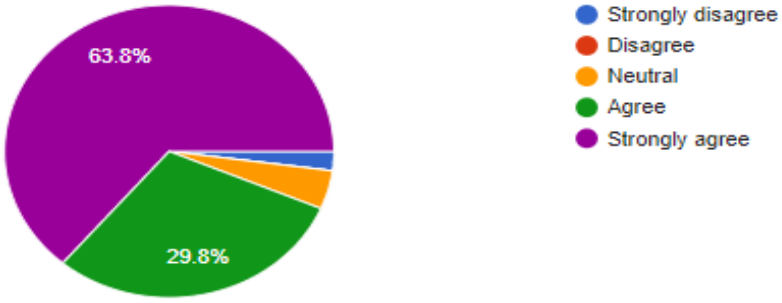
The instructor effectively explained and illustrated course concepts

47 responses



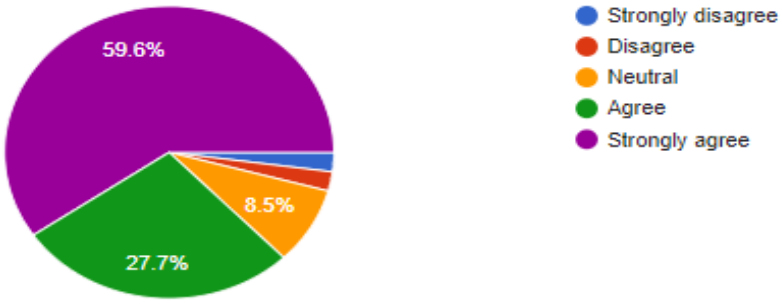
The instructor encouraged student participation in class

47 responses



The instructor communicated clearly and was easy to understand

47 responses



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

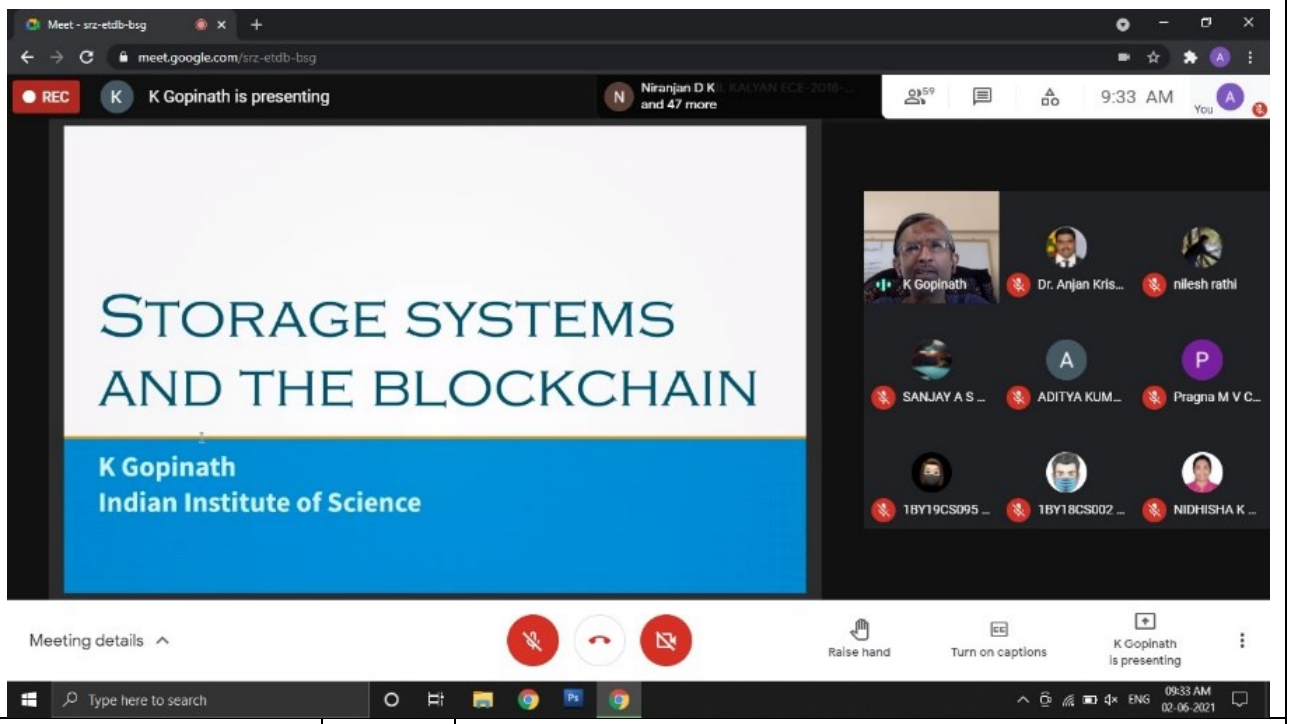
Department: **Computer Science and Engineering.**		
Title of the Open Course		**Cyber Security – Challenges and Solutions**
Targeted Students from Branches		**All**
Registration Fee		**200**
No. of students attended		**60**
Software/Hardware Tools used		**Software**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quizzes**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Anjan Krishnamurthy.**
	Mobile No.	**9731317861**
	Email ID	**anjank-cse@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Arun Kumar B R**
	Designation	**Professor**
	Mobile Number	**9886008210**
	Name	**Dr. Anjan Krishnamurthy.**
	Designation	**Associate Professor and PG Coordinator**
	Mobile Number	**9731317861**
	Name	**Prof. Durga Devi G Y**
	Designation	**Assistant Professor**
	Mobile Number	**9480613001**
	Name	**Prof. Shivakumara T**
	Designation	**Assistant Professor**
	Mobile Number	**9060900986**
External Resource Person Details (Please use additional	Name	**Ms. Nalini Kanan**
	Designation	**Senior Technical Architect**
	Company/Organization	**IBM ISL**
	Mobile Number/email-id	**+91-98808-42087**
	Name	**Mr. Parameswaran Selvam**
	Designation	**Blockchain Technology Specialist**
	Company/Organization	**IBM India Ltd.,**
	Mobile Number/email-id	**parselva@in.ibm.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**M.Tech CSE, Curriculars Gaps was observed in PO1, PO3 as per the discussed held in the PAC meeting on 21st May 2021. Curricular Gaps were seen in PO6-12 in the UG program.**	

Abstract	Cyber Security plays an important role in the field of information technology .Securing the information have become one of the biggest challenges in the present day. When ever we think about the cyber security the first thing that comes to our mind is 'cyber crimes' which are increasing immensely day by day. Various Governments and companies are taking many measures in order to prevent these cyber crimes. Besides various measures cyber security is still a very big concern to many. This course mainly focuses on challenges faced by cyber security on the latest technologies .It also focuses on latest about the cyber security techniques, ethics and the trends changing the face of cyber security. Blockchain is a technology that is developed using a combination of various techniques such as mathematics, algorithms, cryptography, economic models, and so on. Blockchain is a public ledger of all cryptocurrency transactions that are digitized and decentralized. All the transactions of cryptocurrencies are stored in chronological order to help users in tracking the transactions without maintaining any central record of the transactions. This course will discuss the security and privacy of the blockchain along with their impact with regards to different trends and applications. The chapter is intended to discuss key security attacks and the enhancements that will help develop a better blockchain systems.

Photograph of the event:

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



Open Course Outcomes Of "***Cyber Security - Challenges and Solutions***"	**CO-1**	Utilize the different cryptographic techniques for the real time applications.
	CO-2	Apply cybersecurity principles to protect cognitive computing
	CO-3	Assess the pros and cons of security through obscurity for society applications
	CO-4	Develop a lifelong learning plan for potential careers in cognitive security

CO-UG PO Mapping for open course of "*Cyber Security - Challenges and Solutions*"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1					X	X		X				X	
CO2				X	X	X		X				X	
CO3			X			X		X				X	
CO4				X	X	X		X	X			X	

CO-PG PO Mapping for open course of "*Cyber Security - Challenges and Solutions*"

COs	PO1	PO2	PO3	PO4	PO5	PO6
CO1:Utilize the different cognitive cryptographic techniques for the real life applications	X	X				
CO2:Apply cybersecurity principles to protect digital infrastructures			X			
CO3: Assess the pros and cons of security through obscurity for society applications				X		
CO4:Develop a lifelong learning plan for potential careers in cyber security						X

Feedback from external expert:

1. The session are interactive with good spontaneous response.
2. Appreciated the initiatives to bridge the gap between industry and academia.

Feedback (critical) from students:

1. Students have appreciated the session and have given very good rating.
2. Students have expressed the technological coverage was good with practical hands on experience.

Feedback from External participants (if any):

1. Nil
2.

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

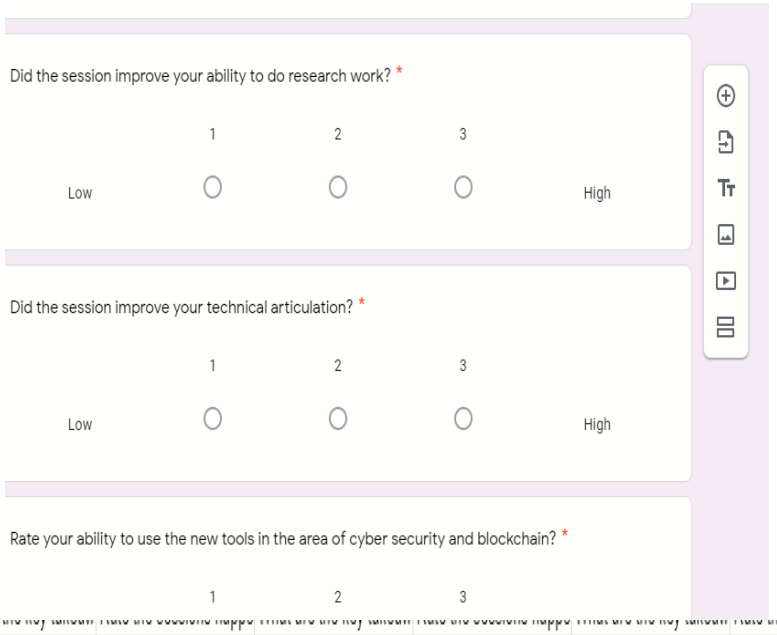
1. To start the process at least 15 days prior to the commencement of the open course.
2. To have single source format where the data can be upload in a time bound manner.

Sample course feedback form

(attach filled feedback form in bmp/png.jpg format, submitted by a participant)

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



2	4	Introduction to cybersecu	4	Cybersecurity tools	5	Data privacy	5	Blockchain technology
3	5	Grt subject and acquired	5	Grt subject and acquired	5	Grt subject and acquired	5	Grt subject and acquired
4	5	I got to know about hacki	5	I got knowledge about bl	5	Enhanced new technique	5	Got to know about crypto
5	4		4		4		5	
6	5	Cybersecurity attacks	5	Cognitive security	5	Network security	5	Blockchain and its applic

OPEN COURSE 2020-2021 (EVEN SEM)

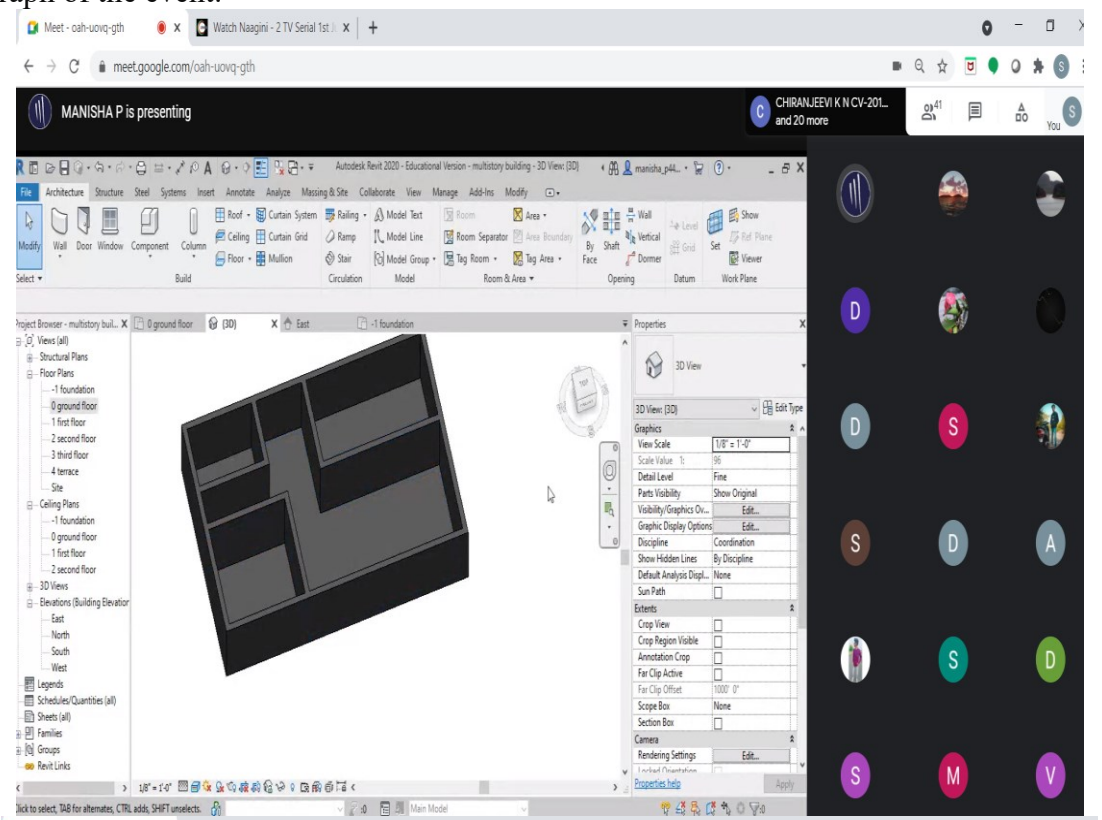
June 1-5, 2021

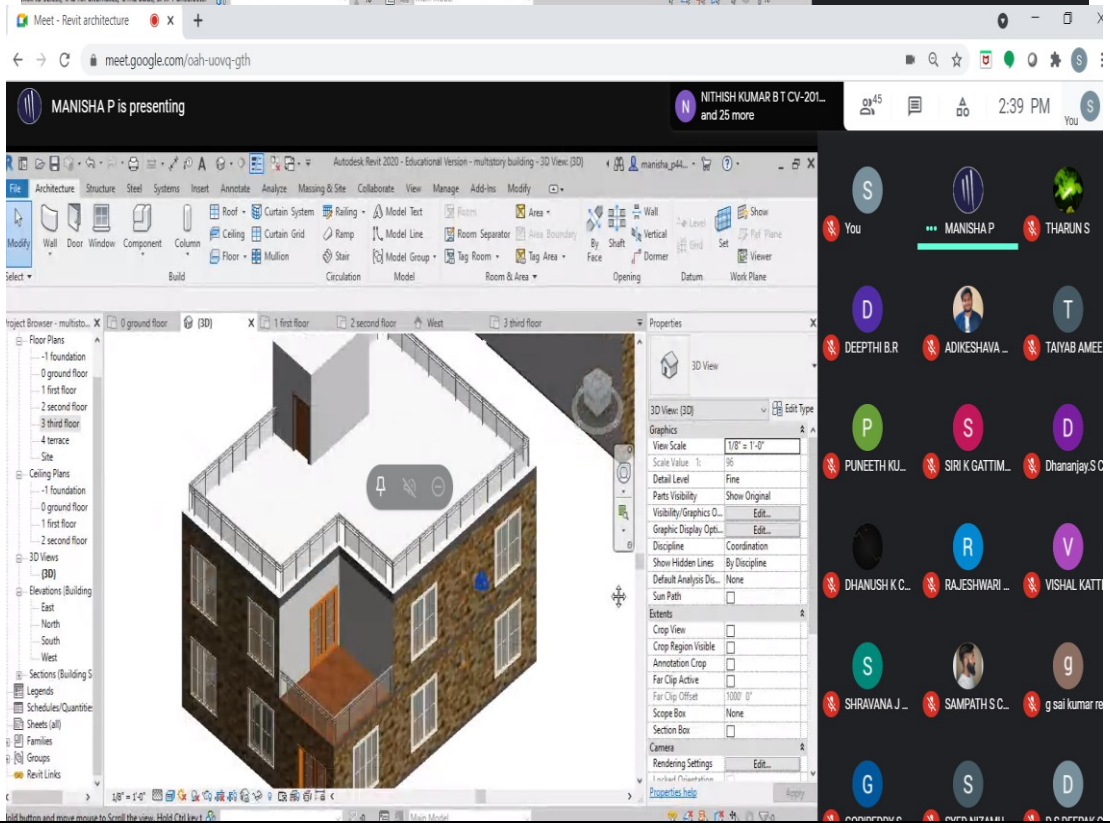
Department: **Civil Engineering**		
Title of the Open Course		**Revit Architecture for Beginners**
Targeted Students from Branches		**Civil, Mechanical, Electrical**
Registration Fee		**Rs.600/-**
No. of students attended		**60**
Software/Hardware Tools used		**Revit Architecture**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**Live online**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Mr. Vinod B R**
	Mobile No.	**9060179977**
	Email ID	**vinobr@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Mrs. Shobha R**
	Designation	**Assistance Professor**
	Mobile Number	**9901333533**
	Name	**Mr. Vinod B R**
	Designation	**Assistance Professor**
	Mobile Number	**9060179977**
External Resource Person Details (Please use additional	Name	**Mr. Pradeep Kallur**
	Designation	**Managing Director**
	Company/Organization	**Medini**
	Mobile Number/email-id	**990081006/ www.medini .in**
	Name	**Ms.Manisha and Mr.Mohan Prabhu**
	Designation	**Engineering**
	Company/Organization	**Medini**
	Mobile Number/email-id	**990081006/ www.medini.in**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.** **PSO: Provide solutions related to civil engineering built environment through multidisciplinary approach.**	
Abstract	**The most advanced technology the world is looking for in civil industry is BIM. The basic tool of BIM is AutoCAD & Revit Architecture, which includes many of the tools which have advanced applications. Each and every private organization is using these tools, not only private even the Indian government is looking forward to make this as mandate for construction.**	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Photograph of the event:





Open Course Outcomes Of "Revit Architecture for Beginners"	CO-1	Describe building information modelling methodology and its benefits
	CO-2	Use different parts of the Revit Architecture user interface and work with different types of architectural elements and families.
	CO-3	Use the different views listed in the Project Browser, control the visibility and graphical.
	CO-4	Representation of objects in architecture model, and work with elevation, section, and 3D views.
	CO-5	Set up a project and transfer standards between projects, add and modify levels in project model, create and modify grids.

CO-PO Mapping for open course of "Revit Architecture for Beginners"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1					✓					✓		✓	
CO2					✓					✓		✓	
CO3					✓					✓		✓	
CO4					✓					✓		✓	
CO5					✓					✓		✓	

Feedback from external expert:
1. Interested in conducting more of these trainings.

Feedback (critical) from students:
1. This open course was informative and covered all the basic concepts of Revit Architecture. It went smooth. And it was highly required especially for the civil engineering students. Everything was done properly and just the time given wasn't enough. Overall i m satisfied with the course and thankful to the teaching staff for conveying the information nicely and listening properly to the queries of student also.

Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1. Need more time

Sample course feedback form

USN *

1by19cv007

Add individual feedback

Email *

1by19cv007@bmsit.in

Add individual feedback

Phone Number *

9380781731

Add individual feedback

1.1: Questionnaire based on Activity/Topic for Feedback on Relevance.

Your first question? *

	a. Strongly agree	b. Moderately agree	c. Slightly agree	Score
1. Is this topic of relevance in the present curriculum ?	◉	○	○	/ 0
2. Do you feel that this work must be included in your curriculum?	◉	○	○	/ 0
4. Has the activity adequately improved your understanding of your concept?	◉	○	○	/ 0

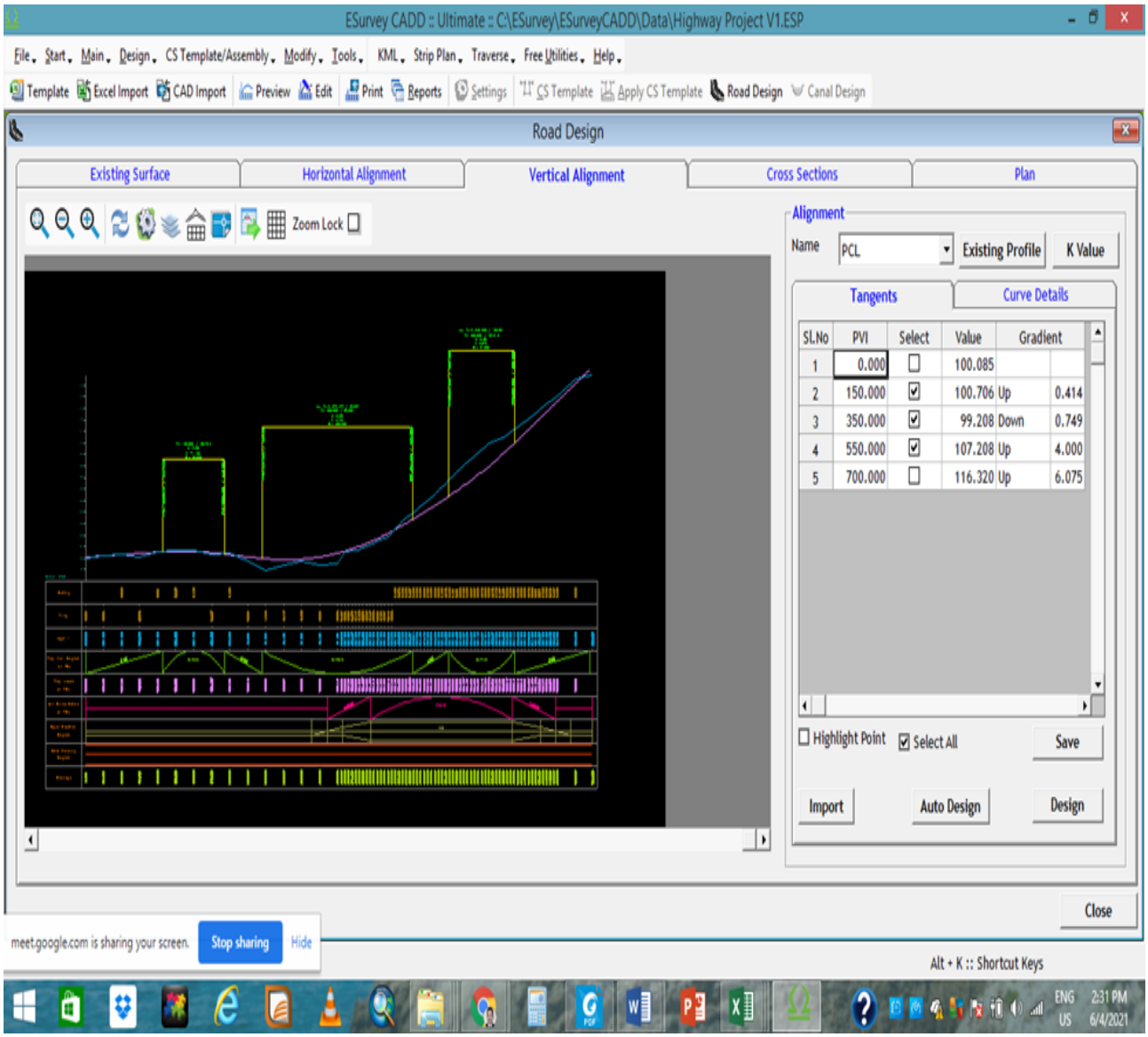
OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Department: Department of Civil Engineering		
Title of the Open Course		**Advanced Surveying using Total Station, ESurveying Software and Drone**
Targeted Students from Branches		**Civil and other Branches**
Registration Fee		**340**
No. of students attended		**68**
Software/Hardware Tools used		**ESurveying Software**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, Project, Chalk**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr Chandrashekharappa Agasnalli**
	Mobile No.	**8105515564**
	Email ID	
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr Chandrashekharappa Agasnalli**
	Designation	**Assistant Professor**
	Mobile Number	**8105515564**
	Name	**Dr Anupkumar G Ekbote**
	Designation	**Assistant Professor**
	Mobile Number	**9591431809**
External Resource Person Details (Please use additional	Name	**Mr. Murali Babu**
	Designation	**Vice President**
	Company/Organization	**ESurveying Softech**
	Mobile Number/email-id	**9738557731, murali@esurveying.net**
	Name	**Mr. Sanjay**
	Designation	**Engineer**
		ESurveying Softech
	Mobile Number/email-id	**7676178768, sanjay@esurveying.net**
	Name	**Mr. Raghavendra**
	Designation	**Surveyor**
	Company/Organization	**ESurveying Softech**
	Name	**Dr. Gulshan Taj**
	Designation	**Associate Professor**
	Company/Organization	**Sona College of Technology, Salem**
	Mobile Number/email-id	**drgulshaniit@gmail.com**

Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	Identified Latest technology which are useful for current market business strategy
Abstract	E-Surveying software will help to process the Extensive survey data especially Restoration Project, New Proposed Project, High ways and Tunnel project and Water supply and Town planning projects. Data will collect from ground survey and data processing will be done through this ESurveying software. The drawing and design will prepare with these data. With a drone, surveyors can capture many more topographic data points, hence more accurate volume measurements. They can also do this in a much safer way than if they had to manually capture the data by going up and down a stockpile. Students will be able to learn advanced software's to process extensive survey project and drone survey data.

Photograph of the event:



Open Course Outcomes Of "**Advanced Surveying using Total Station, ESurveying Software and Drone**"	**CO-1**	Identify the existing survey methodologies to address efficient techniques of e-surveying
	CO-2	Able to understand possibilities of advanced surveying methods
	CO-3	Understanding the computer based techniques of surveying
	CO-4	To obtain geo-spatial data and analysis to engineering problems
	CO-5	Process the geodetic data and perform analysis with use of advanced instruments

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

CO-PO Mapping for open course of "Advanced Surveying using Total Station, ESurveying Software and Drone"

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1					3							3	3	
2			3		3	3						3	3	
3					3					3		3		
4	3	3			3						3	3	3	
5		3	3		3						3	3		

Feedback from external expert:

1. Excellent
2. Excellent

Feedback (critical) from students:

1. Satisfactory
2. Satisfactory

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Satisfactory
2. Satisfactory

OPEN COURSE 2020-2021 (EVEN SEM)

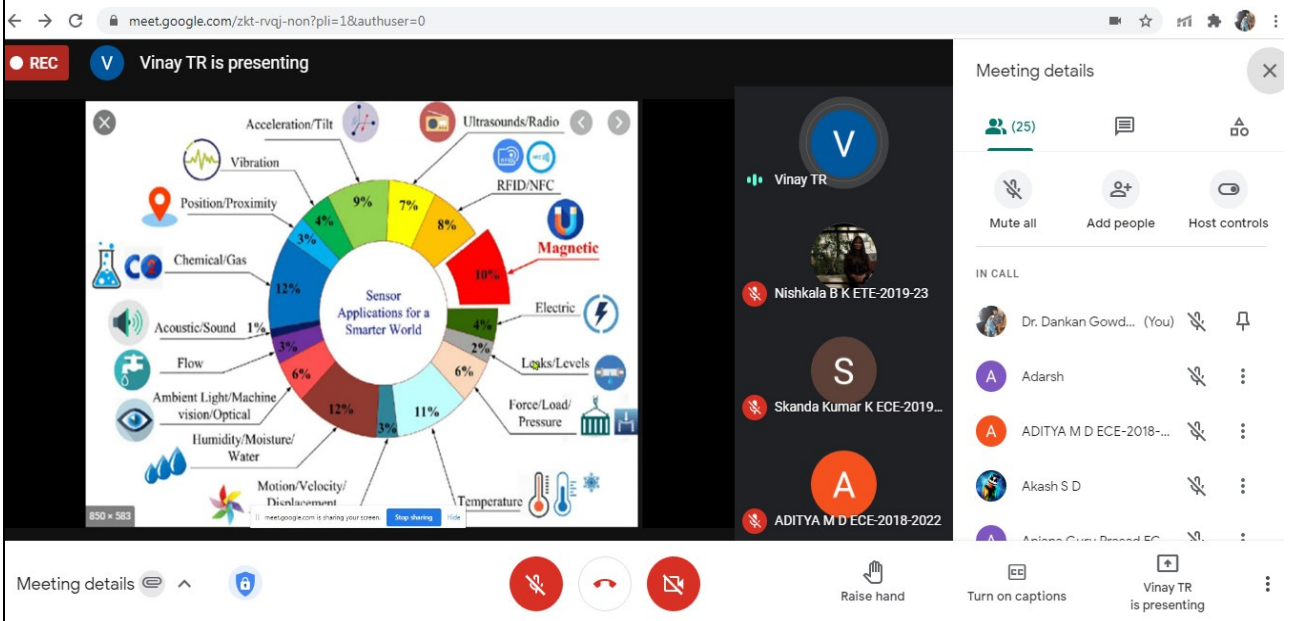
June 1-5, 2021

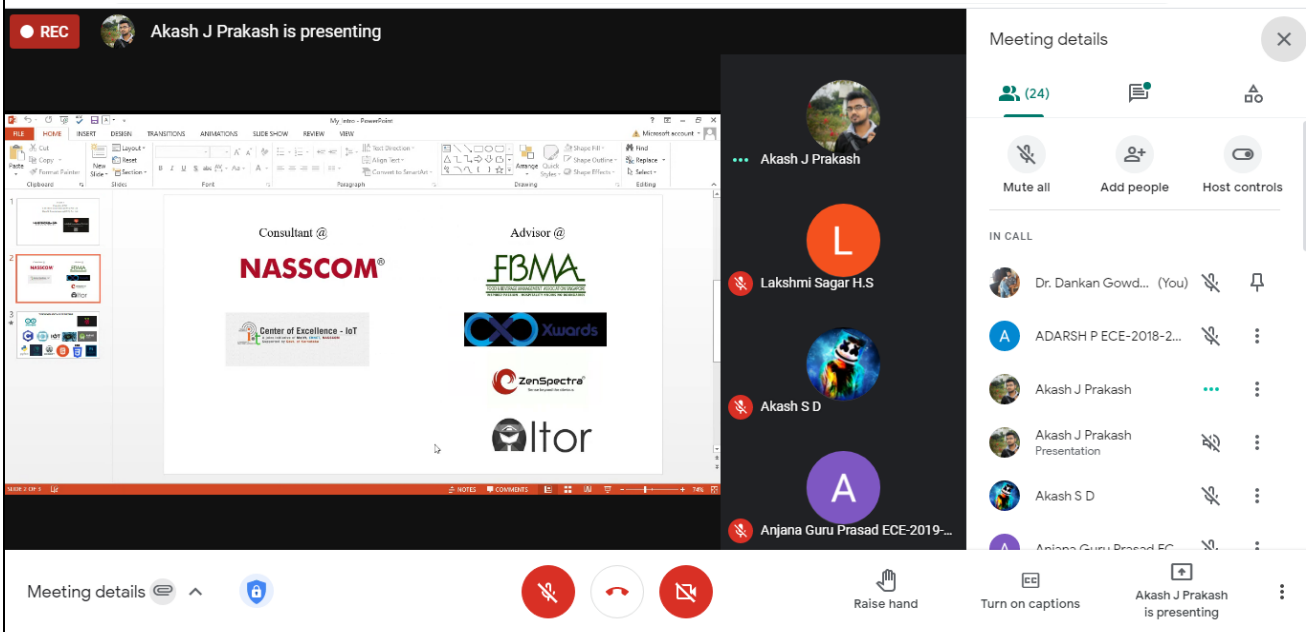
Department: DEPARTMENT OF ELECTRONICS AND COMMUNICATION		
Title of the Open Course		**FUNDAMENTALS OF IOT AND CIRCUIT SIMULATION**
Targeted Students from Branches		**Circuit Branches ECE/ETE/EEE/CSE/ISE**
Registration Fee		**200/-**
No. of students attended		**30**
Software/Hardware Tools used		**Tinker CAD, Node MCU, Thing Speak**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT presentation, Simulation, Mini Projects, Hardware with live demo and video.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz.**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Dankan Gowda V**
	Mobile No.	**9844554940**
	Email ID	**dankan.v@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Dankan Gowda V**
	Designation	**Assistant Professor**
	Mobile Number	**9844554940**
	Name	**Prof. Lakshmisagar H S**
	Designation	**Assistant Professor**
	Mobile Number	**+91 81230 08252**
External Resource Person Details (Please use additional	Name	**Mr. Manju J R**
	Designation	**Professional IoT Trainer**
	Company/Organization	**Siemens centre of Excellence in Manufacturing deputed to NIT Trichi**
	Mobile Number/email-id	**+91 94486 42127**
	Name	**Dr. VADDI NAGA PADMA PRASUNA**
	Designation	**Associate Professor**
	Company/Organization	**ATRIA Institute of Technology**
	Mobile Number/email-id	**+91 98805 98093**
	Name	**Mr. Chethan**
	Designation	**IoT Trainer, COE-IOT**
	Company/Organization	**DASSAULT SYSTEM, Deputed to NMIT.**
	Mobile Number/email-id	**+91 84978 71319**
	Name	**Mr.Akash J**
	Designation	**Founder**

	Company/Organization	**Life Bolt Innovation Pvt. Ltd**
	Mobile Number/email-id	**+91 8861848898**
	Name	**Mr. Sandeep Singh**
	Designation	**Senior Project Manager**
	Company/Organization	**Electropro Pvt. Ltd**
	Mobile Number/email-id	**+91 74060 50506**
	Name	**Dr. Mohan B A**
	Designation	**Associate Professor**
	Company/Organization	**IoT Trainer, IOT COE, NMIT**
	Mobile Number/email-id	**+91 96329 12432**
	Name	**Dr. M Nagbushanam**
	Designation	**Assistant Professor**
	Company/Organization	**MSRIT**
	Mobile Number/email-id	**+91 9739566766**
	Name	**Prof. Vinay T R**
	Designation	**Assistant Professor**
	Company/Organization	**NMIT**
	Mobile Number/email-id	**+91 9886845587**
	Name	**Prof. Vinay Kumar B C**
	Designation	**Assistant Professor**
	Company/Organization	**SKIT**
	Mobile Number/email-id	**+919742290659**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	PO3,PO5,PO9.PO10 and PO12	
Abstract (Brief Details of the open course with less than 250 words)	The explosive growth of the —Internet of Things is changing the current trends in the world and the rapid drop in price for typical IoT components is allowing people to innovate new designs and products. In this course, students will learn the importance of IoT in society, the current components of typical IoT devices and trends for the future. IoT design considerations, constraints and interfacing between the physical world and your device will also be covered. Addition, students will also learn how to make design trade-offs between hardware and software. This course will also cover key components of networking to ensure that students understand how to connect their device to the Internet. So this online course has been organized in order to provide the students a platform to learn the fundamental concepts of IoT, the software's used to establish the communication between the devices and the various IoT protocols used and its importance. **Prerequisites:** Students must have basic knowledge on microcontrollers and embedded C programming. The students will	

	be requiring to participating actively in creative thinking exercises and be willing to be innovative. Participate in open discussions is a must.

Photograph of the event:





OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Open Course Outcomes Of "**FUNDAMENTALS OF IOT AND CIRCUIT SIMULATION**"	**CO-1**	Demonstrate the fundamental concepts of the Internet of Things and its applications and architecture models.
	CO-2	Design the real time applications using Arduino Controller and Sensors
	CO-3	Apply the python programming concepts to create connection with the hardware devices for IoTs.
	CO-4	Illustrate the features of IoT Communication Protocols and Need for Security issues in the IoT applications
	CO-5	Develop an IoT system having a simple three-layer web application

CO-PO Mapping for open course of "Fundamentals of IoT and Circuit Simulation"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1													3	
CO2	3												3	3
CO3		3											3	
CO4			3		3							3	3	
CO5						3			3	3			3	

Feedback from external expert:

1.

Respected Dr. Dankan Gowda sir,

I am happy being part of the Open Course on **"Fundamentals of IOT and Circuit Simulation"** course as a Resource Person.

Very impressive and active participation by all the students, resembles that this program was well thought.

Credit goes to BMSIT Management and Organizing team. Also, it is very well planned and organized.

As a resource person I appreciate all your students for their interactive participation throughout the long hours of hands-on sessions and quizzes. I was thoroughly impressed about the overall program and inspired.

Regards

Dr. Vaddi Naga Padma Prasuna,
Associate Professor,
ECE Dept,
WiE AG Advisor,
AIT, Bangalore, 9880598093

2. Hello Dankan,

I take this opportunity to firstly thank you for letting me take a session as an external expert in IoT & AI to bridge the gap of industry and academia needs. This is a wonderful attempt in building the gap. If this would be taken up based on the student interest as a part-time development program it would really help them out.

Student performance:

I felt it lacks a lot of professionalism in them I can't come to a conclusion at this point of time as to what is the reason for the same.

Suggestion:

I would request you and the faculties to start treating them as corporate employees and encourage professional communications rather than using more of informal modes for communication.

Regards:
Mr.Akash J
Life Bolt Innovation Pvt. Ltd

Feedback (critical) from students:

- The course was very informative, it would have been more better if we could have had more hands on sessions.
- It was a really good session with lot of improvement in my knowledge, very informative! This type of course should be given a time slot in regular weeks also .
- The course was well organized with respect to the timings and resource persons. It was informative. The time duration of the course could have been extended to more than 5 days. And more hands on sessions would have been better.

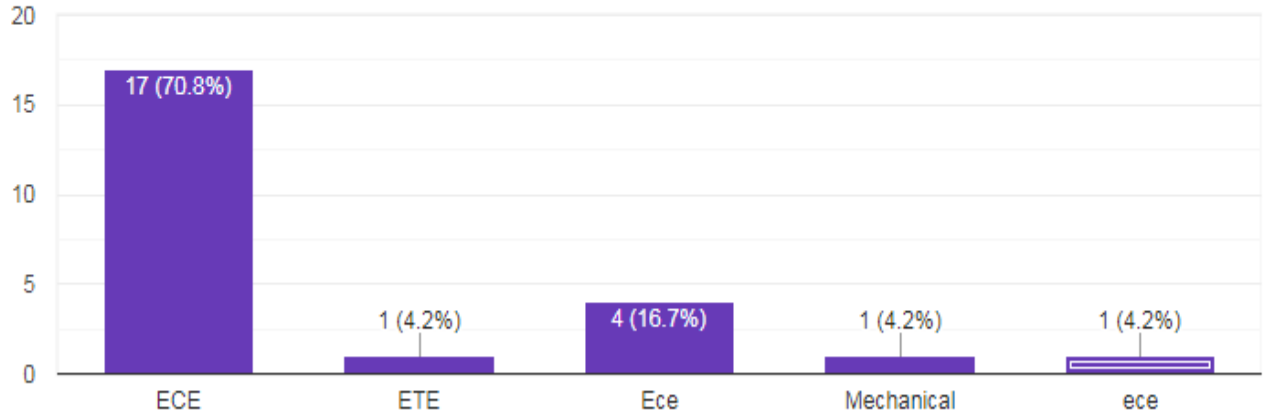
Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. As per the student's suggestion time duration of the open course is extended if it is possible.
2. extending hands on sessions, live demo projects.

Sample course feedback form

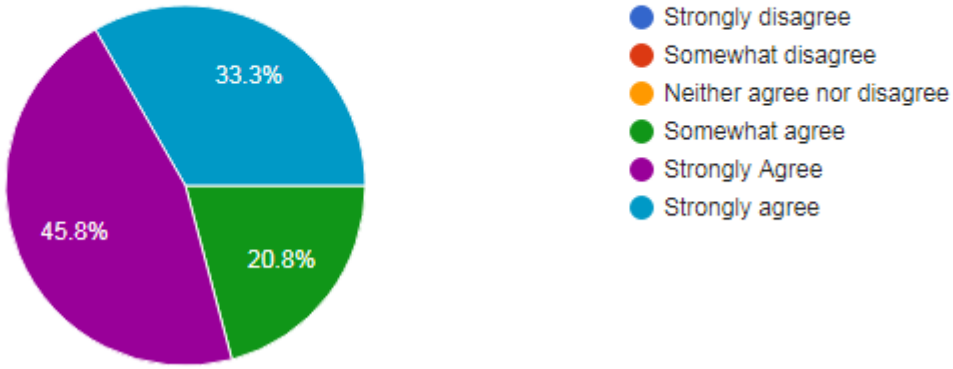
Department

24 responses



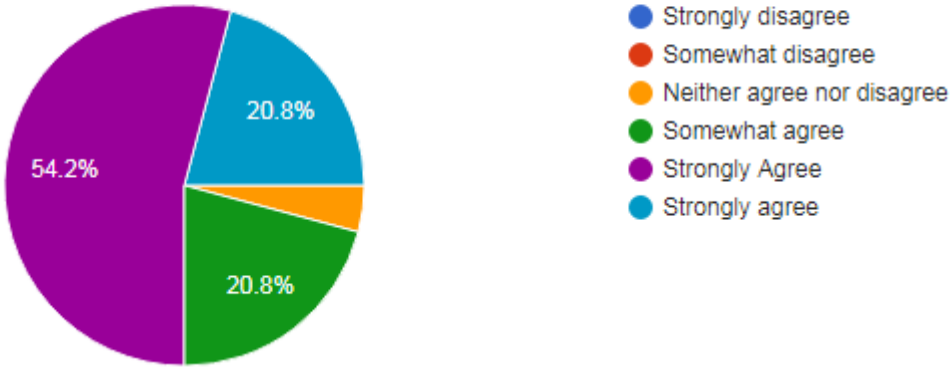
1. The open course offered was good enough to improve my knowledge and skills

24 responses



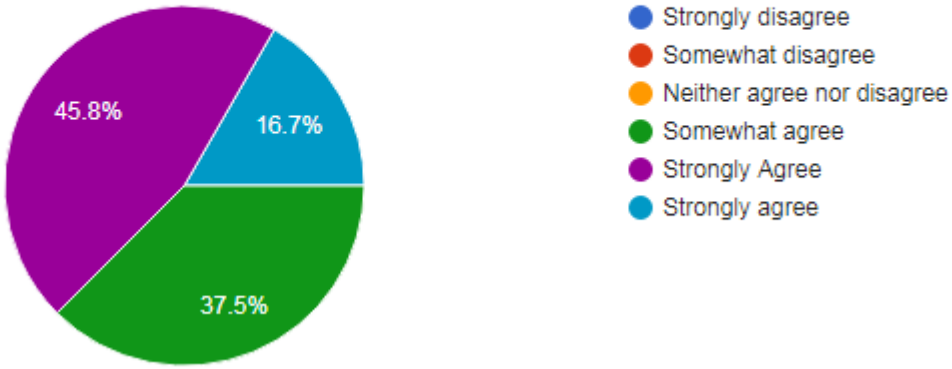
2. The contents covered in the open course meets the course outcomes defined

24 responses



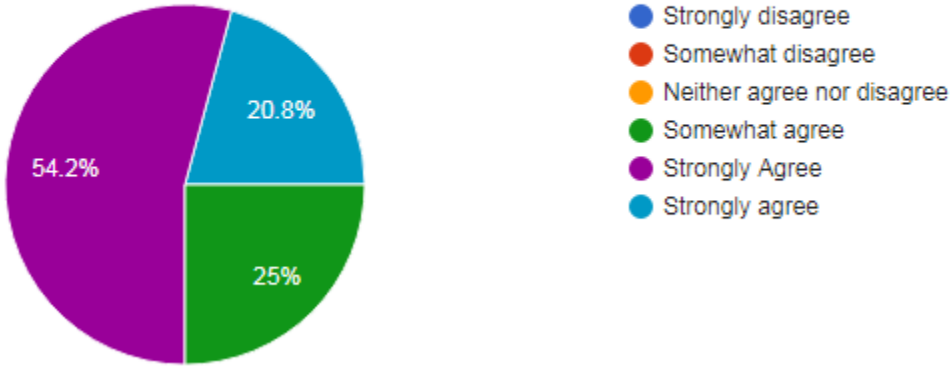
3. The duration of the open course was very appropriate.

