

Department of Electronics and Communication Engineering

OPEN COURSE REPORT 2020-21 (Even semester)

Open courses are additional (over and above the curriculum) courses where the faculty 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 was conduction for this semester as per Calendar of events between **1.6.2021 to 5.06.2021**. Total of 6 courses were offered by our department (which are listed below) even though a smaller number of students opted for 2 courses we still continued the course to encourage those students.

SI no.	Open Course Title	Registrations	Coordinator name
1	Fundamentals of IOT and Circuit Simulation	30	Dr. Dankan Gowda V, Prof. Lakshmisagar S
2	8085 Microprocessor Basics	4	Prof. Thyagaraj T, Dr. Ambika R
3	Design and analysis of Microwave and Electronic devices	9	Dr. Amit Kumar, Dr. Prachi Sharma
4	Machine Learning for Image Analysis	38	Dr. Vijayalakshmi G V, Prof. Chandraprabha R, Prof. Shilpa Hiremath
5	Applied Embedded system and IoT	39	Dr. Anil kumar D, Prof. Saneesh C T, Dr. Mala C S
6	<i>Cryptocurrencies and the Technology Behind it!</i>	60	Dr. M. C. Hanumantharaju

List of Open Course offered and registered by participants

We are happy to inform that the total participants registered for various courses were 168, out of which 4 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 those 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 next time.

Department: DEPARTM	ENT OF ELECTRONICS AN	ND COMMUNICATION			
Title of the Open Course		FUNDAMENTALS OF IOT AND			
		CIRCUIT SIMULATION			
Targeted Students from Bra	anches	Circuit Branches			
		ECE/ETE/EEE/CSE/ISE			
Registration Fee		200/-			
No. of students attended		30			
Software/Hardware Tools u	ised	Tinker CAD, Node MCU, Thing Speak			
Delivery Methods (e.g.: pp	t presentation, chalk &	PPT presentation, Simulation, Mini			
talk, simulation, videos, pro	oject, etc.)	Projects, Hardware with live			
		demo and video.			
Assessment Methods (e.g.:	Quiz, test, mini-	Quiz.			
project, report submission,	etc.)				
Open Course Chief	Name	Dr. Dankan Gowda V			
Coordinator Details	Mobile No.	9844554940			
(One Point Contact)	Email ID	dankan.v@bmsit.in			
Internal Resource	Name	Dr. Dankan Gowda V			
Person Details (Please	Designation	Assistant Professor			
use additional	Mobile Number	9844554940			
rows for multiple	Name	Prof. Lakshmisagar H S			
resource	Designation	A and a day of Day for an an			
persons)	Designation Makila Nasakan	Assistant Professor			
	Mobile Number	+91 81230 08252			
External Resource	Name	Mr. Manju J K			
(Please use	Designation	Professional IoT Trainer			
additional	Company/Organization	Siemens centre of Excellence in Monufacturing deputed to NIT Trichi			
		Manufacturing deputed to N11 Tricm			
	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 PO	12

BM TECH CAUTON	S INSTITUTE OF INOLOGY & MANAGEMENT omous Under VTU)
Abstract (Brief Details of	The explosive growth of the —Internet of Things is changing the current
the open course with less	trends in the world and the rapid drop in price for typical IoT components is
than 250 words)	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.

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	
C05						3			3	3			3	

Feedback from external expert:

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

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



Department: Electronics	and Communication	
Title of the Open Course		Microprocessor 8085 Basics
Targeted Students from Bra	anches	All branches
Registration Fee		Rs. 200.
No. of students attended		4
Software/Hardware Tools u	ised	Microprocessor simulation tool
Delivery Methods (e.g.: pp	t presentation, chalk &	PPT, simulation
talk, simulation, videos, pro	oject, etc.)	
Assessment Methods (e.g.:	Quiz, test, mini-	Quiz
project, report submission,	etc.)	
Open Course	Name	Prof. Thyagaraj
Chief Coordinator	Mobile No.	9845133392
Point Contact)	Email ID	<u>thyagaraj_tanjavur@bmsit.in</u>
Internal Resource	Name	Dr. Ambika R



