



KONGU ENGINEERING COLLEGE

(Autonomous)

PERUNDURAI, ERODE – 638060



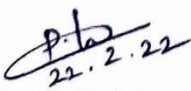
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

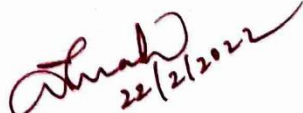
Date: 22.02.2022

CIRCULAR

The following courses are approved by Curriculum and Development Cell (CDC) for this semester (2021-2022 even). The students may enroll themselves based on their willingness to attend the course. The courses will start from March 2022 onwards.

S.No.	Course Code	Name of the One credit course
1.	18VAC81	ASIC design using Cadence
2.	18VAC69	Real time project development using Image Processing and Machine Learning
3.	20VC015	Modeling and deployment Onto SoC using MATLAB and SIMULINK
4.	20VC024	Biomedical Systems and Wearable Medical Services
5.	18VAC88	System Design using MSP430 microcontroller and Code Composer Studio
6.	18VAC89	Industrial communication standards and measurements
7.	18VAC90	Long range technology for IoT application using LORA WAN
8.	20VC025	Long range technology for IoT application using LORA WAN
9.	18VAC91	QCA design for digital Electronics


22.2.22
Faculty Incharge


22/2/2022
HOD / ECE



KONGU ENGINEERING COLLEGE
(Autonomous)
PERUNDURAI - 638060
INTERNAL QUALITY ASSURANCE CELL
Approval for Value Added Course (One / Two Credits)



CEMT No. 85-180-18788
ISO 9001:2015

Academic Year: 2021-22 ODD/EVEN Semester

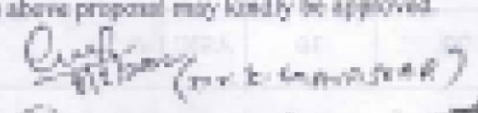
DEPARTMENT OF ECE

Date: 08.03.2022

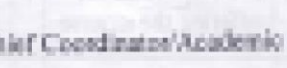
1.	Academic Year	:	2021-22	Semester :	ODD/ EVEN		
2.	Course Title	:	ASIC Design using Cadence	Credit(s):	One / Two		
3.	Type of Course	:	Already Offered Course / Updated Course / New Course				
	• If "Already offered course",	:	Course Code: 18VAC81	Version: -			
4.	Course Coordinator(s)	:	1. Dr.K.Gavaskar 2. Mr.G.Ravivarma				
5.	Course offered by	:	Internal faculty / External experts				
6.	Name and designation of external resource persons	:	1. Dr.D.Malathi 2. Dr.K.Gavaskar 3. Mr.G.Ravivarma				
7.	Details about external organization	:	NA				
8.	Course fee for external experts		Max. number of students/Batch		Course fee / student		
	Nil		27		Nil		
9.	No. of days	Period		No. of hours		Venue/ Meet-ID	
		From	To	Lecture	Practical		Total
	30	14.03.2022	08.04.2022	10	20	30	ASIC Lab
10.	Pre-requisites for offering the course	:	18ECT31-Digital Electronics				
11.	Course offered to	:	Programme	Branch	Year/Semester		
		:	BE	ECE	III/VI		
12.	Course Main Contents	:	Day 1	Capture using Virtuoso Schematic Editor			
		:	Day 2	Functional Simulation using Spectre			
		:	Day 3	Schematic driven Layout Design using Virtuoso Layout Editor			

	Day 4	Physical Verification using Astoria												
	Day 5	Parasitic Extraction, Post Layout Simulation, GDSII												
	Day 6	Functional Verification using Incisive												
	Day 7	RTL Synthesis using Genus, DFT using Genus and Modes												
	Day 8	PD flow with Innovus, Floor planning, Placement, Routing												
	Day 9	Generation of GDSII - STA using Tempus												
	Day 10	Power Analysis using Voltus, Logical Equivalence Check												
	List of Exercises / Experiments:													
	Analog Design:													
	1. CMOS inverter 2. Ring oscillator 3. Common source amplifier 4. Differential Amplifier 5. Basic current mirror													
Digital Design:														
1. Inverter 2. Basic gates 3. Flip-flops 4. Adders 5. Counters														
13. Course Outcomes	:	After completing the course the student will be able to - study transfer, dynamic characteristics of various analog and digital circuits - learn the circuit design using cadence tools - draw layouts using Cadence for various circuits and doing simulations												
14. Course Assessment (Min. 2)	:	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Type</th> <th>Max. Marks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Assessment Test I (Analog IC Design)</td> <td>50</td> </tr> <tr> <td>2</td> <td>Assessment Test II (Digital IC Design)</td> <td>50</td> </tr> <tr> <td colspan="2">Total</td> <td>100 Marks</td> </tr> </tbody> </table>	S. No.	Type	Max. Marks	1	Assessment Test I (Analog IC Design)	50	2	Assessment Test II (Digital IC Design)	50	Total		100 Marks
S. No.	Type	Max. Marks												
1	Assessment Test I (Analog IC Design)	50												
2	Assessment Test II (Digital IC Design)	50												
Total		100 Marks												
15.	Verified that the content of this course is not offered to students partially/fully in regular curriculum of respective programme of the student. Certify that the course content, credits and grade are approved in the BOS meeting or approved by Internal BOS members and will be ratified in the next BOS meeting.		 (Signature of the HoD after verification)											
16.	Any other details													

