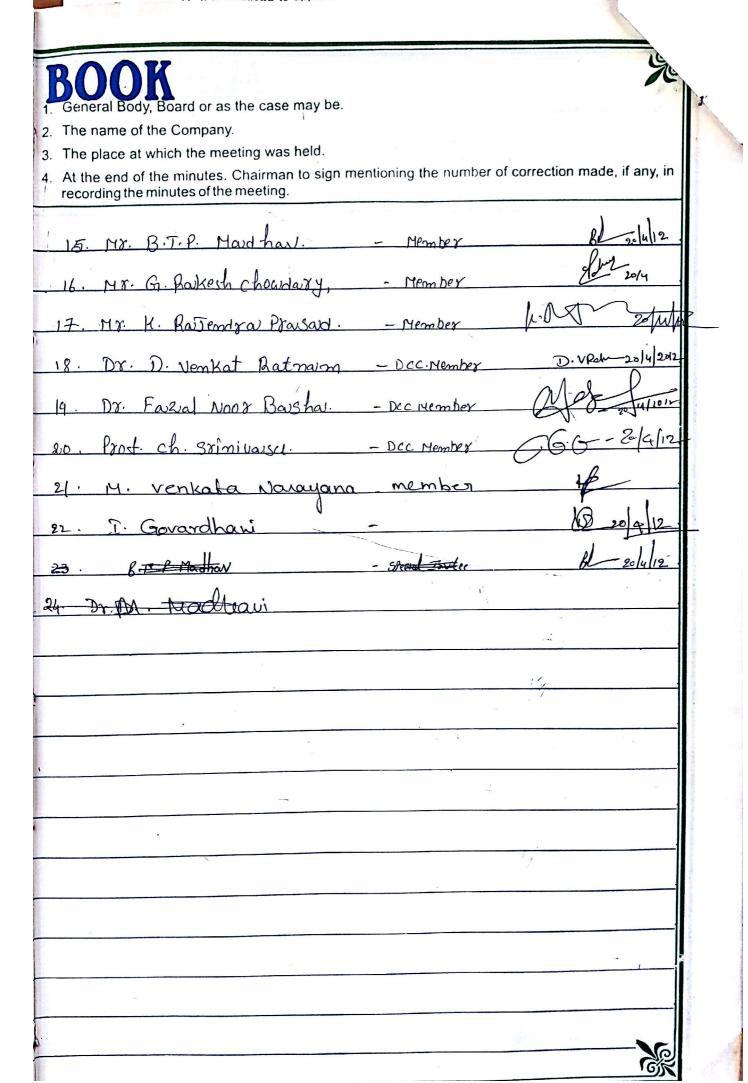
MINUTES
Name of the meeting' Board of Studies
held on Sin Joy 2018., at 9:30 A.M./P.M. under the chairmanship of Sri Dy. Hashihula K.ham.
at' Faculty Conferme Harry - E-104
The Board of studies Meeting of ECE Defortment
heid on 20/04/12 at 9:30AM. In Faculty Conference
hall E-104.
The following Hembers attend the Meeting.
1. Dr. Habibula Khain - chairman (Bos) H. Clay
2. Dr. N.V.SN Surma Menter Mylnthy. (Protessor in ECE NIT.)
Dr. N. Hardhavi Lathar - Mery her. M. M. Dlaw Cate HOD. Delt. of ECE JINTU- Hyderarbard
4. Dr. T.V. Robmas Krishmas DCC - chair Norm - Tulama Crus L. Assoc. Dean school of Electrical sciency.
5. Prof. N. Venkart Ram
6. 1804. N.S.G. Prasad Hember M. S.F
7. Dr. K.S. Ramech. Nember C.S. Nomelly
g. Dr. S. Layk Shmi Navayana - Nem ber 5- Carshminerayan 21/4/12.
9. Dr. H. Sarat Kumar Nem Der Het. U.V.
10. Dr. Malaya Kumar Hota - Nem ber
11. Dr. K-S. N. HUTThy. Nember leav. on
12. 1xat. B. Sadasiva Ravo - Hember
13. Prot- ch. V. Rama Rao - Hember Galanne
14. Mr. D.S. Barn Kirain - Hem Der. Kust
<u>%5</u>



BOOK General Body, Board or as the case may be.



- 2. The name of the Company.
- 3. The place at which the meeting was held.
- 4. At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in recording the minutes of the meeting.

Minutes of the meeting of BOS of ECE department

The BOS meeting of ECE department was held on 20/04/12 at 9:30AM in ECE lacetary conference hall.

The following resolutions are made

- 1. It is recommended the course structure for B.Tech (ECE) for year 2011-15.
- 2. It is recommended the syllabus for II/IV B.Tech (ECE), 1st and 2nd semester for year 2011-15.
- 3. It is recommended the course structure and syllabus for M.Tech (C R & VLSI) for year 2012-12.
- It is recommended the syllabus of mobile and cellular communication for Many B.Tech (ECE), 2nd semester.
- 5. It is recommended the syllabus of Design for testability for IV/IV B.Tech (ECE), 1st semester.
- It is resolved that to accept the modification of content in the syllabus of Network Analyses (11ES212) for II/IV B.Tech (ECE) for year 2011-12.
- It is resolved to accept the modification of content in the syllabus of Basic Digital Systems (11EC210) for II/iv B.Tech (ECE) for year 2011-2015.
- 8. It is resolved to accept the modification of content in the syllabus of Design of Electronic systems(11EC201)for II/IV B.Tech (ECE)for academic year(2011-15)
- It is resolved to accept the modification of content in the syllar --Systems"(11EC203)for II/Iv B.Tech (ECE)for year 2011-15.
- 10. It is recommended to the syllabus of Analog circuits Analysis(11EC205) for H/IV 2nd semester for the year 2011-15
- 11. It is recommended to the syllabus of power supplies power amplifier (11EC204) for II/IV 2nd semester for the year 2011-15
- 12. It is recommended to the syllabus of Analog Communication (11EC207) for 1171 2nd semester for the year 2011-15
- 13. It is recommended to the syllabus of CMOS VLSI Design (11EC206)for II/IV 2" sernester for the year 2011-15

Chairman
Board of Studies in ECE
KL University

Name of the meeting' Internal board of Studies of ECE dept held on 29/11/2012-at 10:30 A.M.P.M. under the chairmanship of Sti Dr. 12 tabibulla Ishan at' Dept Library, ECE dept The Internal Board of Studies of ECE dept was Plet on 29/11/12 at 10:30 fm En dept Library The following members attended the meeting 1. Dr. 14abibulla Khan 2. Dr. S. Lakshmin Narayana 3. Dr. T. V. Rama Krishna 4. Mof M. S. C. Mas ad 1. Dr. 14. C. Mas ad 4. Mof M. S. C. Mas a
held on 29/11/2012 at 10:30 A.M.P.M. under the chairmanship of Strip Dr. 1- Jabibulla Island at Dept Library, ECE dept The Internal Board of Stroties of ECE dept was reet on 29/11/12 at 00:30 Am En dept Library The following members attended the meeting 1. Dr. 1tabibulla Khan 2. Dr. S. Lakshmin Narayana 3. Dr. T. V. Rama Krishna 4. Mof M.S. C. Mas ad 1. Of
held on 29/11/2012 at 10:30 A.M./P.M. under the chairmanship of Strip Dr. 1- Jabibulla Island at Dept Library, ECE dept The Internal Board of Stroties of ECE dept was refer on 29/11/12 at 10:30 Am En dept Library The following members attended the meeting 1. Dr. 1tabibulla Khan 2. Dr. S. Lakshmin Narayana 3. Dr. T. V. Rama Krishna 4. Mof M.S. C. Mas ad N. S. F.
The Internal Board of Studies of Ect dept was reet on 28/11/12 at 00.30 fm En dept library The following members attended the meeting 1. Dr. Itabibulla Khan 2. Dr. S. Lakshmin Narayana 3. Dr. T. V. Rama Krishna 4. prof H. S. C. pras ad 9. Eff
The Internal Board of Studies of ECE dopt was Peet on 29/11/12 at 00.30 fm En dept Library The following members attended the meeting 1. Dr. Habibulla Khan H. Clan 2. Dr. S. Lakshmin Narayana 5. Lakshmin saayana. 3. Dr. T. V. Rama Krishna 4. prof H. S. C. pras ad N. 3.
reet on 29/11/12 at 00.30 fm En dept library The following members attended the meeting 1. Dr. Habibulla Khan 2. Dr. S. Lakshmin Narayana 3. Dr. T. V. Rama Krishna 4. Mof H. S. C. Mas ad N. S. P.
reet on 28/11/12 at 00.30 fm En dept library The following members attended the meeting 1. Dr. Habibulla Khan 2. Dr. S. Lakemii Narayana 3. Dr. T. V. Rama Krishna 4. Mof H. S. C. Mas ad N. S. P.
1. Dr. Habibulla Khan 1. Dr. S. Lakshnin Narayana 3. Dr. T. V. Roma Krishna 4. prof H. S. C. prasad 1. Dr. H. S. C. prasad 1. Dr. J.
1. Dr. Habibulla Khan 2. Dr. S. Lakshmin Narayana 3. Dr. T. V. Roma Krishna 4. prof H. S. C. pras ad 9. 3.
3. Dr. T. V. Roma Krishna 4. prof H.s.e. prasad 9. 3
3. Dr. T. V. Roma Krishna 4. prof H.s.e. prasad 9. 3
4. mof Hisier mas ad M. S. f
5. Dr. V. Rajestu
6: Dr. P. Svinivasa Rabo (Salig 5 2012012
7. Dr. K.si. N. Jeur Hay Con. mint
.8. Dr. B. Sadesiva Revo B.
9. Dr. H. Verugopal Rew les
LO. Dr. AV. pratop kung
11. Dr. R. satish Kumal B. Sathish Lunas
12. Dr.7. v.s.P Cupta.
13. Sri. A. T.p Hadhar
14. Dr. K. Sarat Kumar Spinnan
a/
সূত্ৰ

MINUTES OF BOS MEETING OF ECE DEPARTMENT

The Internal BOS meeting was held in the department library at 1:30PM on 29/11/2012.

The following resolutions are made:

In view of the anomalies observed in two subjects: 1. Power supplies and power amplifiers

2. Analog Circuits Analysis

- It is felt that modifications are to be incorporated in the above two subjects. After detailed discussions, all the members of the BOS committee unanimously formulated and approved the modified syllabus for the above two subjects.
- 2. A copy of the revised syllabus is here with enclosed along with the old syllabus.
- 3. It is resolved to implement the revised syllabus of the above two subjects and list of practicals of the 2nd year 2nd semester ECE students with immediate effect.
- 4. List of practicals for the above two syllabus is finalized and approved unanimously.

BOS-CHAIRMAN

Dept.of - ECE



R MINUTES
Name of the meeting' Koard of Studies
of held on 27/12 2012, at 3:36 A.M./P.M. under the chairmanship of Sti No. 1 Habibula Khay
at' Hop Chamber, ECE dept.
The board of studies meeting of ECE department
was held on 27/12/12 at 3:30 pm Tris ECE HOD Room
The following members were mesent.
1) Dr. Hasibula Keran Bos chairman Helman
2) Dr. M. Madhavi Latha Créonal member M. MedianCottes
3) Oo TV RAMA KRISHNA Momber To
4) prof H·s·ei prasad 11 Mil
5) Dr. V. Rojesh
6) Dr. P. Srinivasa Rabu Solas
7; Cr. K.S.N. Hustery Kons
8 Or. B. Sadasiva Reid
9) Dr. M. Venugopal Rao Milliugh
10) Dr. A.v. Pratap komas
11) Dr. T. V. S. P. CLUPTA +197
12) Dr. K. Sarat Kumar
13) Dr. K.s. Ramess K. J. Mandle
14) Sri. B. J. P Hadhar.
% 5

1. General Body Board or on the control of the cont
General Body, Board or as the case may be. The name of the Co.
2. The name of the Company.
3. The place at which the meeting was held.
4. At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in recording the minutes of the meeting.
It is resolved to accept the modifications suggested
by all tere members for the subjects (1) Linear Ic's
and power supplies (2) Analog Circuit analysis for which
Pero Perolina de la Perolina del Perolina de la Perolina del Perolina de la Perolina del Perolina de la Perolina del Perolina de la Perolina del Perolina de la Perolina de la Perolina de la Perolina de la Perolina del Perolina de la Perolina del Perolina de la Perolina de la Perolina de la Perolina de la
tere Carlier Syllusus framed was fest difficult
by the Students.
11.0
The say
Chairman Board of Studies in ECE
KL University
C C
A STREET AND A STR
VP 8 - 12 - 13 - 13 - 13 - 13 - 13 - 13 - 13
To factorial to the second sec
The second secon

	LITRITICAL
None of the market of shading	MINUTES
Name of the meeting' Board of Studies of ECE dept	
held on 8/1/13 2013 , at 3:60 A.M./P.M. under the chairmanship	of Sri Dr. Habibulla Kin
at Idod's Chamber, ECE dept.	
	2.24
_ The Bos weeting of ECE d	and the state of t
8/1/13 at 3.00 pm in ECE HOD C	
tue course structure and syllne	ous for M. Team by
research specilitation.	
The following wembers were pres	ent
1) Dr. Hasibulla Jehan	ll_
2) Do. M. Madhavi Catha -	- Absent.
3) D.s Ram Kran- member-	Kyas
4) Dr. P.S. Soinivas Balon	Saly & R
5) Dr. K. Sarat Kumay	- Samo
. 6). By. fatal nonstance	afal.
7) PRG.CH. SRINIVASV	06.62
8. pof nSG Doap	m. Stp
9. Dr. TWS-Possed Gupls	1090
to Dr les w. munting	18,
11- Dr-V-RASESH	11
12. Dr. M. Veru Gopala Ros	Pari
13. DOTV RAMA KRISHNA	And the second
14 Dr. K.S. Domen	1687
15 h. NaJonda Brasad	1.12
16. DE. R. SATTHSHEMAR RO	Brita of h
	Juney Chimon

POOK
DUUN
General Body, Board or as the case may be. The name of the Company.
The place at which the meeting was held.
At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in recording the minutes of the meeting.
It is resolved to approve here 4-femester structure
for M. Teen by soseasch program.
It is resolved to approve Dr. R. Satishkumar as
It is resolved to approve Dr. R. Satishkumar as Civide for the enixting M Tem by research Student
H. Clean
Chairman Board of Studies in ECE KI. University
entropies and the second secon
the second of the second of the second
and the second of the second o
er en
that we had been a set

* MINITEC
MINUIFC
Name of the meeting' Board of Studies. of? MINUTES
of ²
held on 07/06/20 13, atg.30 A.M./P.M. under the chairmanship of Sri Dy. Habibylla by
held on 07/06/2013, at 9:30 A.M./P.M. under the chairmanship of Sri Dr. Habibylla klus at principal Conference hall.
The Conference Nave
The Board of Studies meeting of ECE Dept
held on 07/06/2013 at 9:30A-n @ principal Conferme
hall.
The following members attended the meeting.
O ME Mac. 3
1. Dr. Habiballa Khan-Chairman (Bos) - H. Clean
2. DY. M. Madhavi Latta - member M. readlesistella
professor in ECE, JNTU, Huderabad
2 25 Al Marchay. 5 Marchay.
3. Dr. N. V. S. N. Sarma - Member - Myhhn
3.DT.N.V.S.N. Sarma Member Myshus professor, in ECE, NIT, warangal
4. Dr. M. Venu Gepala Par - Tumer - Trillegt
5. Dr. V-RAJESH - Member - 2
6. Dr. T. V. Rama krishne- Member
1 1 Jama Will to
7. Dr. H.S.G. Prasad - Henber - M. Stof
8.DV. ASCS Sastmy - nember - Defraging
9. Dr. K.S. Ramety - Member - 10.1. Domit
10. Dr. P. S. Srivivas Balon - Member - Salzes
Drof. N. Venkat Ram - Nember - Nolly
12. Dr. Fazal Noorkasha- Member - Gal
13. Mr. B. Musalikoshn - Member - B. Meller
14. Dr. K SARAT KUMAR - Momber - Skundy

State of the last		
	1 10 10	



- 1. General Body, Board or as the case may be.
- 2. The name of the Company.
- 3. The place at which the meeting was held.
- 4. At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in recording the minutes of the meeting.

recording the minutes of the meeting.
It is resolved to start M. Tech program in Systems
Signal processing from the A 4.2013-14.
It is resolved to adopt the modifications suggesst
by the members
It is resolved to approve the syllusur suggested
for the students joined in year 2013 as perke DAC
recommendation. H.C. ling
Chairman
Board of Studies in ECE KL University

M. Tech VLSI [A.Y - 2013 - 2014]

			3 13											Z 13														CT							S.NO CO
			13EC550	1										13EC352														TO EC DOD							CODE
		DEGICIN	DESIGN	MOS CIRCUIT										Architectures	HDL & PLD													IC Fabilication							COURSE NAME
																													-						L-T-P
	2			1				G		t	7		ω			^	د			۲	_			4			w			2			Н		s 6
Logic realizations using Verilog	Combinational & Sequential	Design of various	techniques in Verliog HDL.	design, their modeling	concepts of digital system	Understand the basics	oriented approach	modules through project	Create and Analysis of digital	different FPGA architectures.	Memorize and analysis of	architectures.	different PLD's and CPLD's	Compare and analysis of	HDL.	Logic realizations using Verilog	Combinational & Sequential	Design of various	techniques in Verilog HDL.	design, their modeling	concepts of digital system	Understand the basics	of ICs	technologies for preparation	Analyze the various etching	deposition	concepts of lithography and	Ability to understand the	materials used for fabrication	modelling technologies and	Understand different	steps following for fabrication	Concepts of fabrication and	Ability to understand the	COURSE OUTCOME
										F										(JJ.							, v			4	8	F		P01
					2								2										,	2			2			ω					PO2
	2			1					Į.	1	J		í			C	N		8	Š	ā									ì			ω		PO3
	2				Ь			Ŋ			Δ		ω			1	٠			1	_			5			4			ω			2		ъ
							ď	ω					. Vi	2		- 1	16 61 111																		P05
			עבומוובט	Pot sinod											Retained														Retained	54 —					Retained
		circuits can be analysed	INICO device and inico	MOS device and MOS										studied by students	modelling techniques are	Digital system design and												be analysed by students	Fabrication process Will						Course rationale