Person Details	Designation	Professor
(Please use		9449527539
additional	N	
rows for	Name	Dr. C S Mala
multiple	Designation	Professor
resource		9448611588
persons)	Name	Prof. Shashikala J
	Designation	Asst. Professor
		7259703549
External Resource	Name	Dr. R Aparna
Person Details	Designation	Professor
(Please use	Company/Organization	Siddaganga Institute of Technology
additional	Mobile Number/email-id	<u>9480408455/raparna@sit.ac.in</u>
	Name	
	Designation	
	Company/Organization	
	Mobile Number/email-id	
Curriculum Gaps:	1. PO1: insufficient pre-requ	isite knowledge.
(Please indicate	2. PO5: not proficient with si	mulators.
the	_	
gaps in terms		
of POs/PSOs)		
Abstract	The 8085 is a popular 8-bit m	icroprocessor that is used widely across the
10000000	world to introduce students	to microprocessor concepts and assembly
	language programming. In this	s course, The course intends to enrich the
	knowledge of the participa	ints with understanding the basics of
	microprocessor fundamentals, the	hen dive deep into the architecture
	of 8085 and its instruction	set. Finally introduce assembly language
	programming and solve a bunch	of programming questions.

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	rt Page Layout References	Mailings	Review	View Section Tools
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	M0 =1	1001110	0	
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Open Course Outcomes Of	"Microprocessor 808	5	CO-1	Understand the extension of logic circuits
Basics"	-			to microprocessors
			CO-2	Build capacity to write programs in
			CO-3	Demonstrate ability to solve problems on
			0.0-3	simulator.

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

U													
	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



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)

	1	2	3	4	5	
Strongly disagree	0	0	0	0	۲	Strongly agree
ne contents covered in	n the open	course m	eets the c	ourse outo	comes defi	ined
	1	2	3	4	5	
Strongly disagree	0	0	0	۲	0	Strongly agree
ne duration of the ope	en course v	vas very a	ppropriate			
	1	2	3	4	5	
strongly disagree	0	0	0	0	۲	strongly agree
ne open course helpe	d me a lot	to improve	e my know	ledge that	is require	d for the Industry *
	23	2	3	4	5	
	1	2	5			

rongly agree
rongly agree
topics in
rongly agree
propriate.
rongly agree

he course helped me sage and other skills.	to acquire :	sufficient	teamwork	, continuo	us learning	, modern tools
	1	2	3	4	5	
Strongly disagree	0	0	0	0	۲	Strongly agree
feel we need more and ne Team.	d more of t	hese kind	s of new ir	nitiatives w	hich bring	all of us together a
	1	2	3	4	5	
Strongly disagree	0	0	0	0	۲	Strongly agree
ime management was	effective 1	throughou	t the oper	n course		
	1	2	3	4	5	
Strongly disagree	0	0	0	0	۲	Strongly agree
am more inspired to u pportunity etc.	tilise open	course to	project ba	ised learni	ng, Industi	y internship, job
	1	2	3	4	5	
	0	\bigcirc	\bigcirc		\bigcirc	

Department: Electronics and Communication Engineering					
Title of the Open Course	2	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 Too	ls used	CST Microwave Studio, ANSYS HFSS,			
		Vectored Network Analyzer			
Delivery Methods (e.g.:	ppt presentation, chalk &	PPT Presentation, Simulation, Videos			
talk, simulation, videos,	project, etc.)				
Assessment Methods (e.	g.: Quiz, test, mini-	Quiz			
project, report submission	on, etc.)				
Open Course	Name	Dr. Amit Kumar			
Chief Coordinator	Mobile No.	8010377545			



Details (One Point	Email ID	amitkumar@bmsit.in				
Contact)						
Internal	Name	Dr. Amit Kumar				
Resource Person	Designation	Assistant Professor				
Details	Mobile Number	8010377545				
	Name	Dr. Prachi Sharma				
	Designation	Assistant Professor				
	Mobile Number	93150 43596				
External	Name	Dr. Jugul Kishor				
Resource	Designation	Associate Professor				
Person Details (Please use additional	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:	Strong correlation with POs	(4, 5, 6, 7, 8, 9). Students will learn about new				
(Please indicate	software tools like CST Microwave Studio, ANSYS HFSS for designing					
the gaps in terms						
of POs/PSOs)	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 co	omplex problems related to society and its solution				
		inplet proceeds related to society and its solution				
	through engineering practices	like implementation of 5G technology.				

