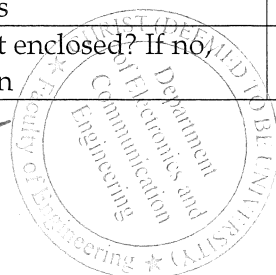


Faculty Of Engineering
Department of Electronics & Communication Engineering

REPORT ON DEPARTMENT EVENTS

Academic year & Semester	2017-18, ODD Semester	
Name of the Department	Electronics and Communication Engineering	
PoC Faculty Member for clarifications (write email ID & mobile number for contact)	Prof. Vivek	
Details of the Event		
Name of Event	Magnovite Workshops : IOT Using Tiva Board Chip Design Using Mentor Graphics System Modeling Using MATLAB Codeless IOT by Trident Tech labs, Bangalore	
Description of the Event (seminar/workshop/guest lecture/hands on practice/Industrial Visit)	Magnovite Workshops	
Address & contact details of Resource Persons/Speakers if any (provide email ID & mobile number of all the speakers)	Organized by ECE department.	
No. of Days event held	Three	
Date(s) and Duration	Date: 27 Feb 2018	Time: 9:00 am to 4:00 pm
Any amount spent for the event ?	Yes. Institutional Support.	
Details of participants attended the event		
Number of guests from outside university	Institutional Level.	
Students & faculty members from the department	150	
Students & faculty members from Faculty of Engineering (other depts.)	Nil	
Total Participants	150	
Is Attendance list enclosed? If no specify the reason	Yes	

Prepared by



Approved by

(9)

WORKSHOP ON "CHIP DESIGN USING MENTOR GRAPHICS"

(27-2-2018 to 01-03-2018)

The Magnovite techno-cultural fest brought us yet another knowledge driving workshop on Chip Design, giving the aspiring Electronics Engineering a core learning and motivating them towards the same.

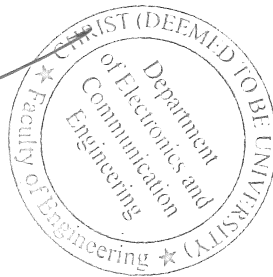
Mr.Santhosh.T.R was the resource person, Application Engineer, Trident TechLabs. The 1st session of the workshop started with the brief introduction to various software and the companies involved in each of them. Brief discussion D0-254 avionics industry document was also the part of the session. It went on to have an overview on D0-254 Flow. He also gave an insight about various methods to generate RTL verilog or VHDL code such as FSM to RTL, Block Diagram to RTL was a few to discuss on the software tool HDL Designer. Hands On session of the above to the students individually made the workshop much more interesting and that brought end of day 1.

The 2nd day started off with the Chip Design and the Chip Design flow and the entire process was given as a Hands On experience to the students. The goal was to generate a GDSII file that is then given to the fabricator firms. This required the knowledge of Linux which was also briefed as a course of the workshop. Off the 3 shells of Linux the requirement was to work on c shell. Also the need of the hour was to work with integrated environment.

Mentor Graphics Tools was used throughout the course of the workshop.