24 responses



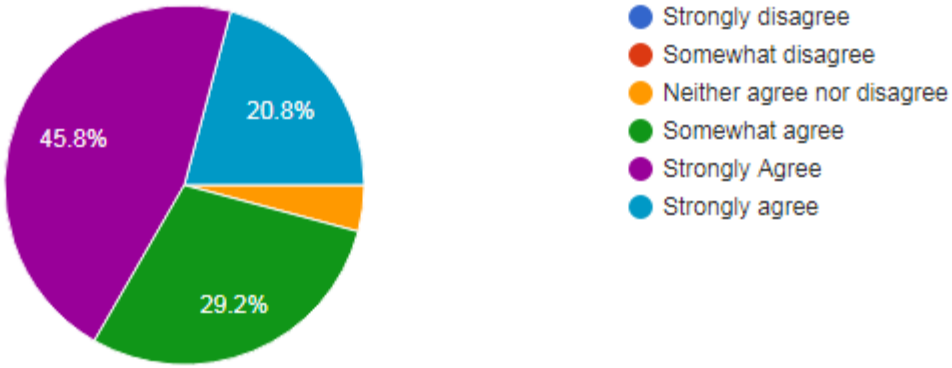
4. The open course helped me a lot to improve my knowledge that is required

24 responses



5. The contents of the open course were properly framed in accordance with the Industry requirement

24 responses



OPEN COURSE 2020-2021 (EVEN SEM)

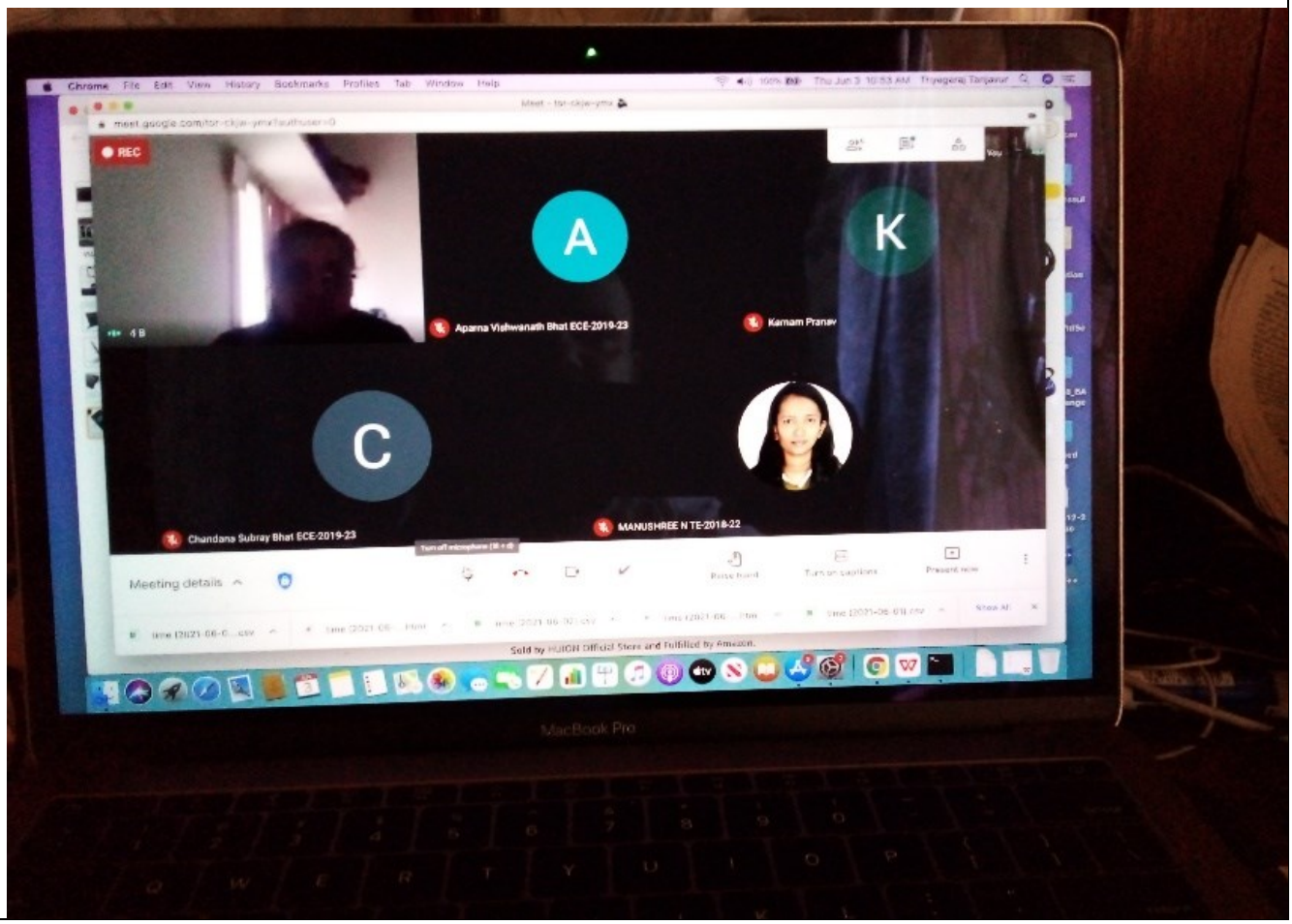
June 1-5, 2021

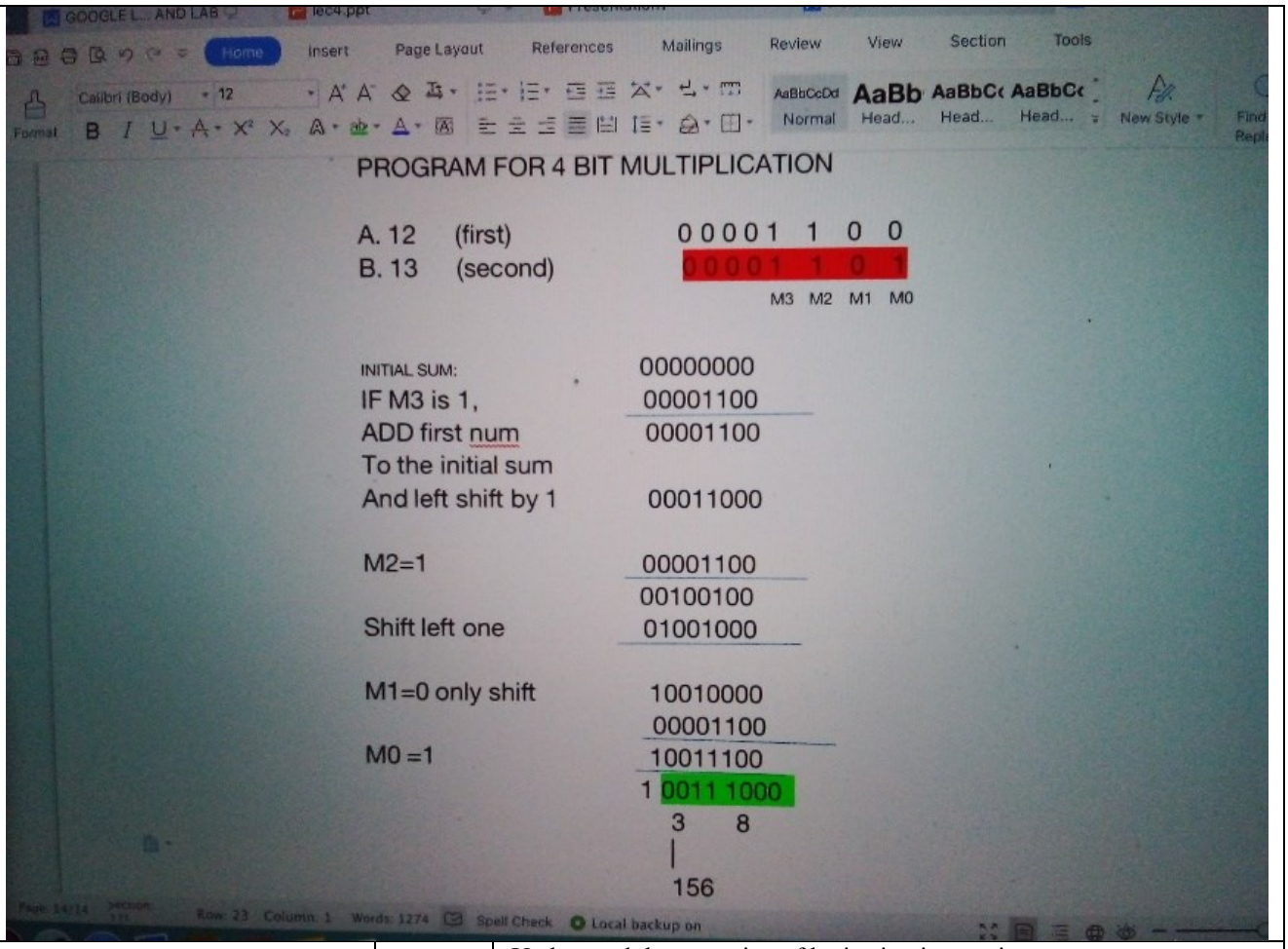
Department: Electronics and Communication		
Title of the Open Course		**Microprocessor 8085 Basics**
Targeted Students from Branches		**All branches**
Registration Fee		**Rs. 200.**
No. of students attended		**4**
Software/Hardware Tools used		**Microprocessor simulation tool**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT, simulation**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Prof. Thyagaraj**
	Mobile No.	**9845133392**
	Email ID	**thyagaraj_tanjavur@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Ambika R**
	Designation	**Professor**
		9449527539
	Name	**Dr. C S Mala**
	Designation	**Professor**
		9448611588
	Name	**Prof. Shashikala J**
	Designation	**Asst. Professor**
		7259703549
External Resource Person Details (Please use additional	Name	**Dr. R Aparna**
	Designation	**Professor**
	Company/Organization	**Siddaganga Institute of Technology**
	Mobile Number/email-id	**9480408455/raparna@sit.ac.in**
	Name	
	Designation	
	Company/Organization	
	Mobile Number/email-id	
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**1. PO1: insufficient pre-requisite knowledge.** **2. PO5: not proficient with simulators.**	
Abstract	The 8085 is a popular 8-bit microprocessor that is used widely across the world to introduce students to microprocessor concepts and assembly language programming. In this course, The course intends to enrich the knowledge of the participants with understanding the basics of microprocessor fundamentals, then dive deep into the architecture of 8085 and its instruction set. Finally introduce assembly language programming and solve a bunch of programming questions.	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Photograph of the event:





Open Course Outcomes Of "**Microprocessor 8085 Basics**"		
	CO-1	Understand the extension of logic circuits to microprocessors
	CO-2	Build capacity to write programs in assembly level language.
	CO-3	Demonstrate ability to solve problems on simulator.

CO-PO Mapping for open course of "Microprocessor 8085 Basics"

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**
CO1	3	2											1
CO2		2	3									2	1
CO3					3							3	1

Feedback from external expert:
1. GOOD INITIATIVE

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Feedback (critical) from students:

1. Events can be organized in much efficient manner with better industry personals. Greater emphasis on "out of the box" teaching is required.

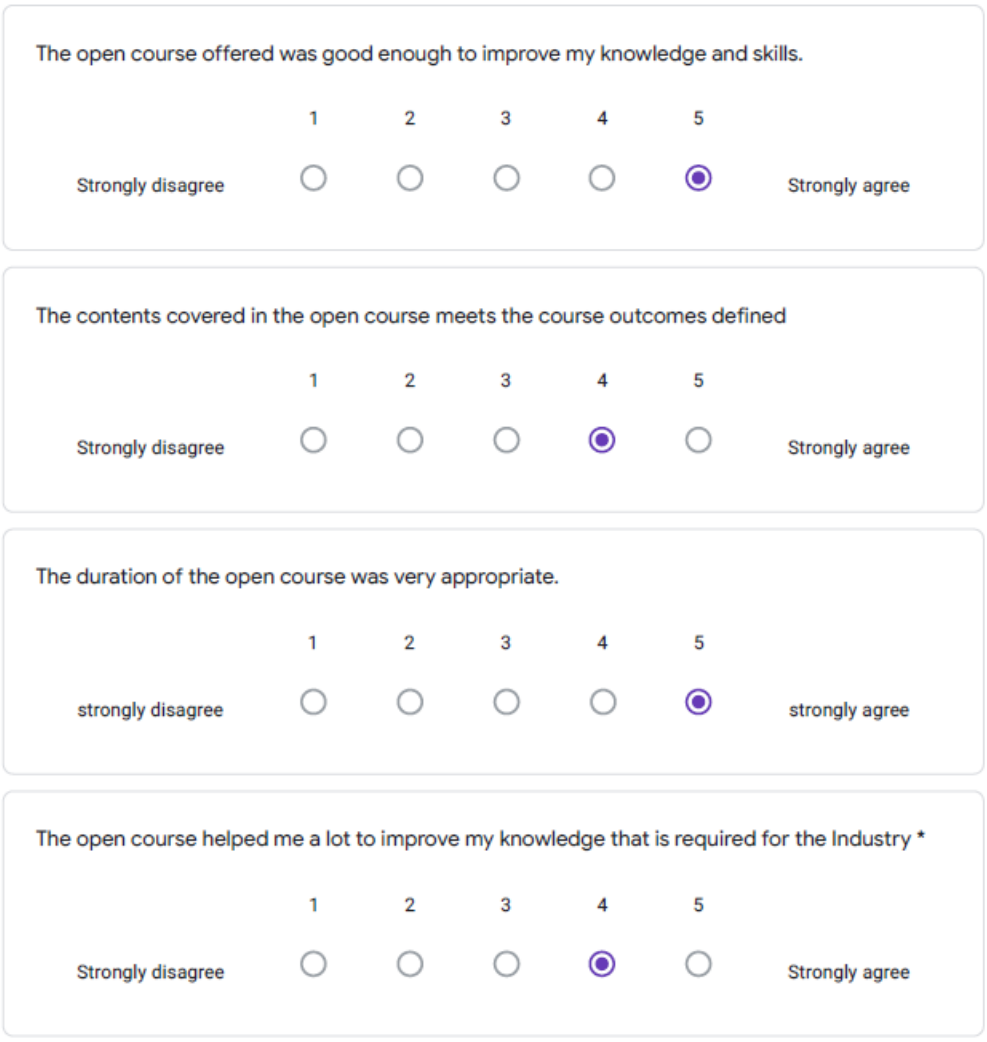
Feedback from External participants (if any): -NIL

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Ask student suggestions on what they wish to learn.
2. Provide appropriate incentive to the coordinators.

Sample course feedback form

(attach filled feedback form in bmp/png.jpg format, submitted by a participant)



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

The contents of the open course were properly framed in accordance with the Industry requirement *

	1	2	3	4	5	
Strongly disagree	○	○	○	◉	○	Strongly agree

The resource persons invited to the open course were good enough to cover the topics in depth.

	1	2	3	4	5	
Strongly disagree	○	○	○	○	◉	Strongly agree

The timing chosen for open course (just one week after the regular classes) is appropriate. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	◉	Strongly agree

The open course covered most of the key aspects provided in the course schedule

	1	2	3	4	5	
Strongly disagree	○	○	○	○	◉	Strongly agree

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

The course helped me to acquire sufficient teamwork, continuous learning, modern tools usage and other skills.

	1	2	3	4	5	
Strongly disagree	○	○	○	○	◉	Strongly agree

I feel we need more and more of these kinds of new initiatives which bring all of us together as one Team.

	1	2	3	4	5	
Strongly disagree	○	○	○	○	◉	Strongly agree

Time management was effective throughout the open course

	1	2	3	4	5	
Strongly disagree	○	○	○	○	◉	Strongly agree

I am more inspired to utilise open course to project based learning, Industry internship, job opportunity etc.

	1	2	3	4	5	
Strongly disagree	○	○	○	◉	○	Strongly agree

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

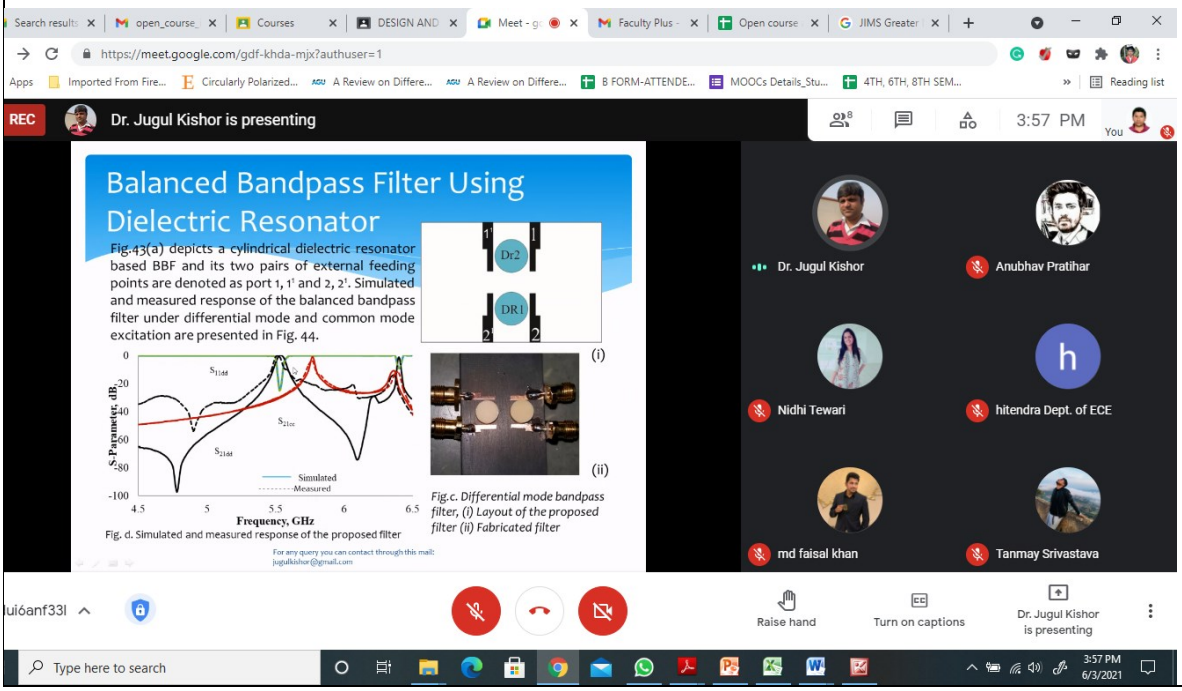
Department: Electronics and Communication Engineering		
Title of the Open Course		**Design and Analysis of Microwave and Electronic Devices**
Targeted Students from Branches		**ECE, EEE, ETE**
Registration Fee		**Rs. 200/-**
No. of students attended		**06**
Software/Hardware Tools used		**CST Microwave Studio, ANSYS HFSS, Vectored Network Analyzer**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, Simulation, Videos**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Amit Kumar**
	Mobile No.	**8010377545**
	Email ID	**amitkumar@bmsit.in**
Internal Resource Person Details	Name	**Dr. Amit Kumar**
	Designation	**Assistant Professor**
	Mobile Number	**8010377545**
	Name	**Dr. Prachi Sharma**
	Designation	**Assistant Professor**
	Mobile Number	**93150 43596**
External Resource Person Details (Please use additional	Name	**Dr. Jugul Kishor**
	Designation	**Associate Professor**
	Company/Organization	**JIMS Engineering Management Technical Campus, Greater Noida**
	Mobile Number/email-id	**97179 66545, jugulkishor@gmail.com**
	Name	**Mr. Rajesh Kulalar**
	Designation	**Technical Expert**
	Company/Organization	**Jyoti Electronics, Ahmedabad**
	Mobile Number/email-id	**97256 87478, rajesh@jyotimicrosystems.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	Strong correlation with POs (4, 5, 6, 7, 8, 9). Students will learn about new software tools like CST Microwave Studio, ANSYS HFSS for designing antennas and microwave filters. They also learn about the hardware tool Vectored network Analyzer for antenna and microwave filter measurements. They learn to identity few complex problems related to society and its solution through engineering practices like implementation of 5G technology.	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

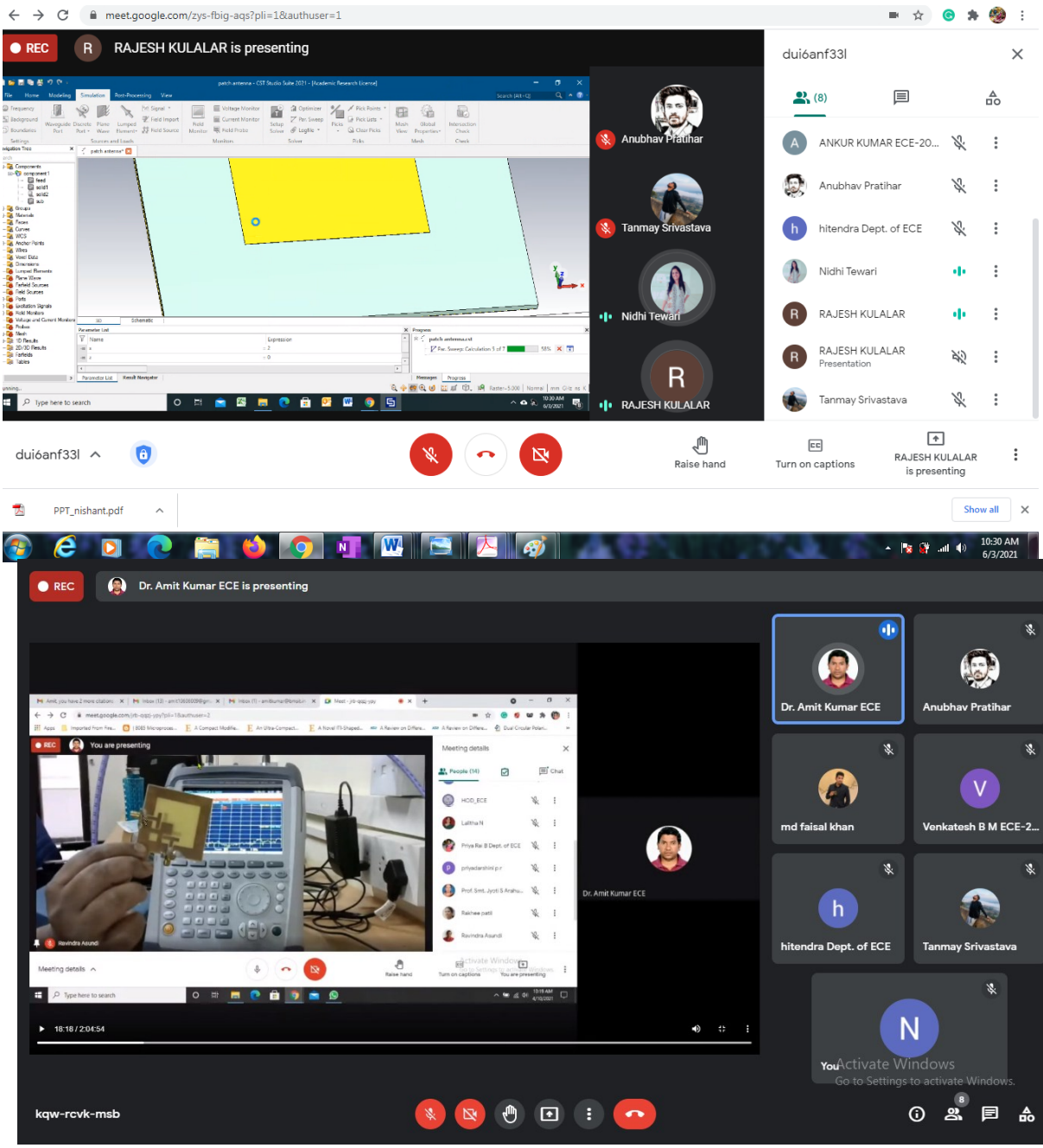
Abstract (Brief Details of the open course with less than 250 words)	The Course is aimed that describing some fundamentals concepts and software tools required to design and analyze few Microwave Devices like (Microstrip Antenna, MIMO antenna, Dielectric Resonator Antenna, Horn Antenna, and Microwave Filters) and few Electronics Devices like (MOSFET, thin-film transistor and some more). We will be providing a demo on Vector Network Analyzer for antenna measurement. This open course is designed for students interested in designing Microwave and Electronic devices required for handheld devices like Mobile, Laptop, Wi-Fi, Bluetooth, and many more. They will get to know the flavor of high-data-rate transmission through 4G/5G applications.

Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



Open Course Outcomes Of "**Design and Analysis of Microwave and Electronic Devices**"	**CO-1**	**Understand the working of Antennas, Microwave Filters, and Electronic Devices like MESFET and HEMT devices.**
	CO-2	**Apply the usage of advanced Simulation Tools like CST, HFSS, and SILVACO.**
	CO-3	**Design Microstrip Antennas, Microwave Filters and Devices like MOSFET**
	CO-4	**Evaluate the performance of Microwave and Electronics Devices**

CO-PO Mapping for open course of "Design and Analysis of Microwave and Electronic Devices"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	3	3	2										
CO2		3	3	3	3			3	3		2	2	
CO3	2	2	3	3	3	2	3	3	3		2	2	
CO4	3	3		3	3		2	3					

Feedback from external expert:

1. More Students who are willing to go for higher studies should be encouraged for this research oriented open-course.
2. Hands-on practice of the software by the students would be more beneficial. Advise them to download student version of CST Microwave Studio software available on https://edu.3ds.com/en/software/cst-studio-suite-student-edition

Feedback (critical) from students:

1. Students should be given more such opportunity to get involved in such interactive courses
2. Installed software access will be more beneficial for hands-on experience.

Feedback from External participants (if any):

1. Request to arrange something in Artificial Intelligence
2. Demo version of the installed software should have been more beneficial for hands-on experience.

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Pre- installed software access for the students.
2. Students should be given more such opportunity to get involved in such interactive courses

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Sample course feedback form

Timestamp	Email Address	Name of the Student	Semester	USN	Department	Mobile No	1.The open course offered was good enough to improve my knowledge and skills.	13. My suggestions to improve these open courses in future:	14. My other comments:
6/5/2021 14:35:32	1BY15EC013@bmsit.in	Anubhav Pratihar	6th	1BY15EC013	ECE	8971644895	Strongly agree	NA	NA
6/5/2021 14:37:26	1by17ec417@bmsit.in	VENKATESH B M	6	1by17ec417	ECE	8861081999	Strongly agree	Higer education	Nothing
6/5/2021 14:40:15	nidhitewari.tewari@gmail.com	Nidhi Tewari	External		Electronics	9479847958	Strongly agree	helpful to me to enhance my knowledge. It was really a very good effort by our faculty.	
6/5/2021 14:41:15	mdfaisalkhan99@gmail.com	MD FAISAL KHAN	External	??	Ece	9015533074	Strongly agree	There needs to be some interactions in the class	Request to arrange something in Artficial Intelligence
6/5/2021 14:43:26	1by18ec170@bmsit.in	Tanmay Srivastava	4	1BY18EC170	ECE	7367965350	Strongly agree	I would certainly love to have more such opportunities such as these in the future.	an amazing experience- an interesting journey with different resource people specializing in different fields and a vast span of knowledge.
6/5/2021 14:45:27	1by18ec019@bmsit.in	Ankur Kumar	4	1BY18EC019	ECE	6202647679	Strongly agree	Students should be given more such opportunity to get involved in such interactive courses	

OPEN COURSE 2020-2021 (EVEN SEM)

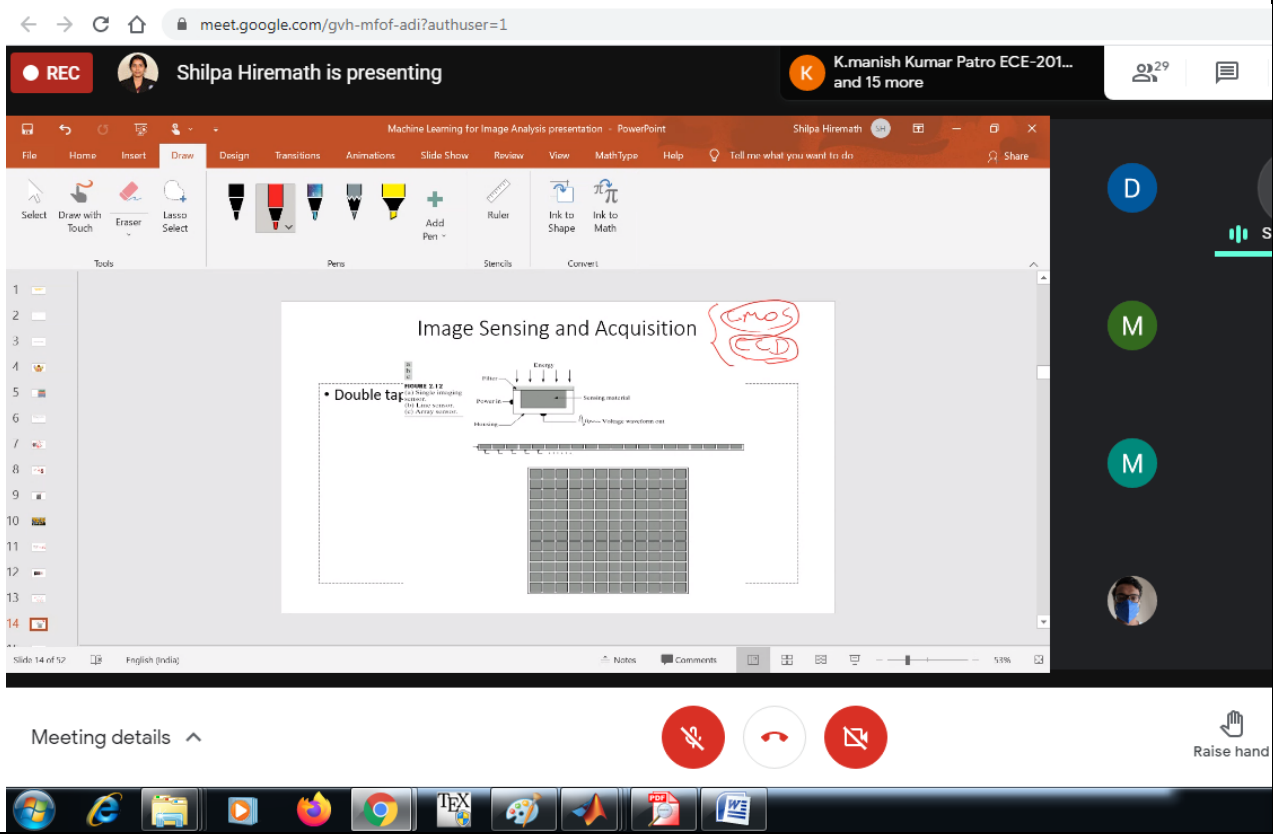
June 1-5, 2021

Department: Electronics and Communication Engineering		
Title of the Open Course		**Machine Learning for Image Analysis**
Targeted Students from Branches		**ECE, CSE, ISE, EEE, CIV, MECH**
Registration Fee		**Rs. 200/-**
No. of students attended		**38**
Software/Hardware Tools used		**MATLAB, Python**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**ppt presentation, simulation, project**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz, test**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Vijayalakshmi G V**
	Mobile No.	**9449378246**
	Email ID	**vijayalakshmi@bmsit.in**
	Name	**Prof. Chandraprabha**
	Mobile No.	**88676 18157**
	Email ID	**chandra@bmsit.in**
	Name	**Prof. Shilpa Hiremath**
	Mobile No.	**88846 11668**
	Email ID	**shilpasharankh@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Vijayalakshmi G V**
	Designation	**Associate Professor**
	Mobile Number	**9449378246**
	Name	**Prof. Chandraprabha**
	Designation	**Assistant Professor**
	Mobile Number	**88676 18157**
	Name	**Prof. Shilpa Hiremath**
	Designation	**Prof. Shilpa Hiremath**
	Mobile Number	**Assistant Professor**
	Name	**Dr.Surekha R Gondkar**
	Designation	**Associate Professor**
	Mobile Number	**96635 99656**
	Name	**Prof. Mamatha K R**
	Designation	**Assistant Professor**
	Mobile Number	**99720 42574**
	Name	**Mr. Siddarth Shetty**
	Mobile Number	**87225 51612**
	Name	**Mr. Abdul Rehman**
	Mobile Number	**87225 51612**
	Name	**Mithilesh Jagannathan**

External Resource Person Details (Please use additional	Designation	**Solution Architect**
	Company/Organization	**Honey well, Pune**
	Mobile Number/email-id	**mithileshjagannathan@gmail.com**
	Name	**Dr. Ruban Nersisson**
	Designation	**Associate Professor and HoD**
	Company/Organization	**VIT, Vellore**
	Mobile Number/email-id	**nruban@vit.ac.in**
	Name	**Dr. Vijayarajan**
	Designation	**Associate Professor**
	Company/Organization	**VIT, Chennai**
	Mobile Number/email-id	**viraj2k@gmail.com**
	Name	**Dr. Chandrakala H T**
	Designation	**Assistant Professor**
	Company/Organization	**GFGC, Tumkur**
	Mobile Number/email-id	**chandrakl80@gmail.com**
	Name	**Dr. Bhagirathi Halalli**
	Designation	**Assistant Professor**
	Company/Organization	**GFGC, Raibag**
	Mobile Number/email-id	**bhagyaigali@gmail.com**
	Name	**AbhishekPShenoy**
	Designation	**SoftwareDeveloper,TeamLead**
	Company/Organization	**SigSenzTechnologiesPvt.Ltd, Bangalore**
	Mobile Number/email-id	**70195 76068**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	Students got the opportunity in learning the various software tools which enhanced their lifelong learning skills by executing the projects individually.(PO12)	
Abstract	The goal of machine learning for image analysis is for automating the process of image analysis. This course discusses the basic philosophy and methodological directions in which the various machine learning algorithms (supervised or unsupervised) can be adapted for image analysis in pattern recognition applications. Image analysis includes image processing and Pattern recognition. Image processing involves using a set of tools for	

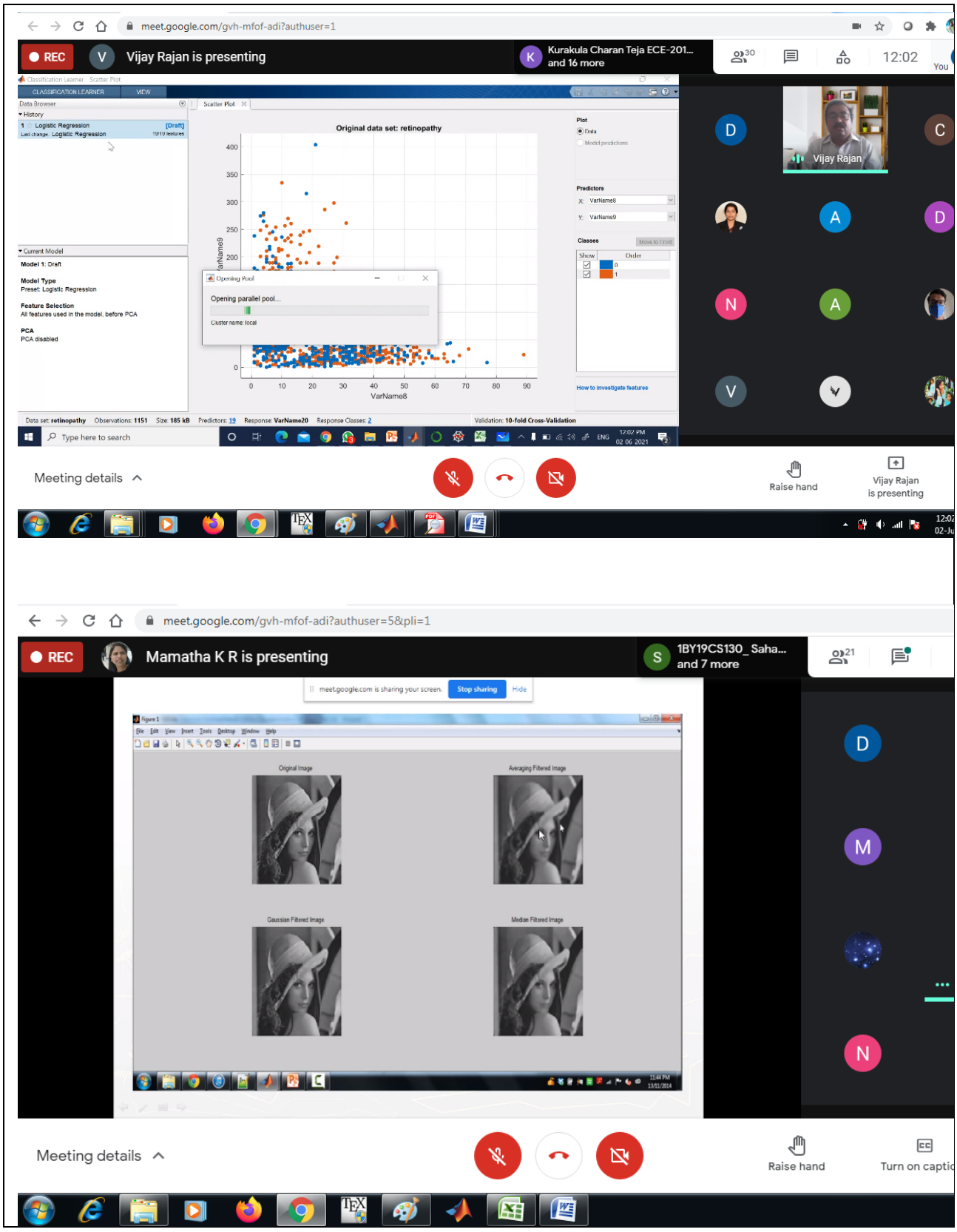
	enhancing, compressing, restoring and segmenting the images. It also extracts features for image description. Pattern recognition assigns the extracted features or patterns to the classes based on their relationship. Computer/Machine vision is an area in which image analysis is of importance. A typical application of a machine vision system is in the manufacturing industry, either for automated visual inspection or for automation in the assembly line. Character recognition is another important area of analysing text images, with major implications in automation and information handling. Computer-aided diagnosis is an application of medical image analysis with machine learning, aimed at assisting doctors in making diagnostic decisions. This open course is designed for students to gain the knowledge of machine learning for image analysis through MATLAB® from the basics. In this course we cover various types ofanalysis while highlighting the image enhancement, segmentation, restoration, feature extraction and machine learning modules.

Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Open Course Outcomes Of "**Machine Learning for Image Analysis**"	**CO-1**	Design image analysis methods for use in pattern recognition applications.
	CO-2	Analyse and interpret the Feature extraction process of a data to understand the underlying information present
	CO-3	Use the MATLAB along with image processing, statistics and machine learning tool boxes to model the pattern recognition applications of study.