The above proposal may kindly be approved.


 Course Co-ordinator(s)


 HoD


 Chief Coordinator/Academic

Encl:

1. Copy of the syllabus of the course
2. Financial proposal from the external organization (if any)



KONGU ENGINEERING COLLEGE

(Autonomous)

PERUNDURAI - 638068

INTERNAL QUALITY ASSURANCE CELL

Electronics and Communication Engineering
Attendance SheetCERT No. 84-430-2015
ISSUED: 2015

Title of the Course: ASIC Design using Cadence

Date: From 15.03.2022 to 27.04.2022

Sl. No.	Roll number/ Name of the participants	Date / Sign																	
		15.03.2022	16.03.2022	17.03.2022	30.03.2022	31.03.2022	01.04.2022	03.04.2022	11.04.2022	12.04.2022	18.04.2022	19.04.2022	20.04.2022	21.04.2022	22.04.2022	23.04.2022	25.04.2022	26.04.2022	27.04.2022
1	19ECR002 / V.S.Abbeti	A							A								A		
2	19ECR009 / B.Dhanraj Saraj						A												
3	19ECR009 / J.Krishna priya				A														
4	19ECR007 / K.Mahendravaram																		
5	19ECR008 / A.D.Masomha			A															
6	19ECR101 / C.Mirashika						A												
7	19ECR103 / B.T.Mithankumar						A												
8	19ECR107 / H.Mohammed Nazim																		
9	19ECR115 / P.Navneet																		
10	19ECR126 / B.Padaseep Kumar																		
11	19ECR130 / M.Priyadarshini					A													

Signature

Kongu Engineering College
ECE Department

One Credit Course

Name of the Course code & Name: 18VAC81 & ASIC Design using Cadence

Duration: 15.03.2022 to 27.04.2022

Class: III ECE

Mark sheet

S.No	Roll.No	Name	Marks
1.	19ECR002	V.S.Abhisri	64
2.	19ECR029	B.Dharani Sanjai	98
3.	19ECR089	J.Krishna priya	97
4.	19ECR097	K.Mahendrawarman	85
5.	19ECR098	A.B.Maneesha	86
6.	19ECR101	C.Miruthika	87
7.	19ECR103	R.T.Mithunkumar	97
8.	19ECR107	H.Mohammed Nazeer	96
9.	19ECR115	P.Naveen	98
10.	19ECR126	B.Pradeep Kumar	92
11.	19ECR132	M.Priyadharshini	98
12.	19ECR162	M.Santhaprasanth	98
13.	19ECR168	K.Sarveshan	84
14.	19ECR173	S.Sethurajan	83
15.	19ECR174	M.Shanmugapriya	98
16.	19ECR179	R.Sneha	97
17.	19ECR180	K.Soumiya	90
18.	19ECR182	V.Sowndharya	98
19.	19ECR184	S.Sri Harini	90
20.	19ECR186	A.Srinath	97
21.	19ECR189	A.Suba Jai Varthini	94
22.	19ECR192	G.Subhashini	99
23.	19ECR193	M.Subhashree	99
24.	19ECR200	S.Surya Prakash	90
25.	19ECR202	E.Swathi Sri	94
26.	19ECR204	G.Tharakhamurthy	99
27.	19ECL234	E.Shandheep	81

[Signature]
30/4/22 (Dr. E. KARASAKAR)

Co-ordinators

[Signature]
30/4/22 (Co-ordinator)

[Signature]
30/4/22 (HOD/ECE)