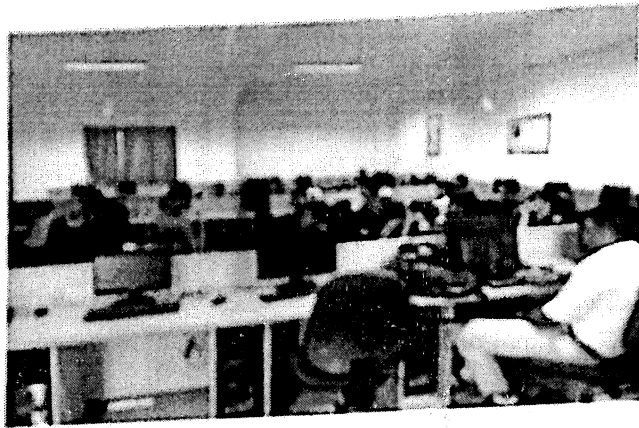
Mentor Graphic's Custom IC flow

Signature



9

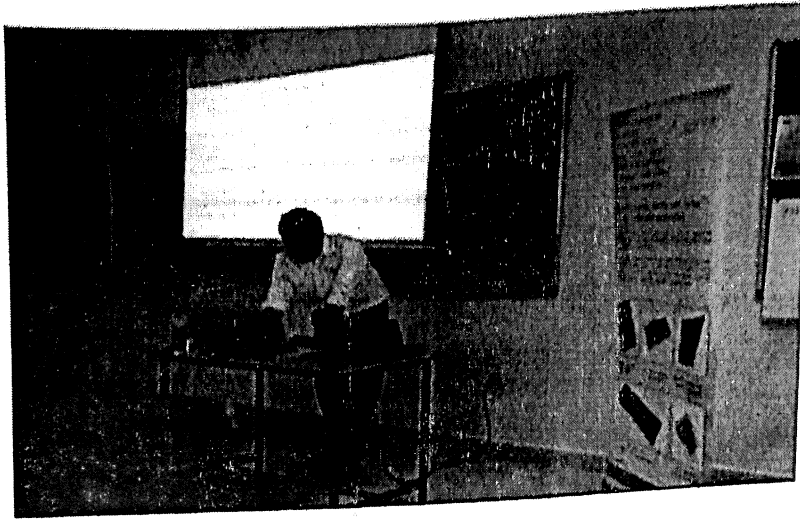
- Name of the Workshop: CHIP DESIGN USING MENTOR GRAPHICS
- Name of The Resource Persons and their Affiliations: Mr. SANTHOSH T R. APPLICATION ENGINEER, TRIDENT TECHLABS PVT LTD BENGALURU
- Total Strength of Students: 32
- Name of the Faculty, Co-Faculty & Student Incharge: R KISHOREKUMAR, Ms. RINU C VARGHESE & VAIBHAV SINGH
- Photographs of the Workshop:



RKi



Mr.Ganesh from Edgate Technologies



Students Attending iot using TIVA board workshop.



Session 2

Day 2 (28th February) began with an explanation from Mr.Sandeep as to how to put these devices to better use, the students were taught how to operate the LED's wirelessly through means of a hotspot device and a web browser. They also taught the students how to connect the devices to the internet and also enabled a server and client relationship between two devices.

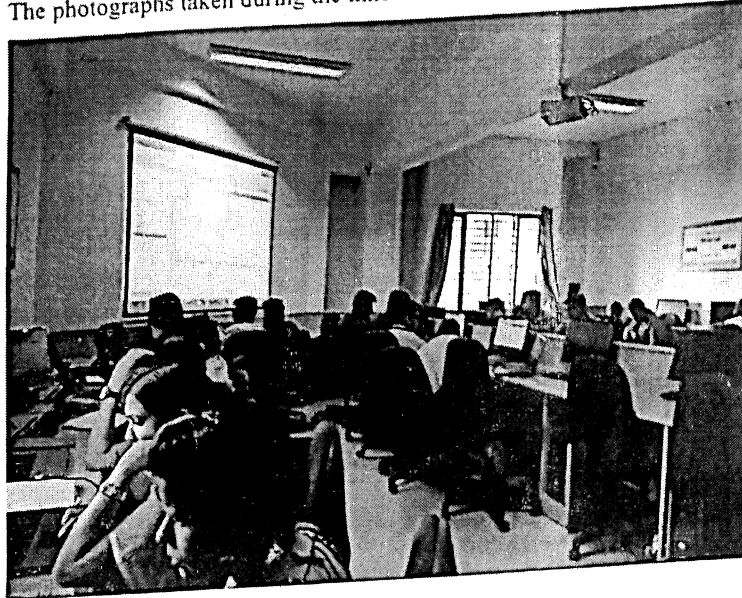
Post Lunch Mr.Ganesh introduced students to a host of websites that perform supporting tasks for IoT devices. One such website was dweet.io. dweet.io is simple publishing and subscribing for machines, sensors, devices, robots, and gadgets. Published messages are called 'dweets'.

It's helpful to think of dweet.io as a Twitter for things, they assign each device a unique name. Then a device may be subscribed to, which is analogous to following someone in twitter.