CO-PO Mapping for open course of "Machine Learniing for Image Analysis"

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO3**
CO1			3										
CO2				3									
CO3					3				**3**	**1**		**2**	

Feedback from external expert:

1. External experts were happy to share their expertise in the course

Feedback (critical) from students:

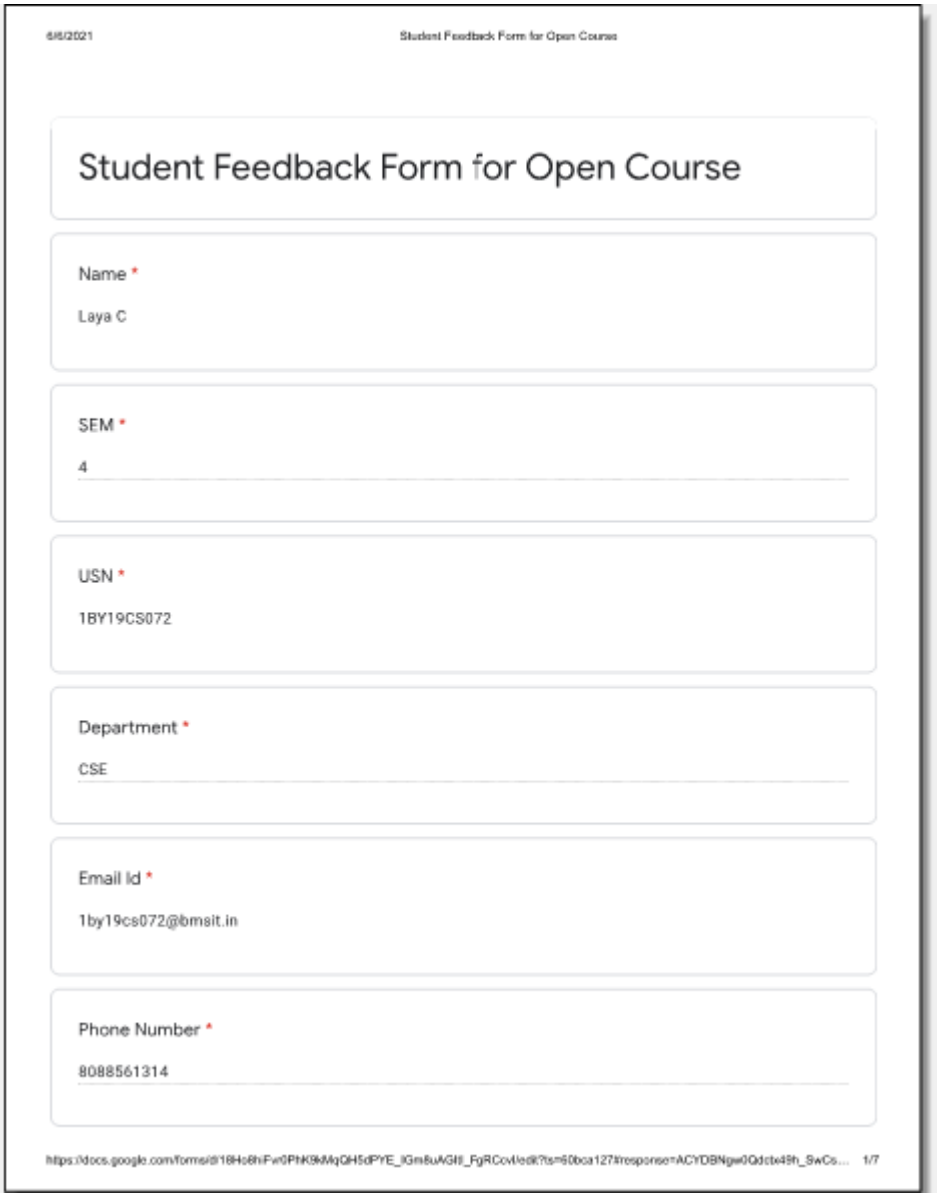
1. These were good but we went too deep into the topic. It would be better if we had few more classes.
2. On a whole, it was nice,informative,useful course.It really worth our time.
3. I had a very good sessions from a week. I tried understand topics, Thanks lecturers your time. :)
4. It was really nice , we came to know some topics

Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. There are many complex things that are covered in this open course with respect to 4th sem syllabus,it would have been much better if the course concepts were slightly understandable for 4th sem students.
2. More courses should be offered

Sample course feedback form



6/6/2021 Student Feedback Form for Open Course

Student Feedback Form for Open Course

Name *

Laya C

SEM *

4

USN *

1BY19CS072

Department *

CSE

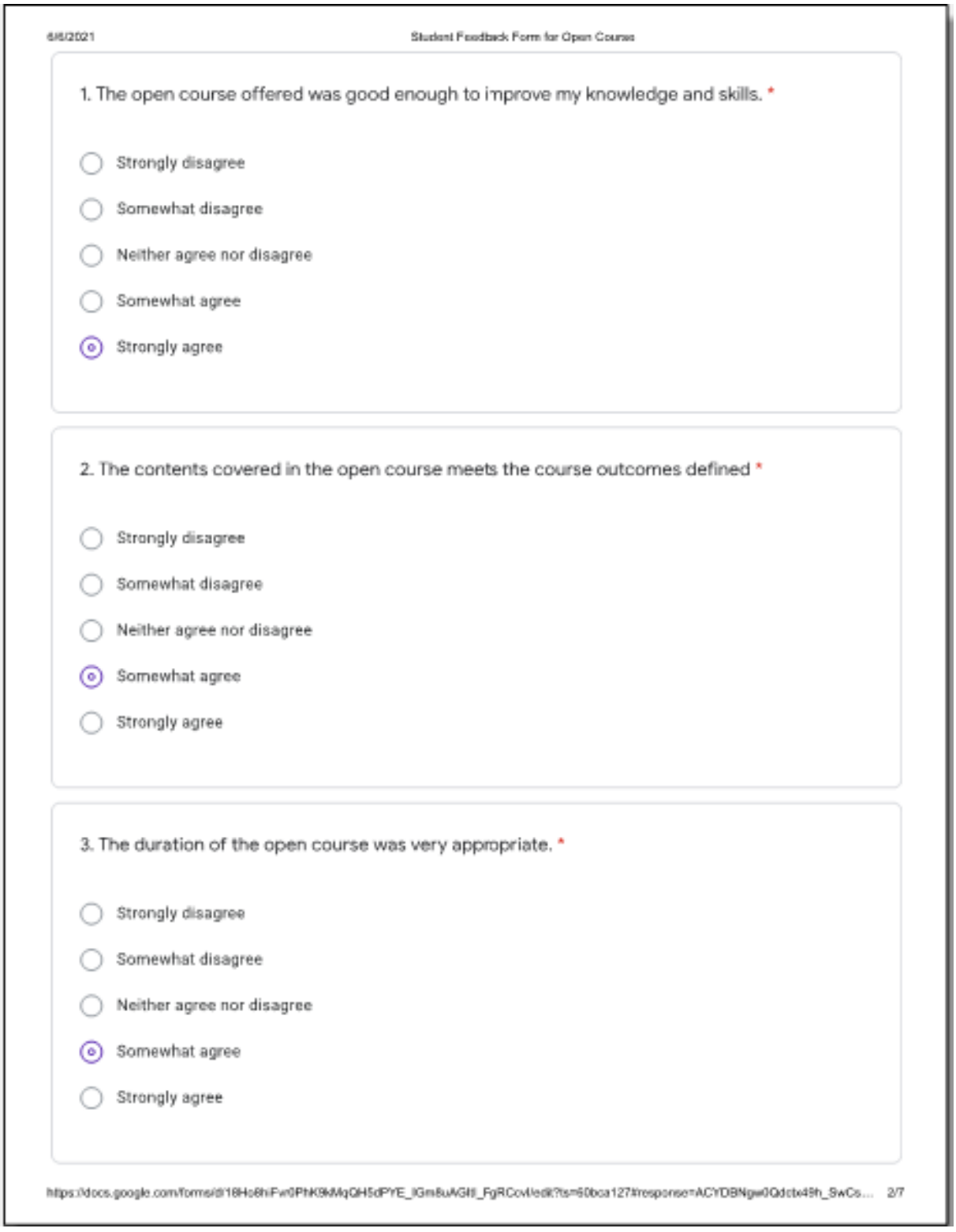
Email Id *

1by19cs072@bmsit.in

Phone Number *

8088561314

https://docs.google.com/forms/d/18Ho8hiFw0PhK9kMqQH5dPYE_IGm8uAGtl_FgRCcvI/edit?ts=60bca127#response=ACYDBNgw0Qdctx49h_SwCs... 1/7



6/6/2021 Student Feedback Form for Open Course

1. The open course offered was good enough to improve my knowledge and skills. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

2. The contents covered in the open course meets the course outcomes defined *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ◉ Somewhat agree
- ○ Strongly agree

3. The duration of the open course was very appropriate. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ◉ Somewhat agree
- ○ Strongly agree

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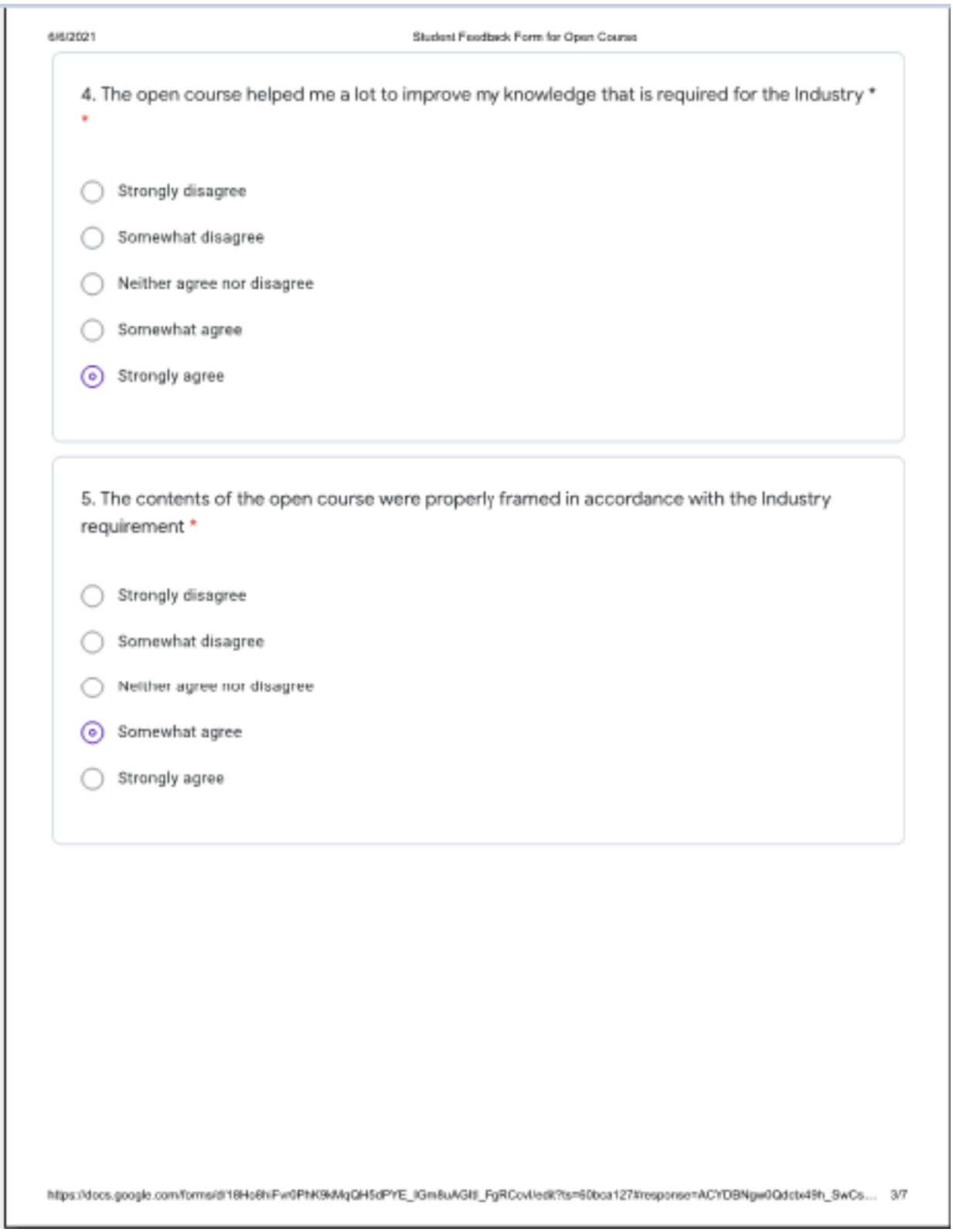


4. The open course helped me a lot to improve my knowledge that is required for the Industry * *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

5. The contents of the open course were properly framed in accordance with the Industry requirement *

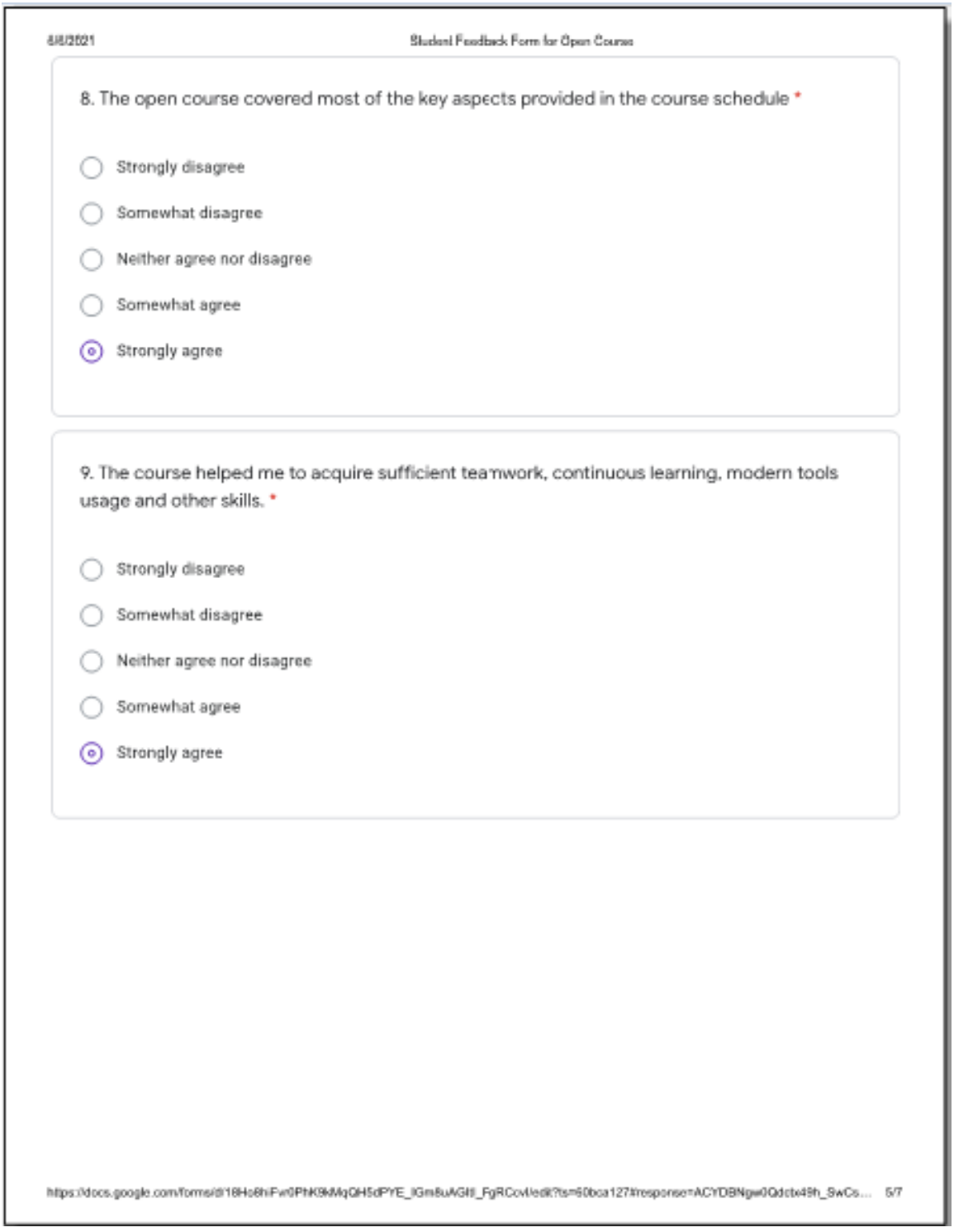
- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ◉ Somewhat agree
- ○ Strongly agree

6. The resource persons invited to the open course were good enough to cover the topics in depth. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

7. The timing chosen for open course (just one week after the regular classes) is appropriate. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ◉ Somewhat agree
- ○ Strongly agree

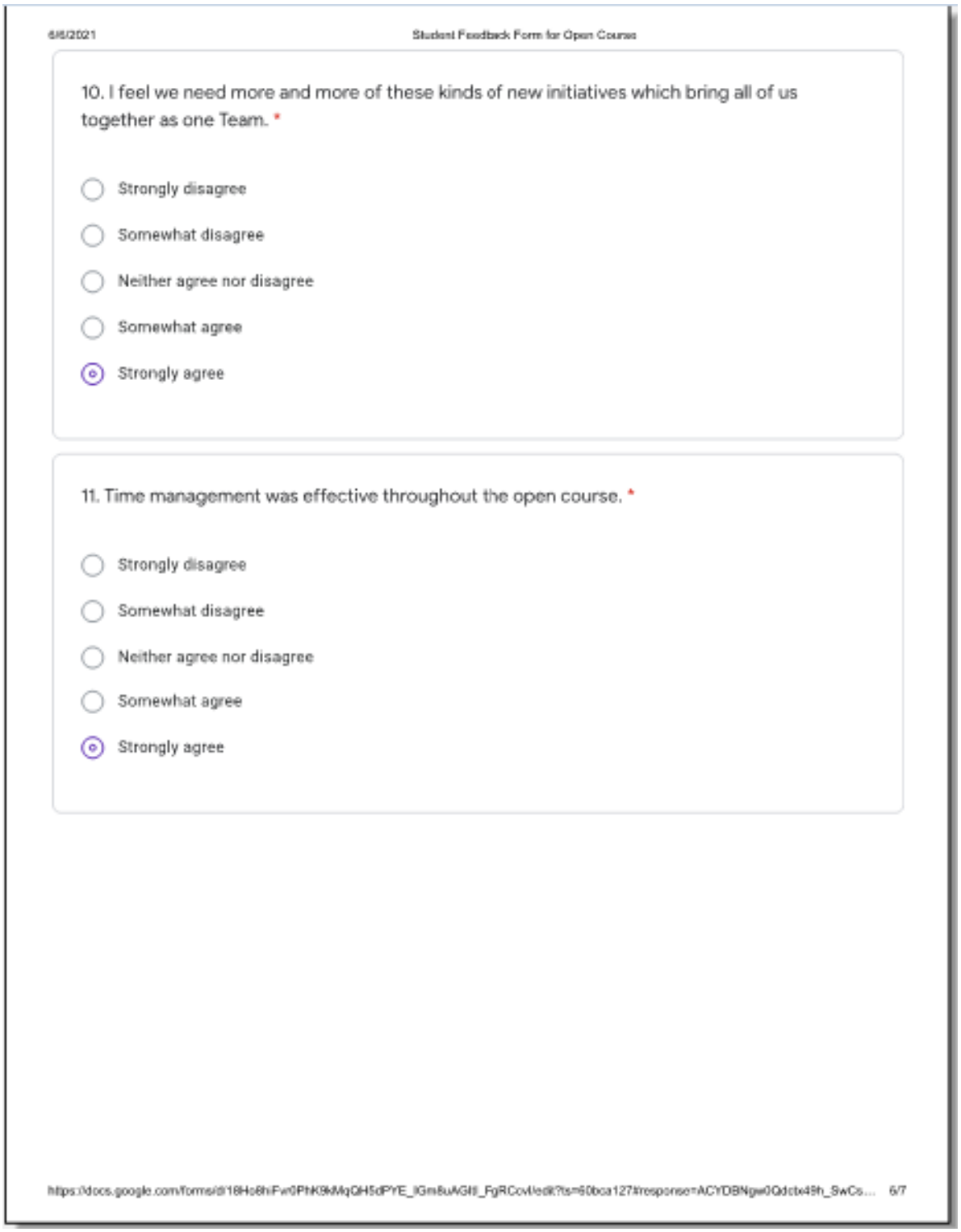


8. The open course covered most of the key aspects provided in the course schedule *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

9. The course helped me to acquire sufficient teamwork, continuous learning, modern tools usage and other skills. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree



6/6/2021 Student Feedback Form for Open Course

10. I feel we need more and more of these kinds of new initiatives which bring all of us together as one Team. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

11. Time management was effective throughout the open course. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

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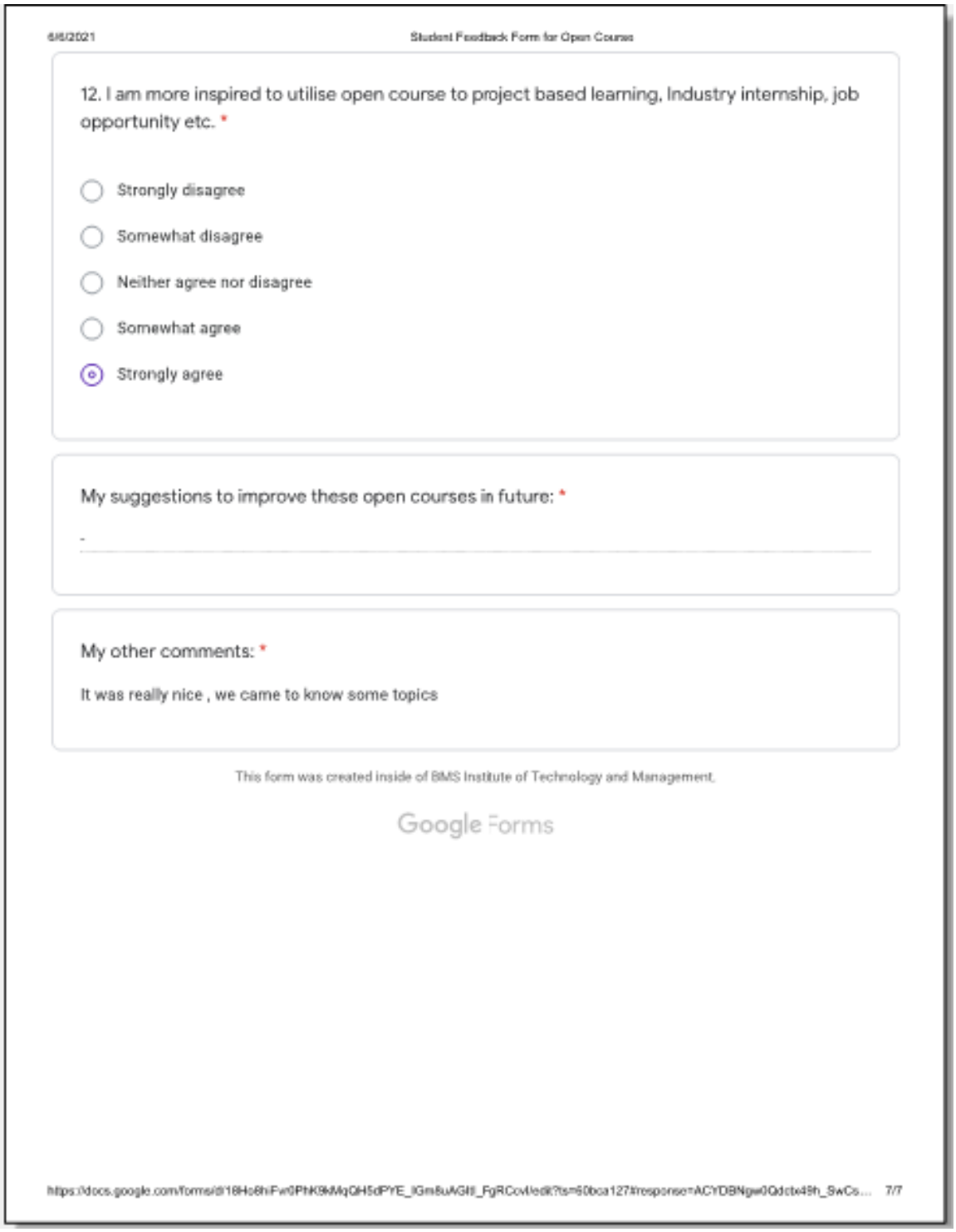
OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



6/6/2021 Student Feedback Form for Open Courses

12. I am more inspired to utilise open course to project based learning, Industry internship, job opportunity etc. *

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ◉ Strongly agree

My suggestions to improve these open courses in future: *

-

My other comments: *

It was really nice , we came to know some topics

This form was created inside of BMS Institute of Technology and Management.

Google Forms

https://docs.google.com/forms/d/18Ho8hiFvn0PhK9kMqQH5dPYE_lGm8uAGtl_FgRCovI/edit?ts=60bca127#response=ACYDBNgw0Qdctx49h_SwCs... 7/7

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

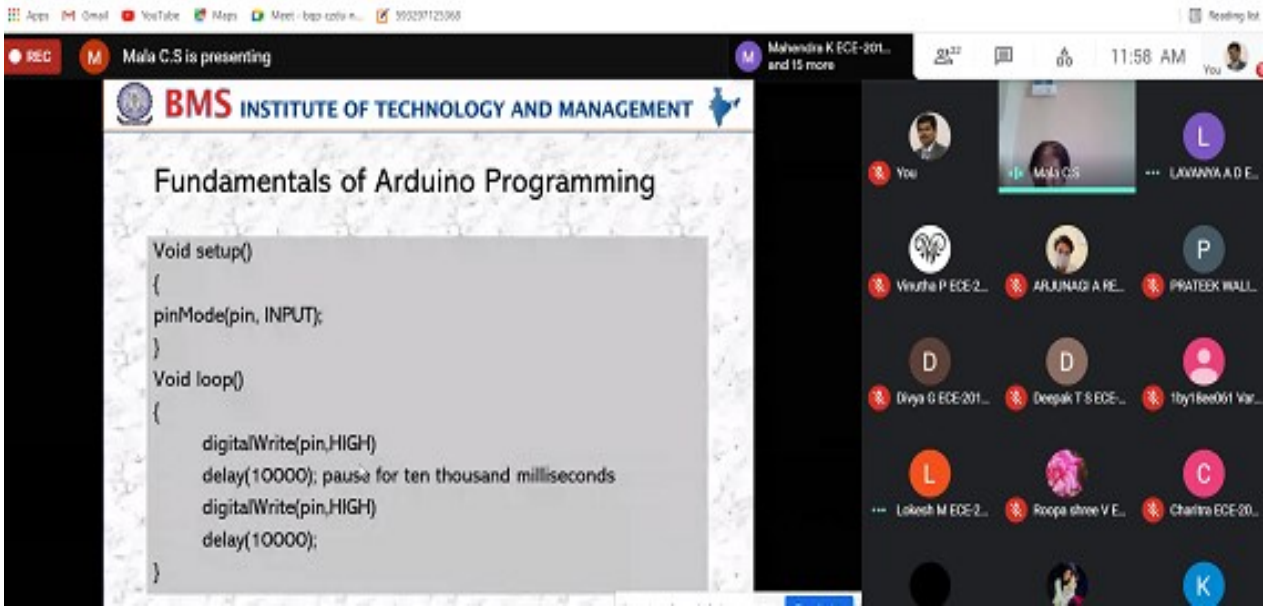
Department: DEPARTMENT OF ELECTRONICS AND COMMUNICATION		
Title of the Open Course		**Applied Embedded systems and IoT**
Targeted Students from Branches		**ECE/ETE/EEE/CSE/ISE**
Registration Fee		**200/-**
No. of students attended		**39**
Software/Hardware Tools used		**Tinker CAD, Node MCU, Thing Speak,Arduino,RPi,RTOS,**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT presentation, Simulation, Mini Projects, Hardware demonstration,Write and talk**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz.**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Anil kumar D**
	Mobile No.	**9886216203**
	Email ID	**anilkumard81@bmsit.in**
Internal Resource Person Details	Name	**Dr.C S Mala**
	Designation	**Dean Student welfare**
	Mobile Number	**9448611588**
	Name	**Dr.Anil kumar D**
	Designation	**Associate Professor**
	Mobile Number	**9886216203**
	Name	**Prof. Saneesh C T** **Associate Professor,** **9731382840** **Prof. Dwarakanath G V** **Assistant Professor** **9916155597**
External Resource Person Details (Please use additional	Name	**Mr.Faizan Shukoor**
	Designation	**Team Leader**
	Company/Organization	**Sunsoftronics Systems,Bangalore**
	Mobile Number/email-id	**+91 9900446647**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO3, PO5, PO9, PO10 and PO12**	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

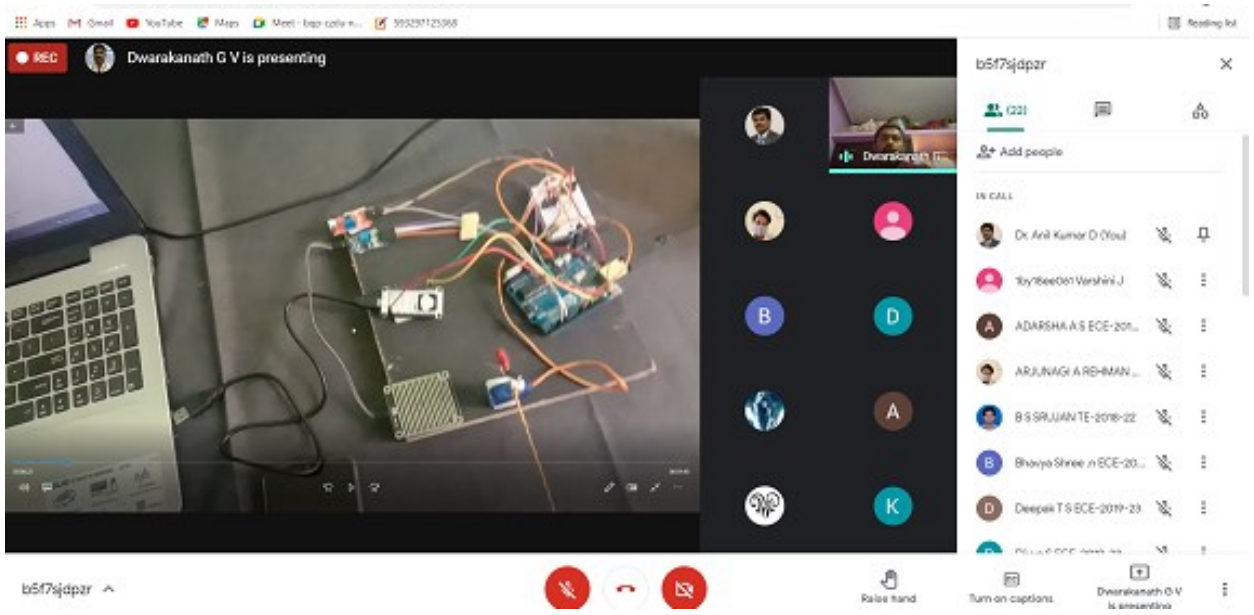
Abstract (Brief Details of the open course with less than 250 words)	Embedded systems are vital to modern society. Given that they are purpose-built for specific applications, they enable designs and optimizations that make it possible for us to enjoy the benefits of technology while minimizing cost and power consumption. Without embedded systems, our world would look vastly different than it does today. As technologies and movements like the Internet of Things, Industry 4.0, and "smart" homes & vehicles continue to gain traction, embedded systems will become more and more important. Understanding how embedded devices work and the myriad of applications where they can be used will make you better equipped to understand the world around you and leverage the benefits of embedded systems.

Photograph of the event



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



Open Course Outcomes Of "**Applied Embedded systems and IoT**"	**CO-1**	Demonstrate the fundamental concepts of the Internet of Things and its applications and architecture models.
	CO-2	Design the real time applications using Arduino Controller and Sensors
	CO-3	Apply the python programming concepts to create connection with the hardware devices for IoTs.
	CO-4	Illustrate the features of IoT Communication Protocols and Need for Security issues in the IoT applications
	CO-5	Develop an IoT system having a simple three-layer web application

CO-PO Mapping for open course of "Applied Embedded systems and IoT"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1													3	
CO2	3												3	3
CO3		3											3	
CO4			3		3							3	3	
CO5						3			3	3			3	

Feedback from external expert: - NIL-

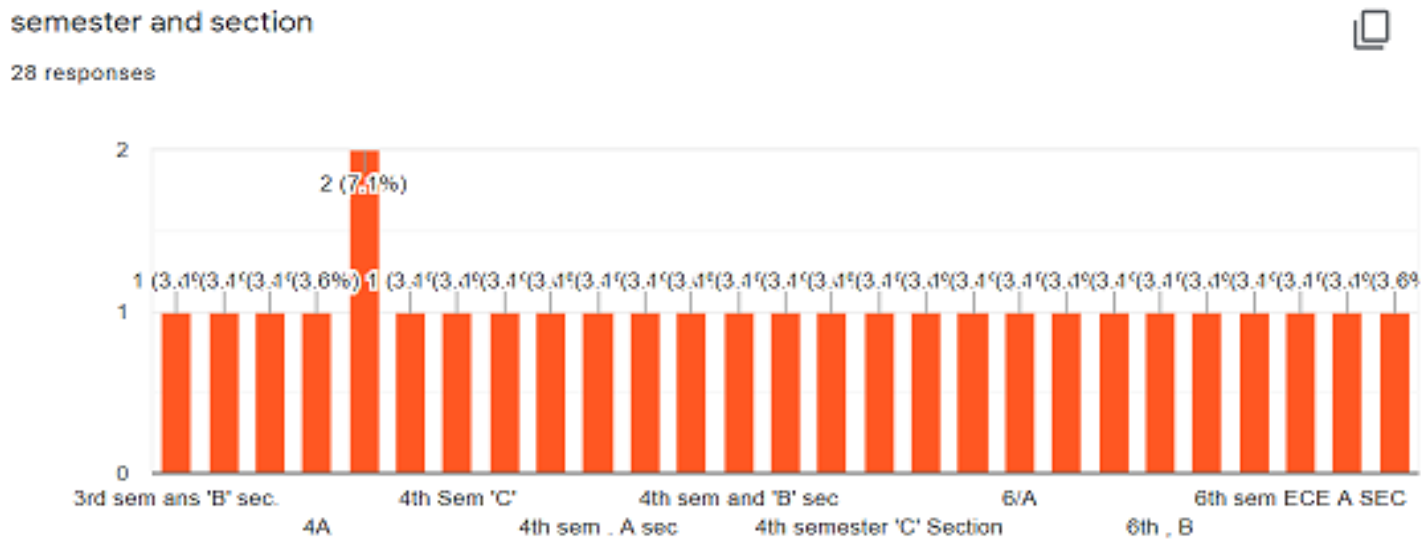
Feedback (critical) from students

- ❖ It was a really good session with lot of improvement in my knowledge, very informative! This type of course should be given a time slot in regular weeks also .
- ❖ The course was well organized with respect to the timings and resource persons. It was informative. The time duration of the course could have been extended to more than 5 days. And more hands on sessions would have been better.

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. As per the student's suggestion time duration of the open course is extended if it is possible.
2. extending hands on sessions, live demo projects.

Sample course feedback form

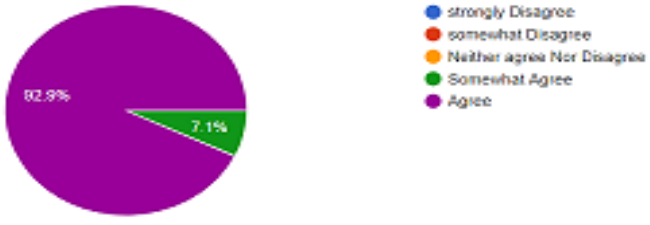


OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

1. The open course offered was good enough to improve my knowledge and skills.

28 responses

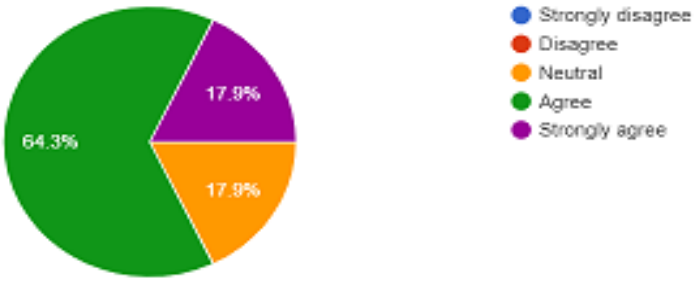


2. The contents covered in the open course meets the course outcomes defined.

28 responses

3. The duration of the open course was very appropriate.

28 responses



4. The open course helped me a lot to improve my knowledge that is required for the Industry

28 responses

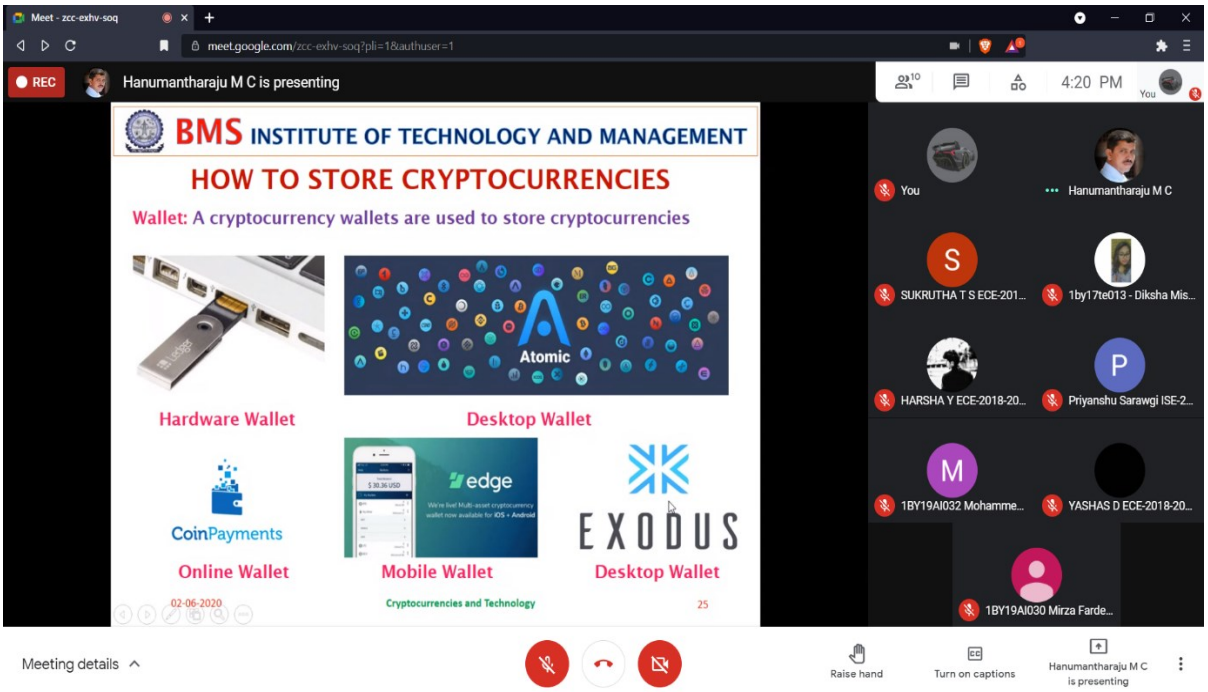
OPEN COURSE 2020-2021 (EVEN SEM)

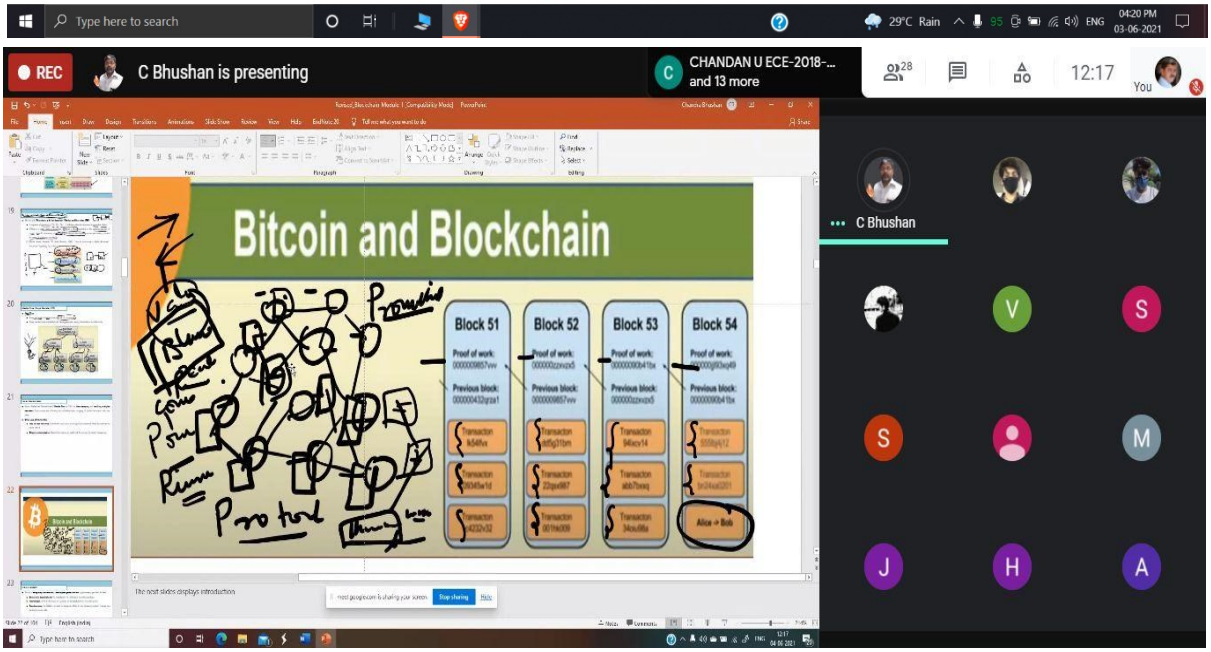
June 1-5, 2021

Department: Electronics and Communication Engineering		
Title of the Open Course		**Cryptocurrencies and the Technology Behind it !**
Targeted Students from Branches		**All Branches of Engineering**
Registration Fee		**Rs 200**
No. of students attended		**62**
Software/Hardware Tools used		**Python, Solidity**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, Live Demos, Simulation Tools, Videos**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. M. C. HANUMANTHARAJU**
	Mobile No.	**9742290764**
	Email ID	**mchanumantharaju@bmsit.in**
Internal Resource Person Details	Name	**Dr. M. C. HANUMANTHARAJU**
	Designation	**Professor**
	Mobile Number	**9742290764**
External Resource Person Details	Name	**Mr. Chandra Bhushan**
	Designation	**Founder and CEO**
	Company/Organization	**CBK Infotech India Private Limited, Bengaluru**
	Mobile Number/email-id	**9632429982**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)		**Engineering Knowledge, Design and Development, Problem Analysis, Modern Tools, Project Management and Finance**
Abstract		To really **understand what is special about Bitcoin, we need to understand how it works at a technical level. We'll address the important questions about Bitcoin, such as:** **How does Bitcoin work? What makes Bitcoin different? How secure are your Bitcoins? How anonymous are Bitcoin users? What determines the price of Bitcoins? Can cryptocurrencies be regulated? What might the future hold?** **After this course, you'll know everything you need to be able to separate fact from fiction when reading claims about Bitcoin and other cryptocurrencies. You'll have the conceptual foundations you need to engineer secure software that interacts with the Bitcoin network. And you'll be able to integrate ideas from Bitcoin**

	in your own projects.

Photograph of the event:





OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Open Course Outcomes Of "**Cryptocurrencies and the Technology Behind it !**"	CO-1	Acquire a fundamental understanding of cryptocurrency and e-payment – the basic principles as well as the technical and business aspects;
	CO-2	Evaluate cryptocurrency and e-payment systems, applications and protocols;
	CO-3	Design and implement cryptocurrency and e-payment systems/applications.
	CO-4	Identify major research challenges and technical gaps existing between theory and practice in cryptocurrency.