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.
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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
C01	3	3	2										
CO2	r	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 <u>https://edu.3ds.com/en/software/cst-studio-suite-student-edition</u>

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 e.

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

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

Timestamp	Email Address	Name of the Student	Semest er	USN	Depart ment	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@b msit.in	Anubhav Pratihar	6th	1BY15EC013	ECE	8971644895	Strongly agree	NA	NA
6/5/2021 14:37:26	1by17ec417@bm sit.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		Electron	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@bm sit.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@bm sit.in	Ankur Kumar	4	1BY18EC019	ECE	6202647679	Strongly agree	Students should be given more such opportunity to get involved in such interactive courses	

Sample course feedback form



Department: Electronics and Communication Eng	gineering	
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 & tal	k, simulation,	ppt presentation, simulation,
videos, project, etc.)		project
Assessment Methods (e.g.: Quiz, test, mini- project, a submission, etc.)	report	Quiz, test
Open Course Chief Coordinator Details	Name	Dr. Vijayalakshmi G V
(One Point Contact)	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	Name	Dr. Vijayalakshmi G V
additional	Designation	Associate Professor
rows for multiple resource persons)	Mobile	9449378246
	Number	
	Name	Prof. Chandraprabha
	Designation	Assistant Professor
	Mobile	88676 18157
	Number	
	Name	Prof. Shilpa Hiremath
	Designation	Prof. Shilpa Hiremath
	Mobile Number	Assistant Professor
	Name	Dr.Surekha R Gondkar
	Designation	Associate Professor
	Mobile	96635 99656
	Number	
	Name	Prof. Mamatha K R
	Designation	Assistant Professor
	Mobile	99720 42574
	Number	
	Name	Mr. Siddarth Shetty
	Mobile	87225 51612



Number	
Name	Mr. Abdul Rehman
Mobile	87225 51612
Number	
Name	Mithilesh Jagannathan

External Resource	Designation	Solution Architect
Person Details	Company/Organiz ation	Honey well, Pune
(Please use		
additional	Mobile Number/email- id	mithileshjagannathan@gmail.com
	Name	Dr. Ruban Nersisson
	Designation	Associate Professor and HoD
	Company/Organiz ation	VIT, Vellore
	Mobile Number/email-	nruban@vit.ac.in
	1d	
	Name	Dr. Vijayarajan
	Designation	Associate Professor
	Company/Organiz ation	VIT, Chennai
	Mobile Number/email- id	<u>viraj2k@gmail.com</u>
	Name	Dr. Chandrakala H T
	Designation	Assistant Professor
	Company/Organiz ation	GFGC, Tumkur
	Mobile Number/email- id	chandrakl80@gmail.com
	Name	Dr. Bhagirathi Halalli
	Designation	Assistant Professor
	Company/Organiz ation	GFGC, Raibag
	Mobile Number/email- id	bhagyaigali@gmail.com
	Name	AbhishekPShenoy
	Designation	SoftwareDeveloper,TeamLead
	Company/Organiz ation	SigSenzTechnologiesPvt.Ltd, Bangalore
	Mobile Number/email- id	70195 76068
Curriculum Gaps: (Please indicate the gaps in terms	Students got the opportunit enhanced their lifelong lear individually.(PO12)	y in learning the various software tools which ning skills by executing the projects



of POs/PSOs)	
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 of analysis while highlighting the image enhancement, segmentation, restoration, feature extraction and machine learning modules.