Rui

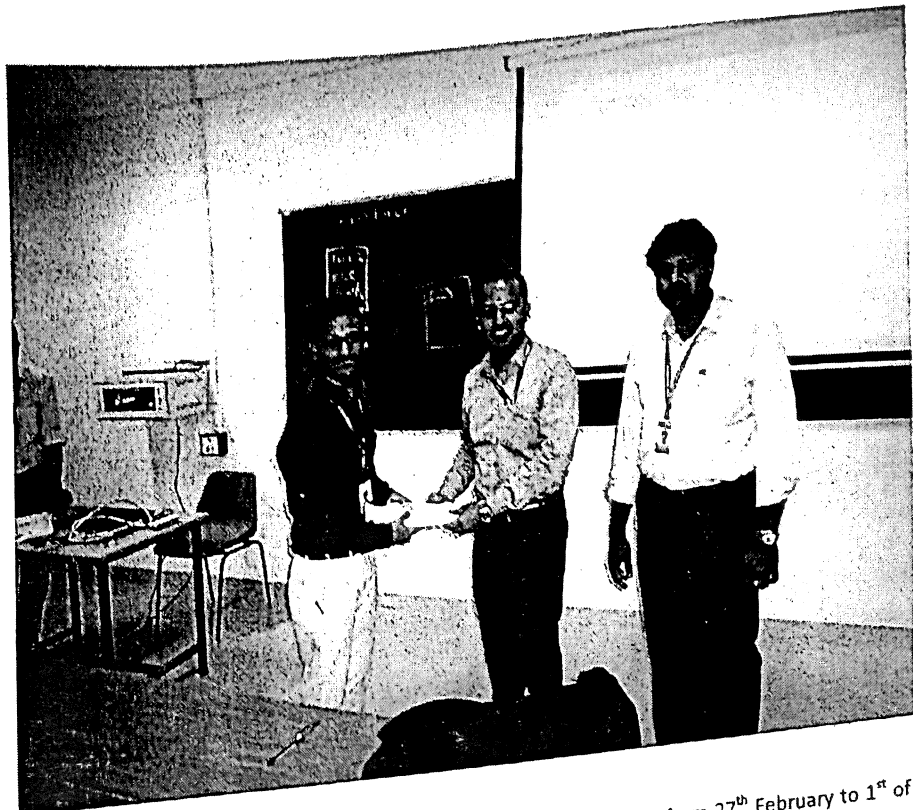


based and the workshop is winded with an evaluation process. The evaluation process is a written test for 25 marks. They have to solve 10 basic MATLAB programs on matrices, generation of test signals and digital image processing. From the department one desktop is provided for two students through out the workshop. The photographs taken during the time of workshops are attached herewith.



Raj

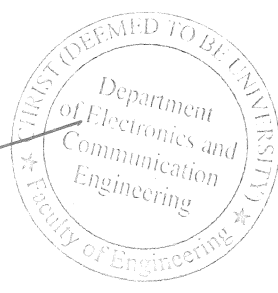
CHRIST (DEEMED TO BE UNIVERSITY)
Department of Electronics and Communication Engineering
Faculty of Engineering



Workshop and take away: The workshop was attended by 36 students from 27th February to 1st of March. The students were given hands on experience on ESP8266 NODEMCU as well as MIT app Inventor and EasyCoding. Then finally the students were evaluated. The workshop was a great success and everyone participated with great enthusiasm.

CS

Rvi



Calibre can read and write from GDSII, OASIS, Open Access, LEF/DEF, and the Synopsys Milkyway databases. Once batch processing is complete, Calibre can back-annotate results to the original database.

Future and Benefits:

1. Run sign-off verification at every stage of the design flow to minimize overall design time.
2. Reduce debugging cycle time with quick, intuitive debugging of cell, block, and full-chip designs.
3. Re-use Calibre sign-off LVS and PEX decks with 3rd-party design tools.
4. Read GDSII, OASIS, LEF/DEF, Milkyway and Open Access for maximum flexibility.

The workshop on a whole gave an insight of how wonderful it is to work with semiconductor physics and its various career options. A token of appreciation was offered to Mr. Santhosh, the resource person. The day had to end, though it was an end it had ended up charging minds of young aspirants.