	ത	P.F				G											4									7						
	13EC559					13EC520											13EC551															
PROCESSING	VLSI SIGNAL			24	PROCESSING	VIDEO	IMAGE &									DESIGN	FOR VLSI	ALGORITHMS		,										3		
2	ы	4		ω		-	2			Н		4	ı:		ω			2			H				5			4		· u	J	
Understand Data Flow Graphs and iteration bounds	Ability to understand the architectures of DSP Systems	Analyze the various steps in video processing	Compression	concepts of Image	Ability to understand the	processing	techniques for image	Understand different	processing	different transforms for image	Ability to understand the	distribution of cells in ICs	Analyze the routing and	design	development of physical	Ability to understand the	and scheduling	modelling of digital circuits	Understand different levels of	layout	methodologies in routing and	Concepts of design	Ability to understand the	oriented approach	modules through project	Create and Analysis of digital	circuits	combinational and sequential	Design of different	calculation of different delays	Characteristics of inverter and	HDL and design flow
		ω					ω					FE			ω			2			1	2						Ī a				
	2	2		2			2			ω			1																			
2												· u	J		2			2			(נג						2		1	J	
ω	2	Ь		4			ω	10		2	= 1	۰	7		4			ω			-	2			<u></u>			4		C	N	
																					8				ω							
	Retained					Retained											Retained															
acquired by students	Complete knowledge on Signal Processing is				Processing Techniques	study ondifferent Image	Students acquire clear									design methodologies	used for efficient VLSI	knowledge on Algorithms	Students acquire										12			

Professor & Head

Dept. of ECE

KL. University

Green Fields, Vaddeswaram

One A.P. PIN-522 507

o ,

ω		ν		⊢				
13EC556		13EC555		13EC570				
VLSI System Design	Circuito	Low Power VLSI	ā.	Advanced Analog IC				
1 2	5 4 3	2 1	5 4	3 2	1		4	ω
Ability to understand the importance Programmable devices in VLSI Understand difference between Data path sub system	Analyze low power techniques at logical, circuit, architectural and systems level Analyze Clock Distribution techniques, Special techniques Project based lab		Describe the various Feedback topologies. Understand and apply the concepts of Non Linear Analog circuits.	Analyze the frequency response of different Amplifiers. Design of two stage Op-Amp using single stage Op-Amp	Understand the operation of different current mirrors	2013-14 (Semester II)	Analyze the various algorithms and convolutions for filters	Parallel Processing and Pipelining
			2 2	2	2	mester		
2	2	ω Ν	2			=	ω	ω
2	2 2			2				4
	ω							*
Retained		Retained		Added				
Complete overview of the VLSI design can be acquired by students	acquired by students	Complete knowledge on low power VLSI circuits is		Students acquire knowledge on Analog Integrated Circuits				

Professor & Head Profes

and array subsystem

The second secon						hardware design verifications					
					3	modeling, software and					
			⊢		2	micro-architecture design and	4				
						To understand and study the					
student						and modeling design tools				160	
in industry is acquired by			2			power management process	ω		Design		(
SoC design implemented	Added					To classify and understand the			System On Chip	13FC562	л
Complete knowledge on						methods					
					2	performance evaluation	2				
						To summarize and explain the					
				-		concepts of SOC design.	ŀ				
				S		To understand the basic					
						reduction.					
,						circuits and Diagnosis by UUT					- 21
				2		Fault Diagnosis of digital	4		*1		
				ù X		various BIST- MBIST, LBIST.	,				
						Analyze and ability to Testable		1			**
*						Classical scan based design)2		
				2		scan based design and	ω				
		+				Design for Testability, Generic					
*						circuits.					
acquired by students						Testable Combinational					
testing techniques is	Added			1		and ability to design its	1		Circuits	13EC571	4
Knowledge on Different				S		Combinational logic circuits)		Testing of VISI		
						generation for various					
						Understanding, Test					
						simulation for digital circuits.					
						and Gate level event-driven					
						simulation					
A			*	ω		understanding various	ь	(1)			
						Fault dominance,					
						user-defined primitives in					
						Understanding and application					
						different disigns					
			2			clock and synthesis of	4				
						Analyze synchronization of					
						methodology of interconnects	u		1		
			J			Ability to understand the	J				

Green Fields, Vaddeswaram Gnntur Dist. A.P. PrN-522 502

	2.			circuit			v	
	8	2		ASIC, Extraction the final	4			
				Analyze Physical design flow of				
				customized ASICs	C			
		ω		Analyze ASIC design flow of	N)			
				Different CPLD		FIOW		
			2	design methodologies and	2	ASIC DESIGN	13EC568	0
related ASIC Design flow				Analyze different types of ASIC		۸۵۱۰ کارنچه		
knowledge on industry	Added			logic circuits.				
Student accquires				different types of Faults in				
			2	Programming and analyze	1			
				logic circuits using Verilog				
				Develop Program of different				

Professor & Head

Dept. of ECE

KL University

Green Fields, Vaddeswaram

Grantur Dist. A.P. PIN-522 502



4				ω								2										H	_>				0	Z	<u>S</u>		De
13ES			TOT	13ES							707	LSBS)									104	11ES				Code	Se	Cour	nt	Departme
Measurements		o o	Programming	Through	Problem Solving						Equations	Differential										Graphics With CAD	Engineering				Course Title			Engineering	Electronics and Communication
3-0-2						3-0-2											3-1-0										0-0-4				L-T-P
NIL						Z	-										2										Z	-			Pre-req
Understand and apply the fundamentals of a measurement		storage classes.	Understanding and applying structures, characters, strings, and	Understanding the functions, arrays, pointers.	Understanding statements and control flow charts	operators, and expressions	in the state of the basic confer types input/output functions	difference methods	Solve the partial differential equations by analytical and finite	first and second orders	Model the given phenomena as a partial differential equations of	phenomenon in models involving differential equations.	Provide solutions for Fourier series of periodic/non-periodic	solving and interpreting the results.	Higher order differential equations and identify a method for	of first order differential equations	Formulate physical laws and relations mathematically in the form	Develop 2D & 3D components using Auto Cad Software	Practicing house wiring through Auto Cad	Manually	Draft Development of surfaces of solid and sections of solid	workshop trades	planes using AutoCAD. Draft projection of solids Manually and by using AutoCAD and prepare Models in workshop by using different	Draft orthographic projections, isometric views, projection of	drawings.	Models in worksl	Draft orthographic Projections, Isometric views, projection of		CO#		SO
		Н		Н	Ь					H	_	ŀ	_	+		۲	_	1	Ь	1			Ы			<u></u>		_			<u>ρ</u> .
																															о С
Ы		2		Ы	Ы	2							Y.				+						3								Ф
																															QΔ
		C																					- 10 - 10								ъ
																		2	2		Ы		Ъ			ш					 _
Modified							Modified										Added										Modified			Modified	Space .
Course	programming	by	to implement	develop skill	concepts and	understand	Students	applications.	communicati	and	electronics	Tor practical	mathematics	various basic	skill to apply	develop the	Students					CAD.	designs using	and modeling	skills to draft	acquire the	Students	3.0			Course Rationale

KL University

Green Fields, Vaddeswaram

Conntur Dist. A.P. PIN-522 50

Professor & Head Was

E

		7 13HS Hum							**	13HS														13ES																
		Human Values						Simil Sound	Reasoning Skills	Language and													Materials	Engineering																
			2-0-0												2-0-2															3-0-0										
			NIL										2		NIL .				1											NIL										
	Analyze the profession and his role in this existence.	Envisage the roadmap to fulfill the basic aspiration of human beings.	Understand and identify the basic aspiration of human beings	000000000000000000000000000000000000000	Apply the concepts of basic geometry and their importance while		mercy comes of control of	Acquire knowledge on various employability skills & analyze a	questions on critical reasoning based on the given information.	Understand and analyze the given text critically and answer	4	essay and apply various styles in writing.	Understand and analyze various strategies involved in writing an	levels in creative speaking and debating.	Understand and analyze the depth of a topic and use the advanced	experience and also to develop some inter disciplinary projects.	knowledge to execute the related experiments to get hands on	Understand various properties of materials and apply the	and transformers.	know various mechanisms involved in magnetic memory devices	Understand magnetic properties of materials and apply them to	specific engineering applications	apprehend their importance in identification of materials for	Understand mechanical and thermal properties of materials and	electronic, optical, optoelectronic devices.	them to know various mechanisms involved in electrical,	Understand electrical and optical properties of materials and apply	identify defects in crystals	imperfections in order to determine crystal structures and to	Understand the concepts of crystallography and crystalline	tools.	mechanical parameters using simulation and experimentation	Understand and apply different measuring techniques on civil and	simulation and experimentation tools.	apply measuring techniques on electronic parameters using	Understand electronic & electro-physiological parameters, and	using simulation and experimentation tools.	different measuring techniques on various electrical parameters	Understand various electrical & computer parameters, and apply	experimentation tools.
																	Н			Ы			_			Н			Ь			L			Ь			Þ		
	H	Þ	Ъ		1		ь			<u></u>		1-	4	,																		2			P	6		₽		
000			Added												Added															Modified		•								
an	professional	ethics suitable	Course	environment	professional	skills in	reasoning	and	proficiency	O laliguage	of language	importance	the	understand	Students						projects	discipline	various inter	to propose	develop skill	physics and	of material	the concepts	understand	Students	experiments.	practical	skill through	and develop	quantities	physical	various	measuring	<u>.</u>	understandin

Professor & Head
Dept. of ECE
NL University
NL University
Freen Fields, Vaddeswarain

	Keramed	2				Hands on experience on common tools in carpentry, fitting, tin	0-0-4 NIL	Workshop Practice	13ES	1-2
					ω	Apply the concepts of mechanics and carryout different experiments and analyze the results				
				2		Understanding the engineering mechanics physical systems prepare and demonstrate the models with the help of mechanics concepts to solve the engineering problems				
problems				Ъ		Analyzing the rigid bodies under translation and rotation with and unithout considering forces.		Engineering Mechanics	13ES 106	0 1
mechanical concepts to				- 1		Understanding the concepts of planar and non-planar system of parallel forces and analyzing them. estimate moment of inertia of 1 lamina and material bodies				
sk a	Added			1		Apply the concept of forces, governing static equations and analyze planer system of forces. Apply different analytical 2 methods on spatial system of forces and analyzing them	3-0-2 Nil			
Jobs and entrepreneurs hip		H	H							
suitable for professional		_	۵.			Apply the environmental science knowledge on solid waste management, disaster management and EIA process.		Ecology and Environment	11BS 105	9
education		Ь	1			Understand the importance of ecosystems and biodiversity.				
		Н	ъ			Understand the importance of Environmental education and conservation of natural resources.	2-0-0 NIL			
					<u> </u>	and apply the to get hands on 1 nary projects.				
						of materials and approved in magnetic mem				
properties of materials.						Understand mechanical and thermal properties of materials and apprehend their importance in identification of materials for 1 specific engineering applications		Engineering Physics	13BS 103	00
and apply various	*					optical properties of machanisms involve involves.				
O	Modified					Understand the concepts of crystallography and crystalline imperfections in order to determine crystal structures and to 1 identify defects in crystals	3-0-2 NIL			

Professor & Head Dept. of ECE

KL University

Green Fields, Vaddeswaram

6			UI						Ь							ω	_								, р							
	13EC		205	13ES				101	13HS	9		- 17				101	13BS							104	11BS							
electronics systems	Design of		signal Processing						English							Multivariate Calculus	Lilledi Algebia allu							Chemistry	Engineering							
	3-0-2				3-0-2			- E		K	2-0-2									3-0-2									3-0-2			
ω	13BS10				Z				,		N F									NIL								and the second	Z			
Design Basic amplifiers	Design Basic Electronics Systems and circuits	Ability to design, Implementation and realization of digital filters.	Apply the Fourier Transformation techniques for DT sequences and their applications.	Interpret the analysis of DT systems using Z.T.	Onderstand the representation, manipulation and processing operations of DT signals and systems	empathy in cross-cultural communication.	Understand and analyze different cultures and the importance of	Understand and apply writing strategies for office/ formal communication.		Understand and analyze seven types of reading techniques and	Understand the method of identifying the meaning of words from the context and form sentences using words.			nite difference methods	Solve the partial differential equations by analytical	equations of first and second orders	554:51	Determine the maximum and minimum values for the function involving two variables	Understanding the differential calculus	Understanding the linear algebra	An ability to analyze & generate experimental skills.	chemistry to engineering processes.	Apply phase rule, polymers, conducting polymers and nano	e for intended problem.	Examine water quality and select appropriate purification	science relevant to corrosion phenomena.	Discuss fundamental aspects of electrochemistry and materials	or metals in an engineering setting.	Predict potential complications from combining various chemicals	Understanding the peripherals of CPU, assemble and dissemble of PC.	engineering practice.	Demonstration on work working, electrical and mechanical
2 2	1		2	2	D D								<u> </u>			1		Н	Н	Þ	2	F	٠	—	۷.	H	_	Ъ	3			
				2	Р												1															
2	1		2														1															
						F		Þ	P		1																					
		2		2								ъ																		2	2	
	Modified				Added				Modified											Added									Modified			
acquire the	Students	processing	basics of	skill	Students acquires the	environment	professional	of language proficiency in	importance	the	Students understand	applications.	on	communicati	and	for practical	Mariemancs	various basic	skill to apply	Students	materials.	properties of	chemical	various	and apply	understand	skill to	enhances the	The course			בתוקותומוט

Professor & Head With Dist. Of ECE
KL University
Green Fields, Vaddeswaran
Green Fields, Vaddeswaran

acquire the				ъ	Ъ	the principles of Boolean algebra to manipulate and minimize logic	1	7-0-2	Systems	203	H N
Students	Modified					Inderstand the representation of data light different codes and	100010	0	מייייייייייייייייייייייייייייייייייייי	2	3
on											
implementati				2	2						
practical ,						The student will be able to apply Inheritance, Packages, Interfaces.					
develop to				1	1	parameter passing, and access control in Java programming.			PROGRAMMING	202	0 1
of OOP and				>)	The student will be able to apply constructors, Overloading,			OBJECT OBJENITED	1000	J
the concepts						through Java Language.					
understand		1		2	2	fundamentals of java and apply the concepts of classes and objects					
Students	Added					The student will be able to understand basic Concepts of OOP,	13ES101	3-0-2			
ns				-							
transformatio			Н		Н						
methods and			ě	0		Understanding probability and distributions			METHODS	201	9
numerical									IVIAIDEIVIAITOAL	LODO	1-
various			ы		<u> </u>	Understanding Z transforms			MATHEMATICAL	1280	
skill in			ы		1	Understanding Fourier series and transforms					
course	Added		ъ		H	Understanding numerical methods	NE	3-0-0			
applications		1									
skill for practical	· ·	J			ω	networks and solve complex networks using topology.					
develop the		1			1	Analysis the transitions and parametricity of DO / AO city with the port				202	C
circuits and		J			J	Apalyze the series and parallel resonance and magnetic circuits			Network Theory	202	0 1
s of various		Ь			17	Understand the fundamentals and interconnection relations of 3 – phase circuits.				13ES	<u>⊢</u>
h		1				mesh analysis and theorems.					
understand the electrical					H	rcuits using transformations, nodal,	Z	3-0-2			
Students	Modified					Indoor tand the VI characteristics of electrical elements solution	2	0			
practical applications				Н	<u> </u>	Understanding the graph algorithms					
and apply the				Ь	<u> </u>	Understanding priority queues and sorting.			Data Structures	13ES	7
the concepts				ы	 	understanding trees and hashing					
understand							1	0			
Students	Added			ы	1	Understanding the algorithm analysis and stacks and queues	13ES101	3-0-2			
core jobs.	-										
suitable for	10.			2	2 2						
circuits)							
d of digital	0.5					Design basic applications of diode, BJT and JFET.					
Jane - Ja				2	2 2	Design linear amplitiers using op-amps.					