Photograph of the event:



Open Course Outcomes Of " Machine Learning for	CO- 1	Design image analysis methods for use in pattern recognition applications.
Image Analysis"	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									
				5									
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

Student Feedba	ack Form for Open Course	
	•	
Name *		
Laya C		
SEM *		
4		
USN *		
18Y19CS072		
Department *		
CSE		
Email Id *		
1by19cs072@bmsit.in		
Phone Number *		
8088561314		

1. Th	e open course offered was good enough to improve my knowledge and skills. *
0	Strongly disagree
0	Somewhat disagree
0	Neither agree nor disagree
0	Somewhat agree
0	Strongly agree
2. Tř	e contents covered in the open course meets the course outcomes defined *
0	Strongly disagree
0	Somewhat disagree
0	Neither agree nor disagree
0	Somewhat agree
0	Strongly agree
3. Th	e duration of the open course was very appropriate. *
0	Strongly disagree
0	Somewhat disagree
0	Neither agree nor disagree
0	Somewhat agree
-	Strongly agree

1021	Student Feedback Form for Open Course
4. The o	pen course helped me a lot to improve my knowledge that is required for the Industry *
⊖ Stro	ngly disagree
⊖ Som	newhat disagree
O Neit	her agree nor disagree
⊖ Som	ewhat agree
⊚ Stro	ngly agree
5. The correquirem	ontents of the open course were properly framed in accordance with the Industry nent *
⊖ Stro	ngly disagree
⊖ Som	iewhat disagree
O Nell	her agree nor disagree
Som	ewhat agree
⊖ Stro	ngly agree

(The en	an and a second to the second second second by the second by the local second
depth.*	source persons invited to the open course were good enough to cover the topics in
O Stron	igly disagree
O Som	ewhat disagree
O Neith	er agree nor disagree
O Som	ewhat agree
 Stror 	vgly agree
7. The tin	ning chosen for open course (just one week after the regular classes) is appropriate. *
O Stron	ngly disagree
O Some	ewhat disagree
O Neith	er agree nor disagree
⊙ Som	awhat agree
O Stron	igly agree

8. T	he open course covered most of the key aspects provided in the course schedule *
0	Strongly disagree
0	Somewhat disagree
0	Neither agree nor disagree
0	Somewhat agree
0	Strongly agree
9. Ti usa	he course helped me to acquire sufficient teamwork, continuous learning, modern tools ge and other skills. *
0	Strongly disagree
0	Somewhat disagree
0	Neither agree nor disagree
0	Somewhat agree
0	Strongly agree

10. I feel we need mon together as one Team	re and more of these kinds of new initiatives which bring all of us
O Strongly disagree	
 Somewhat disagree 	1
O Neither agree nor di	sagree
 Somewhat agree 	
 Strongly agree 	
11. Time management	was effective throughout the open course. *
Strongly disagree	
 Somewhat disagree 	e la
O Neither agree nor di	sagree
 Somewhat agree 	
 Strongly agree 	

12021	Student Feedback Form for Open Course
12. I a	am more inspired to utilise open course to project based learning, Industry internship, job ortunity etc. *
0	Strongly disagree
0	Somewhat disagree
0	Neither agree nor disagree
0	Somewhat agree
0	Strongly agree
My s	uggestions to improve these open courses in future: *
My c	other comments: *
lt wa	s really nice , we came to know some topics
	This form was created inside of BM/S Institute of Technology and Management.
	Google Forms