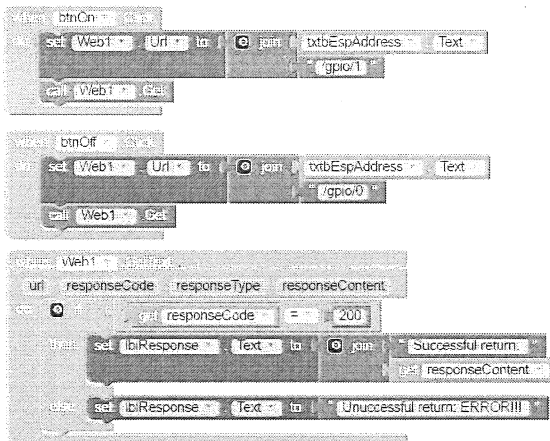


CODELESS IOT WORKSHOP

Overview:

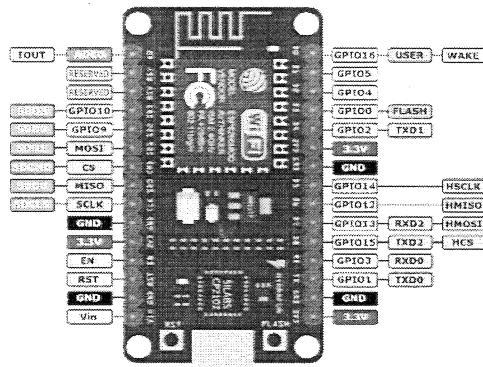
This workshop offers a neat introduction on the various core concepts of the electronics such as

- 1) Integrating the sensors using node mcu
- 2) MIT app inventor
- 3) Python



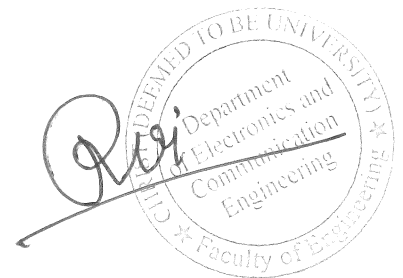
EASY CODING

NODE MCU



Tools Used:

- NODE MCU - 40
- LDR – 50
- LED(RGB)-50
- Piezo sensor – 50
- IR sensor - 40
- LM35 - 40



Pre-requisite:

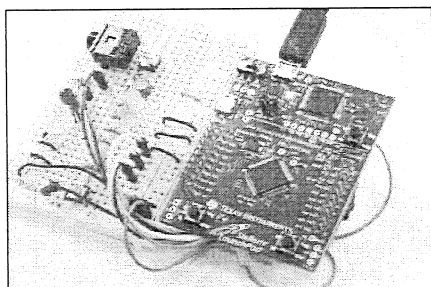
- Basic understanding in programming in arduino

Day	9:30-11:00	11:15-12:45	13:45-15:15	15:30-16:45
1	Arduino <ul style="list-style-type: none"> ▪ Introduction ▪ Sensor Interfacing using easy coding 	<ul style="list-style-type: none"> ▪ Programming the sensors using easy coding 	Internet of Things <ul style="list-style-type: none"> ▪ What is IOT? ▪ Client Server Model 	<ul style="list-style-type: none"> • Client Server Communication using easy coding on node mcu

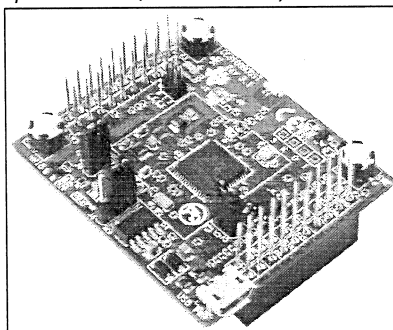
INTERNET OF THINGS using ARM Cortex M4 Tiva MCU

Overview:

This workshop offers a neat introduction on the “Internet of Things” and is based on the advanced development tools from Texas Instruments. The Tiva-C LaunchPad and the CC3100 boosterPack offer a complete wifi IOT solution while the integration of Energia with the IOT platform simplifies the IOT application development. So, what will you **INNOVATE?**



Tiva-C LaunchPad



CC3100 wi-fi BoosterPack

Tools Used:

- Tiva-C or MSP430(f5529/fr5969) or CC3200 LaunchPad
- CC3100 BoosterPack
- Energia, Code Composer Studio6

Pre-requisite:

- Basic understanding in programming, digital electronics



Day	9:30-11:00	11:15-12:45	13:45-15:15	15:30-16:45
1	Arm Cortex M4 & MSP430 <ul style="list-style-type: none"> ▪ Introduction ▪ Architecture ▪ LaunchPad Features 	Energia Framework <ul style="list-style-type: none"> ▪ Overview of Energia Lab: Led, switch, UART, ADC, PWM Labs using Energia	Internet of Things <ul style="list-style-type: none"> ▪ What is IOT? ▪ TCP/IP, internet terminologies CC3100 Booster-Pack	TCP Client Server Paradigm Lab: Client Server Communication.
2	UDP Client Server Paradigm Lab: Client Server Communication.	Implementing the MQTT protocol. Lab: Transmitting short messages through Public network.	Blynk Cloud Service Lab: controlling peripheral through android app.	FreeBoard Cloud Service Lab: Sensor Data Logging using public HTTP

Email Application

Lab: Send Email using your LaunchPad


Hands-on workshop on MATLAB and SIMULINK.

Agenda



CoreEL Technologies (I) Pvt Ltd
CoreEL University Program Team

Ravi



Day 2

	Topic
10:00 – 11:30	Image processing using MathWorks products <ul style="list-style-type: none"> • Overview of Image processing toolbox • Image import export & type conversion • Geometrical transformation • Image enhancement • Image analysis Hands on: Import, export & conversion of images, Cropping & rescaling the images, Histogram equalization of Images, Edge detection.
11:30 – 11:45	Short Break
11:45 – 13:00	Computer vision <ul style="list-style-type: none"> • Overview of Computer vision system toolbox • Video streaming in MATLAB • Video acquisition in MATLAB from webcam Hands on: Video streaming in MATLAB, Image & Video capture and face detection using Webcam, Character recognition.
13:00 – 14:00	Lunch Break
14:00 – 15:00	Machine learning & pattern recognition <ul style="list-style-type: none"> • Introduction to Statistics & machine learning toolbox. • Introduction to classification and pattern recognition • Introduction to classification learner Hands on: Training a classifier using app, deploying the classifier for classification in MATLAB.
15:00 – 15:15	Short Break
15:15 – 16:15	Neural Network <ul style="list-style-type: none"> • Introduction to Neural network . • Classification of cancer cells using neural network. Hands on: Wine classification using neural network.



Checklist for Workshop:

Kindly note that trail license can be generated prior workshop, hence send the HOST ID of server:

Hardware requirement:

1. Lab computers / Laptop with Internet connectivity
2. 1 machine for 2 participants
3. 64 bit machines
4. 4 Gb RAM
5. Windows 7 and upwards with (Service Pack 1)
6. Speakers to play video
7. Projector
8. Collar mike
9. White board with marker

Software requirement:

1. MATLAB and Simulink with all toolboxes

Profile of the presenter:

Pramod Kumar Naik

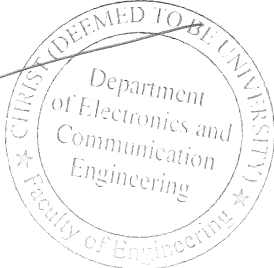

Senior Application Engineer (Mathworks products)
CoreEL Technologies, Bangalore.

Post Graduated from VTU PG studies, VTU Belgaum in VLSI DESIGN .Graduated from VTU Belgaum in E&EE, he has 8 years of experience. He has published 22 papers in both Nation and International Journals.

Manisankar

Application Engineer (MathWorks products)
CoreEL Technologies, Bangalore.

Post Graduate Diploma from CDAC-NOIDA, in Integrated VLSI & Embedded Systems. Graduated from Anna University Coimbatore in ECE, he has 2 years of experience on MATLAB for Image processing, Image Acquisition and Computer Vision. He has worked as MATLAB Developer for one year in Spiro solutions Pvt Ltd, Chennai.



CHRIST DEEMED TO BE UNIVERSITY
Department
of Electronics and
Communication
Engineering
Faculty of Engineering

Respected Sir,

Please find the agenda for two days workshop on Mentor Graphics.