TPICK-SOF & Head
Dopt. of ECE
EDOPT. of ECE
KL University
KL University
Green Fields, Vaddeswaram
Green Fields, Vaddeswaram
Green Dist. A.P. PIN-522 507

5 202	2 13BS		2 13EC 4 202	D1			3 205	2 13EC			2 207	2 13EC					,
	S Complex Variables		C Electromagnetic Fields Theory					C Analog Electronic			Com	C Analog					
	3-0-0				3-0-2				3-0-2				3-0-2				
	NIL			. 7	13BS10 3				13EC20 1				13ES205				
Understanding special functions	Understanding complex variables	Perceive the propagation of uniform plane wave and its characteristics in different media, and interpret the characteristics of the guided waves to understand the modes of propagation in rectangular Wave-guide.	Develop the boundary conditions on H field and extend the concepts of static fields to obtain the governing laws of electromagnetic field.	Obtain the boundary conditions on E field and understand the conecpts of magnetic field to calculate the static H field due to different sources.	Apply the principles of vector calculus to estimate the static Electric field due to different sources.	Analyze different types of Power amplifiers	Design other non-linear applications of OPAMPs such as precision rectifier, zero crossing detector, etc, Design the applications of 555timer	Design different types of Oscillators and provide general solution for real time problems, and Design active filters using OPAMPs	Design different types of feed-back amplifiers and provide general solution for real time problems	Analyze the basic analog transmitters and receivers in the presence of noise	Elucidate the basic principles of angle modulation and demodulation techniques	Explore analog and pulse modulation and demodulation techniques.	Understand the basic principles of linear modulation and demodulation techniques	Apply the design approach for creating sequential circuits like counters, shift registers, etc., and the concept of ASM charts in describing the digital systems	Analyze the behavior of flip-flops and the operation of sequential circuits using flip-flops	Analyze the functioning of different combinational logic circuits built with logic gates and the design procedure for developing circuits like adders, decoders, code converters, etc.	
1	Н																
		2	2	2	Ъ	2	ω	ω	ω	2	2	2	1-2	. 2	2	2	
₽	Ъ.																
	Added			·	Modified				Added				Modified				
develop the	Course	require for the understandin g of specialized courses.	which is	analyze EM propagation through	Student can able to	core jobs.	g of digital circuits suitable for	basic understandin	Students acquire the	on systems.	modes of higher	the various	Student can able to		core jobs.	g of digital circuits	inderctandin

professor & Head

Dept. of ECE

KL University

Green Fields, Vaddeswaram

30								
understandin	2			and processes		(1
basic		2		Analyze the characteristics of CIVIOS circuits Construction and the	3-0-2 NIL	CMOS VLSI Design	206	0 0
			1				0	J
PACKET OF STEED BASE				7				
ons	2	2		Examine the concepts of Transport Layer and the Application Layer functionality				
implementati	2			related services				
for practical		J		Analyze and implement the algorithms of Network Layer and		Networks	205	9
skill to apply	2	2		Demonstrate Data Link layer design issues, medium access control sub layers and network layer design issues concepts		Computer	13CS	2
the concepts	Ь			issues				
		ы						
Modified Student to				Discuss different networks namely LAN. WAN. Internet and OSI.	3-0-2 NII			
on systems.		2	2 2	Analyze different digital modulation schemes using single carrier.				
communicati		2	2 2	M-ary schemes.				
higher)		Analyze pass band data transmission and Comparison of different		Commission	0	C
modes of		2	2 2	Space Analysis.		Digital	13EC	× 12
the various				Demonstrate about Negrick channel Granaling Schemes and Signal				ii e
understand		-		analyze the pulse digital communications, Matched filter	7			
Modified Student can		4	,	13EC20 Understand the fundamentals of digital communications and	3-0-2 13			
+	2		2	Analyze antenna design and performance measures.				
COIIIIIIIIIIICALI			,					
wireless		2 2	2 2	Describe the wave propagation mechanisms at various levels of free space, deciding a suitable antenna for such a scenario.		000000000000000000000000000000000000000		
modes of				different state-of the-art antenna technologies and processes.		Propagation	212	7 1
the various		2	2 2	aperture and array antennas and the comparison between		Antenna & Wave	13FC	2
understand				Understand and analyze the characteristics of different wire	1			
Modified Student can able to		1	F)	13EC20 Understand basic radiating process and their parameters.	3-0-2 13			
circuits.		2	2	engines.				
5 ::				Evaluate the performance of fuels and combustion to various				
thermodyna mics in		2	2	Analyze various air standard cycles and their performance.		merinodynamics	201	O
law of		2	2	Apply laws of the thermodynamics and principle of entropy to engineering devices.			13ES	2
20 ct				processes				
Added Course		2	2	Understand the fundamentals of thermodynamic systems and	3-0-0 NIL			
graph theory			1					
functions and	Ы		Η.	Understanding graph theory				
various	,		1	Oliver Section 18 control education		INIGHICITIONICS		
SKIII IN	_			Understanding differential equations		Mathematics		



3						+			200 00 00 00 00 00 00 00 00 00 00 00 00		
acquires the						knowledge of Architecture and Instruction Set			Microcontrollers	311	Uī
Students	Modified				J	Understand the working of Microcontroller 8051 and apply the	13EC20	3-0-2	Microprocessors &	11EC	ω
on systems.		2		2		Understand the operation of solid state devices (Various Diodes operate at high frequency), ferrite devices and analyze the measurement of parameters at high frequency level.					
communicati				-					(10
microwave				۵		Understand the microwave passive devices, Tee junctions and			Engineering	314	4
systems and				Ы		Understand various types of High gain and wide band Microwave tubes			Microwave	13FC	J.
skill to work						microwave systems and asses the limitations of devices					
acquires the				Ы		models which a	90 40 70	0			
Students	Modified					Understand the essential features and principles of microwave	13EC20	3-0-2			
suitable for core jobs.					2	PLDs.		ж			
CITCUITS						Design various sequential logic realizations using new generation			4		
g of digital					2	Analyze the architectures of different FPGAs.			and FPGA	312	ω
understandin					2	Design various combinational & sequential logic realizations using PLEs & PLDs.			Design with PLD	13EC	ω
acquire the						methodologies	ω				
Students	Modified				Ц	Understand the basics of Full custom, Semicustom and PLD design		3-0-2			
campus			2			Analyze logically and solve problems in professional life.					
professional			P			Understand the professional behaviors' for entry into the professional world.			Employability Skills	202	2 4
skill with			2			Analyze himself/herself for the campus Interviews.)
Course enhances the	Added	户				Understand the campus selection process with special focus on Effective Communication and Attitude.	Z	1-0-2			
tools		2									
modern				2	2 2	Understand the Peripherals, I/O interface and Direct Memory Access.	1-				
realize the		2		2	.2 2	int			Computer Organization	13EM 201	μ ω
skill to		2		2	2 2	Develop micro Programs for design of Control Unit, CPU					
Course develop the	Modified	2		2	2 2	Understand the logical gates to construct combinational & sequential circuits to perform arithmetic μ -operations.	13EC20 3	3-0-2			
core jobs.		2		2		Understand and analyze the design testing principle, time-delay concepts					
suitable for		2				simulation, and timing analysis					
circuits				2		Implement the a complete design verification process using computer- automated tools for scaling, layout, extraction,					
> + dini+3											

Dept. of ECE
KL University
Green Fields, Vaddeswaram

		1				Communication					
various		J		2		Apply socket API to write programs related to client server			Suite		(
skill to apply		2		2		Analyze the concepts of IP protocol ,mobile IP,P Addressing mechanisms & attacks on IP	13CS20 5	3-0-0	TCP / IP Protocol	13CS	ω α
Students	Retained	2		2		Analyze the components of TCP suite					
				2		Demonstration of DFT filter banks in Sampling rate converter, Phase shifter, Sub band coding and Sensor systems					
processors.						reconstruction in time and frequency domain.					
processing				2		Realization of DFT filter banks and trans multiplexers analysis. Demonstration and implementation for two channel perfect			Signal Processing	371	00
applications		2				relative merits and demerits			Modern Digital	13EC	ω
regarding				2		parametric method. Matlab implementation to demonstrate					
skill			-			Estimation of power spectrum using parametric and non-					
acquires the		1				-					
Students	Added					Acquire the fundamental concepts of decimation and interpolation 1	13ES205	3-0-0			
					N						
					J	neration for BIST and specific BIST					
				١		tolerant design of VLSI chips.					
				v		Illustrate the fault detection & recovery methods to achieve fault					
and systems.						design of VLSI chips.			restability	304	1
VLSI circuits				Н		then minimization and folding techniques to achieve area-efficient			Design for	LSEC	1 (1
testing of						Describe the testing & fault detection in sequential circuits, and				1)
regarding the						detection in combinational circuits are described.	11.				
skill					+	fault	13EC31				
acquires the							6/				
Students	Added					Understand the basic concept of reliability and modeling of faults	13EC20	3-0-0			
ons.				2		COLOR COLOR					
communicati		2		2		Apply the concept of the encoding for binary cyclic and the					
for wireless						detect/correct errors using linear plock codes.					
information		2		2		Apply the procedure to calculate channel capacity and to			Coding	340	o
regarding the						methods and getting rate of information transmission.	2		Information Theory	13EC	w
SKIII		2		2	•	Apply the procedure for Huffman, Shannon-fano Encoding	3EM20				× -
acquires the						of information for the independent and dependent sources.	7 OR				
Students	Added	ш		ь		Understand the technique of measuring information and average	13EC20	3-0-0			
ers					2	Understand the working model of ARIVI Processor					
microcontroll							I				
ors and					2.	e functional model of Microprocessor 8086 (term)					
microprocess						(
with					2	to 8051 through					
skill to work						Understand the working of Internal Peripherals of 8051 and Apply	13CS20				

The Cassor & Head
Dept. of ECE
RL University
Green Fields, Vaddeswaram
Guntur Dist. A.P. Pin-522 502

		4 4			ω.				2					Ь	4	12		0			
	7	13E M33			335	1305			373	13EC				362	13EC			345	13EC		
		PCB Design			Programming	Network			Processing	Multi Rate Signal				Design	Low Power VLSI			בואוו/ בואוכ	ENI/ENIC		
			3-0-0				3-0-0					3-0-0				3-0-0				3-0-0	
y			NIL			U	13CS20			-		13ES205			2	13EC20 6/ 13EC31				13EC20 2	
	Understand different copper clad laminates and their properties, Soldering techniques.	and the materials used along with their properties, mounting components on PCB , classification of PCB boards	Understand the active and passive components, characteristics	Construct multiple threads that communicate with each other using Sun RPC	Analyze various Advanced Sockets & Networking Applications through Unix domain protocols and Routing Sockets	Apply socket API for TCP and UDP to write programs related to Client/Server communication	Analyze Socket API from Network Programming perspective	Analyze cosine modulated filter banks and their poly phase structures	Understand para-unitary systems and linear phase perfect reconstruction filter banks	phase representation.	Analyze maximally decimated filter bank structures and their poly	Demonstrate various multirate operations and associated filter bank models.	apply architectural techniques e.g. flow graph transformations, usage of low power data path components, low power clock structures to create low power devices	Understand and apply low power techniques at circuit level and gate level		understand the physics of power dissipation, dynamic and leakage power and what makes a circuit or device a low power device	Understand Passive Components for EMC, testing setups	Understand EMC Design guidelines	Analyze EMI Control technique such as bonding, transient suppressors, Design Guidelines	Understand the EMI, EMC Concept , EMI Control technique such as shielding	
												2	2 2	2	1 1	<u></u>	P P	2	2 2	Ы	
														2				2			
	P	Ъ		2	2	, in	Ь	2	1-3)		2	2	Ь	H	P	2	2	Ы	
Water or																					
				2	2	ш	1			2		2	2	2	Ы	Þ	Ъ	2	2	1	2
Tofesso Dept.			Added				Added					Added				Added				Added	
fessor & Head hept, of UCE	applications	skill to apply the concepts	Students	7	to practical	skill to apply	Students acquire the	processing	of signal	regarding	skill	Students acquires the		and systems	testing of	Students acquires the skill	communicati on systems.	microwave	skill to work microwave	Students acquires the	applications

Professor & Head

Dept. of ECE

KL University

.

acquires the			1	1	Analyze RF behavior of passive components, their properties and	6/		Charles Constitution	364	9
	Added				Understand the Importance of RF and Microwave Circuit Design,	13EC20	3-0-0	RE System Design	13EC	4
core jobs.										
circuits that			2							
design of VLSI					Understand the concept of differential amplifiers and operational			Analog VLSI Design	461	00
regarding the			2		Analyze different amplifiers and their frequency Responses	2			13EC	4
skill			2		Analyze different passive & active current mirrors	13EC31				
acquires the					Devices	6/				
d Students	Added			7	Understand the functionality and Electrical Properties of MOS	13EC20	3-0-0			
on systems.			н		communication networks	K				
communicati			٠.		Understand the optical communications methodologies in					
higher					modulation and optical Amplifiers for optical communications					,
modes of)		Understand the concepts of sources, Detectors, Electro optic			Communications	342	7
the various			Д		fibers and Dispersion	2		Optical	13EC	4
understand					Understand the concepts of transmission characteristics of optical	13FM20				
			Ь		Optical communication link . advantages and applications .	7 OR				
d Student can	Added				Understand the basics of Light signals and different items of	13FC20	3-0-0			
processors.			٨		DSPs.					
processing			J		Analyze and learn to implement the signal processing algorithms in					
of signal					processors Architecture			Ju chillian C	11.0	C
applications			2		Learn the TMS320C54XX architecture details of Digital signal		Ī	Architecture	13EC	4 0
regarding					Architecture					
skill			2		Learn the architecture details of Digital signal processors					
	Modified			<u></u>	Acquire the fundamental concepts of Digital Signal Processing	13ES205	3-0-2			
-		2			lag, lead-lag compensators					
			2		Students can be able to design and analyze controllers and lead,					
		2			transfer function for the given model.					
			-		to analyze the process of Converting state space equations into					
			v		transfer functions in time and Frequency domain and can be able				400	
					Students can be able to understand and analyze stability of given			COTILIOI SYSTEMS	TTEE	UI
applications			1	AL .	response of physical systems				1	4
to practical			J		Students can be able to Analyze the time domain and frequency					
the concepts					analyze the similarities between Synchronous and ac generators					
skill to apply			ŀ		of physical systems and can u					
acquire the					as open, closed loop systems, transfer function approach,					
ed Students	Retained				Students can be able to understand control system concepts such	13ES203	3-0-2			
			P		for library, etc					
					Inderstand the basics of DCB Eabrication and generate foot print					
			Ь,		Apply the knowledge of schematic and layout design a PCB					

Professor & Head

Dept. of ECE

KL University

Green Fields, Vaddeswaram

and Describe types of Smith Chart; Propose a design of Active RF systems Analyze Scattering parameters for Single And Mul Model Signal Flow Chart Analyze Unit Element and Kuroda's Identities Stability Considerations and stabilization method Using Small Signal Analysis 3-0-0 11EC31 Understand and remember the fundame microcontrollers like architecture, memory organi Apply the instructions in writing basic ass programming. Apply the concepts of interrupts, timers in ap required. Analyze Different I/O devices and their interfacing Understand the fundamental concepts of processing system Apply different image transformation techniques processing of histogram equalization, enhancement, restorati techniques to real world problems. Develop algorithms for digital image processing of histogram equalization, enhancement, restorati techniques to real world problems. Develop algorithms for digital image processing as, image compression and color image processing as, image compression and color image processing as, image compression and color image processing as, image compression and satellite orbital terms and element understand the fundamentals of satellite communication satellites.1 13EM20 Design general satellite subsystems which comprise segments and link budget parameters Understand the basic concepts of multiple access satellite navigation and GPS Analyze different types of ASIC design methodolog Different CPID Architectures	and Describe types of Smith Chart; Propose a Smith Chart for design of Active RF systems Analyze Scattering parameters for Single And Multiport Networks; Model Signal Flow Chart Analyze Unit Element and Kuroda's Identities Transformations; Stability Considerations and stabilization methods, RF Amplifiers Using Small Signal Analysis Understand and remember the fundamentals of the microcontrollers like architecture, memory organization. Apply the instructions in writing basic assembly language programming. Apply the concepts of interrupts, timers in applications where required. Analyze the differences in architectures of 8051 and PIC µc's and Analyze Different I/O devices and their interfacing to 8051 µc Analyze bifferent image transformation techniques for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing operations such as introduced problems. Develop algorithms for digital image processing and image segmentation and be able to apply these techniques to real world problems. Develop algorithms for digital image processing and image segmentation and be able to apply these techniques to real world problems. Develop algorithms for digital image processing segments and link budget parameters. Understand the basic concepts of multiple access techniques, satellite as	and Describe types of Smith Chart; Propose a Smith Chart for design of Active RF systems Analyze Scattering parameters for Single And Multiport Networks; Model Signal Flow Chart Analyze Unit Element and Kuroda's Identities Transformations; Stability Considerations and stabilization methods, RF Amplifiers Using Small Signal Analysis Understand and remember the fundamentals of the microcontrollers like architecture, memory organization. Apply the instructions in writing basic assembly language programming. Apply the concepts of interrupts, timers in applications where required. Analyze the differences in architectures of 8051 and PIC µc's and Analyze Different I/O devices and their interfacing to 8051 µc Analyze bifferent image transformation techniques for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing and image segmentation and be able to apply these techniques to real world problems. Develop algorithms for digital image processing and image segments and the fundamentals of satellites.1 13EC20 Understand the basic concepts of multiple access techniques, satellite assignation and GPS Understand the basic concepts of multiple access techniques, satellite assignation. 2 Understand the basic concepts of multiple access tech	5 13EC ASIC Design 3 363		į	5 13EC Satellite				5 13EC Digital Image 1 372 Processing				0 4 System Design	11E M			*				
and Describe types of Smith Chart; Propose a Smith Chart for design of Active RF systems Analyze Scattering parameters for Single And Multiport Networks; Model Signal Flow Chart Analyze Unit Element and Kuroda's Identities Transformations; Stability Considerations and stabilization methods, RF Amplifiers Using Small Signal Analysis Understand and remember the fundamentals of the microcontrollers like architecture, memory organization. Apply the instructions in writing basic assembly language programming. Apply the concepts of interrupts, timers in applications where required. Analyze the differences in architectures of 8051 and PIC µc's and Analyze Different I/O devices and their interfacing to 8051 µc Understand the fundamental concepts of a digital image processing system Apply different image transformation techniques for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization and be able to apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization and color image processing operations such as histogram equalization and be able to apply these techniques to real world problems. Develop algorithms for digital image processing operations and image segmentation and be able to apply these techniques to real world problems. Develop algorithms for digital image processing operations and characteristics of communication satellite communications and characteristics of communication satellites.1 Design general satellite orbital terms and elements. Understand the basic concepts of multiple access techniques, satellite navigation and GPS Analyze different types of ASIC design methodologies and	and Describe types of Smith Chart; Propose a Smith Chart for design of Active RF systems Analyze Scattering parameters for Single And Mulitiport Networks; Model Signal Flow Chart Analyze Unit Element and Kuroda's Identities Transformations; Stability Considerations and stabilization methods, RF Amplifiers Using Small Signal Analysis Understand and remember the fundamentals of the microcontrollers like architecture, memory organization. Apply the instructions in writing basic assembly language programming. Apply the differences in architectures of 8051 and PIC µC's and Analyze the differences in architectures of 8051 and PIC µC's and Analyze Different I/O devices and their interfacing to 8051 µC Understand the fundamental concepts of a digital image processing system Apply different image transformation techniques for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as, image compression and color image processing and image segmentation and be able to apply these techniques to real world problems Understand the fundamentals of satellite communications and characteristics of communication satellites.1 Design general satellite orbital terms and elements. 2 Understand the basic concepts of multiple access techniques, satellite navigation and GPS Analyze different types of ASIC design methodologies and 2 Different CPLD Architectures	and Describe types of Smith Chart; Propose a Smith Chart for design of Active RF systems Analyze Scattering parameters for Single And Multiport Networks; Analyze Unit Element and Kuroda's Identities Transformations; Stability Considerations and stabilization methods, RF Amplifiers Understand and remember the fundamentals of the microcontrollers like architecture, memory organization. Apply the instructions in writing basic assembly language programming. Apply the concepts of interrupts, timers in applications where required. Analyze the differences in architectures of 8051 and PIC µC's and Analyze the difference in architectures of 8051 and PIC µC's and Analyze Different I/O devices and their interfacing to 8051 µc Understand the fundamental concepts of a digital image processing system Apply different image transformation techniques for digital image processing world problems. Develop algorithms for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems. Develop algorithms for digital image processing operations such as histogram equalization and color image processing and image segmentation and be able to apply these techniques to real world world orbital image processing operations such as histogram equalization and color image processing and image segmentation and be able to apply these techniques to real world understand the fundamentals of satellite communications and link budget parameters Design general satellite subsystems which comprise space, earth segments and link budget parameters Understand satellite subsystems which comprise space, earth segments and link budget parameters Understand the basic concepts of multiple access techniques, and segments and segment	3-0-0				_			tu		+		3 *	ers	- 1						
			Analyze different types of ASIC design methodologies and Different CPLD Architectures	pts of multiple access	Understand satellite subsystems which comprise space, earth segments and link budget parameters			as, image compression and color image processing and image segmentation and be able to apply these techniques to real world problems	age processing	Develop algorithms for digital image processing operations such as histogram equalization, enhancement, restoration, apply these techniques to real world problems.	processing system	lindosetand the findamental concents of a	Analyze the differences in architectures of 8051 and PIC µc's and Analyze Different I/O devices and their interfacing to 8051 µc	Apply the concepts of interrupts, timers in applications where required.	מומכנוטווט ווו אוונווופ ממוכ מטכוויטוא	1.	Understand and remember the fundamentals of	Stability Considerations and stabilization methods, RF Amplifiers Using Small Signal Analysis	Analyze Unit Element and Kuroda's Identities Transformations;	Analyze Scattering parameters for Single And Multiport Networks; Model Signal Flow Chart	COMPANY A BUTCHMENT (COMPANY OF THE COMPANY OF THE	വ