CO-PO Mapping for open course of "**Cryptocurrencies and the Technology Behind it !**"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	**1**												
CO2		**2**											
CO3			**3**		**3**								
CO4				**1**							**1**		

Feedback from external expert:

1. First of its kind these kind of courses was conducted by the academic institution
2. The open course was new and enlightened all students with theory and practical's

Feedback (critical) from students:

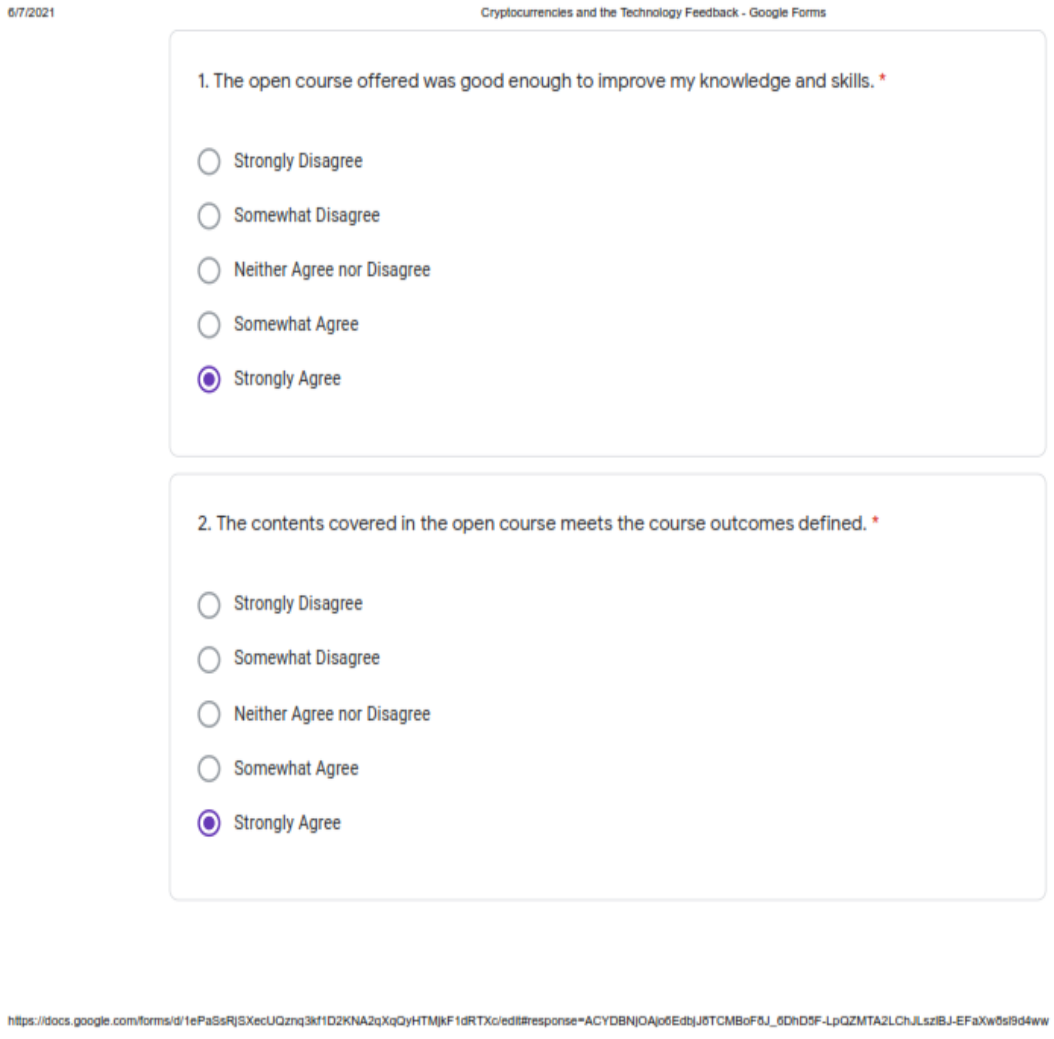
1. Wonderful course we loved it .teachers have done a great job thank you
2. Now its our job to do incessant research on crypto, as many of them are novice in this thing, so rest all is incumbent upon us that we shouldn't be immured to just limited currency, its now time to explore virtual currency…At last i must say Thank You SIR! It was very informative.

Feedback from External participants (if any): -Nil-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. More number of open course in this direction
2. Longer duration is better

Sample course feedback form



6/7/2021 Cryptocurrencies and the Technology Feedback - Google Forms

1. The open course offered was good enough to improve my knowledge and skills. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

2. The contents covered in the open course meets the course outcomes defined. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

https://docs.google.com/forms/d/1ePaSsRjSXecUQznq3kf1D2KNA2qXqQyHTMjkF1dRTXc/edit#response=ACYDBNjOAjo6EdbjJ6TCMBoF6J_6DhD5F-LpQZMTA2LChJLszIBJ-EFaXw6sI9d4ww 3/9

3. The duration of the open course was very appropriate. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

4. The open course helped me a lot to improve my knowledge and skills that are required for the Industry *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

5. The contents of the open course were properly framed in accordance with the Industry requirement *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

6. The resource persons invited to the open course were good enough to cover the topics in depth. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

7. The timing chosen for the open course (just one week after the regular classes) is appropriate. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

8. The open course covered most of the key aspects provided in the course schedule *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

9. The course helped me to acquire sufficient teamwork, continuous learning, modern tools usage and other skills. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

10. I feel, we need more and more of these kinds of new initiatives, which bring all of us together as One Team. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

11. Time management was effective throughout the open course. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

12. I am more inspired to utilize open course to project-based learning, Industry internship, job opportunity etc. *

- ○ Strongly Disagree
- ○ Somewhat Disagree
- ○ Neither Agree nor Disagree
- ○ Somewhat Agree
- ◉ Strongly Agree

13. My suggestions to improve these open courses in future: *

More basic knowledge about crypto for those who don't know about it would be better

14. My other comments: *

Wonderful course we loved it .teachers have done a great job thank you

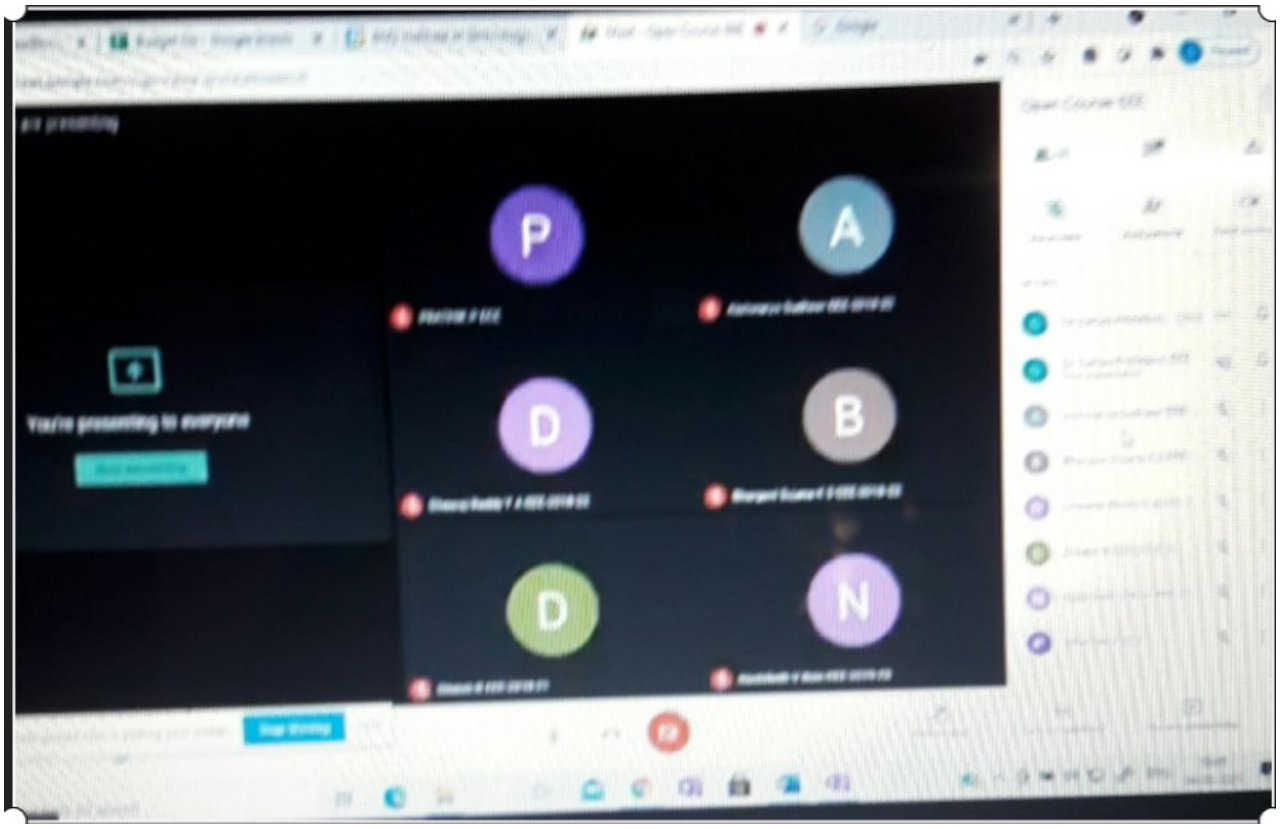
Submitted 05/06/2021, 15:30

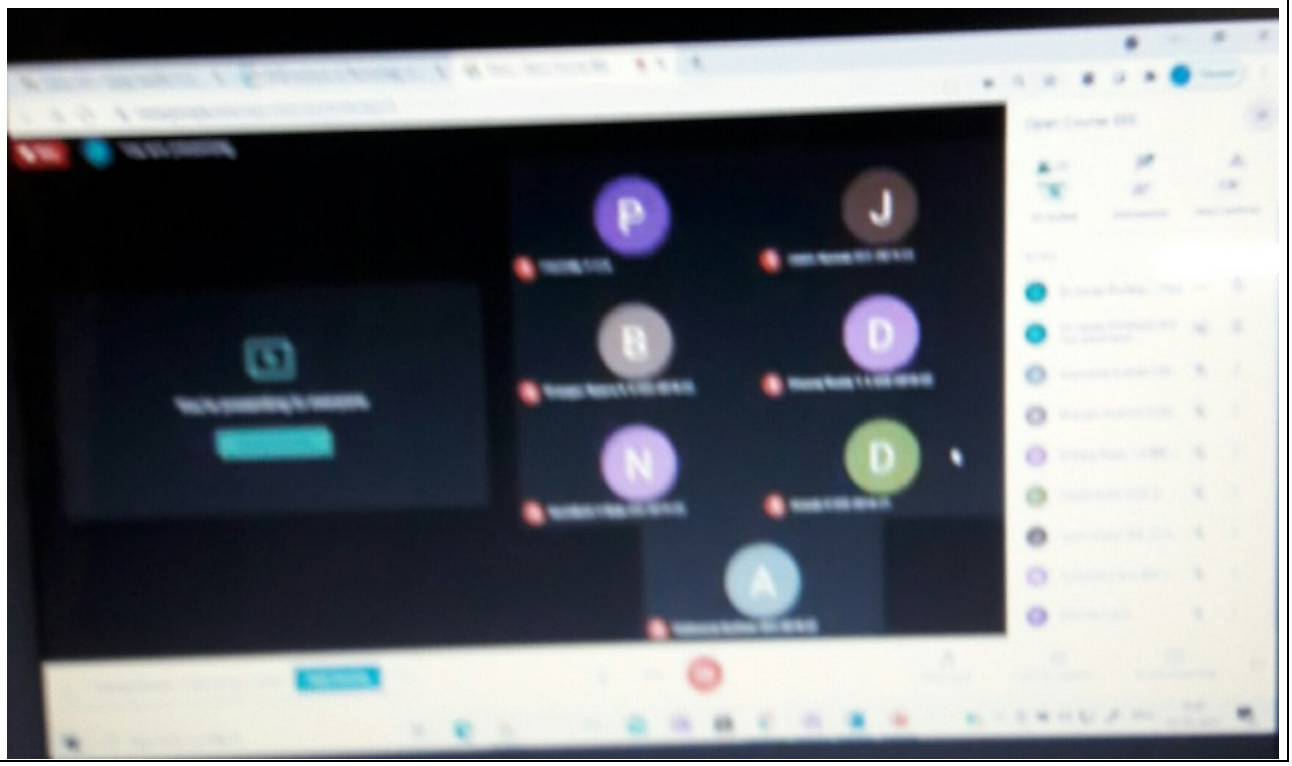
OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Department: **Electrical and Electronics Engineering**		
Title of the Open Course		**Application of Multilevel Inverters**
Targeted Students from Branches		**EEE, ECE, CSE, ISE, ETE**
Registration Fee		**Rs. 100/-**
No. of students attended		**11**
Software/Hardware Tools used		**Laptop, Mobile, MSOFFICE**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**Power point, Digital writing pad (Onenote), Youtube videos.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Sanjay Lakshminarayanan**
	Mobile No.	**9148902185**
	Email ID	**sanjay.eee@bmsit.in**
Internal Resource Person Details	Name	**Dr. Sanjay Lakshminarayanan**
	Designation	**Professor**
External Resource Person Details	Name	**Dr. B. Chandra Sekhar**
	Designation	**Technical Lead**
	Company/Organization	**Tata Consultancy Services Ltd.**
	Mobile Number/email-id	**chandu.2097@gmail.com**
Curriculum Gaps:	**Program Outcomes 7-12 are not addressed much.**	
Abstract	**Fundamentals of power semiconductor devices was touched with discussions on the PN junction, working of MOSFETs, IGBTs and BJTs. The two level inverter in half-bridge and full bridge configurations was analyzed. SPWM technique was introduced. The three phase bridge with concept of space vectors was touched. The hexagonal space vector diagram and the resulting waveforms was shown. The method of averaging space vectors in space vector PWM (SVPWM) was discussed. The three level neutral point clamped Inverter was analyzed, showing its advantages and disadvantages. The five level NPC inverter was also introduced. Youtube videos were shown on the basics of Multilevel Inverters. The NPC, Cascaded-H bridge and flying capacitor topologies were covered in the videos. Mr. B. Chandra Sekhar from TCS gave a talk on Multi-input converters which are similar to multilevel inverters. 12-sided polygonal voltage space vector based multilevel inverter was derived using cascaded 2 level inverters. Scalar control using V/f control to operate induction motors was taught. Some other optimal multilevel inverter methods were examined as give in a recent journal paper.**		

Photograph of the event:





Open Course Outcomes Of "Application of Multilevel Inverters"	**CO-1**	Become familiar with applications of 2-level, single and three phase inverters
	CO-2	Learn about application and concepts of multilevel inverters such as harmonics, EMC etc.
	CO-3	Understand "NPC" and cascaded H-bridge topologies.
	CO-4	Learn about cascading two level inverters to get higher level inverters

CO-PO Mapping for open course of "Application of Multilevel Inverters"

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO3**
CO1	3	3	2	2	3								
CO2	3	3	2	2	2								
CO3	3	3	2	3	3								
CO4	3	2	2	2	2								

Feedback from external expert: -NIL-

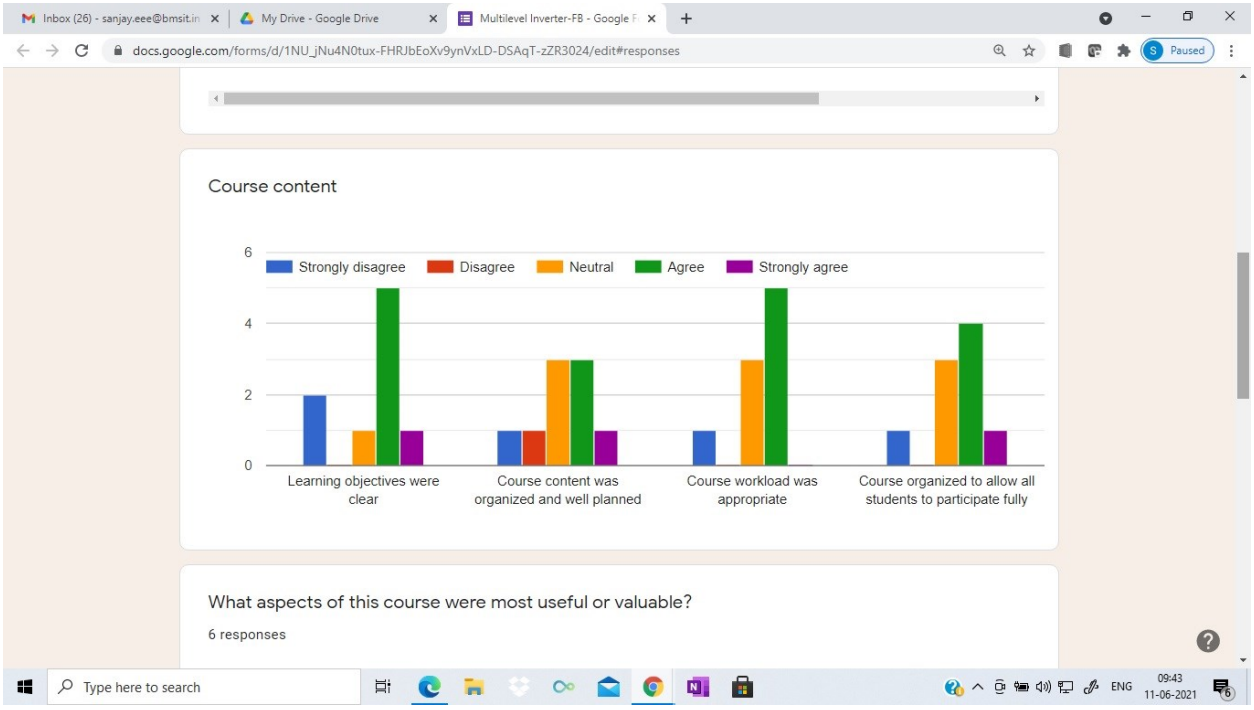
Feedback (critical) from students:
1. Some simulations should be shown.

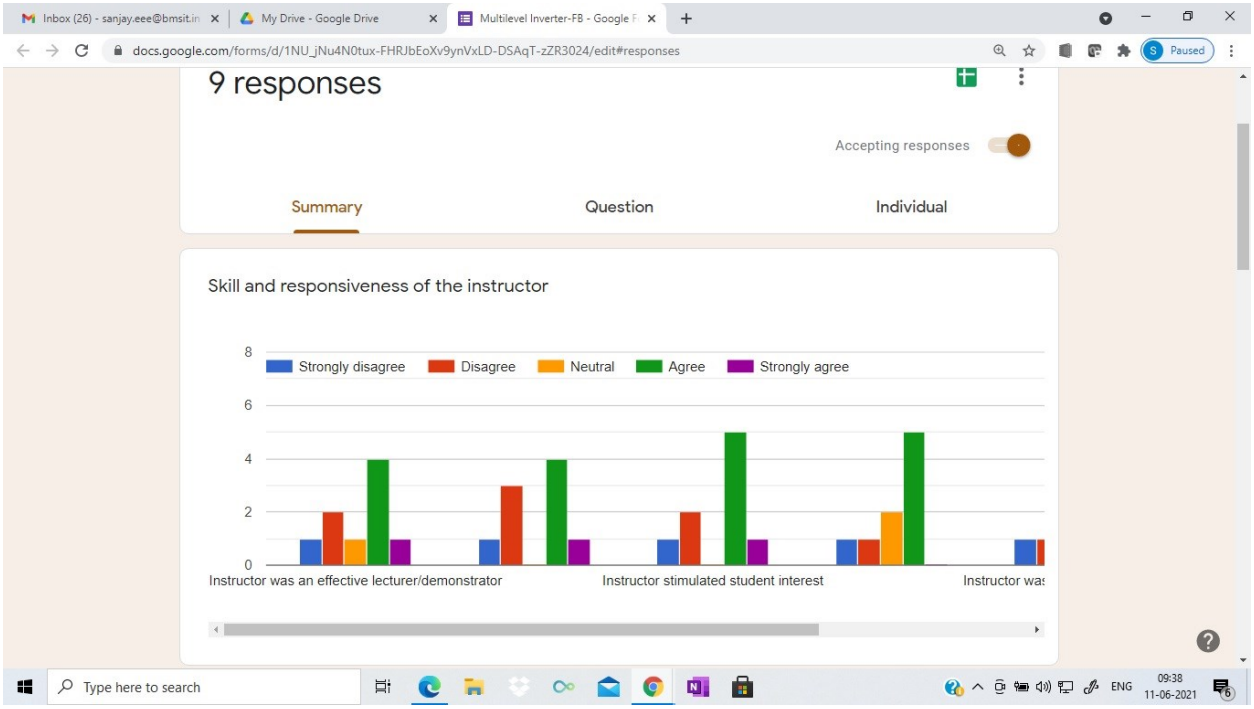
Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1. More documentation (photos) to be done.
2. Simulations should be shown.

Sample course feedback form

See photos for feedback responses.





OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

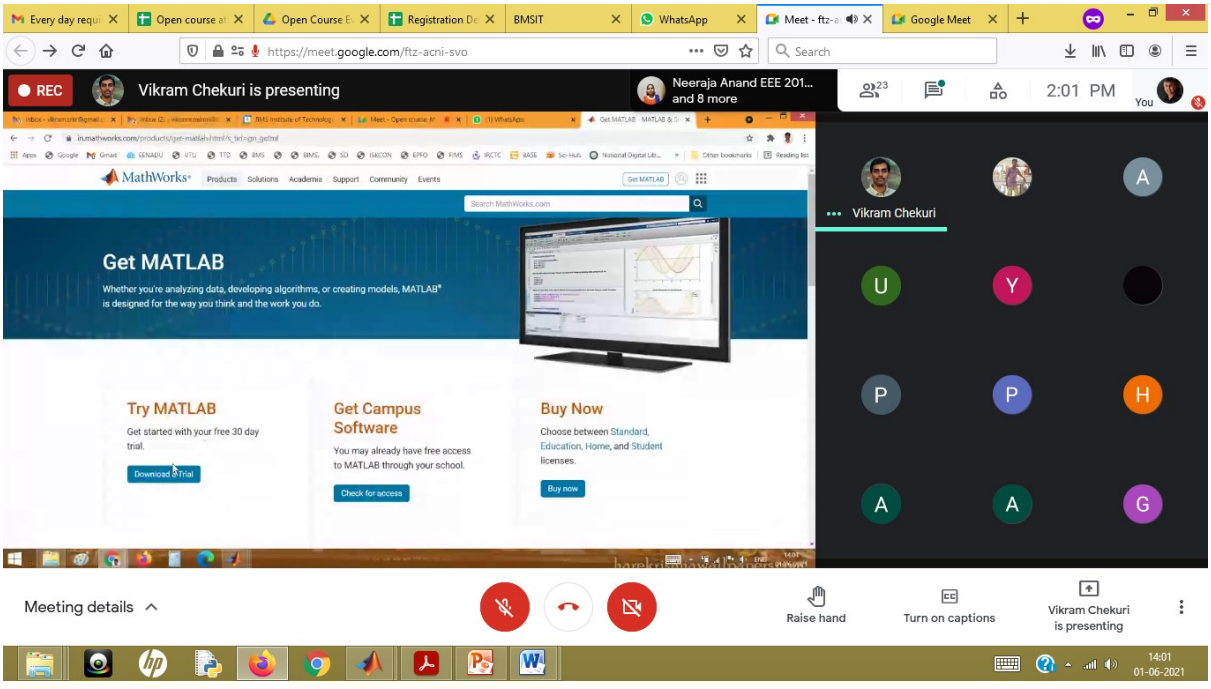
Department: Electrical and Electronics Engineering		
Title of the Open Course		**MATLAB Applications in Electrical Engineering**
Targeted Students from Branches		**EEE**
Registration Fee		**100.00**
No. of students attended		**47**
Software/Hardware Tools used		**MATLAB, SIMULINK, SIMSCAPE**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, Simulation, and Projects**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz, Mini Project, Report making**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr Prashant A Athavale**
	Mobile No.	**9448874716**
	Email ID	**prashanth@bmsit.in**
Internal Resource Person Details	Name	**Dr Prashant A Athavale**
	Designation	**Asst Professor**
	Mobile Number	**9448874716**
	Name	**Vikram Chekuri**
	Designation	**Asst Professor**
	Mobile Number	**9035284177**
	Name	**Mr Rajnikanth**
	Designation	**Asst professor**
	Mobile Number	**9964312907**
External Resource Person Details (Please use additional	Name	--
	Designation	--
	Company/Organization	--
	Mobile Number/email-id	--
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	PO 5: **Modern Tool Usage**	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

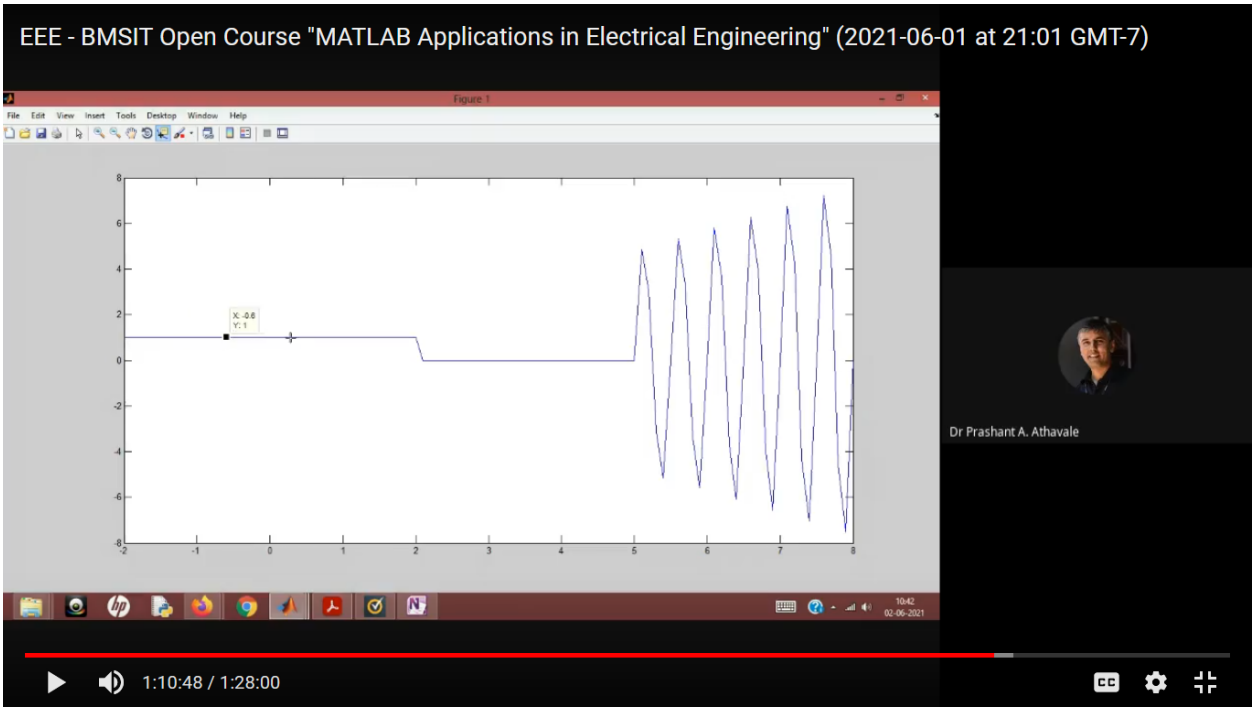
Abstract (Brief Details of the open course with less than 250 words)	The MATLAB Application in Electrical Engineering was a specifically designed Open Course for the 4th and 6th Sem E&EE students. This course made use of the present pandemic driven situation of non-accessibility to the hardware components to both the students and the faculty. The entire course was delivered online with ample emphasis on the simulation of varieties of electrical concepts like filters, controllers and circuits. To make the most out of it, the students were given a detailed introduction to the basic MATLAB coding, and the SIMULINK in the first few sessions of the course. Gradually the concepts related to MATLAB applications were introduced. The course provided the essential knowledge required to build basic modeling techniques and developing SIMULINK block diagrams in the electrical domain. Participants were provided with a working understanding of system modeling and design validation in SIMULINK/SIMSCAPE. Demonstrated how to analyse and relate the mathematical modeling with physical modeling in a simple RC parallel circuit. Students were given a detailed introduction to the Control System MATLAB and Simulink: They cover the basics of MATLAB and Simulink and introduce the most common classical and modern control design techniques such as block reduction method, transfer function, PID controller. At the end of the 5 day course a quiz was conducted for 30 marks, covering most of the concepts taught during the Open Course. The participants were also given 3 mini problems, for which each student is required to submit a solution to any one of the problem. A feedback on various aspects about the open course has been taken.

Photograph of the event:



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021



Open Course Outcomes Of "***MATLAB Applications in Electrical Engineering***"	CO-1	Write codes in MATLAB to perform mathematical operations on variable
	CO-2	Rig up systems in SIMULINK and visualize the system
	CO-3	Analyze the system using toolbox features
	CO-4	Process 1D and 2D signals to extract information
	CO-5	Model and Analyze Power system using simpowersys

CO-PO Mapping for open course of "*MATLAB Applications in Electrical Engineering*"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	2	2	3	3	3								
CO2		2	2	3	3								
CO3		2	2	3	3								
CO4	2	3	3	3	3								
CO5	3	3	3	3	3								

Feedback from external expert: -NIL-

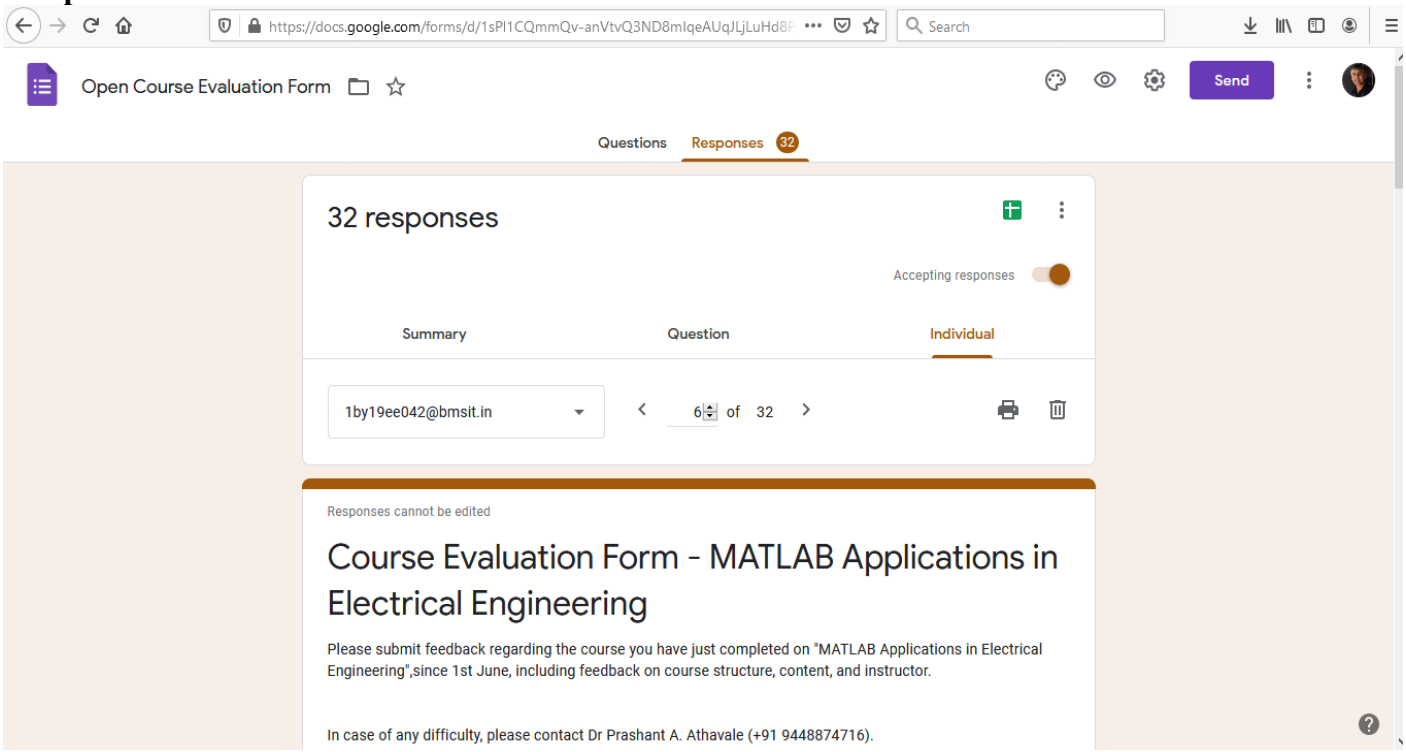
Feedback (critical) from students: -NIL-

Feedback from External participants: -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Since the Open Courses are required / offered to mitigate the curricular gaps, EEE students must be made to take up the courses from the EEE department itself.

Sample course feedback form



OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

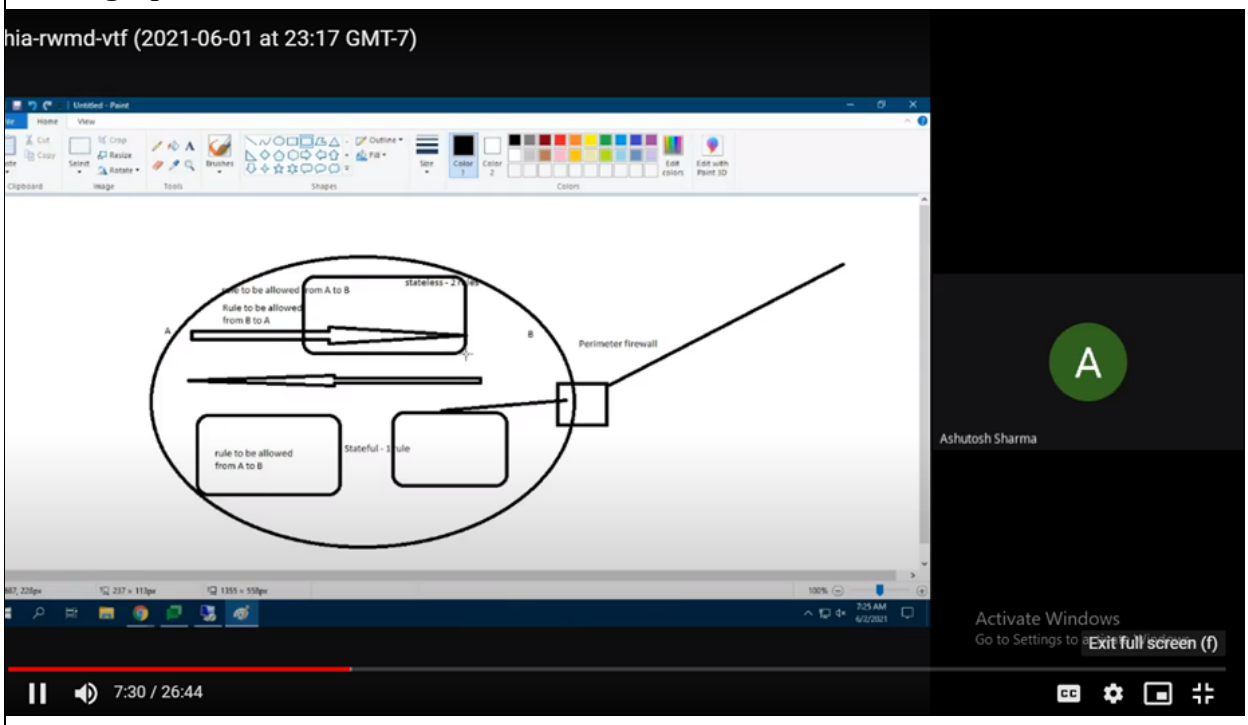
Department: Electronics & Telecommunication engineering		
Title of the Open Course		**Advanced Networking and IOT Applications**
Targeted Students from Branches		**ETE,ECE,ISE,ME,EEE,CSE**
Registration Fee		**150/-**
No. of students attended		**38 (students) + 1 (external) = 39**
Software/Hardware Tools used		**Packet tracer , Wire shark , Turbo C**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT, Simulation and Projects**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz, Report submission**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Prof Saritha I G**
	Mobile No.	**9916128329**
	Email ID	**Saritha.i.g@bmsit.in**
	Name	**Prof. Thejaswini S**
	Mobile No.	**9008637144**
	Email ID	**Thejaswini.s@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Prof Mallikarjuna Gowda**
	Designation	**Associate Professor**
	Mobile Number	**9986738339**
	Name	**Prof Sumathi M S**
	Designation	**Assistant Professor**
	Mobile Number	**9036274256**
	Name	**Prof Saritha I G**
	Designation	**Assistant Professor**
	Mobile Number	**9916128329**
	Name	**Prof Sowmyashree M S**
	Designation	**Assistant Professor**
	Mobile Number	**9620901561**
	Name	**Prof Raghunandan G H**
	Designation	**Assistant Professor**
	Mobile Number	**9535009317**
External Resource Person Details (Please use additional	Name	**Dr. Mohammed Riyaz ahmed , , School of**
	Designation	**Assistant Director, multidisciplinary studies ,**
	Company/Organization	**Reva University**
	Mobile Number/email-id	**9886564566**
	Name	**Mr. Asuthosh ,**
	Designation	**Associate Consultant**
	Company/Organization	**TCS**
	Mobile Number/email-id	**7760982428**
	Name	**Mr Abhijith**

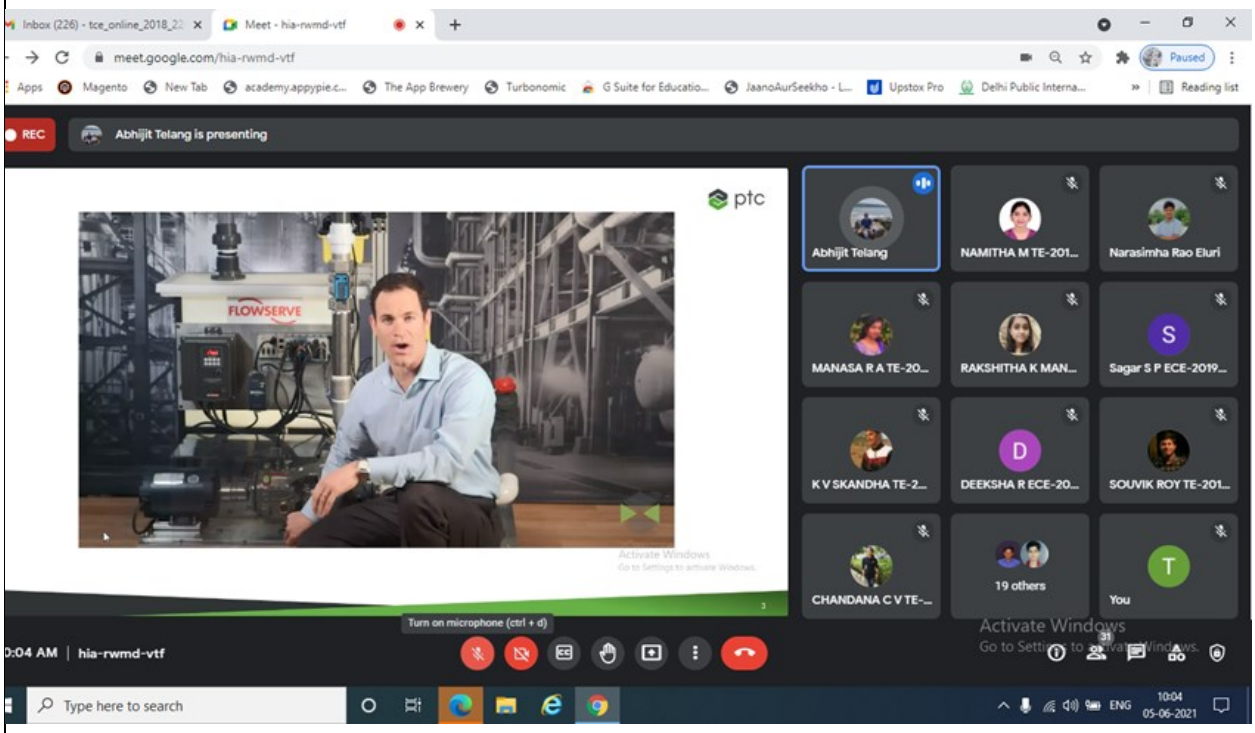
	Designation	**Business Development Manager**
	Company/Organization	**Softcell Technologies Private Limited**
	Mobile Number/email-id	**9930172037**
	Name	**Mr. Abhishek Suresh,**
	Designation	**Cyber security manager**
	Company/Organization	**Societal general**
	Mobile Number/email-id	**9739730801**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO3,5,6,7,9,10,12**	
Abstract (Brief Details of the open course with less than 250 words)	Computer Network is a group of computers connected with each other through wires, optical fibres or optical links so that various devices can interact with each other through a network. The aim of the computer network is the sharing of resources among various devices . Networking is a knowledge in the brain. The network maps to neural connectivity. It also maps to the parallel active network of ideas in the mind. Concept networks provide a simple illustration of how the brain works. They also show how future artificial intelligence can be built. More formally, a network concept is a directed graph representing conceptual connectivity in the brain. The term is analogous to a semantic network used in linguistics, concept map used in knowledge representation, mind map used as a mnemonic prop. As it addresses inefficiencies in existing data movement tools when running on multicore systems by harnessing multicore parallelism to scale data movement on end systems in order to improve the efficiency in networking and the Internet of things (IoT) describes the network of physical objects. "things “that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the Internet ,the objective of this course is to introduce advanced concepts of Networking and IOT applications using various tool boxes like Packet tracer, Firewalls, IOT tool boxes and Evolution of First generations to 4th generations and its advances using 5G networks. The course imparts knowledge on usage of Networking, embedded systems and security tool for IOT applications. This course also impart concepts of data structure using C programming, WSN and IOT automations. Implementations of networking model on packet tracer and wire shark helps the students in understanding concepts clearly rather understanding theoretical concepts.	

OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Photograph of the event:





OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021

Open Course Outcomes Of "***Advanced Networking and IOT Applications***"	**CO-1**	Understand the Concepts of Networking and IOT .
	CO-2	Apply the knowledge to implement Networking models and security
	CO-3	Analyse different tool for implementation of Networking and security.
	CO-4	Develop a model for societal or environmental applications using IOT.
	CO-5	Write a report for the developed model.