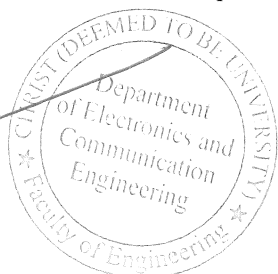
Schedule for DAY 1

Topic	Time	Session	Engineer
FPGA Flow-What comes where?	9.30am-10.45am	Theory	Santhosh T R
Tea Break 10.45am-11am			
Simulation, Code coverage with Questa	11am-11.30am	Lab	Santhosh T R
Working with HDL Designer	11.30am-1pm	Lab	Santhosh T R
Lunch Break 1pm-2pm			
Synthesis with Precision RTL	2pm-3.30pm	Lab	Santhosh T R
Synthesis with Leonardo Spectrum	3.30pm-4pm	Lab	Santhosh T R

Schedule for DAY 2

Topic	Time	Session	Engineer
Introduction to ASIC	9.30am-11.30am	Theory	Santhosh T R
Tea Break 10.45am-11am			
Circuit Design and Analysis	11.30am-12.15pm	Lab	Santhosh T R
Drawing Layout	12.15pm-1pm	Lab	Santhosh T R
Lunch Break 1pm-2pm			
Physical Verification	2pm-4pm	Lab	Santhosh T R

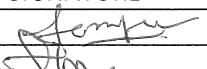

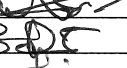
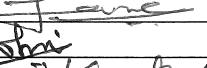
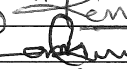
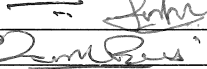
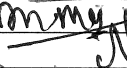
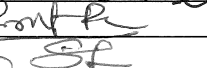
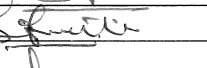
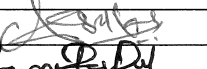
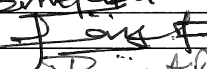
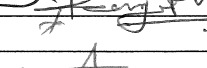

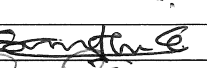

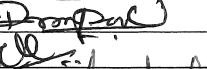
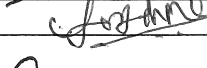
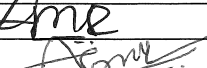
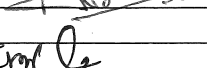
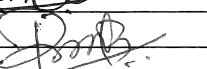





Ravi

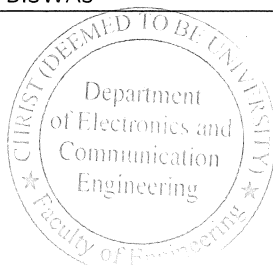


Workshops- Magnovite: IOT Using Tiva Board, Chip Design Using Mentor Graphics, System Modeling Using MATLAB, Codeless IOT

Date: 27 Feb 2018

Attendance List

SL No	Register Number	Name	SIGNATURE
1	1660114	SOWMYA SREENIVASAN	
2	1660370	RUDRAKSH MISHRA	
3	1660486	R ARJUN	
4	1660601	AJAY RAMAKRISHNA MENON	
5	1660603	BRAHM DEV TIWARI	
6	1660606	ISAC S KULAKUDY	
7	1660607	K ABISHEK CHANDRAN	
8	1660608	K KARTHIK	
9	1660610	LOURDHU AKHIL KANNA	
10	1660611	M SIBI MANUSH	
11	1660612	MANIK RAJ	
12	1660613	MICHENAMETLA MEGHA SHYAM	
13	1660614	MINTO MATHEW K J	
14	1660615	PRITHVI RAJ MACHA	
15	1660617	REEVE IGNATIUS SAVIO LOBO	
16	1660621	STEVE STEPHEN PONISAKE	
17	1660622	ANGELA ANISHA	
18	1660623	ANJANA K S	
19	1660624	CLARINE RENIE DELILAH J	
20	1660625	JUSTEENA THOMAS	
21	1660627	NIKITA NAYAR	
22	1660629	POOJITHA.M	
23	1660632	ROSE ANTONY	
24	1660633	RUTH SANDRA H	
25	1660634	Y.CHAITRI GOVARDHANA RAO	
26	1660636	KARTHIK E	
27	1660637	ROSHIN CHERIAN	
28	1660640	FARHEEN ZUBAIR	
29	1660641	DHRUPAD U	
30	1660642	GEORGE F VADAKUMCHERY	
31	1660643	VIGNESH N H	
32	1660644	SHAARU D A	
33	1660645	YALLAREDDYGARI MANOJKUMAR REDDY	
34	1660646	VAIBHAV P THOMAS	
35	1660647	P AMAR	
36	1660648	SANGEERTH VINOD	
37	1660649	PRIYANKA BISWAS	