Professor & Head

Bept, of ECE

KL University

Green Fields, Vaddesweran

cumula byst, M. F. Francis 22 567

Systems that								
cellular		2						
design of				Analyze wireless systems & OFDM standards.		Communications	desferde	,
analysis and		2		Elucidate the basic principles equalizers, receiver techniques.	2	Cellular	13EC	7 5
SKIII		2		Explore propagation mechanisms and channel interferences.	13EM20			\(\(\)
D.	,	Н		R systems	3-0-0 13EC30 8 OR			
ded Students	Added			systems (including secondary radar and GPS).				
COLE JOB3.		ы		Apply the principles of tracking radars and radio navigation				
core ichs								
required for		2		stealth, and bi-static radar, and apply the appropriate design				
rauar				Apply the principles of Electronic Warfare, stealth and counter		May Sational Aids	1 total	O
design of				limitations of particular cases.		Navigational Aids	TSEC	n U
didiysis allu			2	radar systems to calculate system performance, and assess the		Dodarand	1000	п
regarding the)	Apply appropriate mathematical and computer models relevant to				
SKIII				diagram level.				
acquires me		H		simple radar systems and the associated signal processing, at block	ω			
	Added	Y		Understand the essential principles of operation and design of	3-0-0 13EC31			
		2	1	Analyze the concept of basic networks				
7				electro optic modulation and optical amplifier				
applications		2		Analyze the concepts of optical transmission and detectors,		Networks	433	U
to practical						Communication	TO CO	1 0
the concepts		ш	JI .	Understand the concepts of transmission characteristics of optical		High Speed Optical)	1
acquire the				communication link methodologies	Сī			
	Added	<u> </u>		Understand the basics of light signals and different types of optical	3-0-0 13CS20			
applications.								
for speech								
processing		L		for their development				
of signal				Demonstrate automatic speech recognition systems and analysis		O Coccio	474	4
applications		ы		Understanding of speech synthesis models and their applications		Chook Droopping	13EC	Uī
regarding		2		Analyzing various speech coding methods		ä		
acquired nice	×			modeling				
led Students	Added	ш		-	3-0-0 13ES205			
required for		2						
circuits that				Analyze Physical design flow of ASIC, Extraction the final circuit				
design of VLSI		2		Analyze ASIC design flow				
regarding the				Programming and analyze different types of Faults in logic circuits.	2			
IIINS		2		Develop Program of different logic circuits using HDL and Verilog	13EC31			

Dept. of ECE

KL. University

Green Fields, Vaddoswaram

Grant Dist. A.P. PIN-522 50

	1 434	6 13CS				6 13EC			-21	9 470			8 465	5 13EC			
	and Networking	Communications	Misologo			Radiating Systems				Processing			Circuits & Systems	Mixed Signal			
		×	3-0-0					3-0-0								3-0-0	
			13CS20 5				u	13EC31						2	.6/ 13EC31	13EC20	
Explain ADHOC Sensor network	Explain wireless system WANS, LANS, services	Discuss OFDM and multiple radio access	Describe various CDMA, cellular mechanism wireless network models.	Understand the different types of strip antennas and analyzing the radiation parameters using antenna measurements.	Analyze the characteristics of linear antennas, antenna synthesis techniques and micro strip antennas.	Analyzing the different distributions of an antenna and Apply the concept of radiation to reflector antenna.	distributions	Understand the basic antenna parameters of different antennas	Understand different algorithms used in Array signal processing	Analyze Beam foaming techniques by using various signals In spatial spectrum	Analyze signal arrays by using different methods in far field region	Understand concepts of signals in various domains and sensor arrays	Analyze the Wireless Communication Systems by using mixedsignal.	Analyze Data converter Architectures and SNR by using different types of ADC and DAC	Performance evaluation of different ADC and DAC circuits.	Analyze the data converter fundamental principle by ADC and DAC	
	2	2	2	2	2	2		١					- I			2	
2									2	2	2	Ь	2	2	2		
			Added					Added				Added				Added	
applications	to practical	skill to apply	Students acquire the	Oll systems.	communicati	systems and	skill to work	Students	processing applications.	applications	skill	Students acquires the	design of VLSI systems that required for core jobs.	regarding the analysis and	skill skill	Students	core jobs.



	MINITE
Name of the meeting' <u>Internal Road</u> of' <u>ECE dept</u> .	of of strate 110 1.E.C.
of ECE dept.	
held on 18 11 2013, at 12.30 A.M./P.M. under the	chairmanship of Sri Dr. Habibulla H
at ECE HOD'S Chamber	- IMAN
The internal Board of s	tudies meeting of ECE
dept was held on 18/11/13 at	12-30 PM @ 1tops Charley
The following members were	present.
1) Dr. Hasibulla Iceran	10.
	white the contract District
The making to	
	· · · · · · · · · · · · · · · · · · ·
<i>₹</i> (2)	

BOOK %
General Body, Board or as the case may be.
2. The name of the Company.
3. The place at which the meeting was held.
4. At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in recording the minutes of the meeting.
It is resolved to offer a course by name
"elements of software defined radio" as a
Et is resolved to offer a course by name "elements of software defined radio" as a professional Core elective for the students of II year in 2nd somester.
Il year in 2nd semester.
H.Clan.
Chairman Board of Studies in ECE KL University

MINUTES
Name of the meeting Board of Studies
of hall had been now that
held on 19 3 2014, at 3. A.M./P.M. under the chairmanship of Sri Dr. ASCE Sastry
at' Hoo's Chamber, ECE Department.
The Board of Studies meeting of ECE Department
was held on 2019 March 2014 in the Hoos chamber
to approve the synabus for the courses to be
included into the list for Phe-PhD Exeamination
form the Department.
The following members were present.
1. Dr. Ascs Sasty Chairman Bos - Charly
2. Dr. Habibulla Khan-Member - Helieu
3. Dr. S. Lakehminarayang-Member - S. Laushminarayang
4. Dr. M. Verugopala Rao " - 7. Would
.5. Dr. K.S. Ramesh " - K.C. Jamesh
6. Dr. EV Knishna Rao " - EUCRES
7. Dr. K. Saveat Kumar " - Kom
8. Dr. V. Rajesh " - J
9. Dr. Trs Prasad Guptha " - fra
10. Dr. KSN Musthy " - Common S
11. Dr. K. Kumar Nalk " - Kus
12 Dr. G.V. Subba Rao " - Game Tra
13. Dr. Fazal Noor Basha Mal
14. Dr. D.V. Ratnam u - D.V Ratnam
35. Dr. Rehman " - a Ucus

BOOK



- 1. General Body, Board or as the case may be.
- 2. The name of the Company.
- 3. The place at which the meeting was held.

4.	At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, if
!	recording the minutes of the meeting.

It is sessived that the syllabors of the two namely (a) Basis of MEMS (b) MEMS Measureto be included into the List of Courses It is resolved that the syllabus of the Course of Global Paritioning System attached herewith is approved to be included into the list of Courses for Pre-PhD

20 10

BOOK
General Body, Board or as the case may be.
2. The name of the Company.
The place at which the meeting was held.
At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in
recording the minutes of the meeting.
The covericulum and the Gurse structure
for M. Tech LF & Microwave Engineering is
approved.
DAC recommendations are considered and modifications
DAC recommendations au considered and modifications maybe Cavaidant in rest-regulations.
(Qalac Am)
J 7 7 7 1
Can i
(Chairman, Bos)
Professor & Head Dept. of ECE KI. University
Green Fields Vaddeswaren
Guntur Dist. A.P. PIN-522 5ρ2

W III I I I I I I I I I I I I I I I I I
Name of the meeting' Board of studies:
Name of the meeting' Bo and of studies. of ECF App
held on 1 12 20 14, at []: W A.M./P.M. under the chairmanship of Sri Dr. A.S. C.S Saxbuy
at' Room ho: 307, ECT Bept
The BOS meeting of ECE Dept was held on
1 pec, 2014 in Room no: 307, to approve the
syllabus and other discussions regarding the syllabus
for the a cademic year 2014-15 · Curricullum design
according to new methodologies is also one of the agenda.
The following members were present
1. Dr. A.S.C. Santay - Chair man- Bos - Qalgarym
2. Dr. K. S. Romedy - 1(.S. Down)
3. Dn. Tl. V RAMA KRISHNA - WRIDEN
4. Do. M. Siva Ganga pros - n. Sop
5' DY. Md ZIA UR RAHMAD MINA
G. Dr. P.V. V. Killare - Kirly
7. Dr. G.V. Subbarao Squee 792.
8. Dr. M. Veru Gepala las Peo.
9. D. S. Ram Kran - Kra
10 M.V. Harrayforg - ya
11. Dr. K. Sanat Rumae Somula Informa
12 Dr. V. RAJESH
13 Do. J. Lakshmi Navayana
Do Habibulla Khan Oy

	The name of the Company.	
3.	The place at which the meeting was held.	
4 .	At the end of the minutes. Chairman to sign mention recording the minutes of the meeting.	ng the number of correction made, if any in
-;	5 section in the circle.	
	15 61	1
	15. S. Landaminarayara	3
		,
	14. Dr. Cas	m d
	14. Mr. fatal noordane	69
		·
	2 2	6
	15. Dr. Raijan K. Senapak	A l
	1	4
,	· · · · · · · · · · · · · · · · · · ·	
		(and the
		young my
		Dr. A-S.C-S Santry
	,	School
		(chairman, Bos)
		(
		~
-		
1		
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2		
-		
pher .		
		.0)

1. General Body, Board or as the case may be.

BOS Meeting.

Dr. ASCS Sastry

Sun 11/30/2014 9:43 PM

Dear all,

Good evening. Board of Studies meeting of the department is scheduled on 1st December 2014 at 11.30 hrs in the department library.

Agenda:

Discuss the preliminary issues of design of the new curriculum (structure) for the 2015 batch based on the scientific methods and as per the ABET requirements.

All the members are requested to attend.

Thanks and Regards,
Dr.A.S.Chandrasekhara Sastry,
Professor & Head,
Department of ECE,
(DST - FIST Sponsored Department)
K L University.
Mobile no.: +91 9848099508

12/10/2015 8:38 AM



Name of the meeting' Board of Studies
Name of the free first
of FCE Department held on 672015, at 12:303 M. IP.M. under the chairmanship of Sri Dr. ASCS Party
at' Room No: C Block
at <u>400m</u> 100:
The BOS meeting of ECE Department was held on
to approve the tollowing
6th July, 2015 in Room No: , to approve the tollowing
agenda:
1. Modifications in the Structure of 2012-16 Satch of Bilech
2. Modifications in the structure of 2013-17 batch of B. Tech
3. Cirriculum and structure of 2015-19 batch of B. Tech
4. Cirriculum malifications in the M. Tech (CR) and M. Tech (RF
& Mh Engg.)
This following members years present:
1. Dr. Ascs Saitry - Chairman - Bos - Qalany My
2. Dr. Fazal Noor bashs
3. Dr. K. Szinivala Revo.
4. Dr. n. s. g. prole
5. pr. M. Veru Gopala Rao
6. Dr. K. S. Romesh)
7. Jangung (Dr. GV. Subbaras)
8. S. Koliswona Rao
9, Pr. P. V.V. Jess Lone.
10. De. K. Kumas Naik for
M Dr. D. VENKATA RAFNAM _ DW
3012. BTP Madhay -
\$5 13. K. Sagat K-vmg - &

Board or as the case may be. 2. The name of the Company. 3. The place at which the meeting was held. 4. At the end of the minutes. Chairman to sign mentioning the number of correction made, if any, in recording the minutes of the meeting. S.C.S. SASTRY Professor & Head ·CHAIRMAN BOS Department of ECE DEPARTMENT OF ECE K L University Green Fields, VADDESWARAM Guntur District, A.P., India approved by all the members Navisational Satellite systems in to M-Tech CBR & M. Tech the comichen & Associated the case structure of 2012-16 the Final Jean second semester along with Barect (medisied curse structure is enclose. maisy the cause synthe of 2018 Fral years second Somester along with and approved by all the members excell for some & suseedia Names of the carses 4) As how the letters from the head Department of Amsteric Sciences & the DG specialization (An interdecillinary specialization Run of Almospheric Science & Space Technology & Almospheric Science

Scanned by CamScanner

BOS Meeting

Dr. ASCS Sastry

Sun 7/5/2015 8:07 PM

To:Dean Student Affairs <habibulla@kluniversity.in>; Dr. TV Rama Krishna <tottempudi@kluniversity.in>; M.S.G.Prasad <msivagangaprasad@kluniversity.in>; Sarat KK <kksarat@kluniversity.in>; K.S.Ramesh <dr.ramesh@kluniversity.in>; ksnmurty <ksnmurty@kluniversity.in>; Lakshminarayana <drslakshminarayana@kluniversity.in>; Dr. M.Z.Rahman <mdzr@kluniversity.in>; Ranjan <ranjan.senapati@kluniversity.in>; Dr.P.V.V.Kishore <pvvkishore@kluniversity.in>; Dr. G.V.S.RAO <gvs0raos@kluniversity.in>; ratnam <dvratnam@kluniversity.in>; K.Srinivasa Rao <ksrao_me@kluniversity.in>; S Koteswara Rao <skrao@kluniversity.in>; K Kumar Naik <kumarnaik@kluniversity.in>; Dr. Fazal Noorbasha <fazalnoorbasha@kluniversity.in>; Madhav <btpmadhav@kluniversity.in>; MVGR <mvgr03@kluniversity.in>;

Cc:Sri Kavya <kavya@kluniversity.in>;

Dear all,

There shall be a meeting of the **Board of Studies** of the Department of ECE on <u>Monday, 6th July 2015 at 12.30 p.m in the Department Library</u>.

Agenda:

- 1. Modifications in the structure of 2012-16 batch of B.Tech.
- 2. Modifications in the structure of 2013-17 batch of B.Tech.
- 3. Curriculum and structure of 2015-19 batch of B.Tech.
- 4. Curriculum modifications in the M.Tech.(CR) and M.Tech.(RF & MW Engg.)

All the members are requested to make it convenient to attend the same.