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Department: DEPARTMEN	NT OF ELECTRONICS AN	ND COMMUNICATION				
Title of the Open Course		Applied Embedded systems and IoT				
Targeted Students from Brand	ches	ECE/ETE/EEE/CSE/ISE				
Registration Fee		200/-				
No. of students attended		39				
Software/Hardware Tools use	d	Tinker CAD, Node MCU, Thing				
		Speak,Arduino,RPi,RTOS,				
Delivery Methods (e.g.: ppt p	resentation, chalk & talk,	PPT presentation, Simulation, Mini				
simulation, videos, project, et	c.)	Projects, Hardware				
Assessment Methods (e.g. : O	iz test mini- project	demonstration, Write and talk				
report submission, etc.)	diz, test, iiiiii- project,	Quiz.				
Open Course Chief	Name	Dr. Anil kumar D				
Coordinator	Mobile No.	9886216203 <u>anilkumard81@bmsit.in</u>				
Details (One	Email ID					
Point Contact)						
Internal Resource	Name	Dr.C S Mala				
Person Details	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 Brof Drugglongth C V				
		Prol. Dwarakanaun G v Assistant Professor				
		9916155597				
External Resource	Name	Mr.Faizan Shukoor				
Person Details	Designation	Team Leader				
(Please use	Company/Organization	Sunsoftronics Systems, Bangalore				
additional	Mobile Number/email-id	+91 9900446647				
Curriculum Gaps: (Please indicate the	PO3, PO5, PO9, PO10 and PO12					
POs/PSOs)						

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

BMS INSTITUTE OF **TECHNOLOGY & MANAGEMENT**

(Autonomous Under VTU)

	Contraction of the local division of the loc	Raise hand Turn on captions is preservitive
	CO-1	Demonstrate the fundamental concepts of the
		Internet of Things
Open Course Outcomes Of		and its applications and architecture models.
Applied	CO-2	Design the real time applications using Arduino
Embedded systems and 101		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"

				8	P									
	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

semester and section ıD 28 responses 2 2 (<mark>7.1</mark>%) 0 3rd sem ans 'B' sec. 4th Sem 'C' 4th sem and 'B' sec 6/A 6th sem ECE A SEC 4th semester 'C' Section 6th, B 4A 4th sem . A sec

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 &	PPT Presentation, Live Demos,						
talk, simulation, videos, project, etc.)	Simulation Tools, Videos						

Assessment Methods (e.	g.: Quiz, test, mini-	Quiz
Project, report submissio	Name	
Open Course Chief	Name	Dr. M. C. HANUMANTHARAJU
(One	Mobile No.	9/42290/64
Point Contact)	Email ID	<u>mchanumantharaju@bmsit.in</u>
Internal Resource	Name	Dr. M. C. HANUMANTHARAJU
Person Details	Designation	Professor
	Mobile Number	9742290764
External	Name	Mr. Chandra Bhushan
Resource	Designation	Founder and CEO
Person Details	Company/Organization	CBK Infotech India Private Limited, Bengaluru
	Mobile Number/email-id	9632429982
(Please indicate the gaps in terms of POs/PSOs)	Analysis, Modern Tools, P	roject Management and Finance
Abstract	To really understand what i how it works at a technica about Bitcoin, such as:	s special about Bitcoin, we need to understand l level. We'll address the important questions
	How does Bitcoin work? Wyour Bitcoins? How anony price of Bitcoins? Can crypt hold?	What makes Bitcoin different? How secure are mous are Bitcoin users? What determines the ocurrencies be regulated? What might the future
	After this course, you'll kn fact from fiction when cryptocurrencies. You'll ha engineer secure software tha be able to integrate ideas fro	ow everything you need to be able to separate reading claims about Bitcoin and other ave the conceptual foundations you need to at interacts with the Bitcoin network. And you'll m Bitcoin

Photograph of the event: Meet - zcc-exh<u>v-soq</u> ⊚ × + d D C meet.google.com/zcc-exhv-soq?pli=1&authuser=1 - 1 🛛 🙏 * Manumantharaju M C is presenting 0)10 4:20 PM O REC 2 BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT HOW TO STORE CRYPTOCURRENCIES Wallet: A cryptocurrency wallets are used to store cryptocurrencies S 1 🛞 SUKRUTHA T S ECE-201... 🚷 1by17te013 - Diksha Mis. 0 6 0 Atomic 0 😄 🖗 0 😵 HARSHA Y ECE-2018-20... 🛛 🚷 Priyanshu Sarawgi ISE-2. Hardware Wallet Desktop Wallet Μ 📶 edge ند م 1BY19AI032 Moha (YASHAS D ECE-2018-20... EXODUS **Coin**Payments Desktop Wallet **Online Wallet Mobile Wallet** 02-06-2020 encies and Technolog 1**B**Y1 + Raise hand cc Meeting details ^ Hanumantharaju M C is presenting : Turn on captions 🕂 🔎 Type here to search 0 17 0 CHANDAN U ECE-2018-.. C Bhushan is presenting C 0)28 国 â 12:17 • REC and 13 more EL NOCE A Dispeter ALLOCE Aug Oct Development Street 0 **Bitcoin and Blockchain** ••• C Bhushan P-22 000 Promise 54 V S Block 51 Block 52 Block 53 Block 54 Proof of work ool of wor and of work 6855 . (M) H next geographics is a large your screen. Stop sharing Hide P Type have to search o 🔹 🙋 🛤 💼 🖇 💐 🦓 (2) ~ # 40 = 10 8 0 110 1217 15