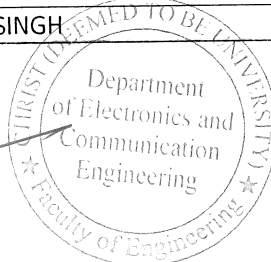





CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

38	1660650	ASHISH PRIYADERSHY	
39	1660651	NANDITA NAIR	<i>Nandita</i>
40	1660652	MALLAVAJJALA SIDDARTHA ATHREYA	<i>Mallavajjala</i>
41	1660653	JERRIPOTHULA SAIJEETH	<i>Jerripothula</i>
42	1660654	MAYOOGH GIRISH	<i>Mayoogh</i>
43	1660655	UTSAV DIHINGIA	<i>Utsav</i>
44	1660656	PROTTUSH DUTTA	<i>Prottush</i>
45	1661014	ATHINA ANN THOMAS	<i>Athina</i>
46	1417189	AMAN BANSAL	<i>Aman Bansal</i>
47	1417201	ABEY CHERIAN	<i>Abey Cherman</i>
48	1417202	DASI AKHIL MADHAV	<i>Dasi Akhil</i>
49	1417206	ROHIT THOMAS MATHEW	<i>Rohit</i>
50	1417208	SANDEEP MICHEAL DOMINGO	<i>Sandeep</i>
51	1417209	SYED AHAD ALI	<i>Syed Ahad</i>
52	1417213	ANGLLET C J	
54	1417214	BATCHU MALAVIKA	
55	1417217	POOJA MERCLIN	<i>Pooja</i>
56	1417219	THUSHARA .G	
57	1417223	CATHERINE JAYARAJ	<i>Catherine</i>
58	1417225	B M KRITHIKA	<i>Bm</i>
59	1417226	MUDDHALURU SANDHYA	<i>Muddhaluru</i>
60	1417227	R ROGER ALLISTER	<i>R Roger</i>
61	1417228	RATHNA RANADHEER REDDY	
62	1417229	RATNESH SINGH	<i>Ratnesh</i>
63	1417230	POOJA B	<i>Pooja B</i>
64	1417231	DELIN-JAMES	
65	1417232	CHETNA SHARMA	<i>Chetna</i>
66	1417233	MANEESH M	
67	1417234	AMAN SHARMA	
68	1417235	RACHEL SUNDARAM	<i>Rachel</i>
69	1417236	CHINTHALA SATHWIK REDDY	<i>Chintala</i>
70	1417237	ANJANA SUNDAR	<i>Anjana</i>
71	1417238	ANUSHIKA S	<i>Anushika</i>
72	1417239	MELITA MONICA MENEZES	<i>Melita</i>
73	1417240	VIMAL JOSE MATHEW	<i>Vimal</i>
74	1417241	DEEPU .M	<i>Deepu</i>
75	1417242	ABHINANDAN G	
76	1417243	HARSHA B M	<i>Harsha</i>
77	1417244	ASHWIN DIXON	
78	1417246	VANESSA GODSON	<i>Vanessa</i>
79	1417248	DIVYABHARATHI O	<i>Divya</i>
80	1417249	ABHISHEK PANDEY	
81	1417251	JOLY FARHANA ISHAKBHAI	<i>Joly</i>
82	1417252	KULWANT SINGH	<i>Kulwant</i>