Thanks and Regards,
Dr.A.S.Chandrasekhara Sastry,
Professor & Head,
Department of ECE,
(DST - FIST Sponsored Department)
K L University.
Mobile no.: +91 9848099508

SHE OF SHE	- 2016]
	- 2015
	8 [A.Y.
	RADAR [4
	ION &
	ICAT
	MMUN
	ch CO
	MTe

					α.	PO's			Added/	
COURSENAME		L-T-P	8 8	00 1 2 3	4	TQ.	2 9	o 0	Modified/ Retained	Course Rationale
			Н	Understand different modern digital modulation techniques and probability of error statistics.						
			2	Analyze the performance of baseband and pass band data transmission in terms of signaling schemes.						Student acquire
Modern Digital Communication Techniques		3-1-2	m	Understand the concepts of block and convolution codes with respect to transfer functions and decoding operations.					Modified	knowledge on Digital Communication techniques and apply the skills to
		> 1	4	Analyze the spread spectrum signals and signal analysis for different digital communication technologies.	2	La la ja				practical problems
			ιO	Interpret different digital communication modules with respect to signal analysis in application orientation.	2					
			Н	Understand the basic antenna parameters and radiation mechanism for different types.			4			Complete analysis
Microwave Antennas	s s	3-1-2	7	Identify the significance of aperture of antenna models and their feeding mechanism.					Added	regarding Nicrowave antennas and apply
			m	Design microstrip radiators with different shapes, slots and feeding techniques for communication applications.	8					world problems
			4	Analyze the concepts of 3					(0

N H		Impedance and polarization.	
		Estimate the performance	
	n	characteristics of microwave	
		antennas with the help of	
		electromagnetic tools.	
		Describe the concept of	
1		electromagnetic 1	
		interference, compatibility	
		and sources of EMI.	
		Understand the	
	a)	electromagnetic interference	
2		in circuits and measurement 1	Skills regarding
		techniques with open area	ENAI/ENAC and he
3 15EC5103 EIMI/EIMIC 3-1-0		Added	improved by
lecuniques	_	ucted and	rtidents
m		2	זוממכוווז
		measurements.	
		Utilize the techniques like	
	b.C	grounding, shielding, bonding	
7		and EMI filters in the usage	
	,	components.	
		Understand the concept of	
		radar communication and its 1	
		ground environment.	
		Analyze the transmitter	
•	6		Ctudent acquires
7		power, spectrum analysis and 3	knowledge on
		harmonics from transmitter.	Radar Engineering
3-1-0		Identify the factors outside and able	and able to apply
	r	the radar and analyze the	the skills to
7			nractical problems
		Classify different steps in	
	,	receiver design and its	
र्च	†	parameters for	
		determination of position.	

Dr. A.S. E.S. SASTRY
Professor & Head
Department of ECE
K. University of ECE
K. University of ECE
Green Fields, values WARAM
Green Fields, values WARAM

Or A. S. C. S. SASTRY
Department of ECE

					transformers and resonators in microwave circuit design.							able to apply for practical	
				n	Design of microwave filters and periodic structures.			33			- #	applications	
					Understand the feeding								
				_	principles and excitation			,					
				t	techniques in waveguide			-					
					design.								
			**		Construct millimeter wave				-				
				2	circuits using			n					
					electromagnetic tools.		-						
					Understand the concepts of						7		
				Н	antenna pattern measurements and modeling	Н			+				
					techniques.								
					Estimate antenna testing in								
				(different environments like		,		-	N.			
				7	elevated, ground, near and		7	F					
					radar cross section.	i_							
					Examine the far field testing							Student achieve	
00	1550506	Antenna	2-1-2	3	of antenna for gain,	Н				= _	Adolo	knowledge	
0	1755200	Measurements	7-1-0		directivity and patterns.							regarding Antenna	
					Analysis of compact ranges							measurements	
				_	and near field testing with			2	H				
				r	cylindrical and spherical			1	H				
					scanning.								
					Determine antenna								
					parameters using			-	-				
				S	measurement instruments				\vdash				
					like VNA and SR in real time								
					environment.								
					Understand the basic								
				Н	elements of cellular mobile 1				H			Student can	
					radio system design.				-			schieve knowledge	
o	1555207	Wireless Cellular	3-1-0		Identify different applications				_		Papa A	regarding Wireless	
)	1010101	Communications) - -	7	of speech coding in wireless	Н		,	-			Cellular	
					systems.							Comminications	
				m	Understand the radio						(
				8	propagation and cellular				-		Cont.	M. Am	
												-	

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K. L. University
Green Fields, VADDESWARAM

	Complete analysis of RADAR systems can be studied by the students	Student achieve knowledge and can understand Receiver module	complete knowledge and design the Micro
	Added	Added	Added
	7 7		
	m H	1 8 H	П
engineering concepts Identify digital modulation and demodulation principles and architectures, interference in wireless	ar e e e or	Classify different criteria associated to detection theory at receiver. Understand the concepts of integration of optimum receiver and matched filter receiver. Analyze the maximum likelihood estimation methods. Understand the concepts of estimation in the presence of Gaussian noise and prediction with Kalman filters.	Understand the importance of RF & Microwave System design with passive components.
7 7	H 2 W 4	1	-
to the second se	- 4.2 6 - 4.25	3-0-C	3-0-0
	Modern RADAR Systems	Estimation and Detection Theory	RF and Microwave System Design
	15EC5208	15EC52C1	15EC52D1
	01	=======================================	17

Dr.A.S.G.S.SASTRV Department of Ege

	Understand Smith chart	wave Systems
7	concept for analyzing S, Y, Z	
	parameters.	
C	Analyze S-parameters with	
0	conversions and modeling.	
	Design of RF- filters,	
t	amplifiers and oscillators.	

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K University
Green Fields, VADDESWARAM
Guntur Dist. A.P. India, Pin:522 502.

Θ
-16
ΥŲ
201
$\tilde{\nabla}$
N 2015-16
7
ECE A
ш
T. OF ECE A
ب
ENT DOCUMENT DEPT.
DEP
\Box
片
싎
⋝
5
$\tilde{\circ}$
2
Ξ
2
ш
/ELOPIME
$\frac{1}{2}$
EVELOPIV
5
EV
ப
\geq
\geq
DGRAMM DEV
85
ö
PROGR/

PRO(GRAMIN	PROGRAMM DEVELOPMENT DOCUMENT DEPT. OF ECE AY 2015-16	VIENT DEF	PT. OF ECE AY 2015-16			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1.0
S	Course	- C		Description of the Course Outcome	Mapping with SO	Added/ Modified/	Course Rationale	
<u> </u>	code			N N	 		300	
ŝ	AANITIE	HUMANITIES & SOCIAL SCIENCES					Jacobson Company Compa	
		-		Remember speech sounds and apply stress and intonation rules to enhance pronunciation skills.	1	tanana ara-		
				Understand writing strategies and apply those			Course develop	
	15 EN	Rudiments of	=	by using the basic and advanced concepts of		Added	the skill required for employability	
\ <u>-</u>	1101	Skills		grammar.			and	
				Understand the types of texts and tone of the			entrepreneurship	
				author.	• • • • • • • • • • • • • • • • • • •			
				Understand the importance of interpersonal				
				skills	1			
				Understand the method of identifying the				5.17
				meaning of words from the context and form			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
	<u>. </u>			sentences using words.				
				Understand and analyze seven types of			Course develop	- Para - 1
	1.5 EN	Interpersonal	·.	reading techniques and improve reading speed.	2	7	the skill required	14 A A A A A A A
~	1202	Communication0-0-4 NIL	불			Added		
		Skills		Understand and apply writing strategies for office/formal communication.	2		entrepreneurship	
			-	Understand and analyze different cultures and		1	A Charles	
				the importance of empathy in cross-cultural communication.	7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			
						<u> </u>		111
						San	ころと	

7	C				
		2	Acquire knowledge of and apply people skills in various social organizational and corporate ambiences		
and entrepreneurship		- 5	Understand the organization of the passage and also analyze the tone, attitude and style of the author.	SKIIIS S	7204
Course develop the skill required for employability	Added	м	Apply and analyze various concepts of writing strategies in professional communication skills like, resume and minutes of the meeting.		15 EN
		2	Analyze one's own strength as a speaker/ Communicator and use discretion while listening.		
		Н	Understand the mechanics and application of presentation skills.		
entrepreneurship		S	Understand skimming & scanning, and apply the types of reasoning in comprehending the information.		
Course develop the skill required for employability and	Added	7	Understand and improve learners' competency in competitive English and apply the principles of grammar in real life contexts.	Professional Communication 0-0-4 NIL Skills	3 2103
		1	Understand the concept of Group Discussion and listen and speak effectively during the discussion.		

Dr.A.S. C.S. SASTRY
Professor & Head
Department of ECE
K.L. University
Greenifuelby: WADDESWARAM
Greenifuelby: WADDESWARAM
Greenifuelby: WADDESWARAM

A Liver and the second			Course develop the skill in verbal and quantitative	reasoning				ed for employability and entrepreneurship		
	Control		Added	П	Н	7-1	2	93 3	ж ж	2
	Understand the method of identifying synonyms and antonyms and analyze the meaning of a word from the context.	Analyze issues and arguments in the process	of critical reasoning and apply grammar rules to correct sentences.	Apply the Concepts of basic Algebra and their importance while solving the problems	Apply the short-cut methods on the concepts of different models in Calendars, Clocks, Blood relations and various types of arrangements	Understand and analyze the depth of a topic and use the advanced levels in creative speaking and debating.	Understand and analyze various strategies involved in writing an essay and apply various styles in writing.	Understand and analyze the given text critically and answer questions on critical reasoning based on the given information.	Acquire knowledge on various employability skills & analyze a situation and develop adaptability.	Apply the Concepts of basic geometry and
			길					=		
	_		0-0-4					ion0-0-4		
The state of the s	. 1100		Verbal and Quantitative	Reasoning			Corporate	Communication0-0-4 Skills		
			5 15 EN	0010			L L	6 3206		

						-				
					Understand the importance of Environmental education and conservation of natural resources.		Н		Course enhances	
	15 GN 1001	Ecology and Environment	2-0-0	i N	Understand the importance of ecosystems and biodiversity.		Н	Modified	education suitable for professional	
					Apply the environmental science knowledge on solid waste management, disaster management and EIA process.		7		entrepreneurship	
					Understand and identify the basic aspiration of human beings		П		Course enhances the ethics suitable	1
8	15 GN 1002	Human Values	2-0-0	Ħ.	Envisage the roadmap to fulfill the basic aspiration of human beings.		2	Modified	for professional jobs and	
					Analyze the profession and his role in this existence.		2		entrepreneurship	2
				*	Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results.	П			Students develop	
0	15 MT	Single Variable Calculus and Matrix Algebra	2-2-2	NIL	Formulate physical laws and relations mathematically in the form of second/higher order differential equations and identify a method for solving and interpreting the results.	,		Added	the skill to apply various basic mathematics for practical electronics and communication	
· ·		ħ o			Provide solutions for Fourier series of periodic/non-periodic phenomenon in models involving differential equations.	Н			applications.	

Dr. A.S. Cl.S. SASTRY
Professor & Head
Department of ECE
K. L. University
Green Fields, VADDESWARAM

Apply numeric solution methods for a system of linear algebraic equations and application oriented matrix eigenvalue problems.	Verify the solution of problems through MATLAB.	Determine the maximum and minimum values for the function involving two variables	ength of the arc, area, volume of 2 a solid revolution	Model the given phenomena as a partial differential equations of first and second orders	Solve the partial differential equations by analytical and finite difference methods	Verify the solution of problems through AATLAB.	Construct the probability distribution of a standom variable, based on a real-world situation, and use it to compute expectation and variance	redict the relationship between two variables
Apply numeric solution of linear algebraic equatoric equatoric equatoric equatoric enterity eigenva	Verify the solution of pr MATLAB.	Determine the maximur for the function involving to	Calculate the length of t the surface of a solid rev	Model the given phenor 2-2-2 NIL differential equations of first and se	Solve the partial differe analytical and finite difference me	Verify the solution of pr MATLAB.	Construct the random varial situation, and and variance	2-2-2 NIL and construct
				Muttivariate Calculus				Probability and Stochastic
				10 1203				11 2005

		mechanisms involved in electrical, electronic,			
properties of materials.		Understand electrical and optical properties of anterials and apply them to know various			
The course enhances the skill to understand and apply various physical	Added	and crystalline imperfections in order to determine crystals	18 2-2-2 NIL	15 PH Engineering 1001 Materials	13 1
		different experiments and analyze the results			
		Understanding the engineering mechanics physical systems prepare and demonstrate the models with the help of mechanics concepts to Osolve the engineering problems			
mechanical concepts to practical problems	Added	Analyzing the rigid bodies under translation and rotation with and without considering forces.	2-2-2 NIL		
Students acquire the skill to apply		Understanding the concepts of planar and non-planar system of parallel forces and analyzing them. estimate moment of inertia of lamina and material bodies	Ŋ	15 ME Mechanics	12
		Apply the concept of forces, governing static equations and analyze planer system of forces. 2 Apply different analytical methods on spatial system of forces and analyzing them			
	7	Verify the solution of problems through MATLAB/MINITAB.			
	2	Verify and validate the simulation models.			

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K L University
Green Fields, VADDESWARAM
Guntur Dist. A.P. In Flags

				The course	to understand and apply various chemical properties of	materials.
					Modified	
		<u>.</u>		Н		~
optical optoelectronic devices.	Understand mechanical and thermal properties of materials and apprehend their importance in identification of materials for specific engineering applications	Understand magnetic properties of materials and apply them to know various mechanisms involved in magnetic memory devices and transformers.	Understand various properties of materials and apply the knowledge to execute the related experiments to get hands on experience and also to develop some inter disciplinary projects.	Predict potential complications from combining various chemicals or metals in an engineering setting.	Discuss fundamental aspects of electrochemistry and materials science relevant to corrosion phenomena.	Examine water quality and select appropriate purification technique for intended problem. Apply phase rule, polymers, conducting polymers and nano chemistry to engineering
					2-2-2 NIL	
					Engineering Chemistry	ξ.
					15 CY 1001	

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K.L. University

ċ

				processes.	
				An ability to analyze & generate experimental skills.	
				Acquire the Knowledge of basic biology	The course
15 BT	Biology for		=	Acquire the Knowledge of Human Biological 1 2 Systems	to understand and apply various
1001	Engineers	0		Acquire Knowledge on Microorganisms	biological properties in
				Acquire Knowledge on Biosensors	developing sensors systems
				Understand the circuit elements, kirchhoff's 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
15 EE	Fields &			Apply the procedure to determine form factor and peak factor to different symmetrical & 2 unsymmetrical waves.	Students understand the network
1201	Networks	2-2-2	I N	Apply vector algebra to field fundamentals to analyze electric and magnetic field distributions	field theory in various circuits
			e 0 _	Apply Maxwell's equations for static and time 2 varying fields	and develop the skill for practical applications
				Test and Analyze the concepts learned in fields and networks by conducting experiments or by2 any simulation software's	
ENGINEER	ENGINEERING SCIENCES				
17 15 GN 1004	Introduction to Engineering	2-0-2	J N	Understand the basic principles of engineering 2 Added design	To understand basic principles of
					entraction !

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K. University
Green Fields, VADDESWARAM

						,	
					Understand the aspects of critical thinking and	9 19 19	eท <u>ิ</u> ธาติการ
					problem solving in engineering	design of	design and apply
					Apply to knowledge of critical thinking to	practical	tical
					frame	. p	applications
					real-world problems and provide basic		
					solution approach to such problems from engineering		
					perspective		AAAAA
					Understand and analyze the possible career		
					options in Engineering and develop strategic		
					plan, career targets and inecliation to achieve the same.		
					Illustrate how problems are solved using 2 2	- Control of the Cont	
					computers and programming.		
					Illustrate and use Control Flow Statements in 2 2		
					Ü	Stud Stud	Students
	15 CS	C Programming	, ,	<u>=</u>	Interpret & Illustrate user defined C functions 2 2 Modified	Ouo	
18	1101	& Data	7-4-7	Z L		ldde	apply the skill to
		saintanis.			Implement Linear Data Structures and	orac orac	practical
						5. 2. 8	קבר מבוכמים ביים מביים ביים מביים ביים ביים ביים
					Apply the knowledge obtained by the course		
					to	14 A 1	
					solve real world problems.		
					Draft orthographic Projections, Isometric	Stud	Students acquire
					views,	the	the skills to draft
19			9-0-0	JZ Z	are c	7 m	and modeling of
	1002	Graphics			Models in workshop by using drawings.	À	physical designs
		*			Draft ortho graphic projections	usn .	using CAD.
							~

Ook my my

7

	Course develops the understanding in measuring various physical quantities and develop skill through practical experiments.	
2 2	Modified	
projection of planes using Auto cad. Draft projection of solids Manually and by using AutoCAD and prepare Models in workshop by using different workshop trades Draft Development of surfaces of solid and sections of solid Manually Practicing house wiring through Auto Cad Develop 2D & 3D components using Auto Cad Software	Understand and apply the fundamentals of a measurement system, characteristics, and metrology using simulation and experimentation tools. Understand various electrical & computer parameters, and apply different measuring techniques on various electrical parameters using simulation and experimentation tools. Understand electronic & electro-physiological parameters, and apply measuring techniques on electronic parameters using simulation and experimentation tools. Understand and apply different measuring techniques on civil and mechanical parameters 2 2	using simulation and experimentation tools. Apply the theoretical concepts to measure different parameters
	15 GN Measurements 1003 0-0-4 NIL	

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K.L. University
Green Fields, VADDESWARAM

Control of the Contro		Students understand the	concepts of OOP and develop to apply for practical implementation				Students acquires	the skill regarding	processing		Students develop	various basic	practical	electronics and communication
			Retained				·	Added			Added	· · · · · · · · · · · · · · · · · · ·		
					κ			2	2	2				
	7	2	2											
Understand Basic Concepts of OOP,	introduction to classes and objects through Java Language and apply.	Understand the concepts of constructors, Overloading, parameter passing, access control, inheritance and apply.	Understand Packages, Interfaces, and Exception Handling and apply.	Understand I/O Streams & apply and understand Basic Concepts of Multi -Threading	Apply OOP concepts for developing an application	Demonstrate signals and their Spectra 2	Analyze discrete time systems	Design filters to cater signal analysis needs	Analyze non stationary signals in time	Analyze non stationary signals in frequency domains	and sets, relations, functions and	discrete structures , Count discrete event occurrences	Apply Propositional logic and First order logic	to solve problems
	^		2-2-2 NIL		4			2-2-2 NIL					2-2-2 NIL	
		Object Oriented	Programming				-	Signal Analysis				Discrete	atics	
		15 CS	2002						2002	1		55 S	23 2003	