CO-PO Mapping for open course of "Advanced Networking and IOT Applications"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1													
CO2	3												3
CO3		3											3
CO4			2		3	2	2		3			2	3
CO5										3			

Feedback from external expert:

1. External experts were happy to share their knowledge in our open course.

Feedback (critical) from students:

1. More on hands on session with extended duration of open course

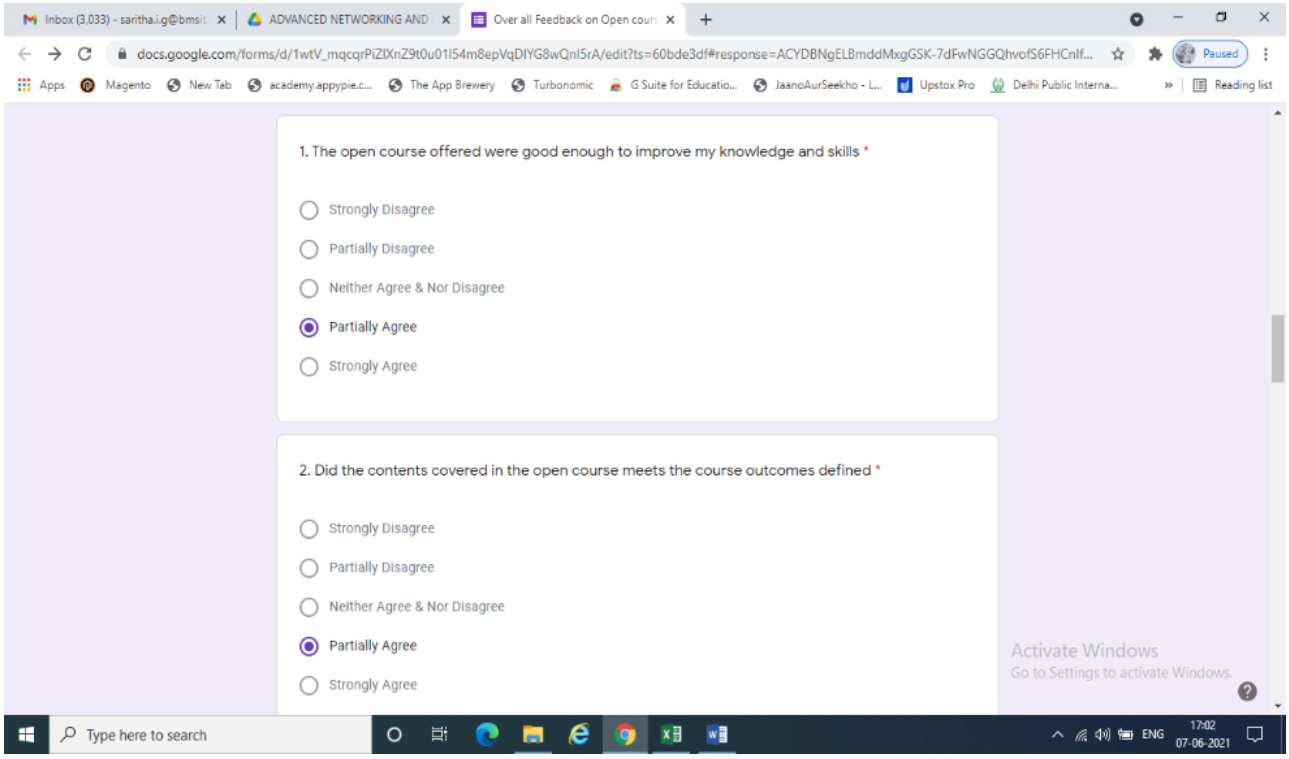
Feedback from External participants (if any):

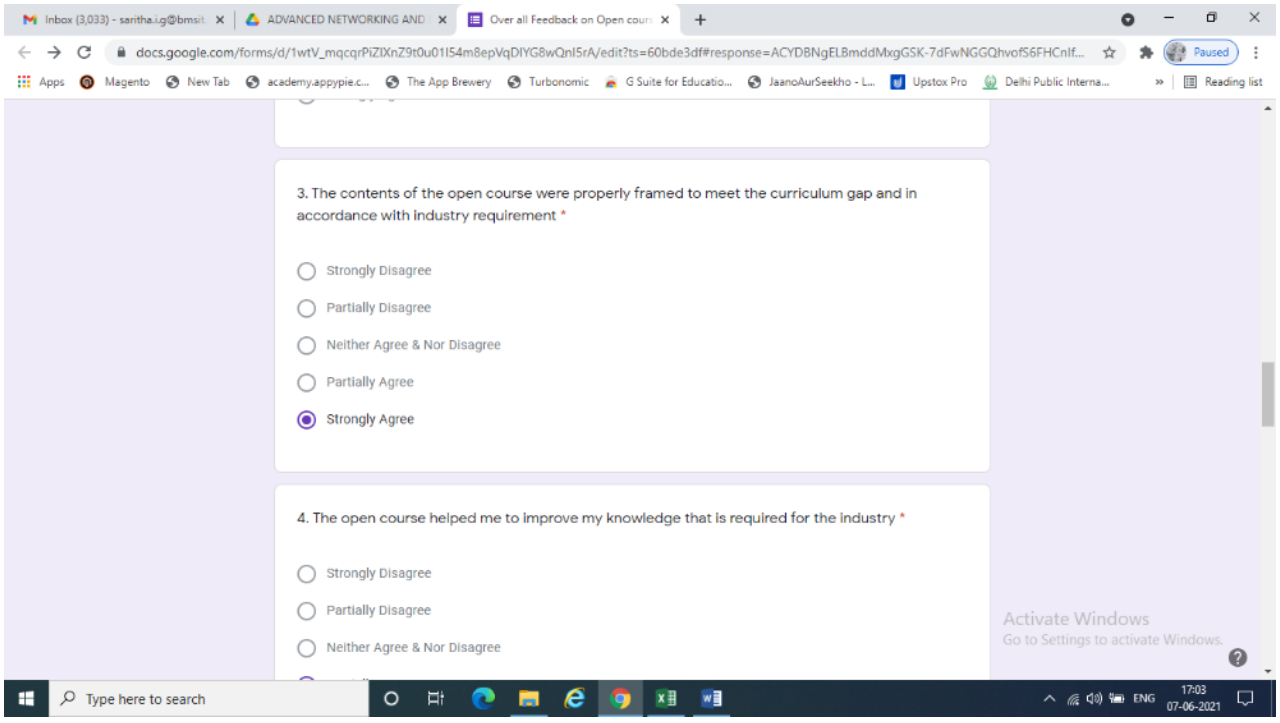
1. Sessions were good enough to cover all the concepts, happy for attending such course during this pandemic situation.

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. More on inter disciplinary application oriented courses can be planned
2. More courses should be offered

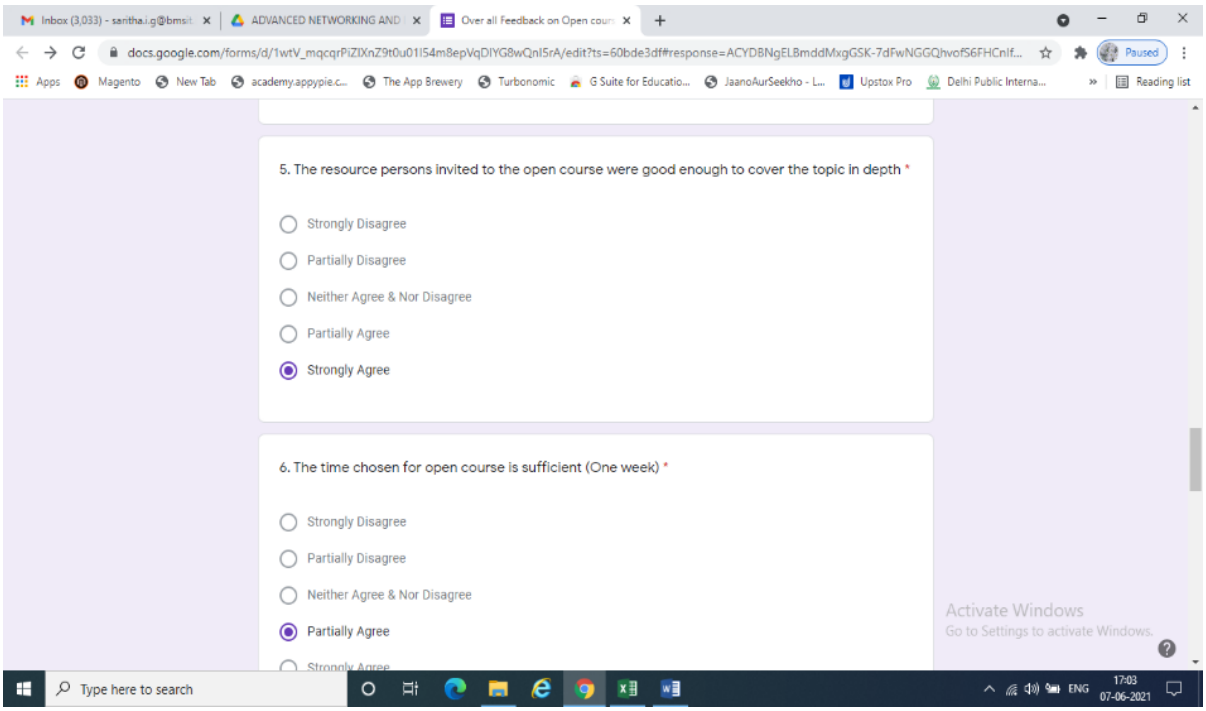
Sample course feedback form

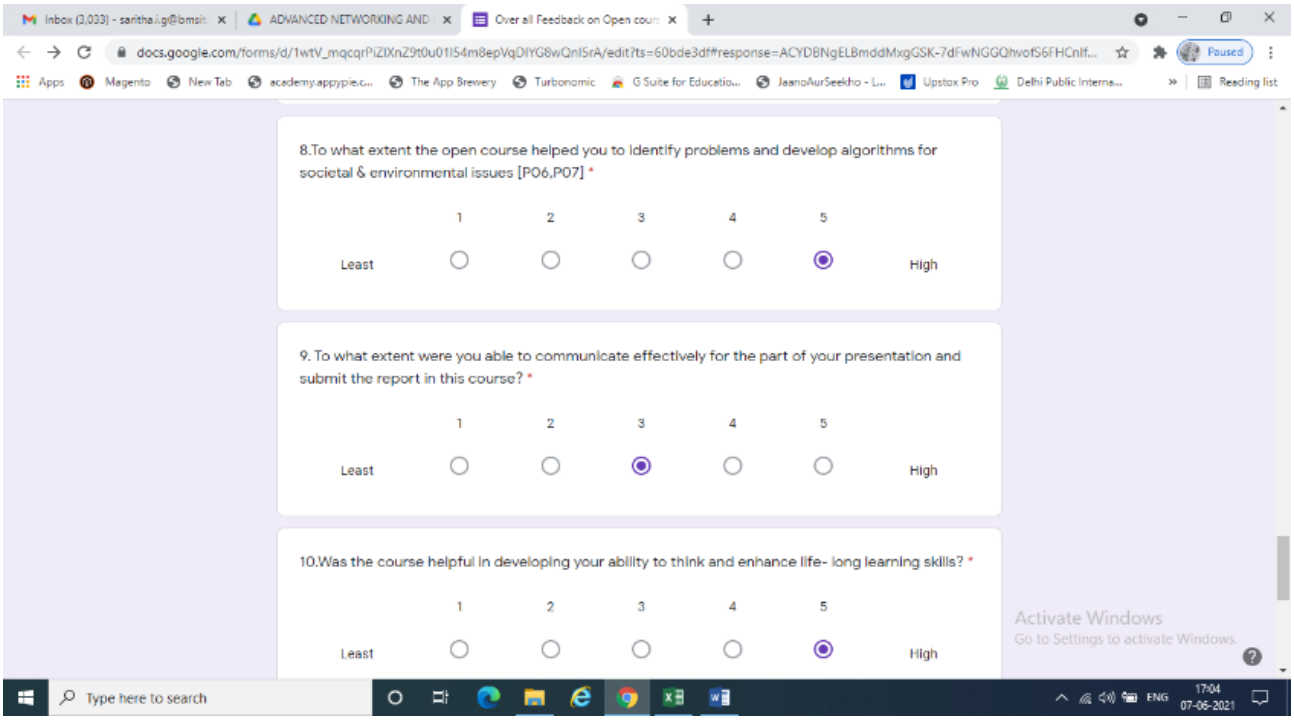


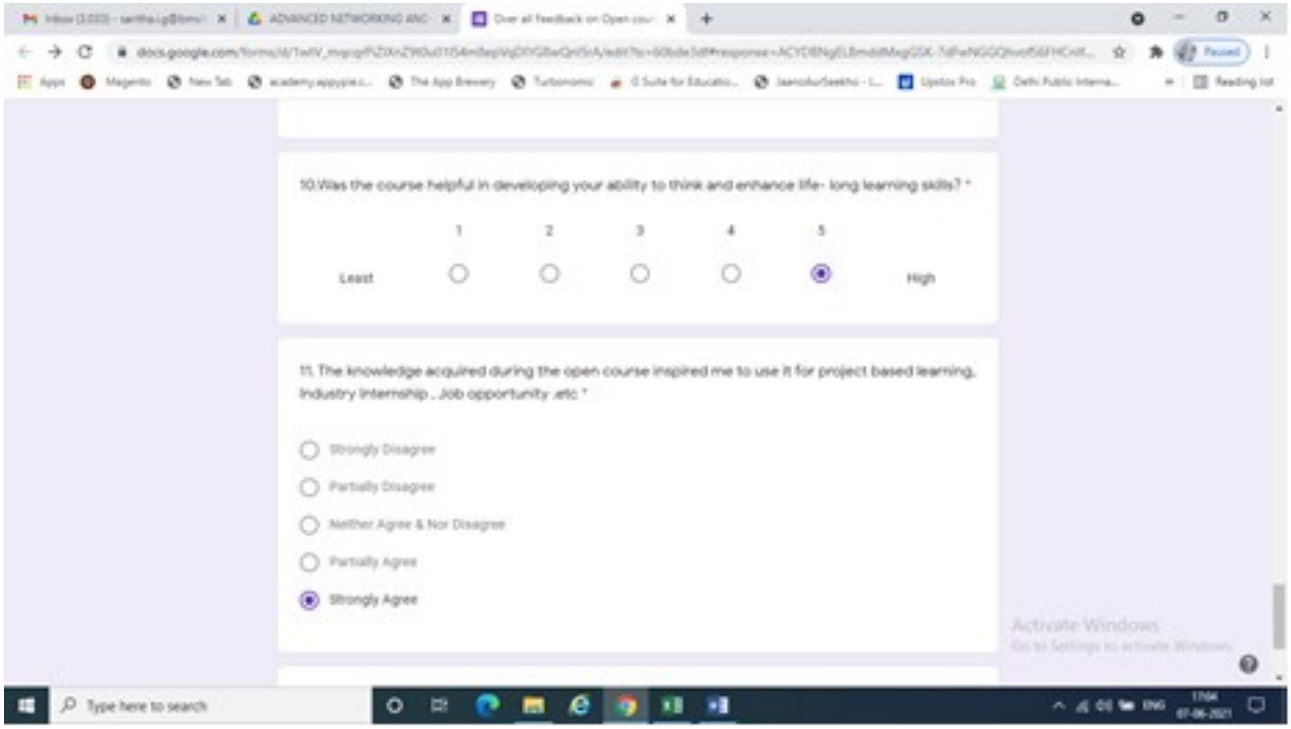


OPEN COURSE 2020-2021 (EVEN SEM)

June 1-5, 2021






10.Was the course helpful in developing your ability to think and enhance life- long learning skills? *
1
2
3
4
5
Least
High
11. The knowledge acquired during the open course inspired me to use it for project based learning, Industry Internship , Job opportunity ,etc *
Strongly Disagree
Partially Disagree
Neither Agree & Nor Disagree
Partially Agree
Strongly Agree
Activate Windows
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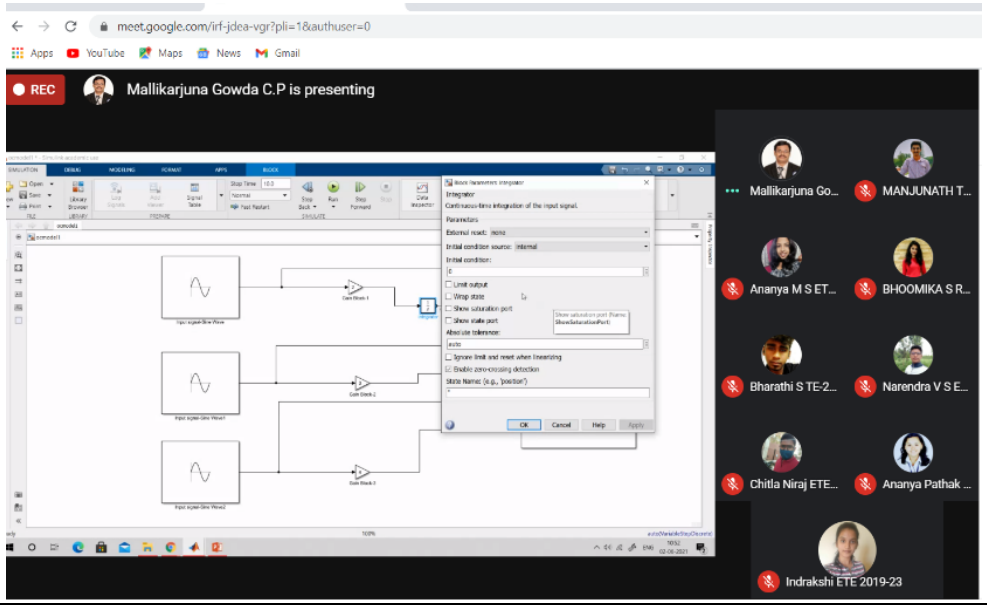
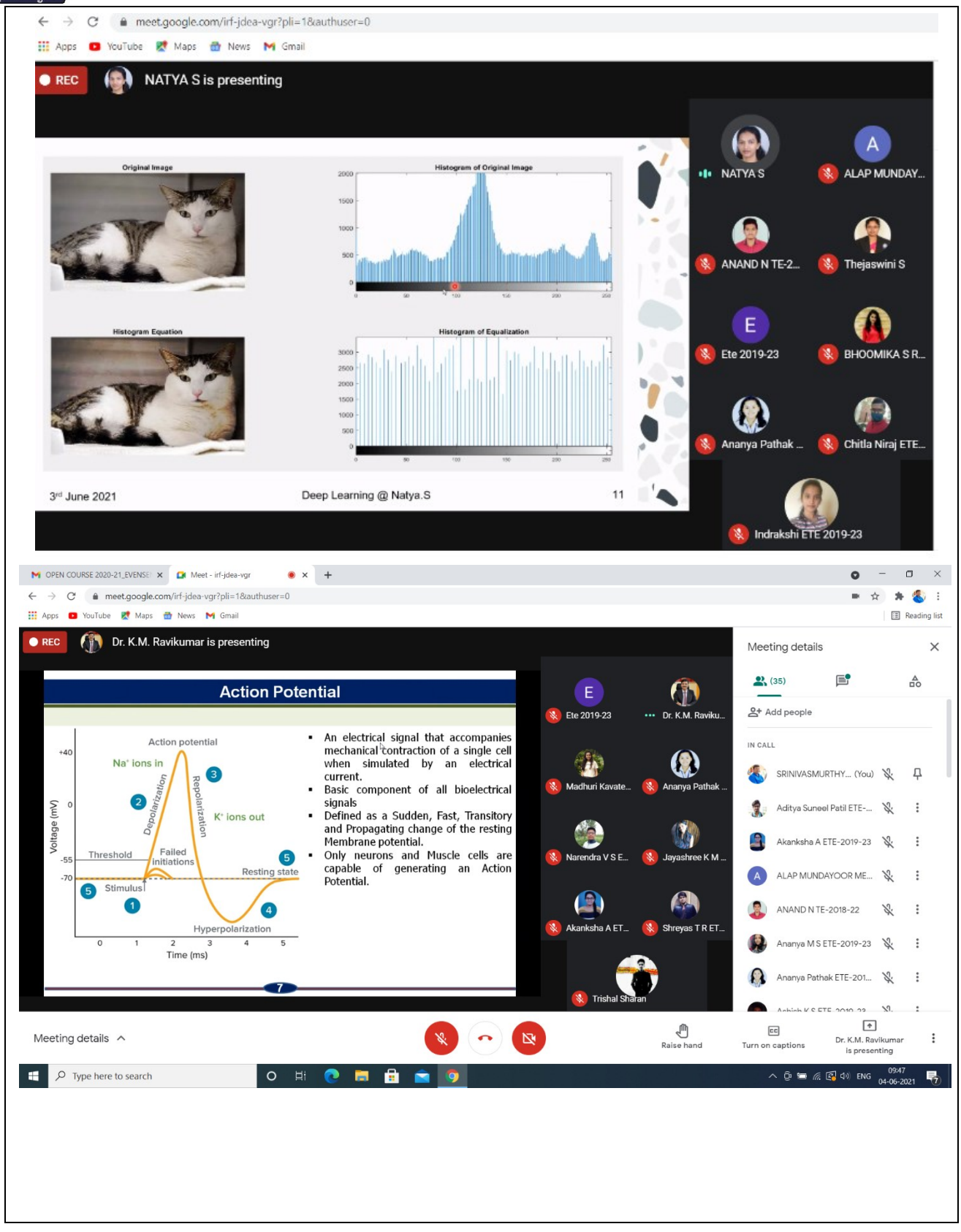
Department: Electronics & Telecommunication Engineering		
Title of the Open Course		**MATLAB Programming on Engineering Applications**
Targeted Students from Branches		**ETE, ECE, CSE, ISE, EEE, MECH, AI&ML**
Registration Fee		**Rs. 150/-**
No. of students attended		**40 + 2 [External Participants]**
Software/Hardware Tools used		**MATLAB & Simulink**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT presentation, Simulation, project, Videos**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz, Mini-project with report submission**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Prof. Thejaswini S**
	Mobile No.	**9008637144**
	Email ID	**Thejaswini.s@bmsit.in**
	Name	**Prof. Saritha I G**
	Mobile No.	**99161 28329**
	Email ID	**saritha.i.g@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Seema Singh**
	Designation	**Professor & Dean (ER)**
	Mobile Number	**97403 74780**
	Name	**Prof. Mallikarjuna Gowda**
	Designation	**Associate Professor**
	Mobile Number	**99867 38339**
	Name	**Prof. Thejaswini S**
	Designation	**Assistant Professor**
	Mobile Number	**9008637144**
	Name	**Prof. Sowmyashree M S**
	Designation	**Assistant Professor**
	Mobile Number	**96209 01561**
External Resource Person Details (Please use additional	Name	**Dr. K M Ravikumar**
	Designation	**Director**
	Company/Organization	**Oxford College of Engineering**
	Mobile Number/email-id	**98803 73629 / kmravikumar75@gmail.com**
	Name	**Prof. Nataya**
	Designation	**Assistant Professor**
	Company/Organization	**Presidency University**
	Mobile Number/email-id	**96329 67325 / natya.aithal@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**Students got the opportunity to learn developing of Algorithms / models using MATLAB & SIMULINK software tools which enhanced their lifelong learning skills by executing the projects individually. PO3,5,6,7,9,10,12**	

Abstract (Brief Details of the open course with less than 250 words)	**The main objective of the course is to inculcate programming fundamentals of MATLAB software tool required for Signal processing. The signal can be 1-D signal for example Bio-signals or 2-D signals such as image. This course is focused on introduction to fundamental programming concepts using MATLAB & SIMULINK, Various Tool boxes like signal processing, neural network, machine learning and Deep Learning Tool boxes. The course imparts knowledge on usage of MATLAB tools for signal analysis. Analysis of signals includes pre-processing, feature extraction, classification / prediction algorithms. Pre-processing of signals involves designing a suitable filter which will filter out the unwanted signals. In this course designing of filter using signal processing tool box was focused. Feature extraction is a process of dimensionality reduction by which an initial set of raw data is reduced to more manageable groups for processing. Feature extraction involves understanding the signal parameters in various domains like time, frequency and time-frequency domains and extracting the features in these domain. Classification is the process of predicting the class of given data points. Classes are sometimes called as targets/ labels or categories. Classification predictive modeling is the task of approximating a mapping function (f) from input variables (X) to discrete output variables (y).** **This open course is designed such that, students will learn basic programming concepts of MATLAB and Simulink. They will be exposed to hands-on sessions on MATLAB inbuilt functions using various tool boxes like Signals processing tool box, neural network tool box, deep learning concepts, Machine Learning application. Using these concepts, student will be able to analyze signals and develop classifiers based on the features extracted.**

Photograph of the event:




meet.google.com/irf-jdea-vgr?pli=1&authuser=0
REC
NATYA S is presenting
Original Image
Histogram of Original Image
Histogram Equation
Histogram of Equalization
3rd June 2021
Deep Learning @ Natya.S
11
NATYA S
ALAP MUNDAY...
ANAND N TE-2...
Thejaswini S
Ete 2019-23
BHOOMIKA S R...
Ananya Pathak ...
Chitla Niraj ETE...
Indrakshi ETE 2019-23
REC
Dr. K.M. Ravikumar is presenting
Action Potential
Action potential
Na+ ions in
K+ ions out
Depolarization
Repolarization
Threshold
Failed initiations
Resting state
Stimulus
Hyperpolarization
Voltage (mV)
Time (ms)
An electrical signal that accompanies mechanical contraction of a single cell when simulated by an electrical current.
Basic component of all bioelectrical signals
Defined as a Sudden, Fast, Transitory and Propagating change of the resting Membrane potential.
Only neurons and Muscle cells are capable of generating an Action Potential.
Meeting details
Add people
IN CALL
SRINIVASMURTHY... (You)
Aditya Suneel Patil ETE-...
Akanksha A ETE-2019-23
ALAP MUNDAYOOR ME...
ANAND N TE-2018-22
Ananya M S ETE-2019-23
Ananya Pathak ETE-201...
Trishal Sharan
Meeting details
Raise hand
Turn on captions
Dr. K.M. Ravikumar is presenting
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Open Course Outcomes Of "*MATLAB Programming on Engineering Applications*"	**CO-1**	**Understand the programming fundamentals of MATLAB & Simulink**
	CO-2	**Apply the knowledge to develop simple code on basic operations.**
	CO-3	**Analyse different tool boxes of MATLAB**
	CO-4	**Develop an algorithm for societal or environmental applications**
	CO-5	**Write a report for the developed algorithm**

CO-PO Mapping for open course of "MATLAB Programming on Engineering Applications**"**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO2
CO1													
CO2	**3**												**3**
CO3		**3**											**3**
CO4			**2**		**3**	**2**	**2**		**3**			**2**	**3**
CO5										**3**			

Feedback from external expert:
1. External experts were happy to share their expertise in the course
2. They appreciated the conduction of such value added courses

Feedback (critical) from students:
1. The only suggestion is if we had more number of days we could have learnt the concepts deeper.
2. Though the course was off academic, we didn't feel the burden. It was very informative and I have been excited about the topics dealt and I'll use them in the future properly.
3. I seemed, the applications explained by every professor was really interesting

Feedback from External participants (if any):
1. Overall it's nice workshop. please organize workshop on only Deep learning techniques

Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1. More on inter disciplinary application oriented courses can be planned
2. More courses should be offered

Sample course feedback form

1. The open course offered were good enough to improve my knowledge and skills *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

2. Did the contents covered in the open course meets the course outcomes defined *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

3. The contents of the open course were properly framed to meet the curriculum gap and in accordance with industry requirement *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

4. The open course helped me to improve my knowledge that is required for the industry *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

5. The resource persons invited to the open course were good enough to cover the topic in depth *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

6. The time chosen for open course is sufficient (One week) *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

7. The open course covered most of key aspects provided in the course schedule *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

8.To what extent the open course helped you to identify problems and develop algorithms for societal & environmental issues [PO6,PO7] *

	1	2	3	4	5	
Least	○	○	○	○	◉	High

9. To what extent were you able to communicate effectively for the part of your presentation and submit the report in this course? *

	1	2	3	4	5	
Least	○	○	○	○	◉	High

10.Was the course helpful in developing your ability to think and enhance life- long learning skills? *

	1	2	3	4	5	
Least	○	○	○	○	◉	High

11. The knowledge acquired during the open course inspired me to use it for project based learning, Industry Internship , Job opportunity .etc *

- ○ Strongly Disagree
- ○ Partially Disagree
- ○ Neither Agree & Nor Disagree
- ○ Partially Agree
- ◉ Strongly Agree

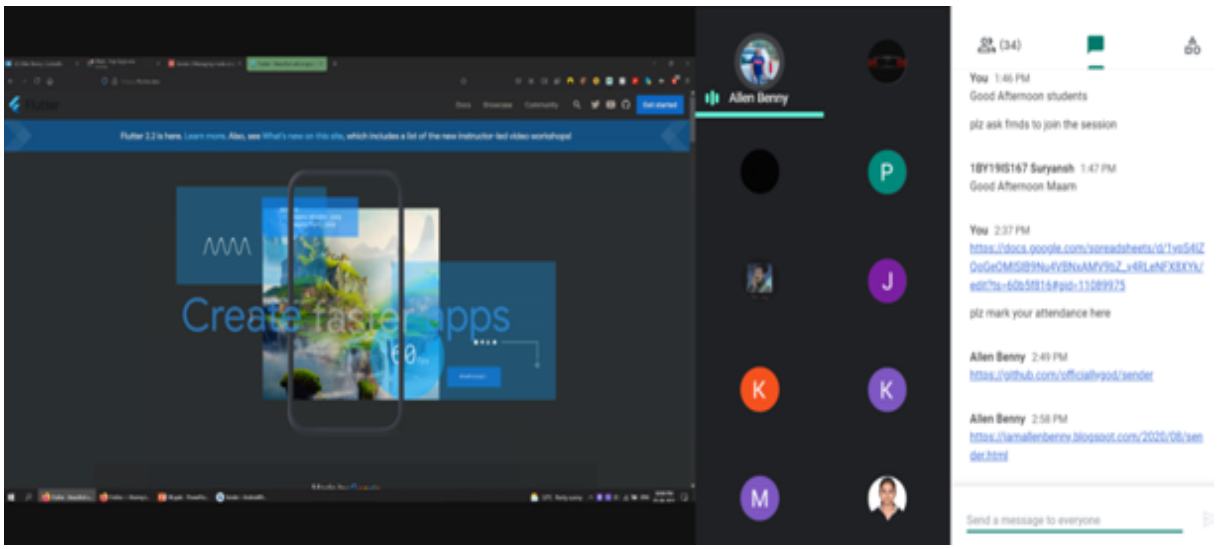
12. Any Suggestions *

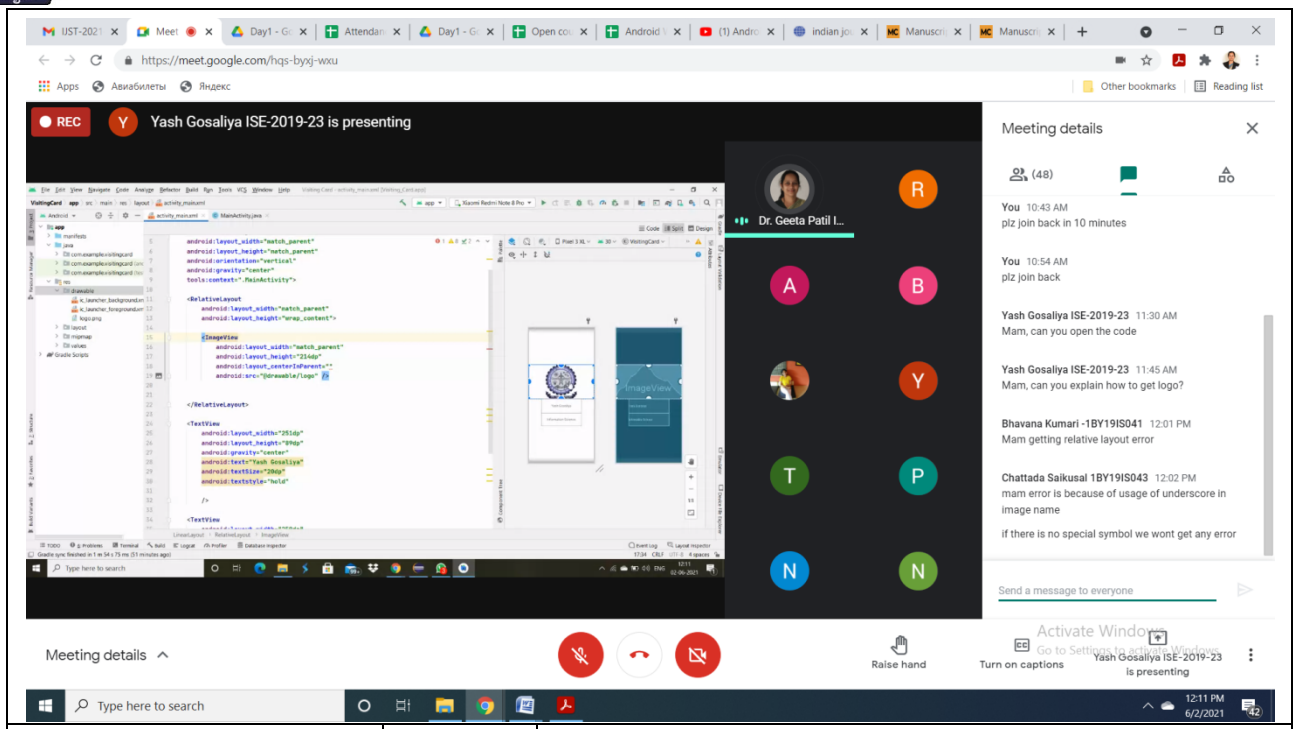
I seemed,The applications explained by every professor was really intersting

Department: Information Science and Engineering		
Title of the Open Course		**ANDROID Application Development**
Targeted Students from Branches		**ISE, CSE, ECE, EEE, MECH, ETE**
Registration Fee		**CSI Member: Rs 100/-, Non CSI: 150/-**
No. of students attended		**63**
Software/Hardware Tools used		**Software Tools**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPt Presentation, simulation using Android Studio, Videos, Project**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Activity based implementation and submission**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Manjunath T N**
	Mobile No.	**9900130748**
	Email ID	**manju.tn@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Geeta Patil**
	Designation	**Associate Professor**
	Mobile Number	**9764923424**
	Name	**Mrs. Shanthi D L**
	Designation	**Assistant Professor**
	Mobile Number	**9449176450**
External Resource Person Details (Please use additional	Name	**Mr. Ankit Agarwal**
	Designation	**Android App Developer**
	Company/Organization	**Founder of Apps Nesst - Home for Software Development**
	Mobile Number/email-id	**85039 90796**
	Name	**Mr. Madhu J**
	Designation	**Senior Software Engineer & Freelancer**
	Company/Organization	**Capgemini**
	Mobile Number/email-id	**8951797270/**
	Name	**Mr.Kiran Kumar S**
	Designation	**Jr. Android Application Developer**
	Company/Organization	**Parnets Digital Advertisements Pvt. Ltd & Freelancer**
	Mobile Number/email-id	**7624853253**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	• **Software tools such as ANDROID Studio and programming with JAVA, Visual tools to simulate the working of different APPs were demonstrated with Hands-on experiments.** • **The POs mapped includes PO1, PO2, PO3, PO5,PO6,PO7,PO10,PO11,PO12** • **PSO1 is mapped as it includes**	

Abstract (Brief Details of the open course with less than 250 words)	**ANDROID mobile applications have influenced most of the industries as part of the digital revolution today. It transformed the mobile app market. There is a broad range of Android apps, particularly in the business world. Android app development is the process by which applications are created for devices running the Android operating system. Mobile applications provide different platforms to business and brands. Mobile Apps connect companies directly with users and make better engagement with customers. Mobile apps provide many benefits to companies like better connectivity between user and company, increase user base, better business reach and a major benefit is it makes the brand world popular in minimum time.** **Practice of niche technology like ANDRIOD and other helps students to know the industry requirements better. This builds confidence in students to present themselves in placements to get better opportunities. Some students were able to take their learning further to build good projects and setup companies or to work as freelancers.**

Photograph of the event:





Open Course Outcomes Of "**ANDROID Application Development**"	**CO-1**	Apply essential Android Programming concepts.
	CO-2	Install and configure Android application development tools.
	CO-3	Design and develop user Interfaces for the Android platform.
	CO-4	Design and develop mobile applications, using development tools and environments.

CO-PO Mapping for open course of "ANDROID Application Development"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1
CO1	3												
CO2	3	2											
CO3		2	3		3								
CO4					3	1	2			1	2	2	

Feedback from external expert:

1. They enjoyed the session with students.
2. More time is required to cover the course in depth.

Feedback (critical) from students:

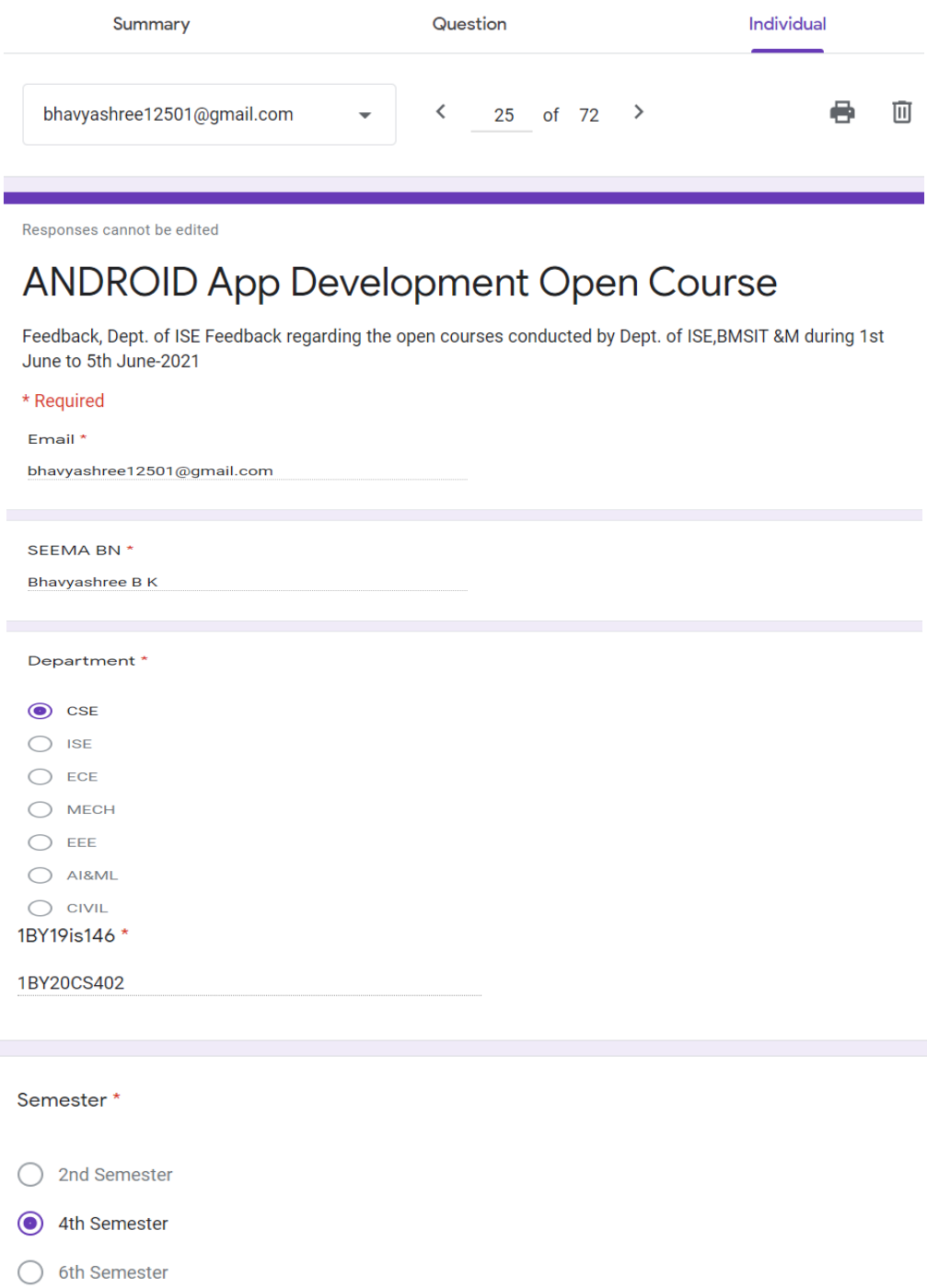
1. Few students expressed that more number of real time projects demonstration.
2. Some students expressed more contents in the course

Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time

1. The pace of few sessions were little faster.
2. Expressed about the need of some relax time in between to refresh

Sample course feedback form



Summary Question Individual

bhavyashree12501@gmail.com 25 of 72

Responses cannot be edited

ANDROID App Development Open Course

Feedback, Dept. of ISE Feedback regarding the open courses conducted by Dept. of ISE,BMSIT &M during 1st June to 5th June-2021

* Required

Email *

bhavyashree12501@gmail.com

SEEMA BN *

Bhavyashree B K

Department *

- (●) CSE
- ( ) ISE
- ( ) ECE
- ( ) MECH
- ( ) EEE
- ( ) AI&ML
- ( ) CIVIL

1BY19is146 *

1BY20CS402

Semester *

- ( ) 2nd Semester
- (●) 4th Semester
- ( ) 6th Semester

OPEN COURSE 2020-2021

June 1-5, 2021

1by19is146@bmsit.in *

dipcse2@bmsit.in

Contribution to learning: *

	Poor	Fair	Satisfactory	Very Good	Excellent
Mordern skill/tool at the start of course	○	○	○	○	◉
Modern skill/tool gained at end of course	○	○	○	○	◉
Application of the skill learned to solve problems in real world	○	○	○	○	◉

Course content: *

	Disagree	Neutral	Agree
Learning objectives were clear	○	○	◉
Course content was organized and well planned	○	○	◉
Course workload was appropriate	○	○	◉
Course organized to allow all students to participate fully	○	○	◉
Hands on session were easy to understand and was useful	○	○	◉
The content was presented in an organized manner	○	○	◉

OPEN COURSE 2020-2021

June 1-5, 2021

Content sharing and evaluation process was motivating to learn more *

- (●) YES
- ( ) NO

Untitled Title

- ( ) Option 1

What aspects of this course were most useful or valuable? *

Very much useful,I learnt a lot

How would you improve this course? *

The session was very good,I'm interested to learn more on this ...