Open Course	CO-	Acquire a fundamental understanding of
Outcomes Of	1	cryptocurrency and e-payment – the basic principles
"Cryptocurrencies		as well as the technical and business aspects;
and the Technology	CO-	Evaluate cryptocurrency and e-payment systems,
Behind it !"	2	applications and protocols;
	CO-	Design and implement cryptocurrency and e-payment
	3	
		systems/applications.
	CO-	Identify major research challenges and technical gaps
	4	
		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
C01	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. *
	O Strongly Disagree
	O Somewhat Disagree
	O Neither Agree nor Disagree
	O Somewhat Agree
	Strongly Agree
	2. The contents covered in the open course meets the course outcomes defined. *
	O Strongly Disagree
	O Somewhat Disagree
	O Neither Agree nor Disagree
	O Somewhat Agree
	Strongly Agree

3/9

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3. Tł	ne duration of the open course was very appropriate. *
0	Strongly Disagree
0	Somewhat Disagree
0	Neither Agree nor Disagree
0	Somewhat Agree
\odot	Strongly Agree
4. Ti	he open course helped me a lot to improve my knowledge and skills that are required for the
4. Ti Indu	he open course helped me a lot to improve my knowledge and skills that are required for the istry *
4. Ti Indu	he open course helped me a lot to improve my knowledge and skills that are required for the istry * Strongly Disagree
4. Ti Indu	he open course helped me a lot to improve my knowledge and skills that are required for the stry * Strongly Disagree Somewhat Disagree
4. Tl Indu	he open course helped me a lot to Improve my knowledge and skills that are required for the istry * Strongly Disagree Somewhat Disagree Neither Agree nor Disagree
4. TI Indu	he open course helped me a lot to improve my knowledge and skills that are required for the istry * Strongly Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree

4/9

5. The contents of the open course were properly framed in accordance with the Industry requirement *
O Strongly Disagree
O Somewhat Disagree
O Neither Agree nor Disagree
O Somewhat Agree
Strongly Agree
6. The resource persons invited to the open course were good enough to cover the topics in depth.
O Strongly Disagree
O Somewhat Disagree
Neither Agree nor Disagree
O Somewhat Agree
Strongly Agree

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ನಹಿ ಚ್ಞಾನೇನ ಸದೃಶಂ 6/7/2021	Cryplocurrencies and the Technology Feedback - Google Forms
	7. The timing chosen for the open course (just one week after the regular classes) is appropriate. *
	Strongly Disagree
	O 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
	O Somewhat Disagree
	Neither Agree nor Disagree
	O Somewhat Agree
	Strongly Agree

9. The course helped me to acquire sufficient teamwork, continuous learning, modern tools usage and other skills. *
O Strongly Disagree
O Somewhat Disagree
Neither Agree nor Disagree
O 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
O Somewhat Disagree
Neither Agree nor Disagree
O Somewhat Agree
Strongly Agree

7/9

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۲	ECHNOLOGY & MANAGEMEN Autonomous Under VTU)
	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
	O Somewhat Disagree
	O Neither Agree nor Disagree
	O Somewhat Agree
	Strongly Agree

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Cryptocurrencies and the Technology Feedback - Google Forms

 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

6/7/2021

Submitted 05/06/2021, 15:30

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