DEN S.C. B. SASTRY
Department of ECE

4		Formulate and solve recurrence relations, apply algebraic structures and lattices.			7		applications.
		To identify the basic properties of graphs and trees and model simple applications			7		,
		Relate practical examples to the appropriate set, function or relation model and interpret the associated operations and terminology in context			2		
		Understand numerical and character representation in digital logic, number system, data codes and the corresponding design of arithmetic circuitry.		7	<u>.</u>	Employability	Students acquire the basic understanding of digital circuits
7.17		Understanding Logic gates, Logic theorems, Boolean algebra and SOP/POS expressions.		2	F		jobs.
24 1101	Design 2-2-2 NIL	Combinational and sequential systems design using standard gates and filp-flops and minimization methods		7	. 70		
		Verilog HDL design for logic gates, combinational and sequential Logic Functions.		2	2		
		Concepts of Programmable Logic devices.		2	2		9
25 2001	Computer Organization 2-2-2 and Architecture	Understand the functionality and design the CPU 15EC110 functional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the interconnections among these components.	7		2 A	Added	Course develop the skill to analyze and realize the operation of modern engineering tools
	47					1	7

Dr.A.S. d.S. SASTRY

Professor & Head
Department of ECE
K.L. University
Green Fields, VADDESWARAM

				Acquire the skill to apply various practical problem of circuit design						Students acquires the skill to work with microprocessors
				Added		T Make				Added
7	7	~	2			χ,	m	2	m	m
										·
										7
. 4	2	2	7	e e	m	· m	m .	m	m	
Understand, analyze and design main, cache and virtual memory organizations.	Understand, analyze and design different types of I/O transfer techniques.	Understand the design issues of RISC and CISC CPUs and the design issues of pipeline architectures.	Able to Design combinational and sequential circuits using LOGISIM	Able to Design combinational and sequential circuits using LOGISIM	Understanding the concepts of various diodes and their applications.	BJT concepts as operation, biasing and frequency response	FET concepts as operation, biasing and frequency response	Feedback concepts and their analysis	Concepts of various oscillators and applications.	Able to understand and analyze the 15EC110architectural features of CISC type of General purpose processor Intel 8086 Microprocessor.
						Ę				11
						2-4-2				2-2-2
						Analog Electronic Circuit Dasign				Processors and Controllers
						15 EC 2103				15 EM 2202
						7				27

A.S.C.S.SASTURY Professor & Head

features of CISC type of microcontroller - Intel 8051Microcontroller. Able to understand and analyze the architectural features of RISC type of microcontroller - PIC Microcontroller. Microcontroller. Able to program 8086 microprocessor, 8051 and PIC microcontrollers in assembly language using TASM, KEIL, MPLAB and Proteus tools. Able to Develop a real time application using 80518 PIC Microcontrollers through project based labs. Study and design of combinational and sequential circuits using PLDs and state machines. Understand Full-custom & Semi Custom design methodologies of for designing different PLD architectures. To study PLD structures and design process. To study pLD structures and design process. To study of different CPLD and FPGA architectures. To understand different physical process. To accompany to the process of the physical process of the physical process. To accompany to the physical process of the physical
ign 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
t PLD 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
2 2 2 2 2 2 3
2 2 2 2
2 2 2
2 2
2

Dr. A.S. C.S. SASTRY
Professor & Head
Department of ECE

communication	20,010						Students acquires the skill regarding the basics of signal processing	applications		
	2	2		2			Added		m	m
	(1)									
					2	7	2	2	2	2
	7	2	7	2	le a					
and demodulation techniques;	have a good understanding of digital modulation and demodulation techniques; and	Understanding pulse modulation systems	Understand and be able to implement noise and error analysis of an analogue system.	Understand and be able to implement noise and error analysis of an analogue or digital telecommunication system.	Understand various signals and model physical process using them.	Acquaint with various a transformation methods and their potential for applicability in various signal analysis conditions	Demonstrate sampling and its potential applications in communications, discrete signal acquisition etc	Evaluate discrete system behavior and its response to facilitate system design.	Design a low pass discrete time system to meet noise elimination like applications	Analyze non stationary signals and analyze them in both time frequency domains.
							15EC200 2			
							2-2-2	10000		
							Signal Processing			
							30 15 EC 2206	-		

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K University
K University

زق

\ T	6				10	
	,		2	Understand application layer concepts		
apply for practical implementations		7	7	Implement routing and congestion control algorithms	Networks 1001	2208
understand the concepts and	Added		2	Analyze MAC layer protocols and LAN technologies	. 2-2-2	15 CS
Student to		7		Understand OSI and TCP/IP models		
		7		Test and apply the knowledge obtained in the subject by Matlab or hardware.		
		7	2	Students can be able to design and analyze controllers and lead, lag, lead-lag compensators		
the skill to apply the concepts to practical applications	Modified		7	Students can be able to understand and analyze stability of given transfer functions in time and Frequency domain and can be able to analyze the process of Converting state space equations into transfer function for the given model.	Control Systems 2-2-2 NIL	31 15 EE 2207
			7	Students can be able to Analyze the time domain and frequency response of physical systems		
				and can understand analyze the similarities between synchros and ac generators		
			П	systems, transfer function approach, mathematical modeling of physical systems		
				system concepts such as open, closed loop		
				Students can be able to understand control		

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K L University
Green Fields, VADDESWARAM

		Students acquire the basic understanding of digital circuits embedded	systems and apply skill for practical	applications		Students acquire the basic understanding of digital circuits	suitable for core jobs.		
A Valenti		Added			• .	Modified	·		٠
2	m	m	m	m	<u> </u>				m
	~		_ 7	7	2	2	2	2	
Design applications using internet protocols	Able to analyze embedded systems, analyze and program on chip peripherals for a single purpose controller	Able to interface and program different off chip peripherals and communication protocols used in embedded systems	Able to understand, evaluate and select appropriate software architectures	Able to analyze and design embedded systems using the features in real time operating systems.	Able to develop a prototype for a real time embedded application using project based labs.	To understand the VLSI fabrication process and to be able to interact with integrated circuit process engineers	To analysis the theory and CV characteristics of MOS transistor	To analysis MOS gate static and switching characteristics	To design and layout MOS logic circuits
		1.5	EM2202				15 EC 1101		
		2-2-2					2-2-2		
		Embedded	Systems				CMOS VLSI Design		
			3103		· · · · · · · · · · · · · · · · · · ·		34 3107		

P. A. S. C. S. S. S. S. F. V. Profession of ECE.

ċ

¥° ...

m	m	Added Student can able to understand the various modes of	communication systems.			2	Added Student can able to understand the	higher communication systems.	1	1		Added Students acquires
	2	2	2	2	2	2	2	2	2	2	5	m
Circuit Characterization and Performance Estimation and scaling	Logic and Fault Testing	Understand the principles behind microwave transmissions, impedance matching and waveguides	Identify different antennas and their parameters	Analyze the antenna measurement techniques	Analyze the microwave components	Examine the microwave measurements using VNA and SA	Describe the types and advantages of spread spectrum modulation formats	Identify the radio signal propagation mechanism and different fading concepts	Illustrate the growth of communication satellites	Identify the different phases of cellular communication concepts	Understand the optical communication transmission media and principles of operation	Acquire the fundamental concepts of a digital image processing system
			2-7-2 15 EC	2205			150		2-2-2 3108			2-2-2 15 EC 2206
			Communication Theory-2	ı					Communication 2- Theory-3			Digital Image 2-
			35 1108 3108						36 15 EC 3209			37 15 EC 4110

Dr.A.S. G.S. SASTRY
Professor & Head
Department of ECE
K L University
Green Fields. VADDESWARAM

-							
			Identify and exploit analogies between the				orocessing
		-	mathematical tools used for LDand 2D signal				0 1
-			analysis and processing by analysing 2D signals	m	m_	-	applications
			in the frequency domain through the Fourier				
			transform				
			Design and implement with Matlab algorithms				,
	·		for digital image processing operations such as	8	<u>m</u>		
			histogram equalization, enhancement				
			Design and implement with Matlab algorithms				
			such as restoration, filtering, and de-noising	~			
			which developsan appreciation for the image)	1		
			processing issues.				NATH ASSESSMENT
			New techniques and be able to apply these		ď	yame.	
			techniques to real world problems.	0)		
Professi	 Professional Electives		Communication stream				
	A STATE OF THE STA	A A A A A A A A A A A A A A A A A A A	Differentiate different RF components and		2 2		***
			transmission lines				Student can able to apply this
			Demonstrate the smith chart applications,		2.2		concepts in
38 15 EC		3-0-0 15 EC	multiport networks			Retained	designing RF
777	Z Design)	Design different RF-Filters based on stability		2 2		systems like txnx systems &
			and gain				antennas
			Develop different types of RF amplifiers		2 2		-
			Demonstrate the radiation mechanism and		2		Students acquires
15 EC	:C Radiation	3-0-0 15 EC	antenna parameters	-		Retained	the skill to work
33 4162	2 Systems	3108	Distinguish different types of radiation from		2		systems and
			apertures		·		microwave

DIASCSSATEV Professor & Head Department of ECE K. L. University

			Select the antennas and arrays based on the specific application	7		systems.
			Evaluate the antenna performance with measurement techniques	7		
			Compare different types of radars and their limitations	2 2	Retained	Students acquires the skill regarding
15 EC	Radar and Navirational 2.0.0	15 EC	Illustrate the operation of MTI Radar and types of tracking methods	2		design of radar
4163		3108	Differentiate different radar transmitters and receivers	2 2		required for core jobs.
			Compare different types of electronic counter measures	2 2		
			Differentiate different Microwave components	2		Students acquires
15 EC	Microwave and	15 EC	Identify transformers and microwave resonators	2 2	8 1 1 2 2	the skill to work microwave
4164	uits	3209	Design different microwave filters	2 2		microwave
			Distinguish microwave and millimetric wave circuits	2 2		communication systems.
			Describe the EMI specifications and standards	2	Retained	Students acquires
ר ר		л С	Demonstrate the EMI control techniques and design guidelines	2		the skill to work microwave systems and
42 4165	EMI/EMC 3-0-0	3108	Distinguish different passive components for EMC	2		microwave communication systems.
	10		Evaluate the EMI measurements using different techniques	7		

Dr.A.S.C.S. SASTRY Professor & Head Department of FCE

ř

					Demonstrate different wireless communication systems and radio propagation mechanism	Alternation	
43	15 EC	Cellular Communication3-0-0		15 EC	Distinguish different equalizers and diversity 2 techniques in propagation	Retained	Students acquires the skill regarding the analysis and
)) 	<u>и</u>	ave.	0.77	Illustrate different wireless communication system standards	7	design of cellular systems.
					Select OFDM in the channel estimation and implementation	7	
					Demonstrate the basic concepts of satellite 2 communication and orbital mechanics		3
4	15 EC 4167	Satellite Communication3-0-0		15 EC	illustrate the satellite subsystems and link design	Retained	the skill regarding
) 1	<u>.</u> γ			Interpret transmitters and receivers usage in tracking and error control mechanism		design of satellite systems
					Develop the GPS based navigation system		
					Dramatize the importance of optical 2 communication		
24	15 EC 4168	Optical Communication		15 EC 2205	Demonstrate the transmission characteristics of optical fibers, optical transmitters and detectors	Retained	Students acquires the skill regarding the analysis and design of optical
					Illustrate the advanced optical fiber systems		systems
			****		Test the optical fiber transmission and reception mechanism	7	
46	15 EC	Information	3-0-0	15 EC	Describe the basic terminology of information	Retained	Students acquires

Owner, which is a second of the second of th

electronic warfare		ı	mechanism			
the analysis and	Added	(Demonstrate the satellite navigation	15 EC 3108	3-0-0	Navigation
Students acquires			Differentiate different electronic navigational			- Incorporation
			methods to overcome			
		7	Judge the false identification of targets and			
electronic warrare techniques		7	jamming			ש
electronic warfare		2	Distinguish active jamming and passive	3209		Warfare
the analysis and	Added	2	electronic warfare		3-0-0	Fundamentals of Flectronics
Students acquires						
		2	Distinguish different methods of warfare and			
		Н	Differentiate the segment design tradeoffs			
design SDR		2	Illustrate the programming concept of SDR	0		a sa
the skill regarding the analysis and	Added	2	Describe the architecture of SDR	15 EC	3-0-0	Software Defined Radio
Students acquires			radio			
		2	Demonstrate the concept of Software defined			
		7	convolution codes			
		(Distinguish different binary cyclic codes and			
		2	Illustrate the importance of error control in coding			
wireless		7	output			
the security of			0	0		Coding
מווום אנווו ובצפוחווו			theory and coding	2205		Theory &

Dr. A. S. Cl.S. SASTRY
Professor & Head
Department of ECE
K. University
Green Fields, VADDESWARAM
Green Fields, VADDESWARAM

				Illustrate the working principle of GPS antenna			techniques
				Discriminate ship master compass and automatic steering techniques	7		
			ALLA PLANTAGE PROPERTY OF THE PERSON OF THE	Demonstrate different types of radars	2	The state of the s	
15 EC	Ω 	2	15 EC	Illustrate the working principle of MTI radar and its tracking mechanism	2	- <u>-</u>	Students acquires the skill regarding the analysis and
4173	ק מ מ		3108	Discriminate radar transmitters and receivers	2	3	design of radar
				Demonstrate basic principles synthetic aperture radar	2		communications
				Distinguish different computational 2 techniques			
П П	Computational			Illustration on FEM based methodology 2			Students acquires the skill regarding the methods of
51 4174	Electromagneti 3-0-0		2205	Illustration on a one-dimensional introduction to the method of moments	Added	T	computational techniques in electromagnetics
				Illustration on MOM based methodology approach			
				Signal Processing Stream		o caracteristic control of the contr	
15 EC	Intelligent Systems and	3-0-0	15 EC	To establish the theory necessary to understand and use of Intelligence in system control and related constructions.	Added	led.	Students acquires the skill regarding applications of
}	Control	***************************************	} } 	To establish the theory necessary to 2 understand the Biological foundations to			ruzzy logics based intelligent control
				The second secon			

Dr. A.S. C.S. SASAN Profession & Head Department of ECE

system.	7	2	Added Students acquires the skill regarding applications	processing for VLSI circuits	5	2	Added Students acquires the skill regarding statically signal	2	2
intelligent systems	To emphasize on efficient algorithms for ANN based systems.	To emphasize on efficient algorithms for Fuzzy based systems.	To establish the theory necessary to understand and use of Adaptiveness in system control and related constructions.	To establish the theory necessary to understand the Wiener filter, search methods and the LMS algorithm	To emphasize on efficient algorithms for adaptive systems.	To emphasize on Vector space framework for optimal filtering	To establish the theory necessary to understand and use Statistics and related constructions.	To emphasize construction of efficient algorithms for real time applications.	To study applications in signal processing, communications. The course has computer and research projects involving independent study.
				15 EC Adaptive signal 3-0-0 15 EC 15 EC 15 A175 Processing 15 EC 1				Statistical 3-0-0	4176 Processing

Dr. A.S.C. S. SASTRY
Professor & Head
Professor & Head
Professor & Head
Professor & Head
Repartment of ECE
Department of

	THE REAL PROPERTY AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AD				probability play an important role.				
					To establish the theory necessary to understand and use speech based systems and related constructions.	7		Added	Students acquires the skill regarding speech signal
	15 EC	Speech Signal	C		To emphasize on efficient algorithms for speech based systems.	7			
	4177	Processing))	2206	To study applications in speech signal processing, speech based systems. The course has computer and research projects involving independent study.				
					To study applications in speech sensing software in mobile.				
		•			To establish the theory necessary to understand and use of multimedia in system control and related constructions.	7		Added	Students acquires the skill regarding multimedia signal
56 11	15 EC	Multimedia Signal	3-0-0	15 EC	To establish the theory necessary to understand and use of Motion Estimation				28 20 20 20 20 20 20 20 20 20 20 20 20 20
<u> </u>) }	Processing		7	To emphasize on efficient algorithms for multimedia based systems.		2		
					To emphasize on Multimedia Content Representation and Retrieval	000 A A-1000	2		
57 14	15 EC 4179	Neural Networks and Fuzzy Control	3-0-0	15 EC 2206	To establish the theory necessary to understand and use of Intelligence in system control and related constructions.	7		Added	Students acquires the skill regarding neural networks and fuzzy control
11907		Şţ	*****		To establish the theory necessary to understand and	7			

14 hrs

La Landa					
Students acquires the skill regarding	Added	2	Understand the VLSI design methodologies and	CAD for VLSI 3-0-0 15 EC	15 EC
		2 1	Study of the Actuation mechanisms for MEMS devices		
		2	Study of the switching devices for MEMS devices.	logy	4154
MEMS technologies		7	Analyze the fabrication process methods and micro system level packaging	Applications of MFMS 3-0-0	15 EC
Students acquires the skill regarding the applications of	Added	2	Understand the basic concepts of MEMS technology and Micro system design		
		7	Study of the different amplifiers and feedback topologies		
		2 2	Analyze different active MOS loads and frequency responses	Design 3107	3251
design of VLSI circuits.	e e	2 2		VLSI 3-0-0	15 EC
Students acquires the skill regarding the analysis and	Retained		Understand the functionality and Electrical Properties of MOS and BJT Devices		
			VLSI Stream		
	٠	7	To emphasize on efficient algorithms for Fuzzy based systems.		
		2	To emphasize on efficient algorithms for ANN based systems.		
			and related constructions.		
			use of Back propagation networks in system		