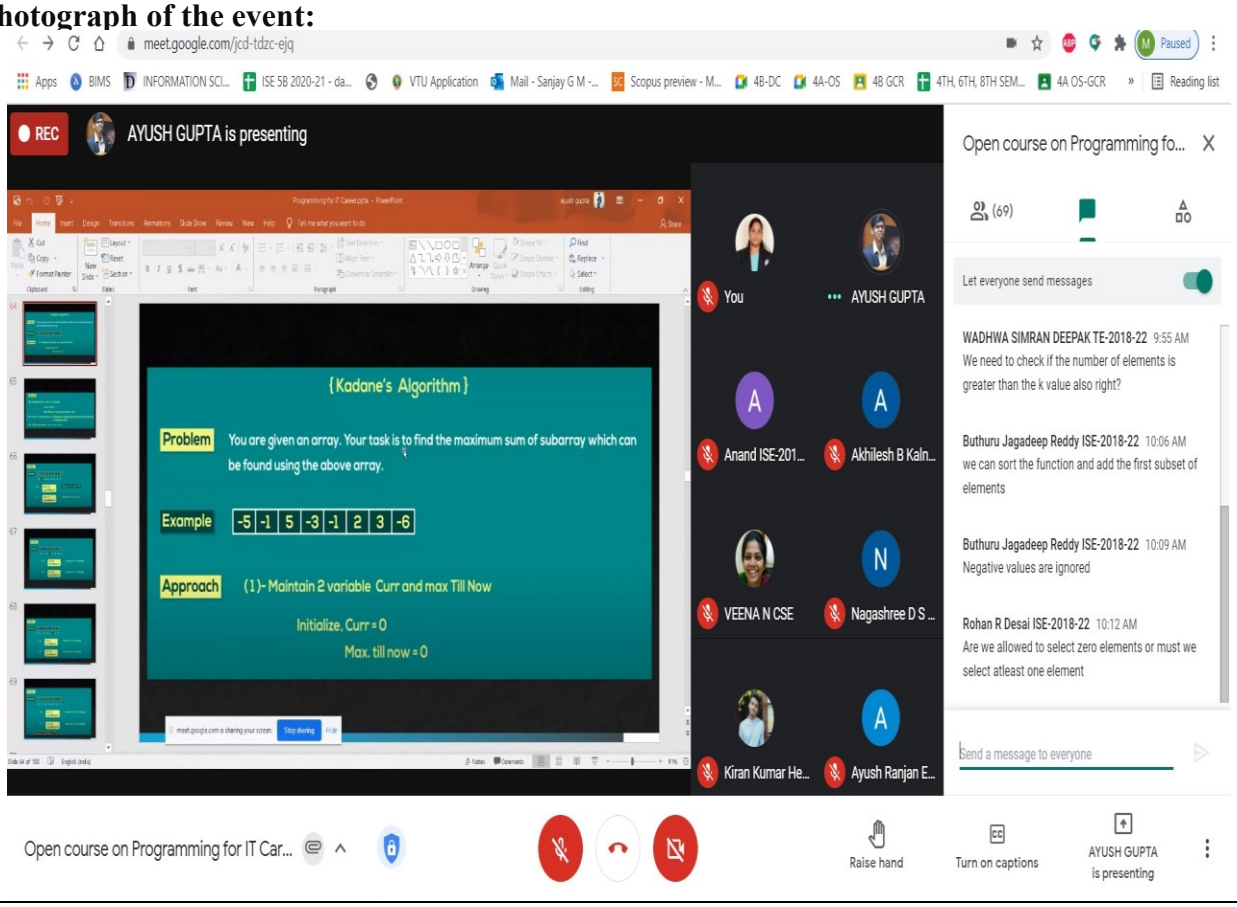
OPEN COURSE 2020-2021

June 1-5, 2021

Department: Information Science and Engineering		
Title of the Open Course		**Programming for IT Career**
Targeted Students from Branches		**All Branches**
Registration Fee		**Rs.150/- (Non CSI) Rs.100/-(CSI)**
No. of students attended		**75**
Software/Hardware Tools used		**Visual studio, HTML, CSS, JS**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT presentation, Coding**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz , Mock Interview**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr.Manjunath T.N**
	Mobile No.	**9900130748**
	Email ID	**manju.tn@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Prof.S.Mahalakshmi**
	Designation	**Asst Professor**
	Mobile Number	**8660180443**
	Name	**Dr.Veena N**
	Designation	**Asst Professor**
	Mobile Number	**7406699661**
	Name	**Prof.Ambika R**
	Designation	**Asst Professor**
	Mobile Number	**9008610899**
External Resource Person Details (Please use additional	Name	**Mr.Ayush Gupta**
	Designation	**Associate**
	Company/Organization	**PWC**
	Mobile Number/email-id	**8181014440 /ayushgupta6571@gmail.com**
	Name	**Mr.Chethan**
	Designation	**Software Developer**
	Company/Organization	**AI Myth Inc**
	Mobile Number/email-id	**9110466718/chethanjkulkarni@gmail.com**
	Name	**Mr.Rahmat Khan**
	Designation	**Managing Director**
	Company/Organization	**Tecidexa services**
	Mobile Number/email-id	**9618901075/ rahmatk@hostocron.com**
	Name	**Mr.Akash P galgali**
	Designation	**Software Developer**
	Company/Organization	**Dover Technologies**
	Mobile Number/email-id	**8792402686/ akashgalagali4@gmail.com**

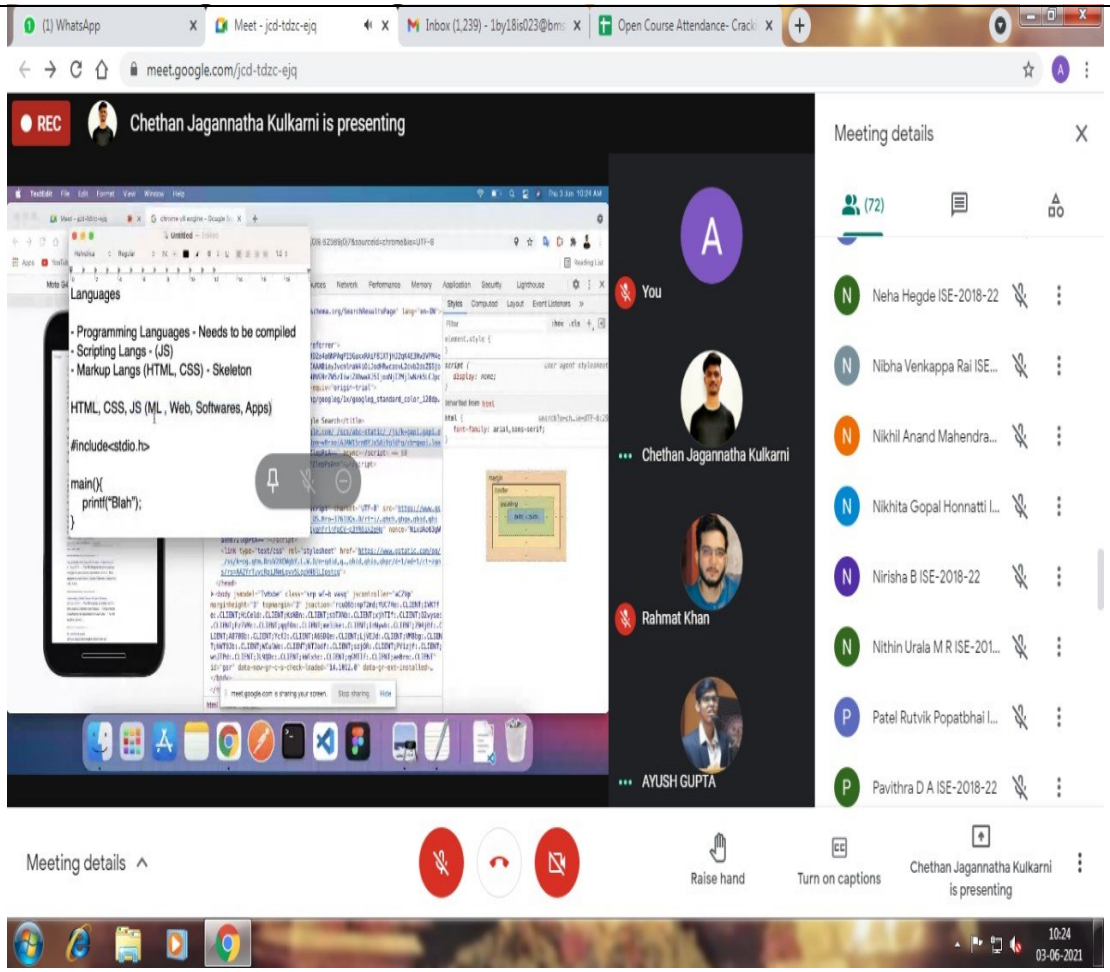
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	POs: 3,5,10,12 PSO:1
Abstract	The knowledge of DSA is tested significantly in the technical hiring process of many companies. This is because the problems that these companies encounter daily are quite huge and complex, and they want to hire smart people who will solve these tasks within minimal time and the least number of resources. Advanced knowledge of Data Structures and Algorithms is a clear indicator of the person's capabilities in solving complex problems in minimal time. In order to face the new market environment which is in constant change, the company must place the customer in the center of its attention. As a result, the company will not follow, first of all, the benefit brought by a certain successful business, but to develop long-term business relationships with the same customers. The integration of Web technologies has an important place into the process of accomplishing companies' objectives to increase the competitiveness degree on the market by generating customers' loyalty. Developing a web-site makes it possible a very good communication with the clients , and this leads, finally, to a constant adaptation of the company's offer to the continuously changing customers' requests.

Photograph of the event:



OPEN COURSE 2020-2021

June 1-5, 2021



Open Course Outcomes Of "***Programming for IT Career***"	**CO-1**	Apply data structures concepts to solve real time problems
	CO-2	Analyse and choose suitable data structure for complex problems
	CO-3	Design sustainable solutions for complex problems
	CO-4	Engage in self-learning to get eligible for placement

CO-PO Mapping for open course of " *Programming for IT Career*"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1
CO1	**3**												
CO2		**3**											
CO3			**3**		**2**								3
CO4										**3**		**3**	

Feedback from external expert:

1. More practical for Core concepts for Placement point of view
2. Students were very interactive over the sessions.
3. To train students in Data structures, web technologies, AI, data science, Machine Learning, Algorithms , Blockchain, Cloud and Web domain

Feedback (critical) from students:

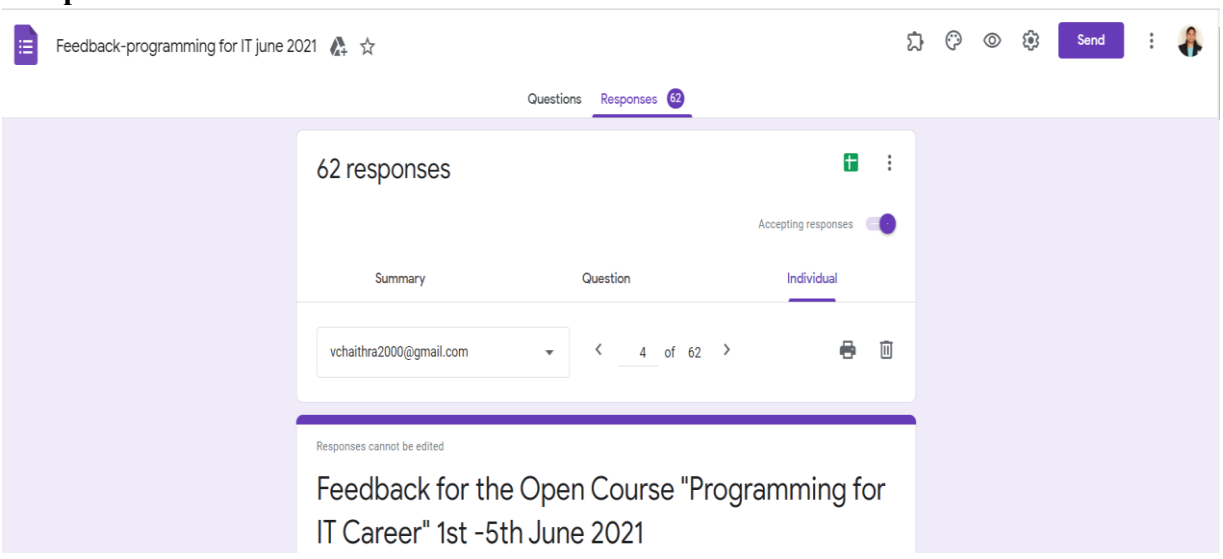
1. They thought us most of the concepts, I would like to enhance and work more on that.
2. Include algorithms like Dijkstra's, bellman ford. Other placement related topics like deadlock os etc instead of web development session
3.The course was taken very well. It would have been better if we also could attempt an aptitude test .

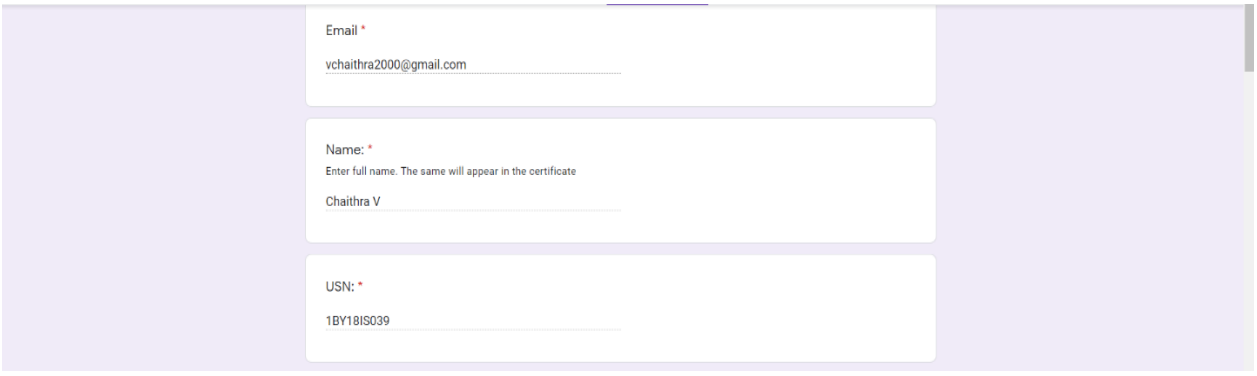
Feedback from External participants (if any): -NIL-

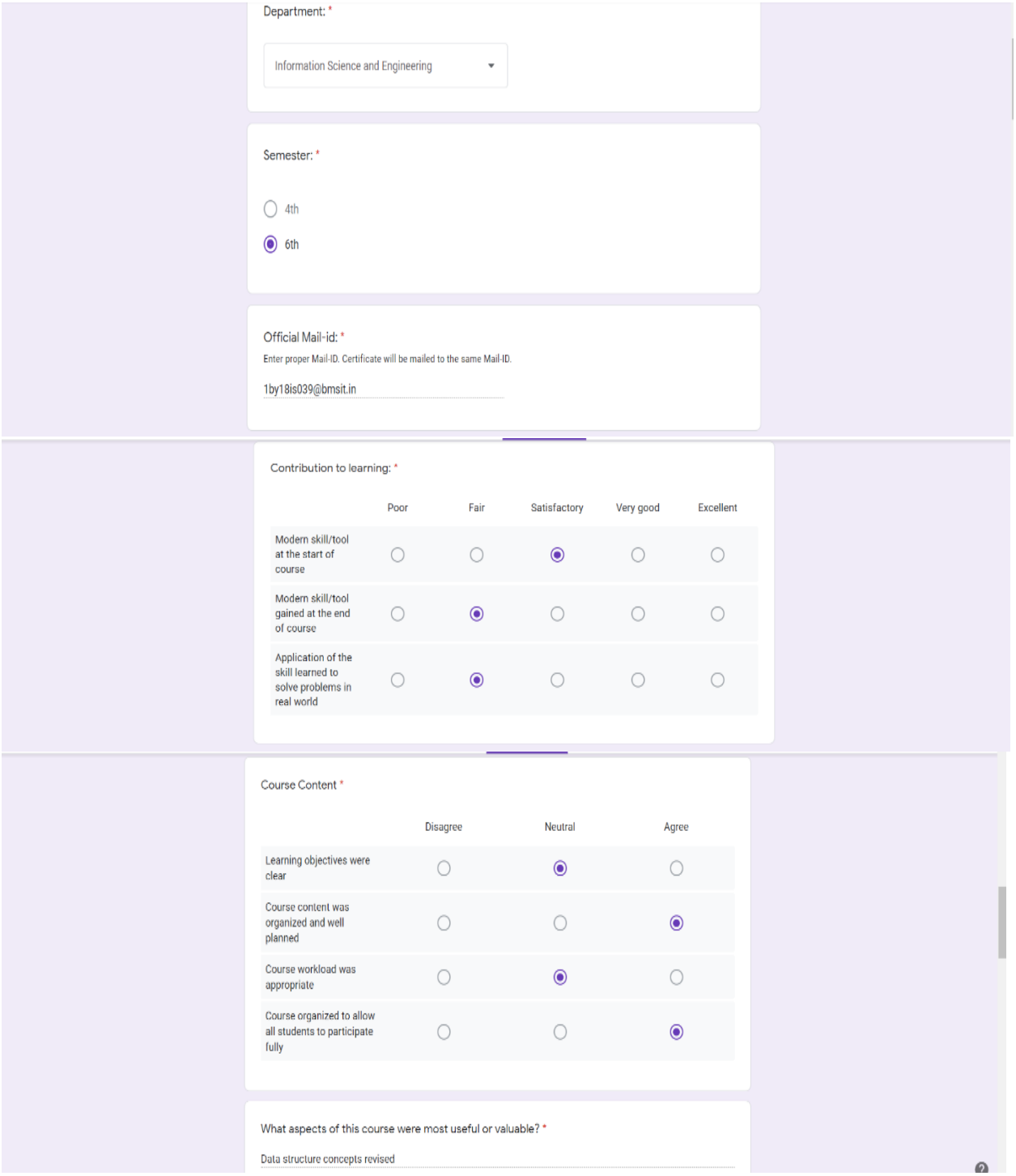
Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Add other important subjects required for placements like OS, CNS, DBMS
2. Giving resources/materials for the preparation for the entire Placement preparation (aptitude, technical interview, coding, hr interview) would also benefit all of us

Sample course feedback form







Department: *

Information Science and Engineering

Semester: *

- 4th
- (•) 6th

Official Mail-id: *

Enter proper Mail-ID. Certificate will be mailed to the same Mail-ID.

1by18is039@bmsit.in

Contribution to learning: *

	Poor	Fair	Satisfactory	Very good	Excellent
Modern skill/tool at the start of course	○	○	(•)	○	○
Modern skill/tool gained at the end of course	○	(•)	○	○	○
Application of the skill learned to solve problems in real world	○	(•)	○	○	○

Course Content *

	Disagree	Neutral	Agree
Learning objectives were clear	○	(•)	○
Course content was organized and well planned	○	○	(•)
Course workload was appropriate	○	(•)	○
Course organized to allow all students to participate fully	○	○	(•)

What aspects of this course were most useful or valuable? *

Data structure concepts revised

How would you improve this course? *

They thought us most of the concepts,I would like to enhance and work more on that.

It helps you to prepare for your placements *

- (●) Yes
- ( ) No

How was your level of understanding towards the concepts *

- ( ) Excellent
- (●) Very good
- ( ) Good
- ( ) Fair

Have you able to analyse conceptual problems *

- ( ) Excellent
- ( ) Very good
- (●) Good
- ( ) Fair
- ( ) Poor

Have you able to Design code for given problems *

- ( ) Excellent
- ( ) Very good
- (●) Good
- ( ) Fair
- ( ) Poor

Have you able to Communicate well in the Mock Placements? *

- ( ) Excellent
- ( ) Very good
- (●) Good
- ( ) Fair
- ( ) Poor

What are the software tools u learned in the course to code? (Hint : HTML, CSS, Visual Studio) *

Ds concepts, html,css,oops

What are the suggestions given by the expert in the mock placement to improve yourself *

None

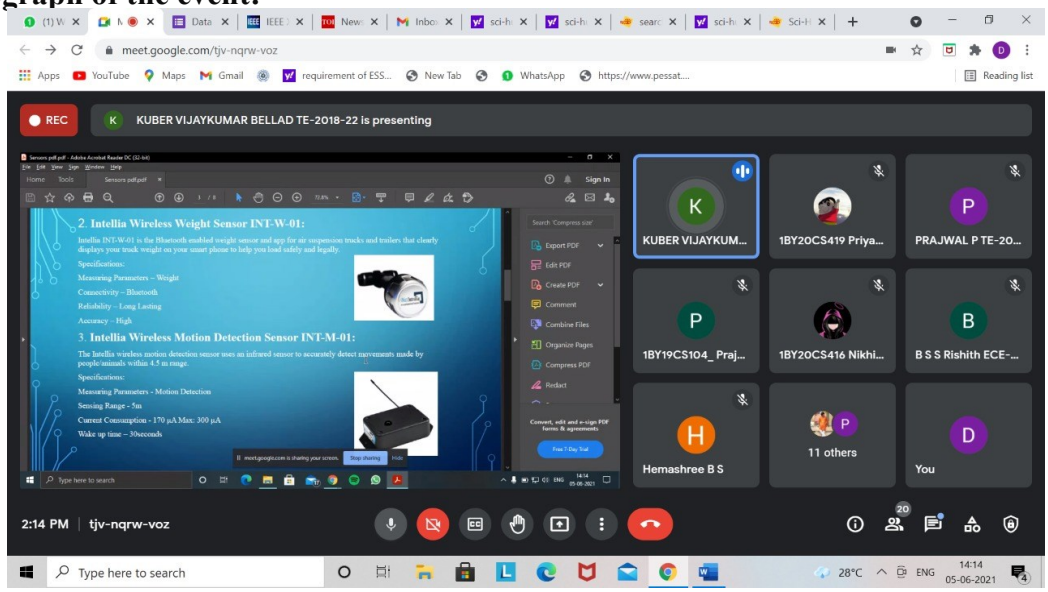
OPEN COURSE 2020-2021

June 1-5, 2021

Department: Information Science and Engineering		
Title of the Open Course		**Internet of Things with Hands-On**
Targeted Students from Branches		**ECE, TE, EEE**
Registration Fee		**150/**
No. of students attended		**44**
Software/Hardware Tools used		**Arduino Simulation -Tinker CAD**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**Simulation, PPT**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**QUIZ, Presentation**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Surekha K.B.**
	Mobile No.	**9035757671**
	Email ID	**surekhakb@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Surekha K.B.**
	Designation	**Associate Professor**
	Mobile Number	**9035757671**
	Name	**Dr. Narasimha Murthy M.S.**
	Designation	**Assistant Professor**
	Mobile Number	**9480013001**
	Name	**Dr. Shridhar Sanshi**
	Designation	**Assistant Professor**
	Mobile Number	**80952 02962**
External Resource Person Details (Please use additional	Name	**Mr. Rohit Japgal**
	Designation	**Software Technologist**
	Company/Organization	**PHILIPS Innovation Technologist**
	Mobile Number/email-id	**97399 99464/surya.japs@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**Curriculum gaps addressed PO5, PO6,PO12**	
Abstract (Brief Details of the open course with less than 250 words)	**Over all aim of the open course was to introduce the new technology called as IOT and demonstrate some hands-on session on IoT. Introduction to IOT which was handled by Dr Surekha K.B. The history behind IoT was narrated to the students. How the evolution of Internet of Things happened from the days where the availability it self was not there was also discussed in the session. Architecture of IoT, real time examples on IoT was discussed. Students enthusiastically asked the questions on one particular example "vehicle to vehicle communication". Structure of the IoT and Why IoT is becoming a popular technology in the coming days was also discussed in the session, challenges in IoT, protocols used in IoT was also discussed.**	

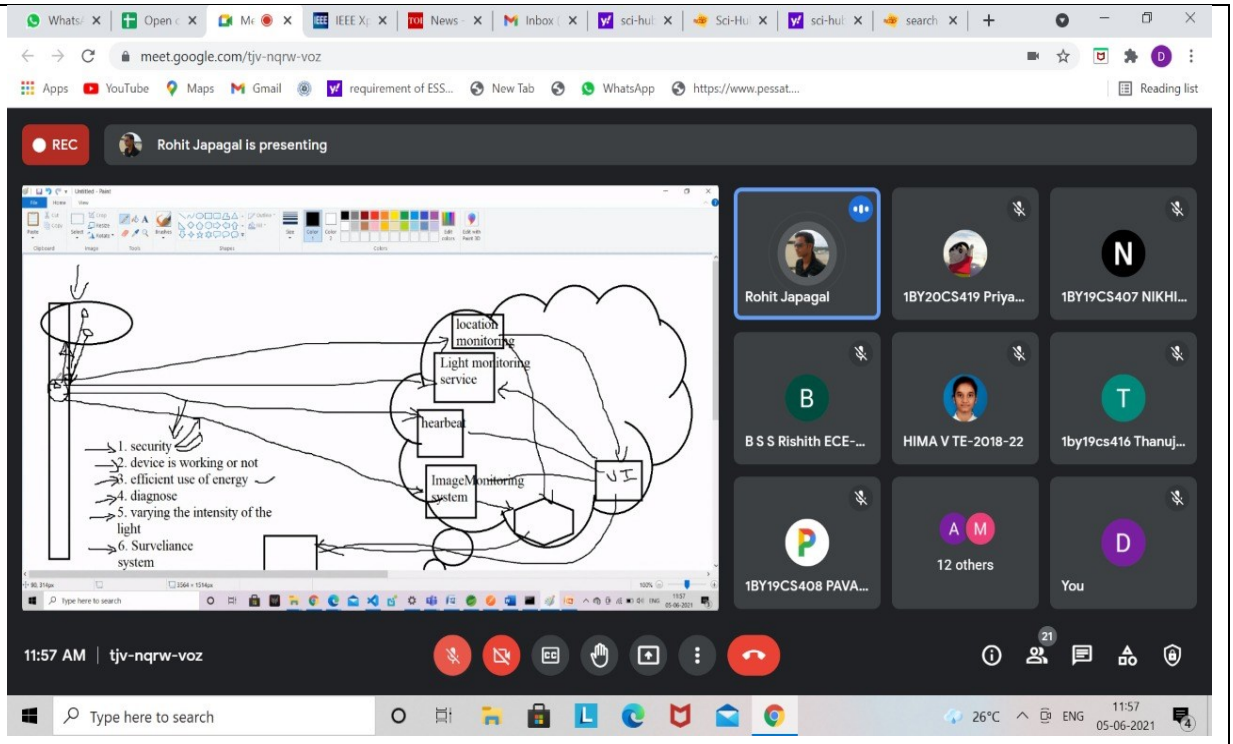
	In the next session Dr Narasimha Murthy, explained the topics "Overview of Sensors, Analog and Digital Sensors". The session was started with couple of questions on fundamentals of IoT, further the brief idea about IoT and its requirement in today's modern life was highlighted. Sensors, its types, and need of sensors in every IoT application was discussed. Adding to the above the discussion was also made on some real time applications of IoT in creating smart home, smart office etc., and the types of sensors used. **Further sessions, Dr. Shridhar Sanshi gave a hands-on session on using of online simulator tinkercad. Explained how to develop a sketch and design a circuit. Explained working principles of various sensors such as temperature, Photoresistor, servo motor, potentiometer, soil moisture, PIR sensor. Hands-on sessions on interfacing these sensors to Arduino were demonstrated. He also demonstrated the experiments using ultrasonic sensors, controlling DC Motor which can be used in real-time applications. Mr. Anirudh working as a Software Engineer working at Mindtree demonstrated the experiments on the real Arduino board.** **The last two days session were handled by Mr. Rohit Japgal, Software Technologist, PHILIPS Innovative Campus. Mr. Rohit Japgal is currently working on Real Time Projects on IOT. He gave the introduction about the Cloud Technology and services of the cloud. He also familiarized the students with various cloud platforms used for IoT. He also explained how to make use of the cloud services in IoT. He introduced Heraku Cloud platform to the students. He also took one example of how the sensed information can be uploaded to cloud. He concluded his session with some applications like automobile Industry and Home automation system. In detail, he demonstrated, how IoT sensor collected data can be processed in cloud.** **The concluding session students made outstanding presentation on variety of sensors used in different applications, like automobile, health, industry and agricultural applications.**

Photograph of the event:



OPEN COURSE 2020-2021

June 1-5, 2021



Open Course Outcomes Of "**Internet of Things with Hands-On**"	**CO-1**	Understand the basics of IoT
	CO-2	Summarize the protocols of IoT
	CO-3	Demonstrate necessary and practical knowledge of components of Internet of Things
	CO-4	Analyze the cloud frameworks required for IOT
	CO-5	Develop Skills required to build real-life applications

CO-PO Mapping for open course of "Internet of Things-Hands On"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
CO1	**1**											
CO2	**2**											
CO3					**3**							**3**
CO4		**3**				**2**						**2**
			3		**3**	**3**						**2**

Feedback from external expert: -NIL-

Feedback (critical) from students:

1.Instead of presenting ppts we can go through a mini project. This improves our project skills

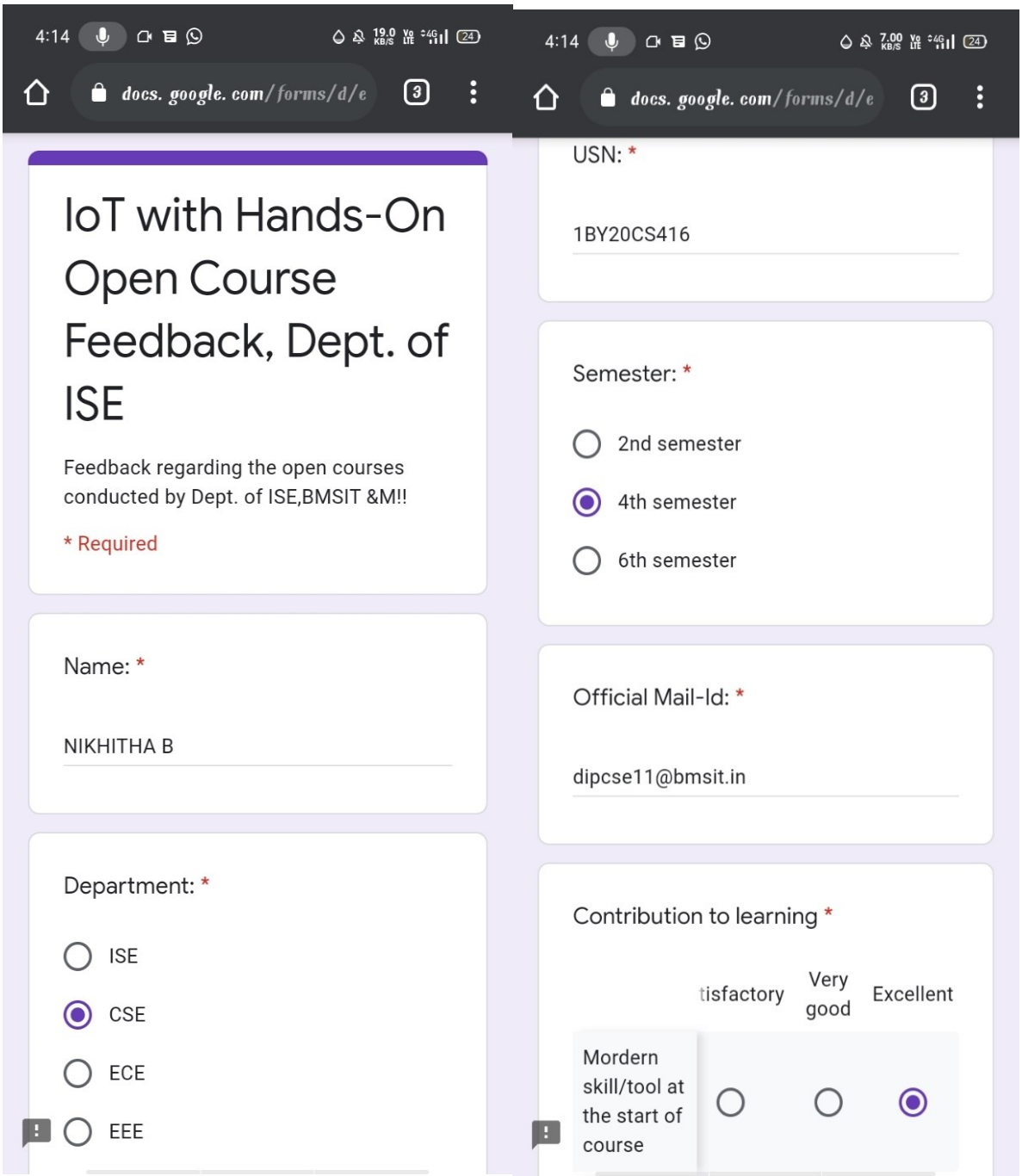
2.By using further new technology

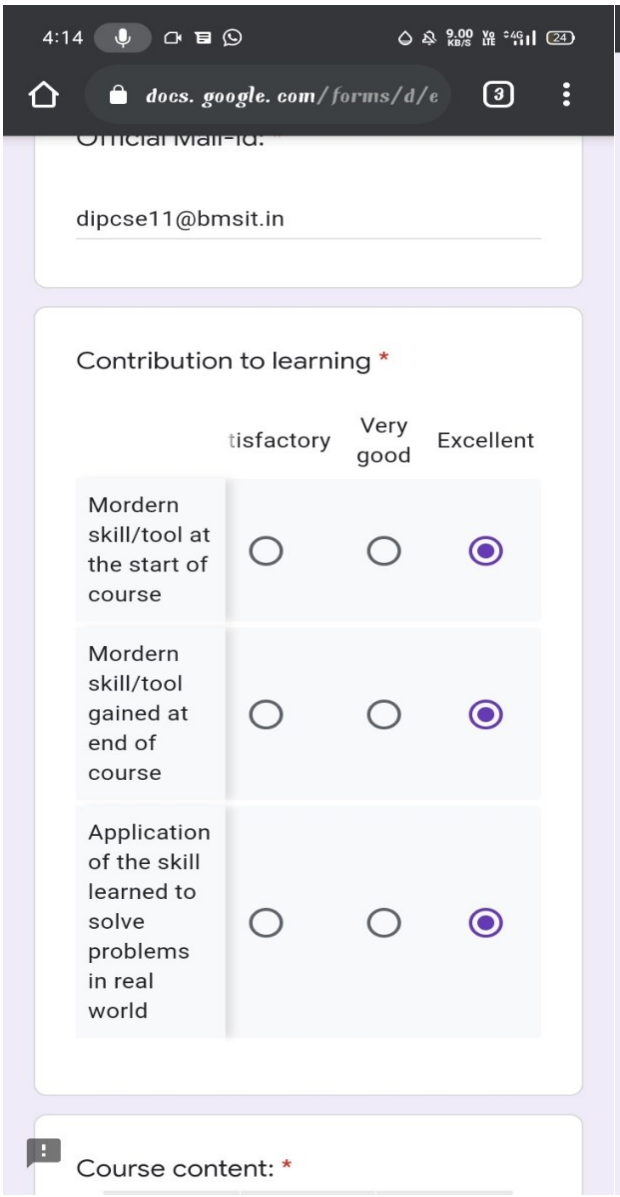
Feedback from External participants (if any): -NIL-

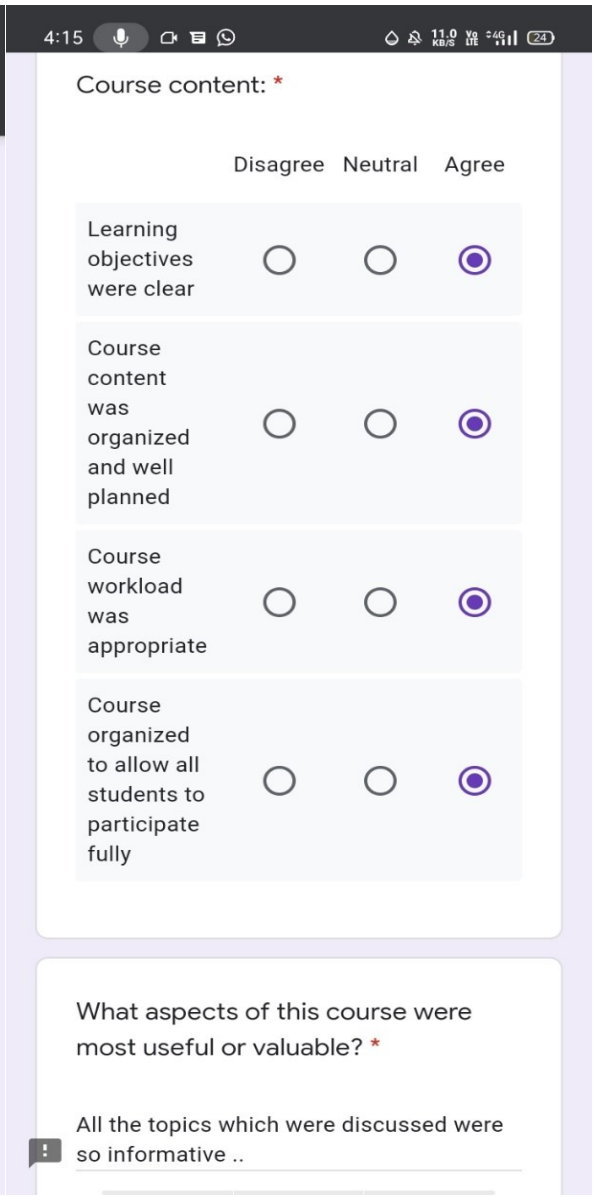
Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1.As a part of the assignment, project can be developed from the students.
2.Introducing more Hands-on session compared to Theoretical sessions.

Sample course feedback form

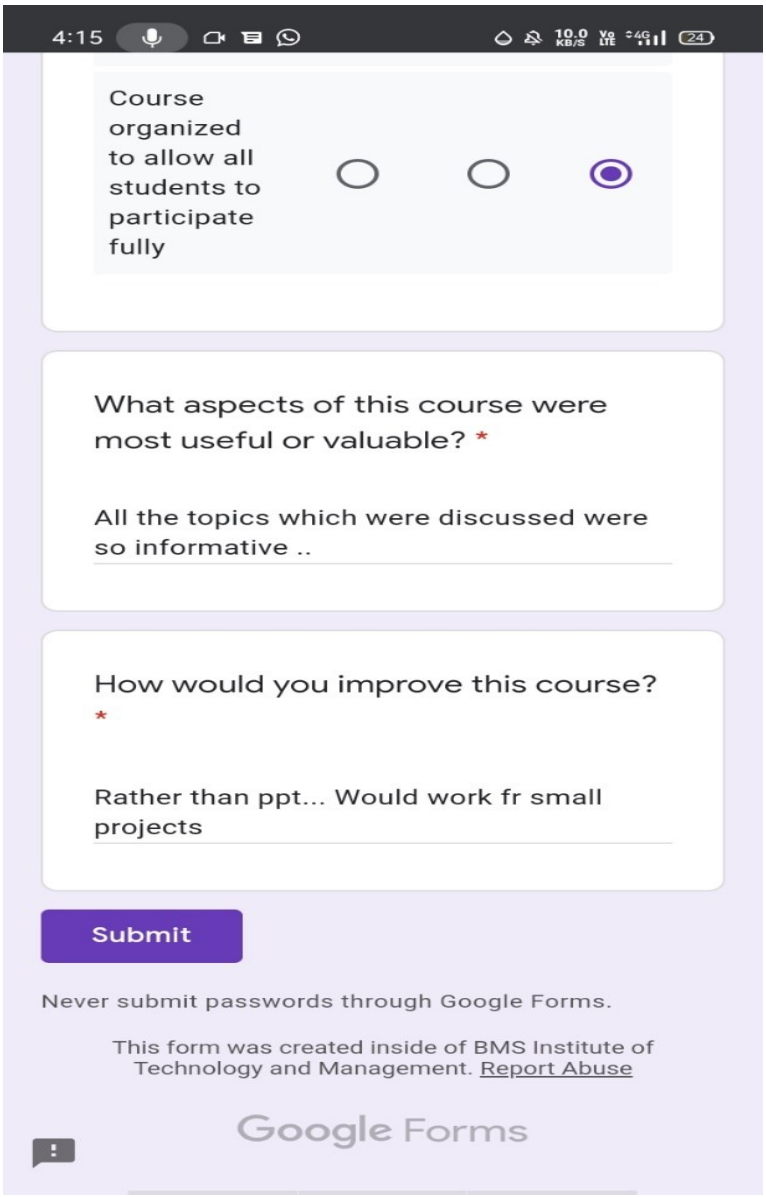



4:14
docs. google. com/ forms/d/e
dipcse11@bmsit.in
Contribution to learning *
tisfactory
Very good
Excellent
Mordern skill/tool at the start of course
Mordern skill/tool gained at end of course
Application of the skill learned to solve problems in real world
Course content: *


4:15
Course content: *
Disagree
Neutral
Agree
Learning objectives were clear
Course content was organized and well planned
Course workload was appropriate
Course organized to allow all students to participate fully
What aspects of this course were most useful or valuable? *
All the topics which were discussed were so informative ..