Ravi

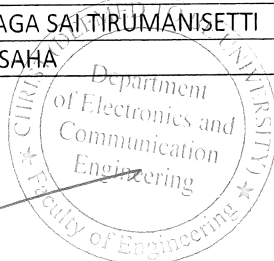




CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

83	1417254	PUJARI SOWMYA	<i>[Signature]</i>
84	1417255	RAJAT NIDHI	<i>[Signature]</i>
85	1417257	SALONI AGGARWAL	<i>[Signature]</i>
86	1417259	VISHAL SINGH	<i>[Signature]</i>
87	1417308	MINNU MARIA JOSEPH	<i>[Signature]</i>
88	1417587	TONY SEBASTIAN	<i>[Signature]</i>
89	1458201	AVRIL MENDEZ	<i>[Signature]</i>
90	1458202	SAPHRONIA MARIA THOMAS	<i>[Signature]</i>
91	1458203	DEEPIKA S	<i>[Signature]</i>
92	1459201	SRISTY HAZRA	<i>[Signature]</i>
93	1560132	SREESHMA	<i>[Signature]</i>
94	1560323	FUNGAMALI PONDAMALI DIEUDONNE	<i>[Signature]</i>
95	1560365	DEEPANNITA DUTTA	<i>[Signature]</i>
96	1560391	MOURYA GUPTA VAKACHARLA	<i>[Signature]</i>
97	1560443	SHREY H SHAH	<i>[Signature]</i>
98	1560503	BHUPALAM MOHITH SUBBARAYUDU	<i>[Signature]</i>
99	1560505	CHILUKURI VISHAL REDDY	<i>[Signature]</i>
100	1560509	JOSEPH KURIAN	<i>[Signature]</i>
101	1560513	SANJITH M GOWDA	<i>[Signature]</i>
102	1560515	VAIBHAV SINGH	<i>[Signature]</i>
103	1560517	ANJU SOMAN T	<i>[Signature]</i>
104	1560519	KALAVAGUNTA SAI CHARITHA	<i>[Signature]</i>
105	1560521	RAMYA. K.	<i>[Signature]</i>
106	1560522	RUTH RUFINA S	<i>[Signature]</i>
107	1560527	G SAI ARYA DIKSHITH VISHWAJITH	<i>[Signature]</i>
108	1560528	DILIP R	<i>[Signature]</i>
109	1560529	K V ADVAITHA	<i>[Signature]</i>
110	1560530	JAYASUDHA R	<i>[Signature]</i>
111	1560532	SONA.M	<i>[Signature]</i>
112	1560534	JASHWANTHI V	<i>[Signature]</i>
113	1560535	PUSHPALATHA B V	<i>[Signature]</i>
114	1560537	HIRAJ KUMAR MAHATO	<i>[Signature]</i>
115	1560538	ANUSHA V REDDY	<i>[Signature]</i>
116	1560539	RAJESH KUMAR K R	<i>[Signature]</i>
117	1560542	ERIC JOHN JOSE	<i>[Signature]</i>
118	1560543	RIORDAN MELCHIOR AROZA	<i>[Signature]</i>
119	1560544	BHARATH KUMAR N G	<i>[Signature]</i>
120	1560547	ANUSH H P	<i>[Signature]</i>
121	1560550	SHREYA JAYACHANDRAN NAIR	<i>[Signature]</i>
123	1560551	PASUPULETI KAILASH RAM	<i>[Signature]</i>
124	1560552	REENA D	<i>[Signature]</i>
125	1560553	ASHLY MATHEW P	<i>[Signature]</i>
126	1560557	ADITHYA NAGA SAI TIRUMANISETTI	<i>[Signature]</i>
127	1560559	SAYANTAN SAHA	<i>[Signature]</i>

[Handwritten signature]

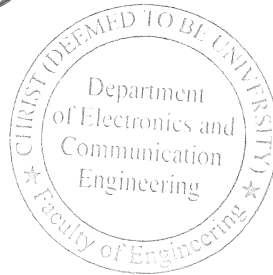




CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

128	1560560	SHAIVI SAHAY	<i>Sahay</i>
129	1560563	ABHIJIT CHAKRABORTY	<i>Abhi</i>
130	1560564	ADITYA KUMAR	<i>AK</i>
131	1560702	CHRISTY STANISLAUS	<i>Christy S.</i>
132	1560710	AYESHA	<i>Ayesha</i>
133	1560711	RAVEENA JOKIM CRASTHA	<i>Raveena</i>
134	1560944	DANIEL ANUSH V	<i>Daniel</i>
135	1561104	CHEEMALAPATI JAYADEEP REDDY	<i>Ch</i>
136	1561319	C P ADARSH	<i>C. Adarsh</i>

Ravi



MAGNOVITE TECHNO-CULTURAL FEST

Workshops on

IOT USING TIVA BOARD
CHIP DESIGN USING MENTOR GRAPHICS
SYSTEM MODELLING USING MATLAB
CODELESS IOT

27TH FEB 2018

9 am - 4 pm

Venue: Block 1 , Auditorium

Organised by

FACULTY OF ENGINEERING
CHRIST (Deemed to be University)



CHRIST
UNIVERSITY
BENGALURU, INDIA

Deemed to be University under Section 3 of UGC Act 1956