Dr.A.S. C.S. SASTRY
Professor & Head
Department of ECE
K. University

1

	4155	Design		2204	design rules		the applications of
2001//			YA-S-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A-A		Analyze the basic concept of floor planning, 2 2		design
					Study of the modeling process		
					Study of the synthesis process 2 2		
					Understand the basic concept reliability and modeling of faults as a requisite for achieving manufacturing quality of semiconductor devices and then identifies difficulties in VLSI testing	Retained	Students acquires the skill regarding the testing of VLSI systems and circuits.
61	15 EC 4156	Design for Testability	3-0-0	15 EC 2204	Analyze the fault tolerant system can be viewed as a design moving through different abstraction levels, a historical view of the development of VLSI system		
					Study of the test pattern generation for BIST 2 architectures		
					Study of the specific BIST architectures		
					Understand the basic semiconductor 2 memories and memory technologies	Added	Students acquires the skill regarding
62	15 EC	Design of Semiconductor 3-0-0	ır 3-0-0	15 EC	Analyze the fault modeling, testing of Ics, memory reliability and radiation effects		semiconductor memories
	4107	Memories))	Study of the advanced Memory Technologies		
					Study of the High-Density Memory Packaging 2 1 Technologies	· remit	
63	15 EC	Low Power VLSI 3-0-0	SI 3-0-0	15 EC	Understand the sources of Power dissipation 2 and	Retained	Students acquires the skill regarding
					The state of the s		

Control of Ede

And And	0					
Students acquires the knowledge and skill regarding	Added	2	Understand the basic fabrication process and maintenance of Clean Rooms and Wafer Cleaning process	3-0-0 15 EC	VLSI Technology	15 EC 4161
		2 2	Study of the custom, cell based design methodologies			
		2 2	Study of the power and clock distribution for systems		System Design	4160
the design of VLSI sub system.		2 2	Analyze the different memory and array subsystems	3-0-0	VLSI Sub	15 EC
Students acquires the knowledge and skill regarding	Added	2 2	Understand the different design and programmable design techniques			
		2 1	Study of the gas sensitive FETs			
		2 1	Study of the Ferro electric thin film properties and gas sensors			
the physics of nanoelectronics		7	Analyze the Nano computer architectures and fabrication techniques	3-0-0 15 EC 3107	Nano	15 EC 4159
Students acquires the knowledge and skill regarding	Added	2 1	Understand the recent and past challenges of microelectronic devices			
		2	Study of the different Algorithms & Architectural Level Methodologies			
		2	Study of the low power system, clock distribution			
		7	Analyze the functionality of Analog and Digital power analysis			
the design of LOW power VLSI circuits			approaches to minimize the power dissipation	3107	Design	4158

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K. University
Green Field

2 2	2 2	2 2
Analyze the techniques to deposit various films by using Chemical Vapor Deposition	Analyze the techniques to deposit various films by using Physical Vapor Deposition and Multilevel Metallization Techniques	Study of the Rapid Thermal Processing Techniques and Etching Process

Dr.A.S.C.S. SASTRY
Department of ECE

MINUTES
Name of the meeting' Board of Studies
of ECE Departured held on 1 7 2016, at 3-24-M./P.M. under the chairmanship of Sri ASCS Sas M
at Department Library of ECF
The Bos meeting of ECE Dependment was held on
05 July, 2016 in Department Library, to approve the
following agenda
1. Syllabus modification for i' proprounding and Dates
Shuchnes - 1st year course - for discussion and approval
2. Course of Thermodynamics - 2016-17 modifichin/ Charge
The following members were project.
1. Dr. ASCS Sastry, Chairman-BOS Quyngtuf.
2. B.L-PRAKASH
3. Da TV RAMA KRISTONA WRIDER STATE
4. Dr. K. Sarak Kumar Ekommann r/2/2016
S. Dr. P. V. V. Fishou Vingetus
6 Dr. D. VENHAGA RATINAM OM SITHE
7 dr. Karjan K. Screpets State
8 Dr. Habibula kuan (ly
9 Dr. B. Polalah Rotes
10 Dar bear somt les
11. Pl. K. Kuma Naiko Fra
12. Dr. G.V. Subbarao Prono
35 13. Dr G Asa Sypthi Alasti Di
14.

BOOK	
General Body, Board or as the case may	be.
The name of the Company.The place at which the meeting was held	
	ign mentioning the number of correction made, if any, in
recording the minutes of the meeting.	
14. DX. BTP Madhan	el-
15. DOSKRAO	860
16 pr.M. Um Espala Ro	\mathcal{P}_{0} .
17. Dr. Ks. Romesh	1C-J. () april
17. Vr. N.S. Momesy	1C-3.0 (a)
	\
1. It is seesolved that	the modifications in the
Course c programs in	grand Data Strictures: - namely
	-2 (into two courses) is
discovered approved	or 2016-17 - First year Coursus
Structure.	. 71
Office one.	·
	` .
2. The congineraing bai	nce course of Thermodynamic
•	shall not be a part of the
	Sotuencture from that batch.
3 Resonmendation from DAC	
segulation.	and my my
0	CHAIRMAN, BOS
	DEPARTMENT OF ECF Dr. A.S.C.S. SASTRY
	Professor & Head
	K L University
	Guntur District, A.P., India.

KL UNIVERSITY DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

INTERNAL NOTE

The Board of Studies meeting of the Department of ECE is scheduled on 5th July 2016 at 3.20 pm in the Department library.

Agenda:

- 1. Syllabus modification for C Programming and Data Structures 1st year course for discussion and approval
- 2. Course of Thermodynamics 2016-17 modification/change

All the members are requested to attend the same.

Amstroll And State

Providente

57/16

Head of the Department.

Dr. A.S.O.S. SAS: AY

Professor & Head

Department of ECE

K L University

Green Fields, VADDESWARAN
Guntur District, A.P., India

S. Course			Description of the Course Outcome	Mapping with SO	Added/
No code	course Name 1-1-1	רובין בע	ر م م	© 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	k Retained
HUMANITIES & SOCIAL SCIENCES	IAL SCIENCES				
			Remember speech sounds and apply stress and intonation rules to enhance pronunciation skills.	. р	,
D	5 5 6 6 7		Understand writing strategies and apply those by		
15 EN Rudiments of Communication Skills	on0-0-4	NIL	using the basic and advanced concepts of grammar.	12	Added
			Understand the types of texts and tone of the author.	1	
			Understand the importance of interpersonal skills	12	
			Understand the method of identifying the meaning of words from the context and form sentences using words.	Д	
Interpersona	ersonal		Understand and analyze seven types of reading	2	
2 1202 Commi	Communication 0-0-4 Skills	NE	techniques and improve reading speed. Understand and apply writing strategies for		Added
			office/ formal communication.	2	
	Se		Understand and analyze different cultures and the importance of empathy in cross-cultural communication.	Н	2 4

Professor & Head Department of ECE K L University Green Fields, VADDESWARAM Guntur Dist. A.P.India,Pin:522 502.

		2204	15 EN				3 15 EN 2103	
λ _φ			Employability 0-0-4 NIL			CNEE	Professional Communication 0-0-4 NIL	
	Acquire knowledge of and apply people skills in various social organizational and corporate ambiences	Understand the organization of the passage and also analyze the tone, attitude and style of the author.	Apply and analyze various concepts of writing strategies in professional communication skills like, reports, resume and minutes of the meeting.	Analyze one's own strength as a speaker/ Communicator and use discretion while listening.	Understand the mechanics and application of presentation skills.	Understand skimming & scanning, and apply the types of reasoning in comprehending the information.	Understand and improve learners' competency in competitive English and apply the principles of grammar in real life contexts.	Understand the concept of Group Discussion and listen and speak effectively during the discussion.
	2	2	ω	2	1	ω	2	Τ,
(Ugu	•		Added			, pr	Added	
Start free		entrepreneurship	Course develop the skill required for employability			entrepreneurship	Course develop the skill required for employability and	

Dr.A.S.C.S. SASTRY

Professor & Head
Department of ECE
K L University
Green Fields, VADDESWARAM

?

	Course develop the skill required for employability	entrepreneurship			Course develop the skill required			
.	2	m		2	m	2	2	
Understand the concept of Group Discussion and listen and speak effectively during the discussion.	Understand and improve learners' competency in competitive English and apply the principles of grammar in real life contexts.	Understand skimming & scanning, and apply the types of reasoning in comprehending the information.	Understand the mechanics and application of presentation skills.	Analyze one's own strength as a speaker/ Communicator and use discretion while listening.	Apply and analyze various concepts of writing strategies in professional communication skills like, resume and minutes of the meeting.	Understand the organization of the passage and also analyze the tone, attitude and style of the author.	Acquire knowledge of and apply people skills in various social organizational and corporate ambiences	
	Professional Communication0-0-4 NIL				Employability 0-0-4 NIL Skills			
	3 2103				15 EN	2204		

Dr. A.S. C.S. SASTRY
Professor & Head
Department of ECE
K. University
Green Fields, VADDESWARAM
Guntur Dist. A.P. India Pin 522 502.

3,

	Course develop the skill in verbal and quantitative	reasoning			Course develop the skill required	for employability and entrepreneurship		
	Added					Added		
14		Ц		Н	2	m	m m	2
Understand the method of identifying synonyms and antonyms and analyze the meaning of a word from the context.	Analyze issues and arguments in the process of critical reasoning and apply grammar rules to correct sentences.	Apply the Concepts of basic Algebra and their importance while solving the problems	Apply the short-cut methods on the concepts of different models in Calendars, Clocks, Blood relations and various types of arrangements	Understand and analyze the depth of a topic and use the advanced levels in creative speaking and debating.	Understand and analyze various strategies involved in writing an essay and apply various styles in writing.	Understand and analyze the given text critically and answer questions on critical reasoning based on the given information.	Acquire knowledge on various employability skills & analyze a situation and develop adaptability.	Apply the Concepts of basic geometry and their
NII NII				NIL NIL				
	Verbal and Quantitative 0-0-4	Reasoning			Corporate	Communication 0-0-4 Skills		
	15 EN	3105				6 3206		

Professor & Head Department of ECE K University Green Fields, VADDESWARAM Guntur Dist. A.P.India.Pin:522 502.

15 GN Ecology and conservation of natural elecations and electronic elecations and electronic elecations and electronic elecations and electronic						importance while solving the problems			
1001 Environment 2-0-0 NIL biodiversity. Apply the environmental science knowledge on solid waste management, disaster management and ElA process. 15 GN Human Values 2-0-0 NIL Envisage the roadmap to fulfill the basic aspiration of human beings. Envisage the roadmap to fulfill the basic aspiration of human beings. Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and interpreting the results mathematically in the form of second/higher results. Formulate physical laws and interpreting the results method for solving and interpreting the results. Formulate physical laws and interpreting the results of periodic phenomenon in models involving differential equations.						Understand the importance of Environmental education and conservation of natural resources.	Н		Course enhances the environmental
Apply the environmental science knowledge On solid waste management, disaster management and EIA process. Understand and identify the basic aspiration of human beings Envisage the roadmap to fulfill the basic aspiration of human beings. Analyze the profession and his role in this existence. Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher corder differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher for solving and interpreting the results. Provide solutions for Fourier series of periodic, non-periodic phenomenon in models involving differential equations.	_	15 GN 1001	Ecology and Environment	2-0-0	Ī	Understand the importance of ecosystems and biodiversity.	Н	Modified	education suitable for professional
15 GN Human Values 2-0-0 NIL Envisage the roadmap to fulfill the basic aspiration of human beings 1002 Analyze the profession and his role in this existence. Analyze the profession and his role in this existence. Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher results. Matrix Algebra mathematically in the form of second/higher results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results. Formulate physical laws and relations and identify a method for solving and interpreting the results.						Apply the environmental science knowledge on solid waste management, disaster management and EIA process.	7		Jobs and entrepreneurship
Human Values 2-0-0 NIL Envisage the roadmap to fulfill the basic 2002 Analyze the profession and his role in this existence. Analyze the profession and his role in this existence. Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher calculus and 2-2-2 NIL mathematically in the form of second/higher results. Forwulate physical laws and relations and identify a method for solving and interpreting the results. Forwulate physical laws and relations and identify a method for solving and interpreting the results. Frovide solutions for Fourier series of periodic/ non-periodic phenomenon in models involving differential equations.						Understand and identify the basic aspiration of human beings	H		Course enhances
Analyze the profession and his role in this existence. Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher calculus and mathematically in the form of second/higher mathematically in the form of second/higher method for solving and interpreting the results. Provide solutions for Fourier series of periodic/ non-periodic phenomenon in models involving differential equations.		15 GN 1002	Human Values			Envisage the roadmap to fulfill the basic aspiration of human beings.	2	Modified	for professional
Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results. Formulate physical laws and relations mathematically in the form of second/higher amathematically in the form of second/higher order differential equations and identify a method for solving and interpreting the results. Provide solutions for Fourier series of periodic/ non-periodic phenomenon in models involving differential equations.						Analyze the profession and his role in this existence.	2		entrepreneurship
Single Variable mathematically in the form of second/higher calculus and 2-2-2 NIL order differential equations and identify a method for solving and interpreting the results. Provide solutions for Fourier series of periodic/ non-periodic phenomenon in models involving differential equations.		5,					9 7		Students develop
ourier series of an models involving		15 MT	Single Variable Calculus and Matrix Algebra			Jec		Added	the skill to apply various basic mathematics for practical electronics and communication
0						colutions for Fourier series of odic phenomenon in models involving			applications.
			0			differential equations.		•	

Dr. A.S. C.S. SASTRY
Professor & Head
Department of ECE
K. University
K. University
Green Fields, VADDESWARAM

			Students develop the skill to apply	various basic mathematics for practical electronics and	communication applications.		Students develop the skill to apply various basic	mathematics for practical electronics and communication	applications.
	Н			2 Added		N	2	Added	C
Н		2	2		7			2	7
Apply numeric solution methods for a system of linear algebraic equations and application oriented matrix eigenvalue problems.	Verify the solution of problems through MATLAB.	Determine the maximum and minimum values for the function involving two variables	Calculate the length of the arc, area, volume of the surface of a solid revolution	Model the given phenomena as a partial differential equations of first and second orders	Solve the partial differential equations by analytical and finite difference methods	Verify the solution of problems through MATLAB.	Construct the probability distribution of a random variable, based on a real-world situation, and use it to compute expectation and variance	Predict the relationship between two variables and construct the linear and non-linear regression lines for the given data	Model the Single and multi servermarkovian queuing models with finite and infinite capacity.
				NIL				N N	
* 1		3		2-2-2		,	2	2-2-2	
				Calculus				Probability and Stochastic Models	
			1	10 1203		÷.		11 2005	

Department of ECE N. University Green Fields, VADDESWARAM

And S. Legalord

tic cess. 2 ial of 2 ial of 2 ial of 3 iverses. 2 ial of 3 ial of 4 is the is the indicate and a second and a				Students acquire the skill to apply	various mechanical concepts to practical problems		The course enhances the skill to understand and apply various physical	properties of materials.
fy and validate the simulation models. fy the solution of problems through LLAB/MINITAB. It is concept of forces, governing static ations and analyze planer system of forces. It is different analytical methods on spatial em of forces and analyzing them erstanding the concepts of planar and planar system of parallel forces and yzing them. estimate moment of inertia of na and material bodies It is and without considering forces. It is and without considering forces. It is and with the help of mechanics concepts solve the engineering problems If it is and the concepts of crystallography the concepts of mechanics and carryout stals trailine imperfections in order to determine tal structures and to identify defects in tals risks and analy them to know various the concepts of chow various tals risks and analy them to know various	2	7						
fy and validate the simulation models. fy the solution of problems through TLAB/MINITAB. ly the concept of forces, governing static ations and analyze planer system of forces. ly different analytical methods on spatial em of forces and analyzing them erstanding the concepts of planar and planar system of parallel forces and yzing them. estimate moment of inertia of na and material bodies lyzing the rigid bodies under translation tion with and without considering forces. erstanding the engineering mechanics sical systems prepare and demonstrate the lels with the help of mechanics concepts solve the engineering problems ly the concepts of mechanics and carryout erstand the concepts of crystallography erstand the concepts of crystallography talline imperfections in order to determine tal structures and to identify defects in tals erstand electrical and optical properties of erstand analythem to know various					Н	1		
	Verify and validate the simulation models.	Verify the solution of problems through MATLAB/MINITAB.	Apply the concept of forces, governing static equations and analyze planer system of forces. Apply different analytical methods on spatial system of forces and analyzing them	Understanding the concepts of planar and non-planar system of parallel forces and analyzing them. estimate moment of inertia of lamina and material bodies	Analyzing the rigid bodies under translation and rotation with and without considering forces.	Understanding the engineering mechanics physical systems prepare and demonstrate the models with the help of mechanics concepts to Osolve the engineering problems	erstand the concepts of crystallography talline imperfections in order to determine tal structures and to identify defects in tals	
	7			Mechanics			Engineering Materials	
Mechanics Materials				15 ME			15 PH 1001	

Green Fields, VADUESWARAM

				The course	Modified apply various chemical properties of	materials.	
	Н		Н		Н	-	_
optical optoelectronic devices.	Understand mechanical and thermal properties of materials and apprehend their importance in identification of materials for specific engineering applications	Understand magnetic properties of materials and apply them to know various mechanisms involved in magnetic memory devices and transformers.	Understand various properties of materials and apply the knowledge to execute the related experiments to get hands on experience and also to develop some inter disciplinary projects.	Predict potential complications from combining various chemicals or metals in an engineering setting.	Discuss fundamental aspects of electrochemistry and materials science relevant to corrosion phenomena.	Examine water quality and select appropriate purification technique for intended problem.	Apply phase rule, polymers, conducting
					N N		
			*		2-2-2		
					Engineering Chemistry		
	115				15 CY 1001		

Dr. M.S. C. S. Jead Professor & Head Department of ECE K L University Green Fields, VADDESWARAM Guntur Dist. A.P,India,Pin:522 502.