OPEN COURSE 2020-2021

June 1-5, 2021



OPEN COURSE 2020-2021

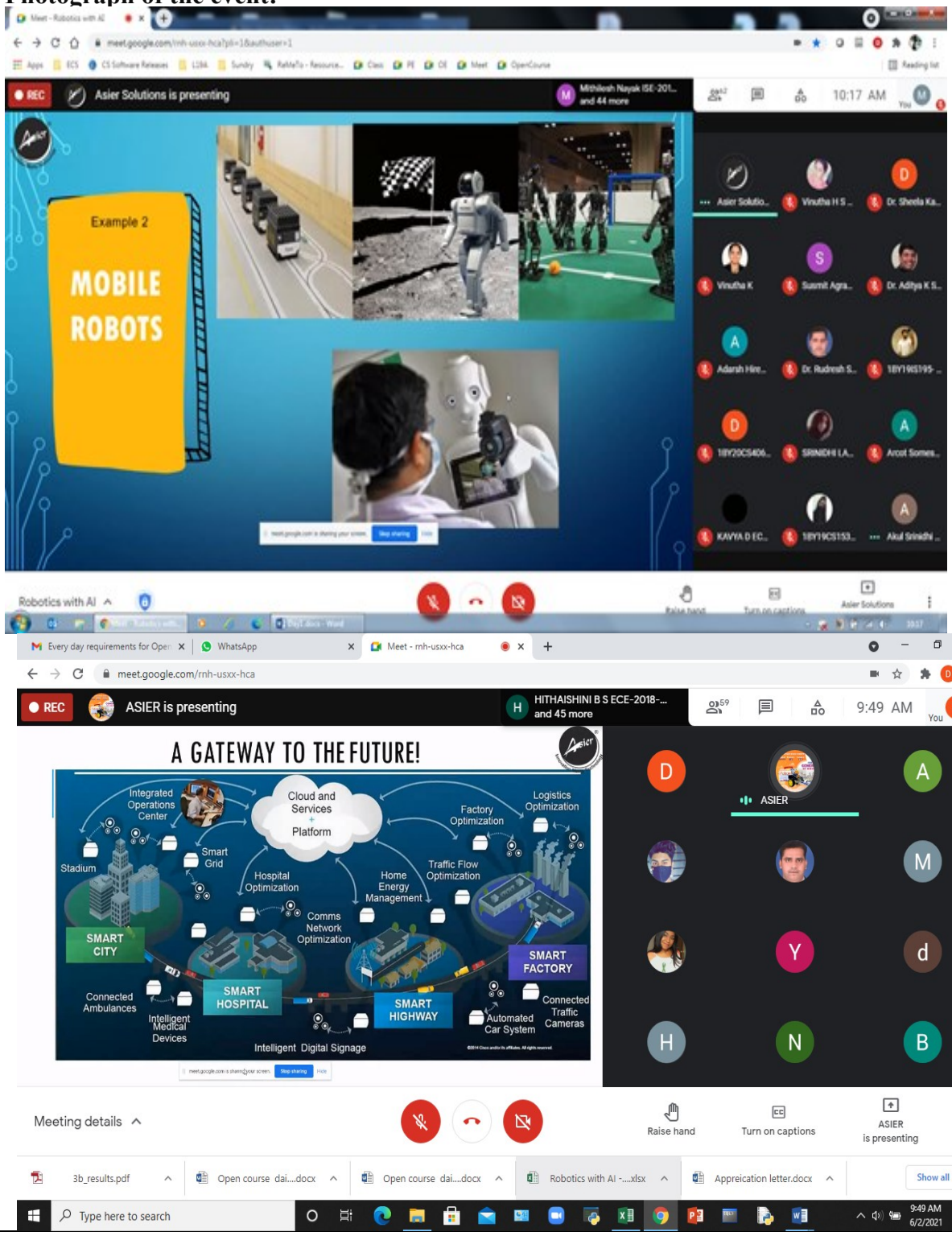
June 1-5, 2021

Department: Information Science and Engineering		
Title of the Open Course		**Robotics with Artificial Intelligence**
Targeted Students from Branches		**60**
Registration Fee		**100/150**
No. of students attended		**60**
Software/Hardware Tools used		**Google meet, google classroom, Microcontroller, Robot**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT presentation, talks, simulation, videos, project**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr.Sheela Kathavate**
	Mobile No.	**9880303975**
	Email ID	**sheela@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Prof. Praveen Kumar**
	Designation	**Associate Professor, Dept. of Mechanical Eng.**
	Mobile Number	**8105551352**
	Name	**Dr. Rudresh Shirwaikar**
	Designation	**Asst. Prof., Dept. of ISE**
	Mobile Number	**Mob: 9823014550**
	Name	**Ms. Shreya Basavaraj**
	Designation	**Student**
	Mobile Number	
	Name	**Ms. Shashvathi G**
	Designation	**Student**
	Mobile Number	
	Name	**Ms. Shrushti**
	Designation	**Student**
	Mobile Number	
External Resource Person Details (Please use additional	Name	**Ms. Sunaya Shirodkar**
	Designation	**Founder-Director**
	Company/Organization	**ASIER Solutions**
	Mobile Number/email-id	**9049110210 /asiercreativity@gmail.com**
	Name	**Mr. Ketan Naik**
	Designation	**Project Head**
	Company/Organization	**ASIER Solutions**
	Mobile Number/email-id	**8805509675/asiercreativity@gmail.com**
	Name	**Mr. Susmit Agrawal**
	Designation	**Project assistant**
	Company/Organization	**IISc**
	Mobile Number/email-id	**9731594250/ susmit600@gmail.com**

	Name	**Dr. Aditya Saxena**
	Designation	**Assistant Professor**
	Company/Organization	**Presidency University**
	Mobile Number/email-id	**adityasaxena@presidencyuniversity.in**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**Modern tool usage** **Ability to design and build hardware products** **Demonstrating the ability to work in team and communication**	
Abstract	**Artificial intelligence and robotics are bringing drastic changes in the technological fields. Things we only imagined twenty years back have now become a reality. From automated systems at a manufacturing plant to self-serving robots in a restaurant, technology has evolved, driving humans together. In Today's world, AI and robots serve people as problem-solvers, companions, and first-responders. Technology has evolved for good, and it is not going to stop here. This open course focusses on the basics of Artificial Intelligence, Robotics *and Arduino* Programming with hands on sessions.** **The course started with the introduction of external resource members, faculty and student coordinators. The first session discussed the basics of ML along with examples and we made our own training model using Google teachable machine. The rest of the day was spent discussing the various electrical components starting from the basics such as resistors, capacitors, transistors etc. to the more advanced components such as microcontrollers including various examples such as Arduino, these components were then demonstrated using tinkercad software along with a basic blinker program. The next day was centered on the concepts of IOT. This included the specific hardware such as sensors, motors, NODEMCU ESP8266 board. The programming of NODEMCU was done using Blynk app. The next two sessions were spent integrating the NODEMCU with web services such as Adafruit IO and IFTTT. The last session was spent utilizing the real IO devices such as sensors and servos. The next day was spent working on first working robot, this started with the construction and working of the LM298N motor driver. Various types of motors such as stepper motors, servos, brushless dc motors, etc. were explained. The next two sessions were spent discussing and constructing a basic line follower bot along with the code implementation and this was a practical session with the actual bot running in the last session. On day 4, in the first two sessions, discussion on Computer Vision in great detail such as the use of opencv and the tensor flow model along with tools such as matplotlib to represent the obtained data was discussed. The next session was spent elaborating the use of AI in real world applications along with the types of ML training models and their efficiency. The last day was split into 2 sessions where the first one detailed the importance of patents and the risks involved with innovations and intellectual property rights. Along with this, a**	

	case study was presented by the students of 4th semester regarding their project on waste management using ML to determine whether the waste is recyclable or non-recyclable. The afternoon session of the 5th day was a quiz to the participants and feedback sessions. Hence, the course came to an end with a formal thanks to all the members who made it possible.

Photograph of the event:



Open Course Outcomes Of "Robotics with Artificial Intelligence"	**CO-1**	Apply the concepts of Microcontroller, IOT and Robot programming to solve real world problems
	CO-2	**W**ill be able to select, and apply appropriate techniques, resources, and IT tools for robotics applications.
	CO-3	Demonstrate the ability to build projects using hardware-software co-design.

CO-PO Mapping for open course of "Robotics with Artificial Intelligence"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	**X**												
CO2					**X**								
CO3									**X**				

Feedback from external expert:
External resource persons appreciated the way the open course was conducted.
They felt that the sessions would be more useful if they are conducted offline as students would be able to understand well.

Feedback (critical) from students:
Students felt that that the resource persons were good
The contents were good and they could understand the practical concepts well as the resource persons explained it well
Arduino and microcontrollers to machine learning and AI was very well explained
Feedback from External participants (if any):

Corrective methods/suggestions to consider while conducting open course next time (at least two points)
1. Sessions have to be offline
2. The duration was long for online sessions

Sample course feedback form

Name: *

/ 0

Abhay M Pamadi

Add individual feedback

Department: *

/ 0

- ○ CSE
- ◉ ISE
- ○ ECE
- ○ EEE
- ○ ME
- ○ AI &ML
- ○ CIVIL
- ○ ETE

Add individual feedback

USN: * / 0

1BY19IS004

Add individual feedback

Semester: * / 0

- ○ 2nd sem
- ◉ 4th sem
- ○ 6th sem

Add individual feedback

Official Mail-Id: * / 0

1by19is004@bmsit.in

Add individual feedback

Contribution to learning: *

	Poor	Fair	Satisfactory	Very good	Excellent	Score
Mordern skill/tool at the start of course	○	○	○	○	◉	/ 0
Mordern skill/tool gained at end of course	○	○	○	○	◉	/ 0
Application of the skill learned to solve problems in real world	○	○	○	○	◉	/ 0

Course content: *

	Disagree	Neutral	Agree	Score
Learning objectives were clear	○	○	◉	/ 0
Course content was organized and well planned	○	○	◉	/ 0
Course workload was appropriate	○	○	◉	/ 0
Course organized to allow all students to participate fully	○	○	◉	/ 0

What aspects of this course were most useful or valuable? * / 0

All the aspects of the course right from Arduino and microcontrollers to machine learning and AI was very well explained.

Add individual feedback

How would you improve this course? * / 0

None

Add individual feedback

OPEN COURSE 2020-2021

June 1-5, 2021

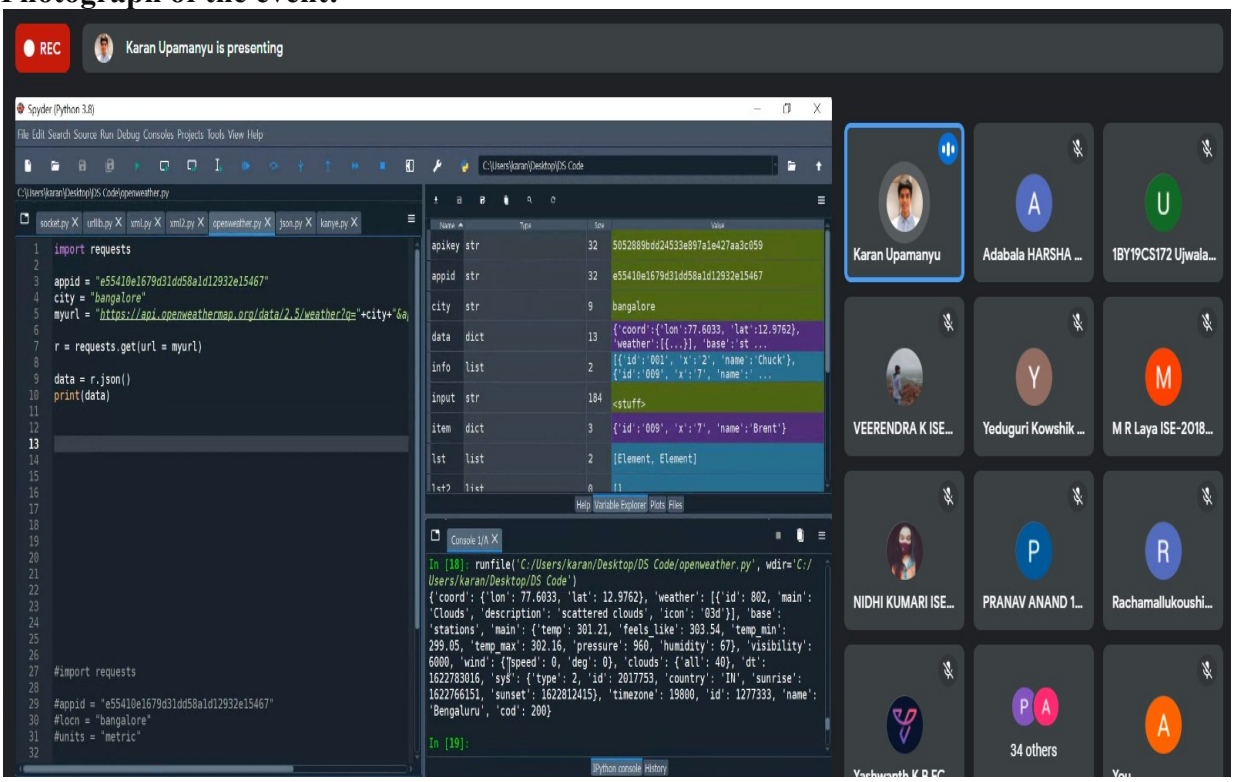
Department: INFORMATION SCIENCE AND ENGINEERING		
Title of the Open Course		**Data Science Using Python**
Targeted Students from Branches		**60**
Registration Fee		**9000**
No. of students attended		**60**
Software/Hardware Tools used		**Jupiter Notebook, Spyder editor for python, Kaggle for dataset**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**Power point presentation, Videos related to Data Science, Hands-On session through Spyder, Jupiter Notebook and Google Collab, Mini projects.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Mini project, Problem statements, and report submission in GCR**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Manjunath T. N**
	Mobile No.	**+91 99001 30748**
	Email ID	**manju.tn@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Pushpa S. K**
	Designation	**HOD of ISE Department**
	Mobile Number	**+91 94492 26987**
	Name	**Dr. Manjunath T. N**
	Designation	**Professor**
	Mobile Number	**+91 99001 30748**
	Name	**Prof. Gireesh Babu C. N**
	Designation	**Professor**
	Mobile Number	**+91 99025 77161**
	Name	**Prof. Chandra Shekar K. T**
	Designation	**Professor**
	Mobile Number	**+91 97413 20283**
Internal Resource Persons -Students Details (Please use additional rows for multiple resource persons)	Name	**Mr. Adarsh Hiremath**
	Designation	**Student**
	Company/Organization	**BMSIT & M**
	Mobile Number/email-id	**+91 93802 75140**
	Name	**Mr. B. E Abhijeet**
	Designation	**Student**
	Company/Organization	**BMSIT & M**
	Mobile Number/email-id	**+91 83105 63466**
	Name	**Mr. Karan Venkatesh Upamanyu**
	Designation	**Student**
	Company/Organization	**BMSIT & M**
	Mobile Number/email-	**+91 87224 55577**

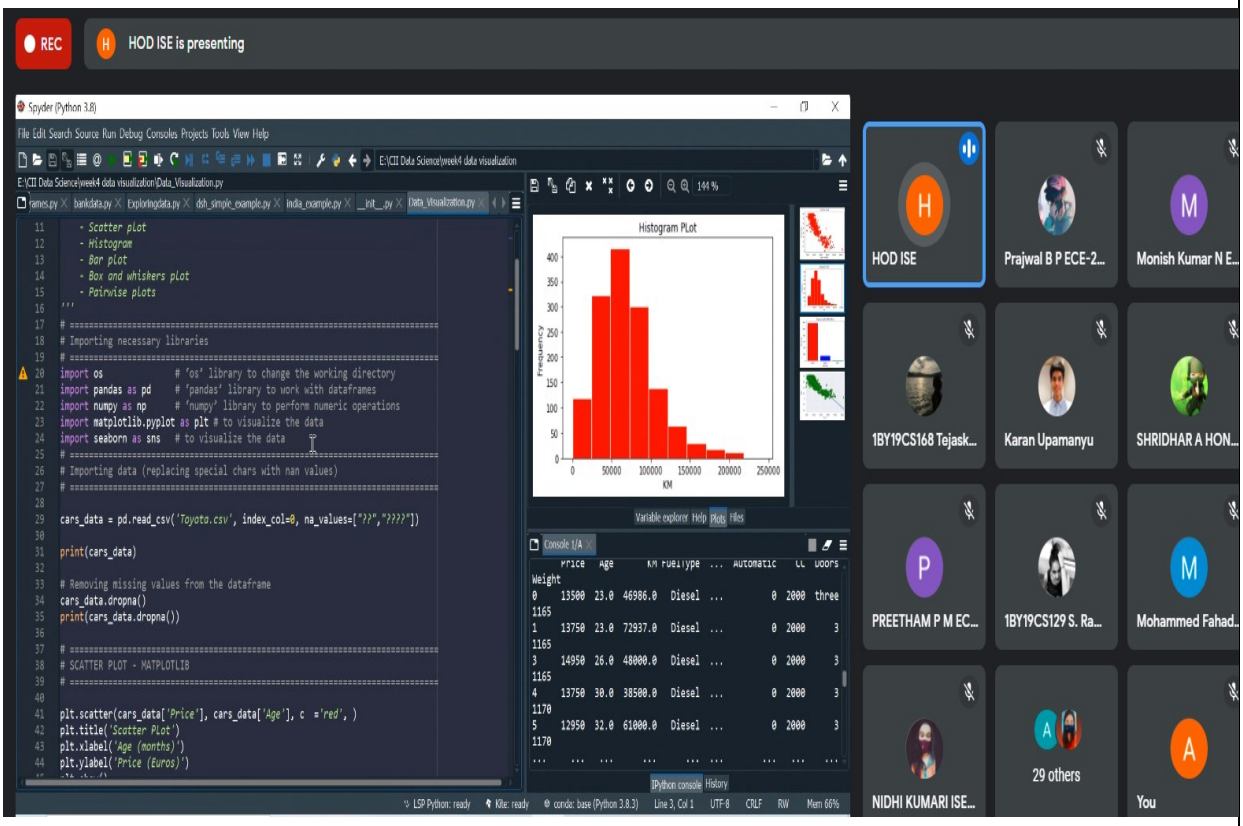
	id
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO-3, PO-4, PO-6, PO-7, PO-8, PO-9, PO-10, PO-12**
Abstract	**The Open Course was based on Data Science Using Python, conducted by Dept. Of ISE. The Course covered the basics of Python and some aspects of Data Science. The course was started with the introduction to Data Science and how to shape data into analytics. Introduction to python and its components such as Variables, expressions and statements, Conditional Execution, Functions, Loops and iterations, Strings, Files - open data files on your computer and read through the files using Python was explained in detail. Data Manipulation with Lists, Usage of Dictionaries in Python, Data Handling using Tuples, Regular Expressions to handle patterns in strings and extract data from strings using the regular expression programming language, Network programming (How data moves across the network using the Hyper Text Transport Protocol (HTTP)), How we write programs to read data across the network was executed and explained simultaneously.** **Few other topics that are important to pursue data science was explained, concepts like Data Visualization- To scrape data from the network, store the data in a database and then read the data from the database to produce in browser visualization of the data, Applying different Technique of Correlation & Regression on the Data set using Python, Applying Uni variate/ Bi variate / Multi variate, Regression Modelling, Introduction to Advanced Regression Machine learning, Random forest technique, Decision Tree, Understanding the Data set and Applying Machine learning models Cluster /Classification model from machine learning philosophy, by understanding the data set was explained by executing in Spyder editor.** **Finally, the session was ended with a brief information on use cases and websites that are useful to refer and pursue even after the course ends. Feedback from participants was taken after the acknowledgement was given by the coordinator of the course Dr. Manjunath T. N and all other resource persons.**

OPEN COURSE 2020-2021

June 1-5, 2021

Photograph of the event:





OPEN COURSE 2020-2021

June 1-5, 2021

Open Course Outcomes Of "***Data Science using Python***"	**CO-1**	Apply data science concepts and methods to solve problems in real-world contexts.
	CO-2	Design Python scripts for different data exploration problem statements
	CO-3	Select and utilize the features of modern Tool for data science applications
	CO-4	Demonstrate project management and finance principles for data science applications

CO-PO Mapping for open course of "Data Science using Python"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	X												
CO2		X	X										
CO3					X								
CO4												X	

Feedback (critical) from students:

1. It is difficult to concentrate on the same topic for 6 hours a day. The course would be easier if daily hour were reduced and the duration of course was increased.

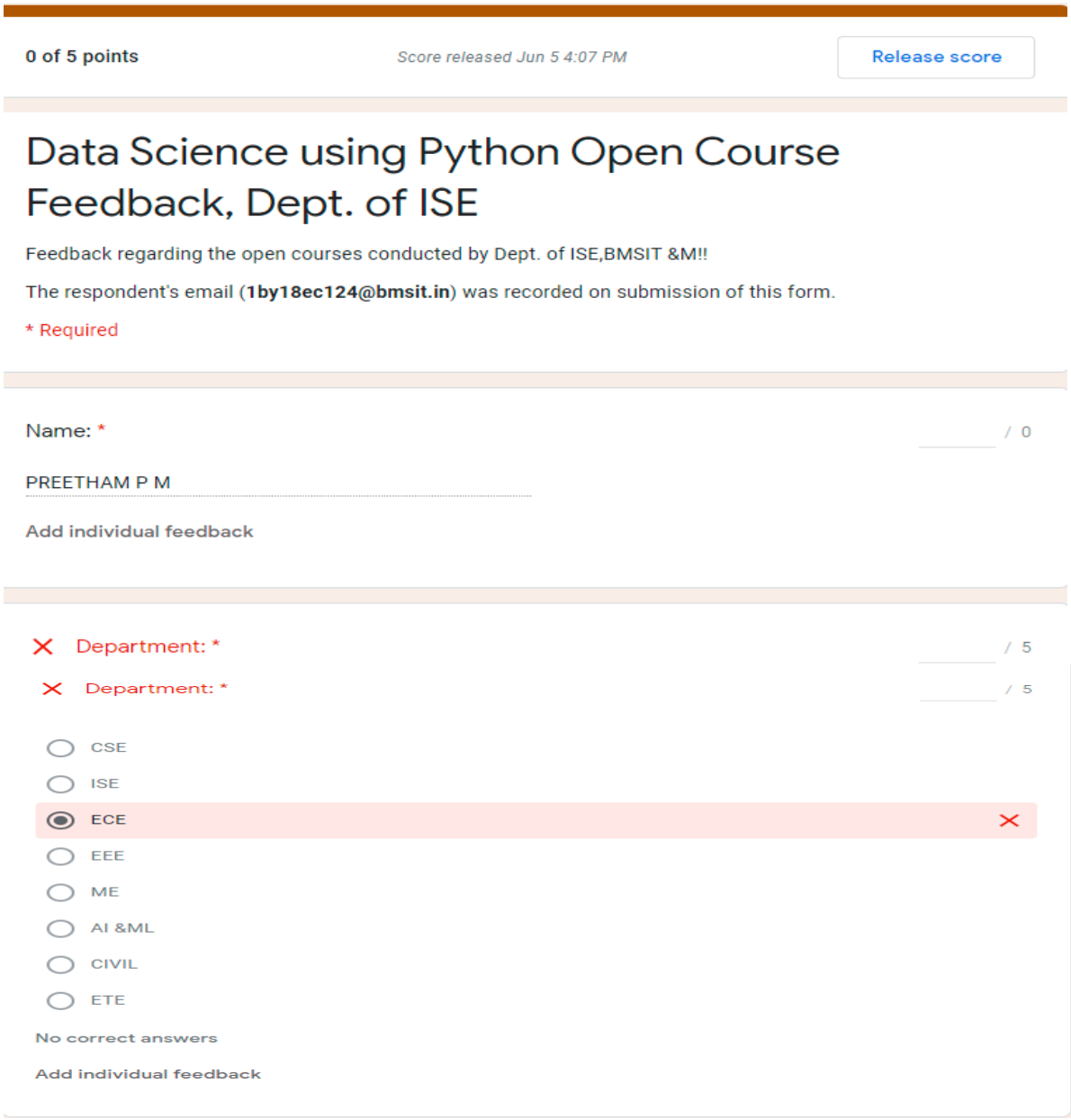
2. Concepts like regression model, ml algorithms, how to use python libraries were very useful.

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. Offline training will be good compared to online delivery.

2. Expected more hands-on sessions and mini projects.

Sample course feedback form



0 of 5 points Score released Jun 5 4:07 PM Release score

Data Science using Python Open Course Feedback, Dept. of ISE

Feedback regarding the open courses conducted by Dept. of ISE,BMSIT &M!!

The respondent's email (**1by18ec124@bmsit.in**) was recorded on submission of this form.

* Required

Name: * / 0

PREETHAM P M

Add individual feedback

✗ Department: * / 5

✗ Department: * / 5

- CSE
- ISE
- ECE ✗
- EEE
- ME
- AI &ML
- CIVIL
- ETE

No correct answers

Add individual feedback

Contribution to learning: *

	Poor	Fair	Satisfactory	Very good	Excellent	Score
Mordern skill/tool at the start of course	○	○	○	○	◉	/ 0
Mordern skill/tool gained at end of course	○	○	○	○	◉	/ 0
Application of the skill learned to solve problems in real world	○	○	○	◉	○	/ 0

Course content: *

	Disagree	Neutral	Agree	Score
Learning objectives were clear	○	○	◉	/ 0
Course content was organized and well planned	○	○	◉	/ 0
Course workload was appropriate	○	○	◉	/ 0
Course organized to allow all students to participate fully	○	○	◉	/ 0

What aspects of this course were most useful or valuable? * / 0

Networking and Data visualisation

Add individual feedback

How would you improve this course? * / 0

It is very good course I would like you to continue the same

Add individual feedback

Submitted 6/5/21, 4:07 PM

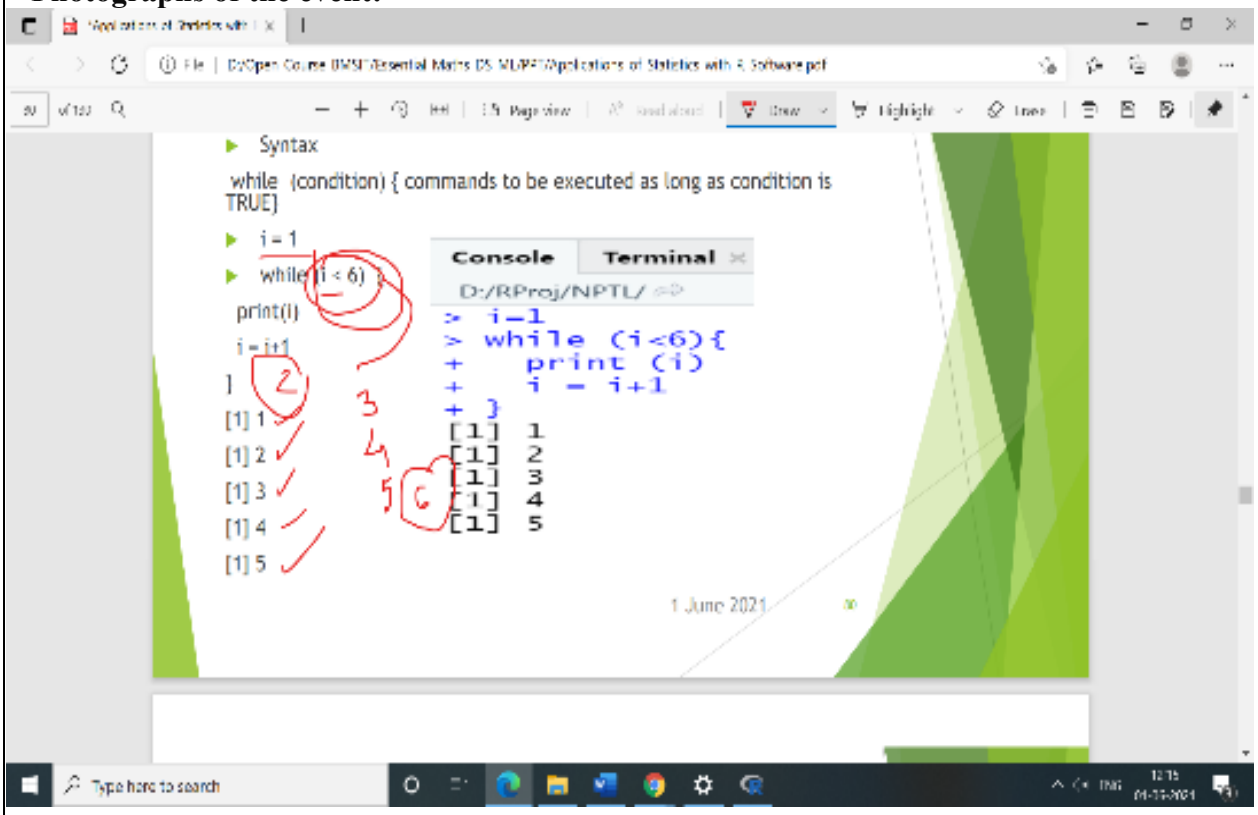
Department: Mathematics		
Title of the Open Course		**Essential Mathematics for Data Science and Machine Learning**
Targeted Students from Branches		**60 (All Branches)**
Registration Fee		**Rs 100/-**
No. of students attended		**54**
Software/Hardware Tools used		**R software, Python (Spider)**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**ppt presentation, Videos (Swayam NPTEL)**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**Quiz conducted using Google forms, GCR, video link activity for modelling the LPP, etc after each session and Quiz conducted at the end of the Open Course using Google form**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Jojy Joseph Idicula**
	Mobile No.	**9481451250**
	Email ID	**jojyji@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Karabi Sikdar**
	Designation	**Professor & HOD**
	Mobile Number	**9448505128**
	Name	**Dr. Annamma Abraham**
	Designation	**Professor**
	Mobile Number	**9448970039**
	Name	**Dr. Jojy Joseph Idicula**
	Designation	**Professor**
	Mobile Number	**9481451250**
	Name	**Dr. Chethan A.S.**
	Designation	**Professor**
	Mobile Number	**9986971127**
	Name	**Mrs Anitha Kiran**
	Designation	**Assistant Professor**
	Mobile Number	**9900168787**
	Name	**Dr. Annapoorna M.S.**
	Designation	**Assistant Professor**
	Mobile Number	**9964057433**

	Name	**Dr. Kallur Vijaya Kumar**
	Designation	**Assistant Professor**
	Mobile Number	**9900106939**
	Name	**Mrs. Sreelakshmi T.K.**
	Designation	**Assistant Professor**
	Mobile Number	**9620680089**
	Name	**Dr. Pushpa B.V.**
	Designation	**Assistant Professor**
	Mobile Number	**9740653493**
	Name	**Dr. Shivaprasad Nayak S.**
	Designation	**Assistant Professor**
	Mobile Number	**9739498520**
External Resource Person Details (Please use additional	Name	**NIL**
	Designation	
	Company/Organization	
	Mobile Number/email-id	
	Name	
	Designation	
	Company/Organization	
	Mobile Number/email-id	
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO5, PO9, PO10 &, PO12**	
Abstract	**Online Open Course entitled "Essential Mathematics for Data Science and Machine Learning" was organized from 1st to 5th June, 2021 in which 60 participants registered. There were 4 sessions on each day and the duration of each session was 1 hour 30 minutes. Quiz was conducted after each session and an Overall Quiz and Feedback were collected in the evening of Day 5 using Google Form.** **In the morning sessions of Day 1, Dr. Karabi Sikdar discussed about taxonomy of statistics, data types, statistical description of data, frequency distribution, data presentation, measure of central tendency. She also deliberated upon basic fundamentals, installation and use of software, data editing, use of R as a calculator, functions and assignment, use of R as a calculator, functions and matrix operations, missing data and logical operators, conditional executions and loops, data management with sequences data management with repeats, sorting and ordering. An introduction into concepts such as matrix factorization, gradient descent, single value decomposition and principal component analysis was given by Dr. Annamma Abraham in**	

	the afternoon sessions. **The morning sessions of Day 2 initially began with an introduction to Data science followed by an example on Mathematical Model. Then, the concept of Queueing theory was introduced where Mrs Anitha Kiran explained about Queues found in real life, assumptions made in any queue, the distribution followed by Arrival and Service process, the Queue discipline followed in any queue, customer behaviour, etc. Later, the 2 models M/M/1, M/M/S models were explained in detail. The session concluded by dealing with various examples on the 2 models viz, M/M/1, M/M/S models. In the afternoon sessions, Mathematical Modelling was explained with some of its classifications by Dr. Annapoorna M.S. Also some basic mathematical modelling problems using differential equations were discussed.** **Dr. Kallur V Vijayakumar covered the topic Algorithms in Data Science and Machine learning on the Day 3 morning sessions. In his presentation he discussed about - Algorithm Definition, Necessity, Formalization, Expressing algorithms, Typical steps in the development of algorithms, Simple algorithms examples, What is Machine Learning? Definition, Machine Learning Basic Concepts, How We Get Machines to Learn, Challenges and Limitations, A Brief about Classification in Machine Learning, What is Data Science?, Machine Learning Algorithms, Classification, Common Machine Learning Algorithms, Linear regression, Logistic regression. In the afternoon sessions, Dr. Chethan A. S. gave introduction to mathematical concepts in Machine learning and Data Science. He discussed about the Mathematics preliminaries required to understand the concepts in the topics: Linear Algebra, Calculus, Probability and Statistics. He also discussed about the importance of the following with examples: Gradient descent, Principal Component Analysis and Programming of the above in Python.** **On the Day 4 morning sessions, Dr. Jojy Joseph Idicula explained the terminologies used in Sampling Distribution with examples. She also discussed about Sampling distribution of mean, Null and Alternative Hypothesis, level of significance, critical region, different types of errors and one & two tailed tests. Students could know how to formulate Null and Alternative Hypotheses. They were explained the significance of z-test, t-test and chi-square test and to draw inferences after applying those tests. They were also shown how to use excel to calculate P value, t or chi square statistic & the critical values. In the afternoon sessions, Dr. Shivaprasad Nayak S completely devoted the talk to integers and their properties. He explained the basic principles of Divisibility, Prime and composite numbers, The Fundamental theorem of Arithmetic, Greatest Common Divisor, Modular arithmetic, Congruence relation, The Extended Euclidian Algorithm, Solving Linear Congruence,**

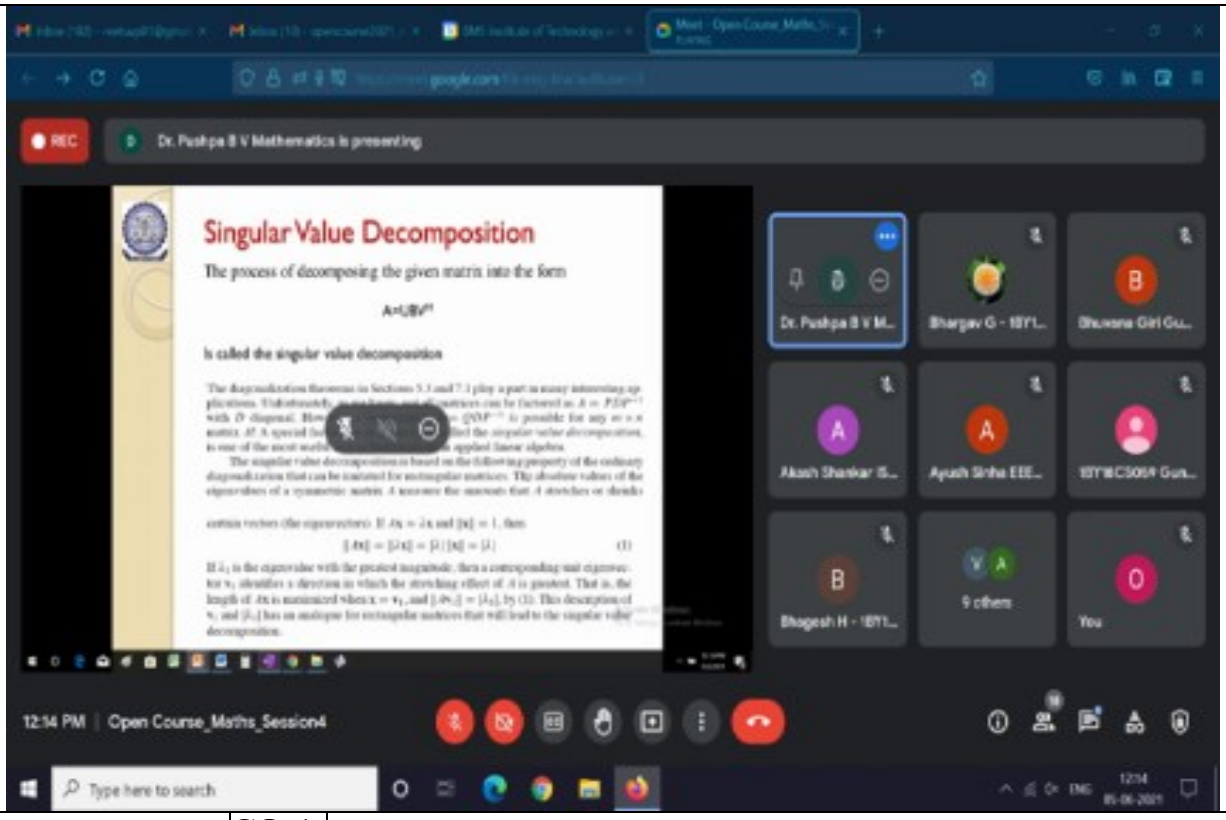
	Partition functions and restricted partitions, Basic view of Cryptography and Machine Learning and also looked into some relevant algorithms. **In the morning sessions of the Day 5, Dr. Pushpa B V explained the concepts of linear algebra used in Data Science and Machine learning such as vector space, subspace, linear dependence and independence, inner product, basis and dimensions, linear transformation, orthogonal sets, orthonormals, orthogonal projections, least square solutions, Gram Schmidt process and singular value decomposition. She also discussed some of the applications related to computer science, electrical networks, graph theory and machine learning. Mrs Sreelakshmi T.K. gave brief introduction to Linear Programming, modelling of a Linear programming Problem & to get solution of LPP by using graphical method & Simplex method in the afternoon sessions. She also discussed about Linear regression & its applications. For better understanding of the concepts, various activities were conducted throughout the sessions which could be mapped to PO1, PO2, PO9, PO10 & PO12.**

Photographs of the event:



OPEN COURSE 2020-2021

June 1-5, 2021



Open Course Outcomes Of "**Essential Mathematics for Data Science and Machine Learning**"	**CO-1**	Understand the concepts of linear algebra applied in Machine Learning
	CO-2	Know the necessity and importance algorithms & understand the use of R software for Big Data analytics
	CO-3	Interpret the concept of divisibility, congruence, greatest common divisor, prime and prime-factorization
	CO-4	Apply mathematical concepts in Data Science and Machine Learning & explain the use of Mathematical Modelling
	C0-5	Formulate the Linear Mathematical model using Linear Programming and Regression techniques & demonstrate the validity of testing of hypothesis

CO-PO Mapping for open course of "Essential Mathematics for Data Science and Machine Learning"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1	**3**	**1**										**1**	-
CO2	**3**	**1**			**1**							**1**	-
CO3	**3**	**1**										**1**	-
CO4	**3**	**1**										**1**	-
CO5	**3**	**1**							1	1		**1**	-

Feedback from external expert: -NIL-

Feedback (critical) from students: -NIL-

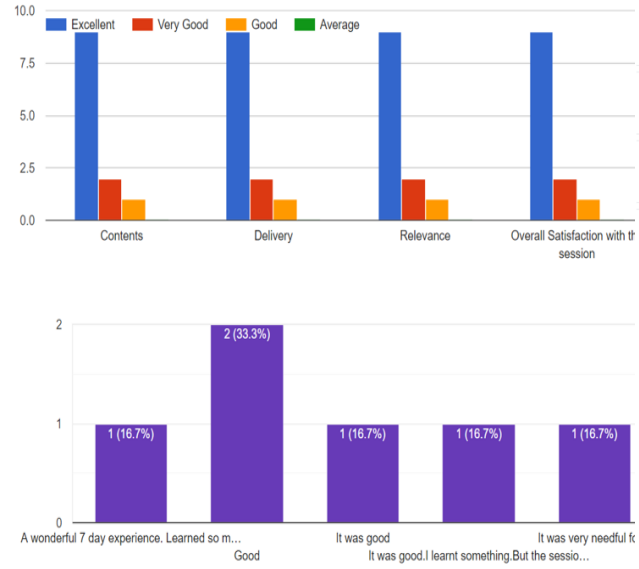
Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

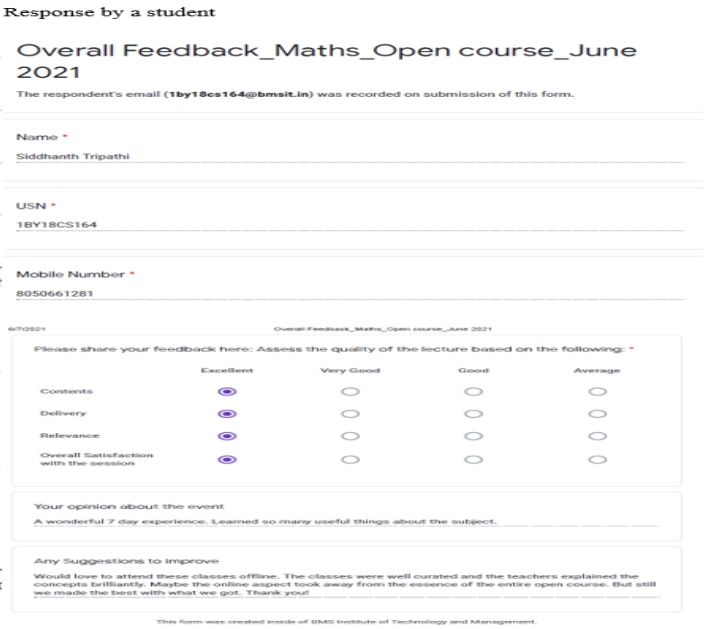
1. Topic can be selected related to current engineering students' requirements.

Sample course feedback form

Overall response



Response by a student



OPEN COURSE 2020-2021

June 1-5, 2021

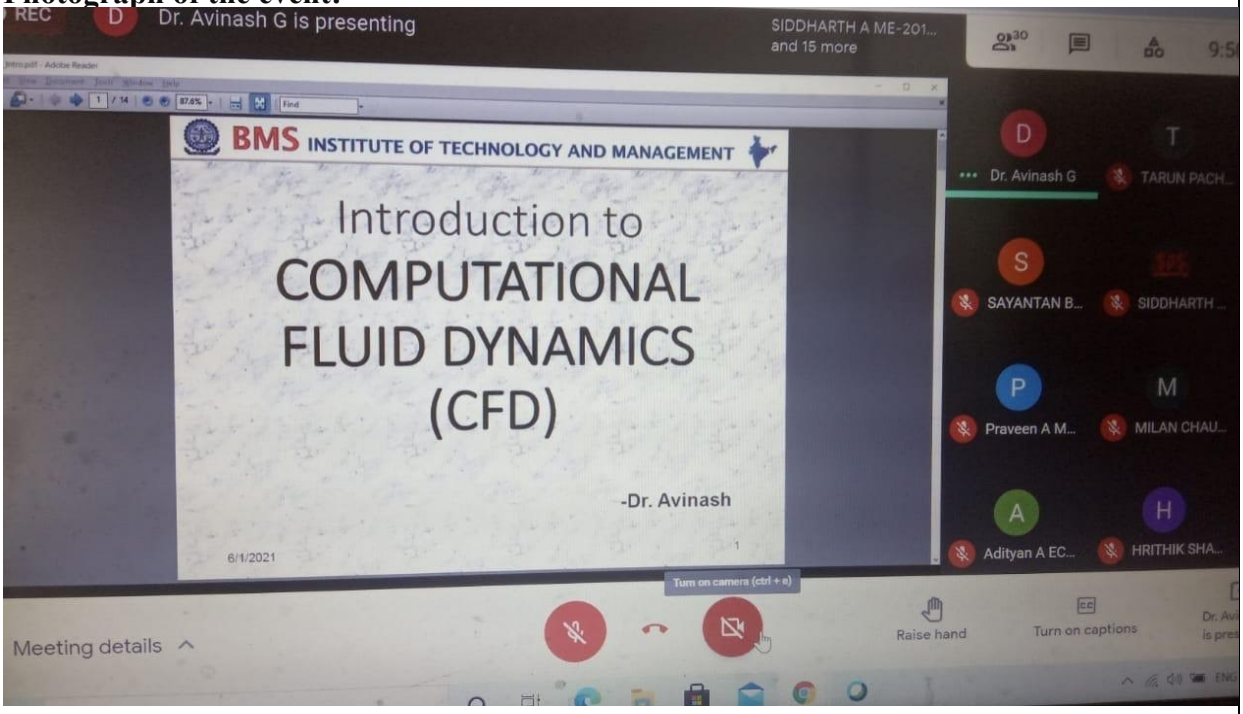
Department: Mechanical Engineering		
Title of the Open Course		**Introduction to Computational Fluid dynamics**
Targeted Students from Branches		**Mechanical Engineering , Civil Engineering**
Registration Fee		**Rs. 100/-**
No. of students attended		**44**
Software/Hardware Tools used		**CSFLOW**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation, Software Demonstration, Simulation, Videos.**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**QUIZ**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr.Avinash.G , Dr.Jagadeesh.YJ**
	Mobile No.	**953523085**
	Email ID	**avinash.govindaraju@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr.Avinash.G**
	Designation	**Assistant Professor**
	Mobile Number	**953523085**
	Name	**Dr. Jagadeesh.YJ**
	Designation	**Assistant Professor**
	Mobile Number	**9845604585**
External Resource Person Details (Please use additional	Name	**Vivek**
	Designation	**Manager**
	Company/Organization	**CMS Software, Bengaluru**
	Mobile Number/email-id	**vivek@hexagon.com**
	Name	**Karan Manoj**
	Designation	**Application Engineer**
	Company/Organization	**CMS Software, Bengaluru**
	Mobile Number/email-id	**8105551910/karanmanoj13@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO5:Modern Tool Usage:** **Modern Engineering and IT Tool-Industries using analysis CFD software used is CSFLow. This is Simulation software. University curriculum does not have the CFD hence Open Course is conducted. Teaching by Industry person also involved.** **(PSO2:Analyze the fluid and thermal aspects of different mechanical systems.)** **The CSFlow software used is fluid and thermal analysis software. Mechanical systems such as ,Flow over aeroplane, flow through blower, flow through Overhead projector, analysis is carried by modern software.**	

OPEN COURSE 2020-2021

June 1-5, 2021

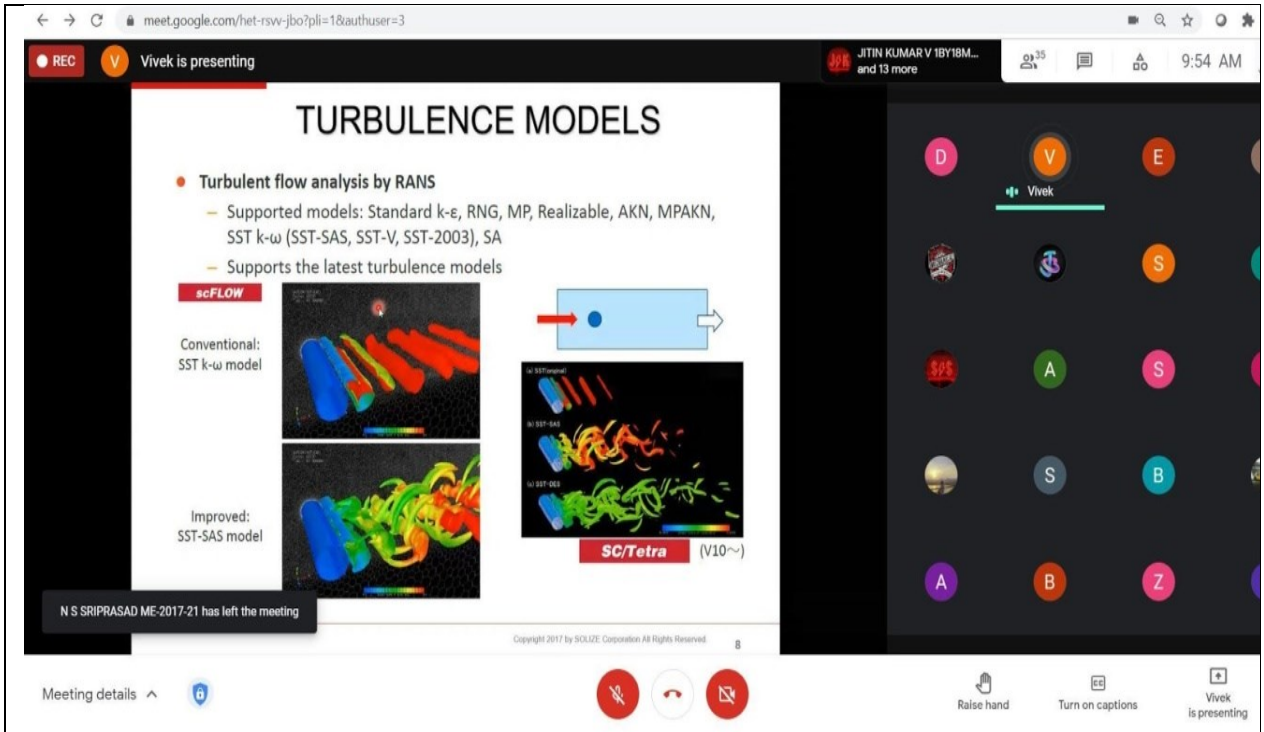
Abstract	**In order to give scope for updating the knowledge in the field of CFD , this open course is conducted. The theory and Analysis by using modern industrial software is used. Both Academician and industry expert were involved to teach and give training. Computational Fluid Dynamics (CFD) is the analysis of fluid flows using numerical methods. Using CFD, you are able to analyze complex problems involving fluid-fluid, fluid-solid or fluid-gas interaction. Engineering fields where CFD analyses are frequently used are for example aerodynamics and hydrodynamics. Fluid dynamics is involved with physical laws in the form of partial differential equations. Sophisticated CFD solvers transform these laws into algebraic equations and are able to efficiently solve these equations numerically.** **CFD analysis has a great potential to save time in the design process and is therefore cheaper and faster compared to conventional testing for data acquisition. Furthermore, in real life tests, a limited number of quantities are measured at a time; while in a CFD analysis, all desired quantities can be measured at once and with a high resolution in space and time. Open course conducted for 5 days by virtual mode. It has been observed that students shown interest in learning the thermal course by using modern software tools.**

Photograph of the event:



OPEN COURSE 2020-2021

June 1-5, 2021



Open Course Outcomes Of "**Introduction to Computational Fluid dynamics**"	**CO-1**	Understand the concepts of Partial Differential equations in Fluid Dynamics.
	CO-2	Able to use the governing equations to solve the fluid problems.
	CO-3	Design the fluid flow devices by using software tool.
	CO-4	Analyze the fluid flow over the various components

CO-PO Mapping for open course of "Introduction to Computational Fluid dynamics"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO2
CO1	3	3	3	2	3	-	1	-	1	1	-	1	3
CO2	3	3	2	2	2	-	-	-	1	1	-	1	3
CO3	2	2	3	2	3	-	-	-	2	1	-	2	3
CO4	3	2	3	2	3	-	-	-	2	1	-	2	3

Feedback from external expert: -Nil

Feedback (critical) from students:

1. Personally Felt That The Number Of Sessions Allotted Were Less As This Is A Very Huge Topic And To Be Able To Grasp All Of Those Information In Just 5 Days Is A Little Difficult. By Jayant Bhansali, 1BY18ME022.
2. Things Were Well Explained And The Basic Things In Cfd Are Clear To Me After This

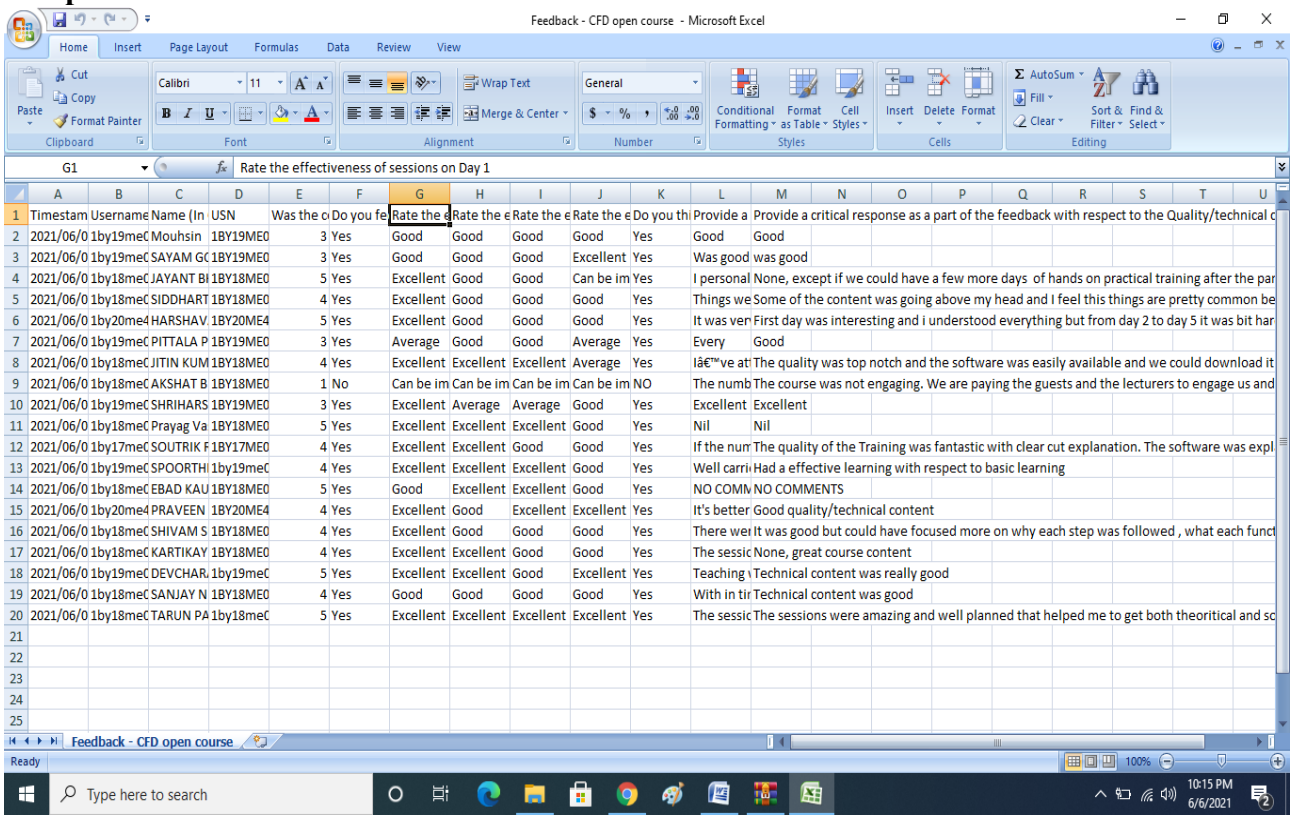
Course. I Feel This Particular Topic Requires Lot Of Time To Teach Completely. But It Was Summarised Well In Just One Week. By. Siddharth A, 1BY18ME056

Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1.Upgrade to use good digital teaching systems
2. Demonstrate more problems by using software tool

Sample course feedback form



	Timestam	Username	Name (In	USN	Was the c	Do you fe	Rate the e	Rate the e	Rate the e	Rate the e	Do you th	Provide a	Provide a critical response as a part of the feedback with respect to the Quality/technical c
2	2021/06/0	1by19mec	Mouhsin	1BY19ME0	3	Yes	Good	Good	Good	Good	Yes	Good	Good
3	2021/06/0	1by19mec	SAYAM GC	1BY19ME0	3	Yes	Good	Good	Good	Excellent	Yes	Was good	was good
4	2021/06/0	1by18mec	JAYANT BI	1BY18ME0	5	Yes	Excellent	Good	Good	Can be im	Yes	I personal	None, except if we could have a few more days of hands on practical training after the par
5	2021/06/0	1by18mec	SIDDHART	1BY18ME0	4	Yes	Excellent	Good	Good	Good	Yes	Things we	Some of the content was going above my head and I feel this things are pretty common be
6	2021/06/0	1by20me4	HARSHAV	1BY20ME4	5	Yes	Excellent	Good	Good	Good	Yes	It was ver	First day was interesting and i understood everything but from day 2 to day 5 it was bit har
7	2021/06/0	1by19mec	PITTALA P	1BY19ME0	3	Yes	Average	Good	Good	Average	Yes	Every	Good
8	2021/06/0	1by18mec	JITIN KUM	1BY18ME0	4	Yes	Excellent	Excellent	Excellent	Average	Yes	Iâ€™ve at	The quality was top notch and the software was easily available and we could download it
9	2021/06/0	1by18mec	AKSHAT B	1BY18ME0	1	No	Can be im	Can be im	Can be im	Can be im	NO	The numb	The course was not engaging. We are paying the guests and the lecturers to engage us and
10	2021/06/0	1by19mec	SHRIHARS	1BY19ME0	3	Yes	Excellent	Average	Average	Good	Yes	Excellent	Excellent
11	2021/06/0	1by18mec	Prayag Va	1BY18ME0	5	Yes	Excellent	Excellent	Excellent	Good	Yes	Nil	Nil
12	2021/06/0	1by17mec	SOUTRIK F	1BY17ME0	4	Yes	Excellent	Excellent	Good	Good	Yes	If the nur	The quality of the Training was fantastic with clear cut explanation. The software was expl
13	2021/06/0	1by19mec	SPOORTHI	1by19mec	4	Yes	Excellent	Excellent	Excellent	Good	Yes	Well carri	Had a effective learning with respect to basic learning
14	2021/06/0	1by18mec	EBAD KAU	1BY18ME0	5	Yes	Good	Excellent	Excellent	Good	Yes	NO COMN	NO COMMENTS
15	2021/06/0	1by20me4	PRAVEEN	1BY20ME4	4	Yes	Excellent	Good	Excellent	Excellent	Yes	It's better	Good quality/technical content
16	2021/06/0	1by18mec	SHIVAM S	1BY18ME0	4	Yes	Excellent	Good	Good	Good	Yes	There wer	It was good but could have focused more on why each step was followed , what each funct
17	2021/06/0	1by18mec	KARTIKAY	1BY18ME0	4	Yes	Excellent	Excellent	Good	Good	Yes	The sessic	None, great course content
18	2021/06/0	1by19mec	DEVCHAR	1by19mec	5	Yes	Excellent	Excellent	Good	Excellent	Yes	Teaching	Technical content was really good
19	2021/06/0	1by18mec	SANJAY N	1BY18ME0	4	Yes	Good	Good	Good	Good	Yes	With in tir	Technical content was good
20	2021/06/0	1by18mec	TARUN PA	1by18mec	5	Yes	Excellent	Excellent	Excellent	Excellent	Yes	The sessic	The sessions were amazing and well planned that helped me to get both theoritical and sc

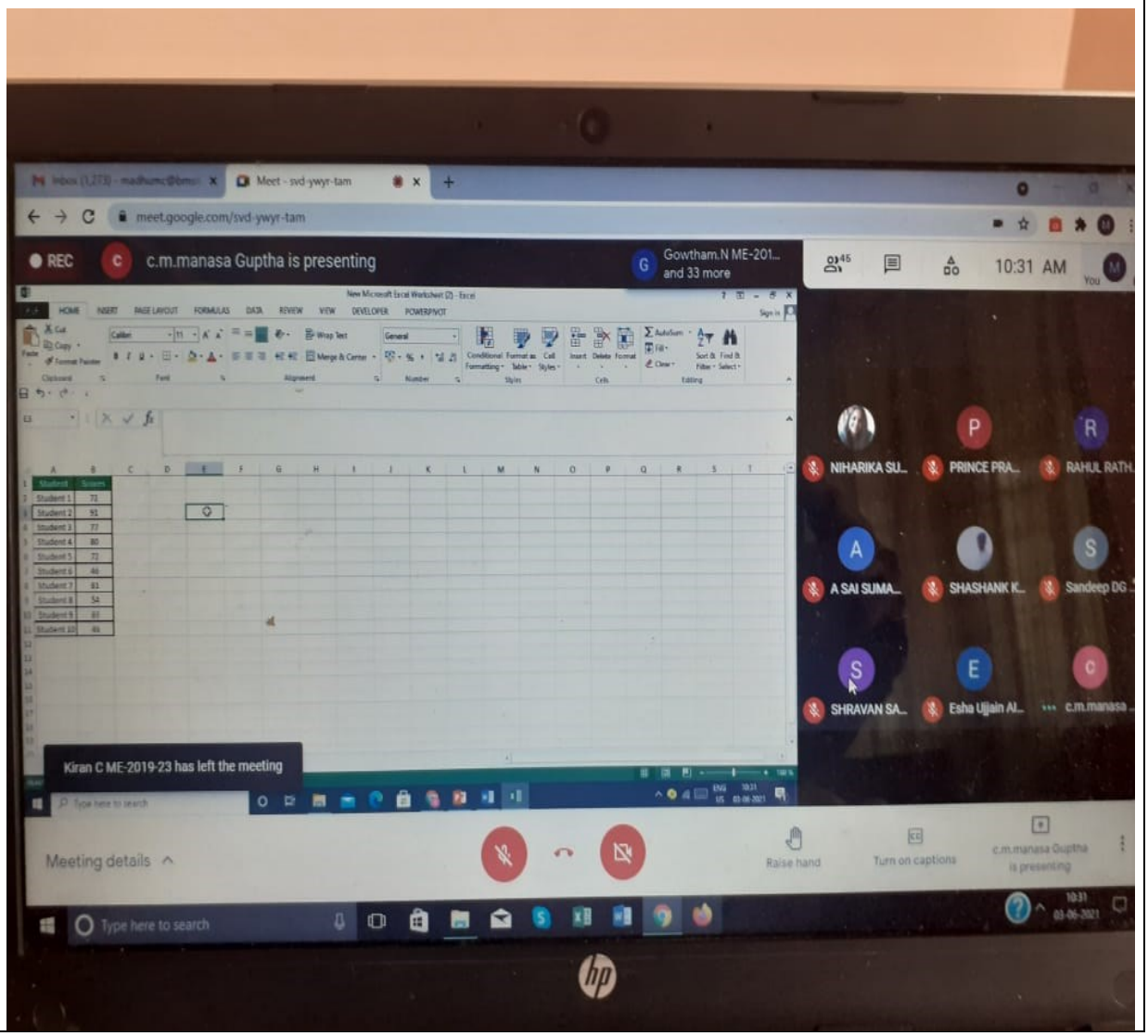
OPEN COURSE 2020-2021

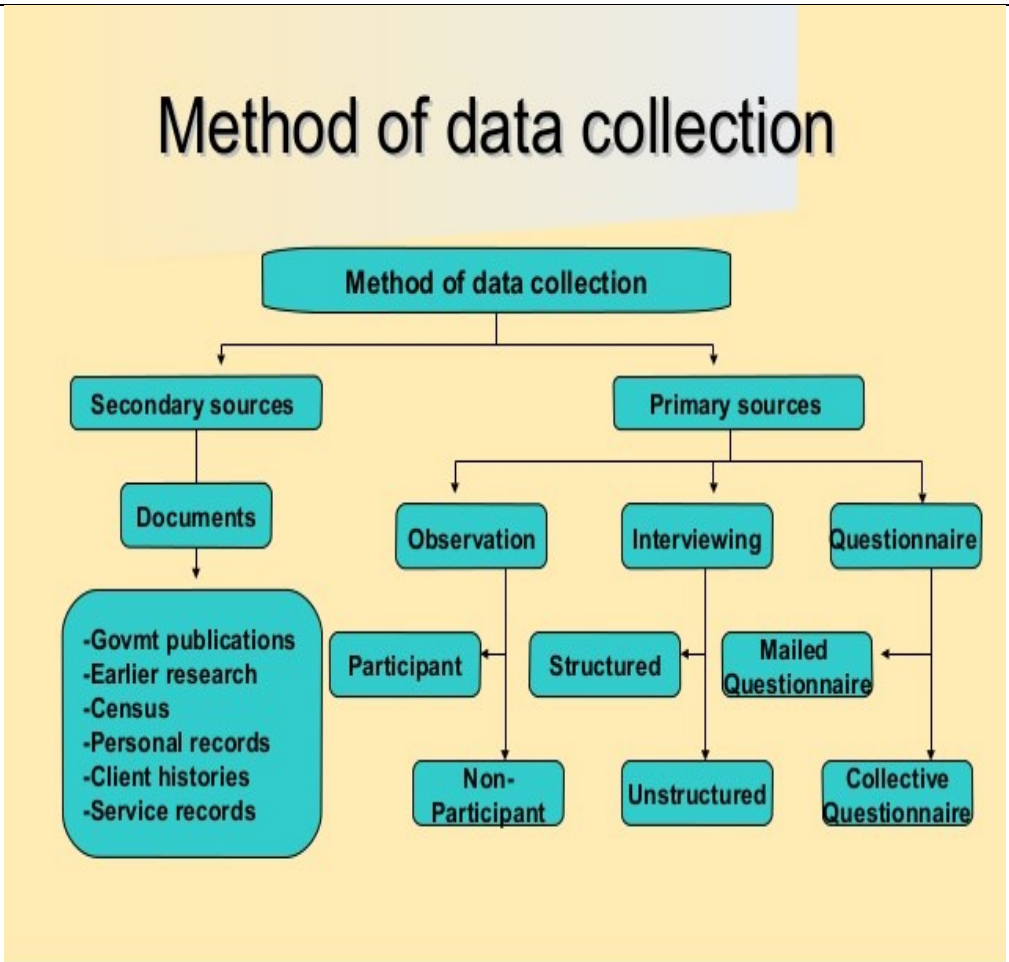
June 1-5, 2021

Department: MECHANICAL ENGINEERING		
Title of the Open Course		**Data Analysis using Excel**
Targeted Students from Branches		**IV and VI sem UG students of all branches**
Registration Fee		**Rs 100/**
No. of students attended		**61**
Software/Hardware Tools used		**Microsoft Excel (2010 and above)**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation/simulation/videos**
Assessment Methods (e.g.: Quiz, test, mini- project, report submission, etc.)		**Quiz**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. Keerthi kumar N**
	Mobile No.	**9743634934**
	Email ID	
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Keerthi kumar N**
	Designation	**Assistant Professor**
	Mobile Number	**9743634934**
	Name	**Madhu M.C**
	Designation	**Assistant Professor, Department of ME,BMSIT&M**
	Mobile Number	**8105572970/madhumc@bmsit.in**
External Resource Person Details (Please use additional	Name	**Mrs. Manasa C.M**
	Designation	**Asst.Professor**
	Company/Organization	**Presidency University**
	Mobile Number/email-id	**8088139416 manasacm@presidencyuniversity.in**
	Name	**Mr. Kiran Kumar. N**
	Designation	**Sr. Executive, Finance**
	Company/Organization	**Soch Apparels PVT Ltd, Bengaluru**
	Mobile Number/email-id	**9845432699/gnkirankumar1@gmail.com**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**PO2,PO4,PO5,PO10,PO12**	
Abstract (Brief Details of the open course with less than 250 words)	**This course is designed to provide the concepts of Data Analysis in the Microsoft Excel environment. Initially students will be learning the basics excel functionalities followed by progressively increase in the difficulty level as they move along the course, capping with advanced techniques through various case studies. This course helps the students to master in core concepts and various techniques in EXCEL. The course incorporates importing the data from various format into excel., applying basic functions and techniques, analyze the collected data sets,**	

	visualize the results through various conditional formatting and charts. Organize data/results in the form of simple tables and pivot tables. Introduce the usage of add -in tools and optimize results with solver/goal seek add-in. Build presentation ready dashboards, create own formulas in Excel based on individual skill sets. Finally, turn any kind of real world data into business insights.

Photograph of the event:





Open Course Outcomes Of "***Data Analysis using EXCEL'***	**CO-1**	Analyze the given set of data using knowledge of mathematics and basic excel functions
	CO-2	Interpret data using appropriate statistical methods
	CO-3	Apply appropriate techniques to demonstrate the processing and analysis of collected data and illustrate the results graphically.
	CO-4	Communicate effectively using various forms of outputs
	CO-5	Apply scenario based analysis techniques for rational decision making.

CO-PO Mapping for open course of '*Data Analysis using EXCEL'*

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO3
CO1		3			3					2		1	
CO2				3	3					3		1	
CO3		1		3	3					3		1	
CO4					3					3		3	
CO5		1		3	3					2		3	

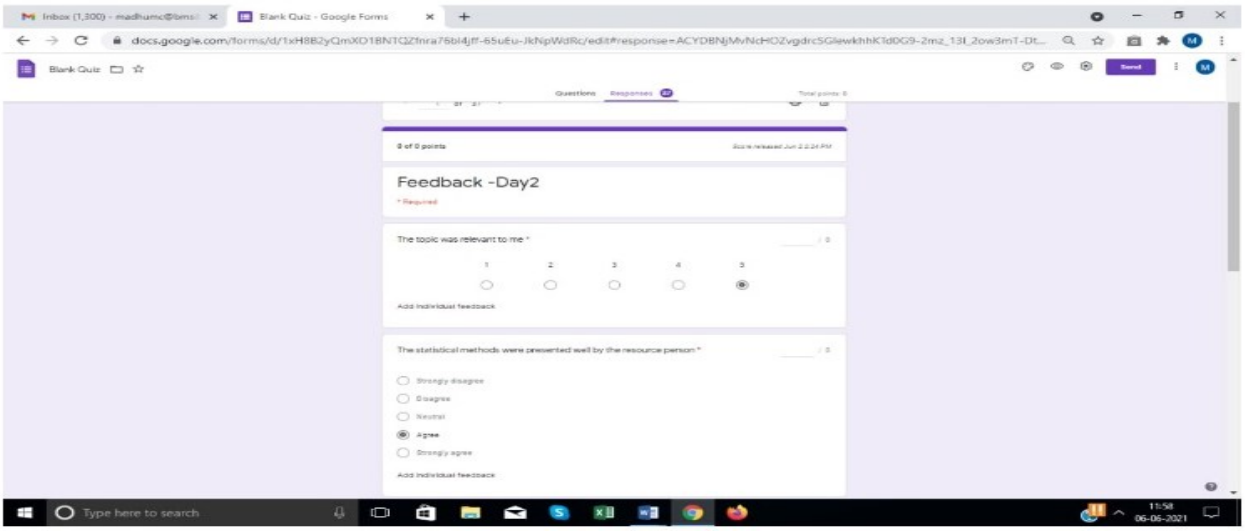
Feedback from external expert:
1. The open course was organized very well.
2. The students were very attentive and involved themselves in all the sessions.

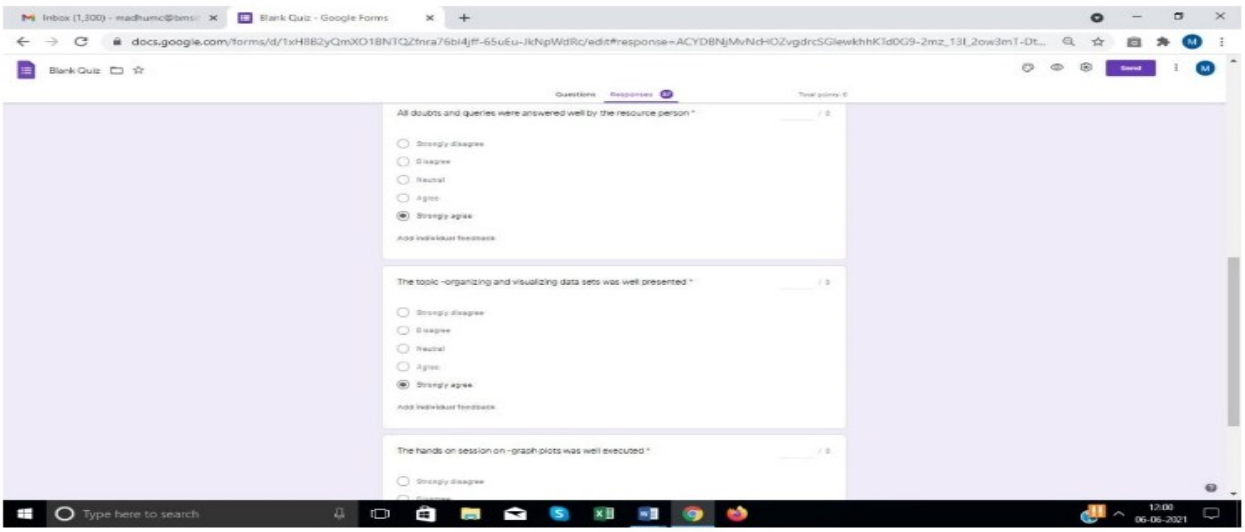
Feedback (critical) from students:
1. Students mentioned that they learnt a lot about Excel and its applications to real world scenario.
2. Hands on sessions were very useful for problem solving

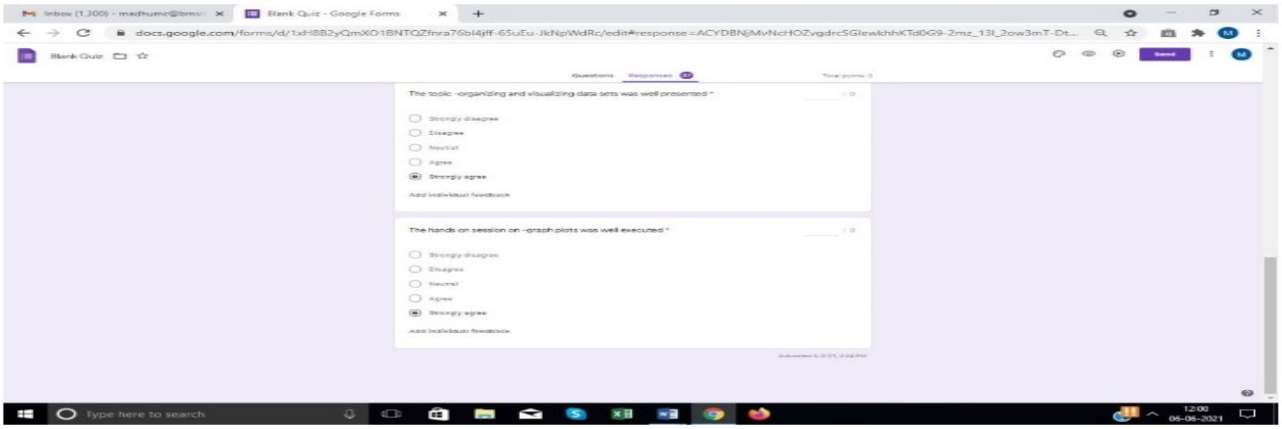
Feedback from External participants (if any): -NIL-

Corrective methods/suggestions to consider while conducting open course next time (at least two points): -NIL-

Sample course feedback form:





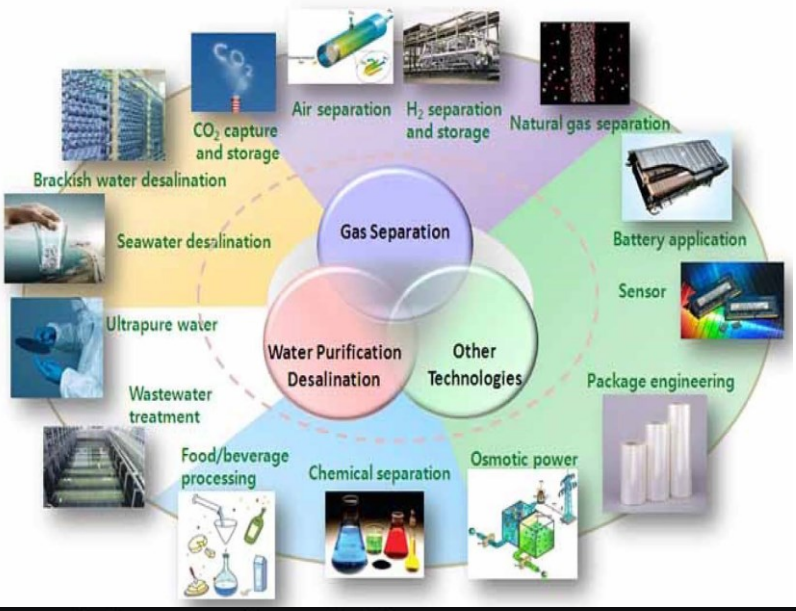

Blank Quiz - Google Forms
docs.google.com/forms/d/1xH8B2yQmXO1BNTQZfnra76bl4jff-65uEu-JkNpWdRc/edit#response=ACYDBNjMvNcHOZvgdrc5GlewkhhKTd0G9-2mz_13I_2ova3mT-Dt...
Blank Quiz
Questions
Responses
The topic -organizing and visualizing data sets was well presented *
Strongly disagree
Disagree
Neutral
Agree
Strongly agree
Add individual feedback
The hands on session on -graph plots was well executed *
Strongly disagree
Disagree
Neutral
Agree
Strongly agree
Add individual feedback
Type here to search
12:00
06-06-2021

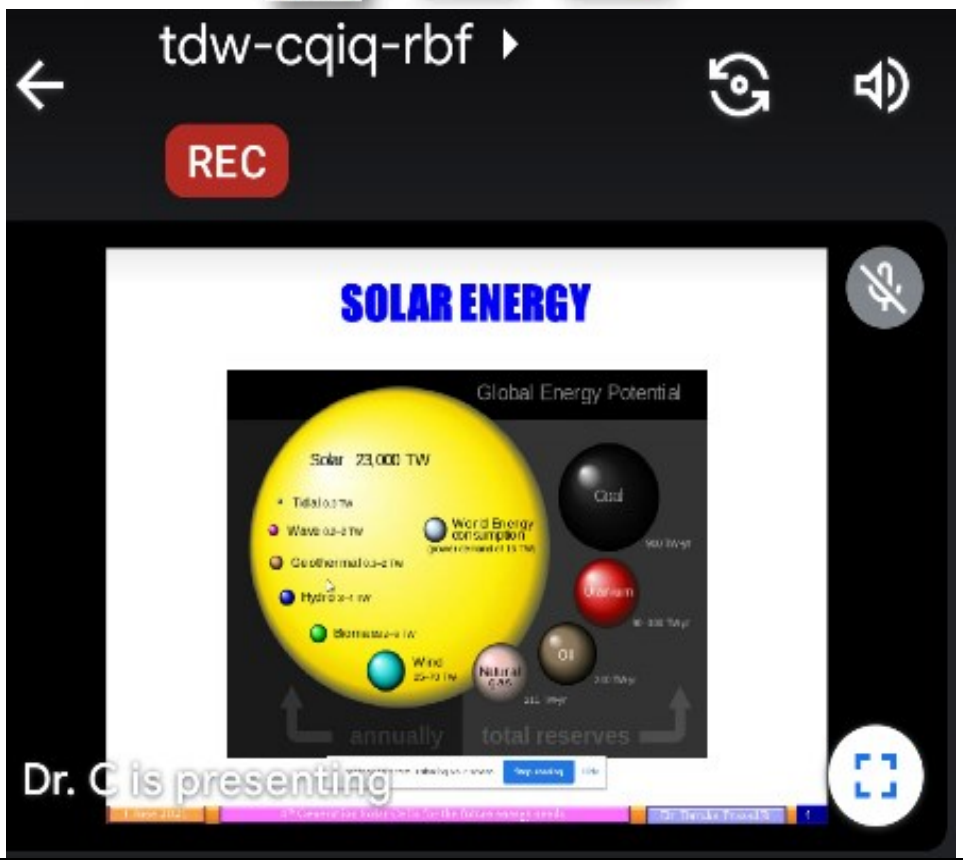
Department: Physics		
Title of the Open Course		**Materials for Devices: An introduction to Engineering Startups**
Targeted Students from Branches		**4th and 6th SEM All branch engineering students, research scholars and research staffs**
Registration Fee		**Rs.100**
No. of students attended		**8**
Software/Hardware Tools used		**Google Meet**
Delivery Methods (e.g.: ppt presentation, chalk & talk, simulation, videos, project, etc.)		**PPT Presentation and Youtube videos**
Assessment Methods (e.g.: Quiz, test, mini-project, report submission, etc.)		**MCQ G-form written Quizzes conducted and evaluated for the sessions**
Open Course Chief Coordinator Details (One Point Contact)	Name	**Dr. C. Kavitha, Dr. Dhananjaya.N**
	Mobile No.	**+919008303399, +919036840280**
	Email ID	**gkavitha21@bmsit.in, ndhananjayas@bmsit.in**
Internal Resource Person Details (Please use additional rows for multiple resource persons)	Name	**Dr. Daruka Prasad B**
	Designation	**Assistant Professor, Department of Physics, BMSIT&M**
	Mobile No.	**+91-9535100437**
	Topics	**Research Methods to do good research and 4th Generation Solar Cells**
	Name	**Mrs. Ashwini K R**
	Designation	**Assistant Professor, Department of Physics, BMSIT&M**
	Mobile No.	**9844529596**
	Topics	**Nanophosphors for WLED Applications**
	Name	**Dr. Jyoti C Abbar**
	Designation	**Assistant Professor, Chemistry dept, BMSIT&M**
	Mobile Number	**+918123500885**
	Names	**Dr C.Kavitha, Dr.Dhananjaya.N, Dr.Lokesh, Dr.Basavaraj. R.BDept of Physics, BMSIT&M, Bangalore**
External Resource Person Details (Please use	**Name**	**Dr. Naveen**
	Designation	**Assistant Professor**
	Company/Organization	**Presidency University, Bangalore**

additional	Mobile Number/email-id	**9945508611**
	Topic	**ZnO nanomaterials for chemiresistive gas sensors**
	Name	**Dr. Hareesh K**
	Designation	**Assistant Professor**
	Company/Organization	**School of applied sciences, Reva University**
	Mobile Number/email-id	**9986996834**
	Topic	**Supercapacitors: Design, Fabrication and Application**
	Name	**Dr.Udhaya Banu**
	Designation	**Assistant Professor**
	Company/Organization	**Centre for Research and Innovations. Adichunchanagiri University, Mandya**
	Mobile Number/email-id	**8867492598**
	Topic	**Doped and composite materials for Hydrogen production and Lithium ion battery**
	Name	**Dr. Prem Sai,**
	Designation	**Research scholar**
	Company/Organization	**IIT-Bombay**
	Mobile Number/email-id	**premsaii@gmail.com**
	Name	**Dr. Nagaraju G**
	Designation	**Assistant Professor**
	Company/Organization	**SIT, Tumkur**
	Mobile Number/email-id	**9620157141**
	Topic	**Synthesis of novel electrode material for lithium ion batteries**
Curriculum Gaps: (Please indicate the gaps in terms of POs/PSOs)	**We have covered the following POs through the open course** **PO5: Modern Tool Usage** **PO6:The Engineer and Society** **PO7:Environment and Sustainability**	
Abstract	**Smart Materials plays a vital role in making devices such as flexible electrnonic devices, Medical devices, Nano devices, sensors, energy storage devices and water purification devices etc., to make human life simple. This open course aims in familiarizing the participants with various device making materials, which can lead to engineers to setup startup company with the products made with these smart materials. Students of all engineering branches and aspirants who wish to take multi-disciplinary fields are most welcome to join this course.** **Topic to be covered:** • **Commerical Graphene Products: Introduction and market status** • **4th Generation Solar Cell devices for the future Energy Needs Research Methods & Methodologies for doing good research**	

	• **Multifunctional Nanomaterials for Light Emitting Diode devices** • **Super conducting Devices** • **Physics of Nano materials fundamentals to Device level** • **Sensor Device materials** • **Liquid Crystal Display Devices** • **Super capacitor, Water filter and Medical Devices.**

Photograph of the event:





OPEN COURSE 2020-2021

June 1-5, 2021

Open Course Outcomes Of "***Material for devices: An introduction to Engineering Startups***"	**CO-1**	Able to understand advanced / smart materials synthesis
	CO-2	Able to apply characterization techniques
	CO-3	Able to fabricate the devices
	CO-4	Able to analyze the materials/devices for industrials applications

CO-PO Mapping for open course of "Materials for Devices: An introduction to Engineering Startups"

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
CO1	3	3	3	3								
CO2					3							
CO3			3	3		3						
CO4						3	3					

Feedback from external expert:

1.mhowladar –startup expert told that our startup open course is a good choice

Feedback (critical) from students:

1. students told that the course is very new, interesting and informative.

Feedback from External participants (if any):

1. students told that the course is very new, interesting and informative.

Corrective methods/suggestions to consider while conducting open course next time (at least two points)

1. If it is offline, the interaction will be more effective.
2. The hands on training in the research lab would have been given more effectively to students

OPEN COURSE 2020-2021

June 1-5, 2021

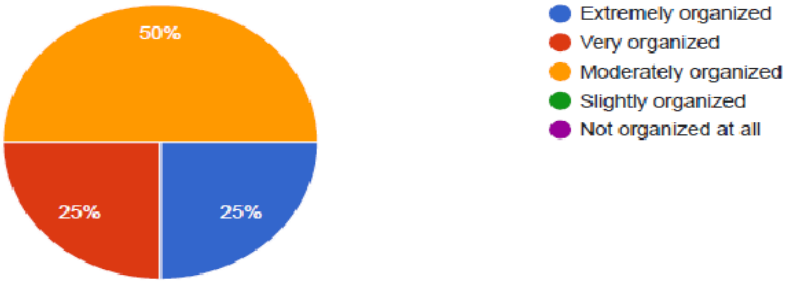
Sample course feedback form

1. How well did you achieve this learning goal in this course?

4 responses

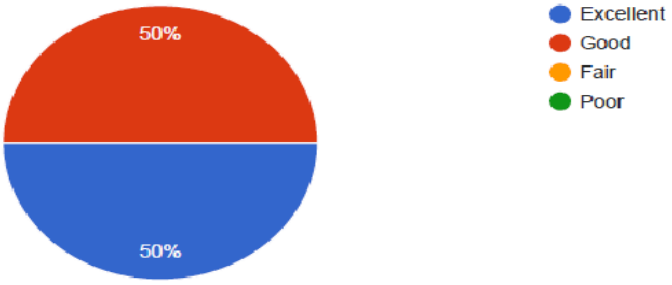
2. How organized was this course?

4 responses



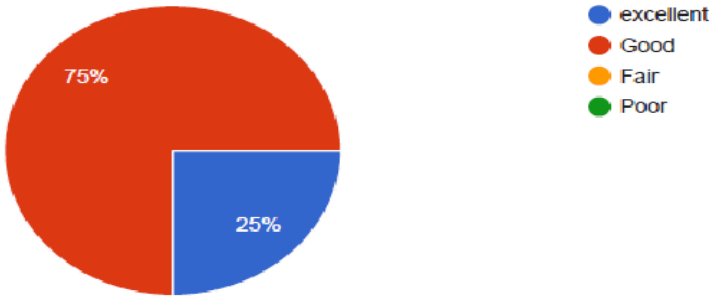
3. How do you rate all the Topics delivered in this course?

4 responses



4. Rate the quality of online platform used in this course?

4 responses



5. Whether your quizzes had relevent questions as per topics?

4 responses

6. How do you rate the resource persons of this course?

4 responses