			processes.		
			An ability to analyze & generate experimental skills.		
			Acquire the Knowledge of basic biology 1 2		The course
15 BT		0-0-2	Acquire the Knowledge of Human Biological 1 2 Systems	pe po	ennances the skill to understand and apply various
1001	Engineers				biological properties in
			Acquire Knowledge on Biosensors	1	developing sensors systems
			Understand the circuit elements, kirchhoff's law and theorems to solve the networks		
15 EE			Apply the procedure to determine form factor and peak factor to different symmetrical & 2 unsymmetrical waves.		Students understand the network
1201	Networks	2-2-2 NII	Apply vector algebra to field fundamentals to NIL analyze electric and magnetic field distributions	Added	properties and field theory in various circuits
			Apply Maxwell's equations for static and time 2		and develop the skill for practical applications
			Test and Analyze the concepts learned in fields and networks by conducting experiments or by2 any simulation software's		
ENGINEE	ENGINEERING SCIENCES				
17 15 GN 1004	Introduction to Engineering	2-0-2 NIL	Understand the basic principles of engineering 2 design	Added	To understand basic principles of
				9	Joseph alm

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K.L. University
Green Fields, VADDESWARAA

problems and provide basic so such problems from engineering e d and analyze the possible career Engineering and develop strategic er targets and mechanism to achieve so and programming. so and problems on list of data. knowledge obtained by the course cal problems. cal problems using computers and calculate the					Understand the aspects of critical thinking and problem solving in engineering		_ 7		engineering design and apply the skills to
Understand and analyze the possible career poptions in Engineering and develop strategic plan, career targets and mechanism to achieve the same. Illustrate how problems are solved using computers and programming. C. C. C. C. Programming interpret & illustrate user defined C functions of the course of compare them. Structures-1 implement Linear Data Structures and compare them. Apply the knowledge obtained by the course to solve real world problems. Solve typical problems using computers and compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply the knowledge obtained by the course compare them. Apply inhear Data Structures in solving computers and compare them course compare them course compare them.					Apply to knowledge of critical thinking to frame real-world problems and provide basic solution approach to such problems from engineering perspective	m			practical
1101 Structures-1 Structures-2 C Programming Structures-2 C Programming Structures-3 1201 Structures-2 C Programming 1202 Structures-2 1201 Structures-2 C Programming 1201 Structures-2 1201 Structures-2 1301 Structures-3 1401 Structures-3 1502 Structures and offerent operations on list of data. Apply the knowledge obtained by the course to solve real world problems. 1503 Solve typical problems using computers and solving and structures-3 1504 Structures-3 1505 Solve typical problems using computers and structures in solving a para structures					Understand and analyze the possible career options in Engineering and develop strategic plan, career targets and mechanism to achieve the same.		1		
C Programming C Programming Structures-1 Structures-1 C C Programming Structures-1 Structures-2 C C Programming C Programming Structures and use Control Flow Statements in C C Programming Solve typical problems using computers and C C Programming Structures-2 Structures-2 Apply the knowledge obtained by the course to solve typical problems using computers and C C Programming C Programming C C C C C Programming C C C Pr						7			
15.CS & Data 2-4-2 NIL and different operations on list of data. Structures-1 Structures-1 Compare them. Apply the knowledge obtained by the course to solve real world problems. Compare them. Apply the knowledge obtained by the course to solve real world problems. Solve typical problems using computers and 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			31	•	use Control Flow Statements in	7			Students
Structures-1 Implement Linear Data Structures and 2 2 2 2 2 2 Compare them. Apply the knowledge obtained by the course to solve real world problems. Solve typical problems using computers and 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		C Programming & Data			ustrate user defined C functions operations on list of data.	2		Modified	understaind the concepts and apply the skill to
to solve real world problems. C Programming Solve typical problems using computers and 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Structures-1			ar Data Structures and	7			practical applications
C Programming 2-4-2 Apply linear Data Structures in solving 2 2 2 2 2 2 Added Added Structures. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					7	7			
1201 Structures-2 1 Apply linear Data Structures in solving 2 2 2 2 2 2 2	18 15 CS			5CS110	problems using computers and 2	7		Added	Students understand the
		Structures-2	1-2-1-2		Data Structures in solving 2	2		(apply the skill to practical

Professolr & Head Professolr & Head Department of ECE K University Green Fields, VADDESWARAM Gruntur Dist. A.P,India,Pin:522 502.

applications				Students acquire the skills to draft and modeling of physical designs using CAD.				Course develops the understanding in measuring various physical	_		
				2 Red	2	2	=	Σ			
Implement Non - Linear Data Structures.	Implement Height balanced trees & Hashing. 2 2	Apply the knowledge obtained by the course to 2 solve real world problems.	Draft orthographic Projections, Isometric views, projection of planes, Manually and prepare Models in workshop by using drawings.	Draft ortho graphic projections ,isometric views, projection of planes using Auto cad. Draft projection of solids Manually and by using AutoCAD and prepare Models in workshop by using different workshop trades	Draft Development of surfaces of solid and sections of solid Manually	Practicing house wiring through Auto Cad	Develop 2D & 3D components using Auto Cad Software	Understand and apply the fundamentals of a measurement system, characteristics, and metrology using simulation and experimentation tools.	Understand various electrical & computer parameters, and apply different measuring techniques on various electrical parameters using simulation and experimentation tools.		
				JIN 9-0-0						its 0-0-4 NIL	
				19 1002 Engineering Graphics				15 GN Measurements	1003		

Dr.A.S.C.S. SASTRY

		Understand electronic & electro-physiological	٠.	
47.		parameters, and apply measuring techniques		
* MAY**		ctronic parameters using simulation and berimentation tools.		
		Understand and apply different measuring techniques on civil and mechanical parameters 2 2 using simulation and experimentation tools.		
		Apply the theoretical concepts to measure 2 different parameters		
		Understand Basic Concepts of OOP, introduction to classes and objects through Java Language and apply.		
		Understand the concepts of constructors, Overloading, parameter passing, access control, Inheritance and apply.		Students understand the
2-2-2 N	Ϊ	Understand Packages, Interfaces, and Exception Handling and apply.	Retained	concepts of OOP and develop to apply for practical implementation
		Understand I/O Streams & apply and understand Basic Concepts of Multi - Threading		
		Apply OOP concepts for developing an application		
		Demonstrate signals and their Spectra 2 2		Students acquires
2-2-2	JIN.	Analyze discrete time systems 2	Added	the basics of signal
		Design filters to cater signal analysis needs		processing

Dr. A. S. C. S. SASTRY Department of ECE

Understand sets, relations, functions and discrete event occurrences Understand sets, relations, functions and discrete event occurrences Added Students develop the skill to apply structures, Count discrete event occurrences Added Students develop discrete event occurrences Added Students develop the skill to apply structures, Count discrete event occurrences Added Students develop the skill to apply structures, Count discrete event occurrence relations, Added Students develop the skill to apply structures, Counties and make matter regions and structures and lattices. Added Students and solve recurrence relations, Added Students, Added S				Analyze non stationary signals in time		
discrete structures, Count discrete event occurrences and discrete structures, Count discrete event occurrences and discrete structures, Count discrete event occurrences and papely Propositional logic and First order logic book problems apply apply propositional logic and first order logic book problems apply agebraic structures and additions. To identify the basic properties of graphs and trees and model simple applications and trees and model simple applications and terminology in context as a second operations and terminology in context and the corresponding design of another stranding Logic pates, Logic theorems, data codes and the corresponding design of arithmetic circuitry. Design Bookean algebra and SOP/POS expressions. Combinational and sequential systems design using standard gates and filp-flops and minimization methods				non stationary signals in frequency		
Apply Propositional logic and First order logic to solve problems Formulate and solve recurrence relations, apply algebraic structures and lattices. To identify the basic properties of graphs and trees and model simple applications Relate practical examples to the appropriate set, function or relation model and interpret the associated operations and terminology in context Understand numerical and character Set, function or relation model and interpret system, data codes and the corresponding design of arithmetic circuitry. Understanding Logic gates, Logic theorems, Boolean algebra and SOP/POS expressions. Combinational and sequential systems design Liour Design Combinational and sequential systems design Linimization methods				2	Added	Students develop the skill to apply various basic
Formulate and solve recurrence relations, apply algebraic structures and lattices. To identify the basic properties of graphs and trees and model simple applications Relate practical examples to the appropriate set, function or relation model and interpret the associated operations and terminology in context Understand numerical and character Context Understanding Logic, number system, data codes and the corresponding design of arithmetic circuitry. 1101 Design Boolean algebra and SOP/POS expressions. Combinational and sequential systems design using standard gates and filp-flops and minimization methods		Discrete		onal logic and First order logic		matnematics for practical electronics and communication
To identify the basic properties of graphs and trees and model simple applications Relate practical examples to the appropriate set, function or relation model and interpret the associated operations and terminology in context Understand numerical and character representation in digital logic, number system, data codes and the corresponding design of arithmetic circuitry. Design Design Combinational and sequential systems design using standard gates and filp-flops and minimization methods	000		2-2-2	late and solve recurrence relations,		applications.
Relate practical examples to the appropriate set, function or relation model and interpret the associated operations and terminology in context Understand numerical and character representation in digital logic, number system, data codes and the corresponding design of arithmetic circuitry. Design Design Combinational and sequential systems design using standard gates and filp-flops and minimization methods				aphs and		
Understand numerical and character representation in digital logic, number system, data codes and the corresponding design of arithmetic circuitry. Design Design Combinational and sequential systems design using standard gates and filp-flops and minimization methods				te practical examples to the appropriate tion or relation model and interpret the ciated operations and terminology in		
Understanding Logic gates, Logic theorems, 2-2-2 NIL Understanding Logic gates, Logic theorems, Boolean algebra and SOP/POS expressions. Combinational and sequential systems design using standard gates and filp-flops and minimization methods	, t			cal and character gital logic, number system, corresponding design of	mployability	Students acquire the basic understanding of digital circuits
and sequential systems design gates and filp-flops and lethods		Digital System Design				jobs.
				and sequential systems design gates and filp-flops and lethods		•

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K.L. University

	the skill to analyze and realize the operation of	modern engineering tools			Acquire the skill to apply various practical problem of circuit design							
	Added				Added							
7	7	2	7	. 5			m	m				
,	1 · · · · ·		x			3						
		1. 11										
7		2	- 7	2	ĸ	<u>m</u>	<u> </u>	m				
CPU functional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the interconnections among these components.	Understand, analyze and design main, cache and and virtual memory organizations.	Understand, analyze and design different types of I/O transfer techniques.	Understand the design issues of RISC and CISC CPUs and the design issues of pipeline architectures.	Able to Design combinational and sequential circuits using LOGISIM	Able to Design combinational and sequential circuits using LOGISIM	Understanding the concepts of various diodes and their applications.	BJT concepts as operation, biasing and frequency response	FET concepts as operation, biasing and				
		NE										
						2-4-2				2-4-2		
	Computer Organization and Architecture					Analog Electronic Circuit Design						
	15 EM 2001					15 EC 2103	· ·	- 70 W.				
חומבו אומי מכאל אומ מכאל אומי מומי מומי מומי מומי מומי מומי מומי	14e	Computer Computer Computer Organization and Architecture 2-2-2 Computer Added	tunctional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the interconnections among these components. Computer Organization and Architecture 2-2-2 Understand, analyze and design different 2 Understand, analyze and design different 2	Computer Computer Computer Computer Added Computer Computer Computer Computer Understand, analyze and design main, cache and Architecture Computer Understand, analyze and design different types of I/O transfer techniques. Computer Computer Understand, analyze and design different types of I/O transfer techniques. Computer Computer Understand, analyze and design issues of RISC and CISC Computer Added Added	the functional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the instruction execution unit, and the interconnections among these components. Computer Computer Organization Anderstand, analyze and design main, cache and Architecture 2-2-1 Understand, analyze and design different types of I/O transfer techniques. Understand the design issues of pipeline architectures. Able to Design combinational and sequential circuits using LOGISIM	Tunctional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the instruction execution unit, and the interconnections among these components. Computer Computer And Architecture 1.5EC1.10 virtual memory organizations. Understand, analyze and design main, cache Understand, analyze and design different types of I/O transfer techniques. Understand the design issues of RISC and CISC CPUs and the design issues of pipeline architectures. Able to Design combinational and sequential circuits using LOGISIM Able to Design combinational and sequential circuits using LOGISIM	Computer Computer	The control unit, registers, the antihinetic and logic unit, the instruction execution unit and the interconnections among these components. Computer Diganization and Architecture 2-2-2 Inderstand, analyze and design main, cache and Architecture 2-2-2 Understand, analyze and design different by types of I/O transfer techniques. Understand analyze and design issues of RISC and CISC CPUs and the design issues of pipeline architectures. Able to Design combinational and sequential circuits using LOGISIM and sequential and s				

Dr.A.S.C.S. SASTRY Professora Head Department of ECE

SEC1	Processors and Controllers 2-2-2 Design with CPLD & FPGA 2-2-2	frequency response	Feedback concepts and their analysis 3	Concepts of various oscillators and 3 3	Able to understand and analyze the architectural features of CISC type of General purpose processor Intel 8086 Microprocessor.	Able to understand and analyze the architectural features of CISC type of microcontroller - Intel 8051Microcontroller.	15EC110 Able to understand and analyze the architectural features of RISC type of microcontroller – PIC Microcontroller.	Able to program 8086 microprocessor, 8051 and PIC microcontrollers in assembly language using TASM, KEIL, MPLAB and Proteus tools.	Able to Develop a real time application using 8051& PIC Microcontrollers through project based labs.	Study and design of combinational and state 2 the basic understanding of understanding of digital circuits design of combines.	
	2-2-2	וו בל מבווכל ובאסחואב	Feedback concepts and their analysis	vari.	Able to understand and analyze the architectural features of CISC type of General purposprocessor Intel 8086 Microprocessor.	Able to understand and analyze the architectural features of CISC type of microcontrolle 8051Microcontroller.	architectural features of microcontrolle Microcontroller.	Able to program 8086 microprocessor, and PIC microcontrollers in assembly Is using TASM, KEIL, MPLAB and Proteus	Able to Develop a real time application 8051& PIC Microcontrollers through pr based labs.	Study and design of combinational and sequential circuits using PLDs and state machines.	Understand Full-custom & Semi Custom design

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K.L. University

			Student can able to understand the various modes of	higher communication systems.					Students acquires	the basics of signal processing applications	at.
			Added					erina e e e e e e e e e e e e e e e e e e e		Added	
		2	2	2	7	2	7	2			
									2	2	2
2	7	2	2	2	2	2	2	2			
To study PLD structures and design process	Study of different CPLD and FPGA architectures	To understand different physical process.	have a good understanding of both time and frequency domain representations of signals;	have a good understanding of analog modulation and demodulation techniques;	have a good understanding of digital modulation	Understanding pulse modulation systems	Understand and be able to implement noise and error analysis of an analogue system.	Understand and be able to implement noise and error analysis of an analogue or digital telecommunication system.	Understand various signals and model physical process using them.	15EC200 Acquaint with various a transformation methods and their potential for applicability in various signal analysis conditions	Demonstrate sampling and its potential applications in communications, discrete
				15EC210							
		<u> </u>		2-2-2						2-2-2	<u>e</u>
					Communication	Theory-1				Signal Processing	
-					15 EC	2205				30 15 EC 2206	

Department of ECE

	Evaluate dis response to	Evaluate discrete system behavior and its response to facilitate system design.	- 2		
	Design a lov meet noise	Design a low pass discrete time system to meet noise elimination like applications	2	m	
,	Analyze nor them in bot	Analyze non stationary signals and analyze them in both time frequency domains.	2	m	
	Students ca	Students can be able to understand control			
	systems, tra	systems, transfer function approach,			
	mathematic	mathematical modeling of physical systems	-		
	and can unc	and can understand analyze the similarities			
	between sy	between synchros and ac generators			
	Students ca	Students can be able to Analyze the time			
	domain		7		
	and frequency	ncy response of physical systems			Students acquire
Control Systems	Students ca	Students can be able to understand and			the skill to apply
2-2-2 NIL	L analyze	on		Modified	the concepts to
	stability of give	given transfer functions in time and			practical
	Frequency	Frequency domain and can be able to analyze	0		applications
	the		1		
þ	process of C	process of Converting state space equations			
	into				
	transfer fun	transfer function for the given model.			er er
	Students ca	Students can be able to design and analyze			
	controllers	controllers and lead, lag, lead-lag	2	7	
	compensators	ors			
	Test and apply	bly the knowledge obtained in the		2	2

Dr.A.S.C.S. SASTRY
Professor & Mead
Department of ECE
K.L. University

		Student to understand the	develop skill to apply for practical	implementations				() () () () () () () () () ()	the basic	understanding of digital circuits	embedded systems and apply skill for practical	applications		Students acquire	the basic
			Added	·	•			1		\(\frac{1}{2}\)	3 · · · · · · · · · · · · · · · · · · ·			Modified	
	7		2		7	m)		m		<u>m</u>	m I	<u> </u>		
							A 4/4								
		7	7	2											
							į		7		2	2	2	2	
subject by Matlab or hardware.		Analyze MAC layer protocols and LAN technologies	Implement routing and congestion control algorithms	Understand application layer concepts	Design applications using internet protocols	Able to analyze embedded systems, analyze and	program on chip peripherals for a single purpose controller	Able to interface and program different off	cnip peripherals and communication protocols	used in embedded systems	Able to understand, evaluate and select appropriate software architectures	Able to analyze and design embedded systems using the features in real time operating systems.	Able to develop a prototype for a real time embedded application using project based labs.	To understand the VLSI fabrication process	and to be able to interact with integrated
			15 CS 1001							15	EM2202			15 50	TO EL
			2-2-2								7-7-7			2-2-2	
		Computer	Networks							Embedded	Systems			10 1/1 00 1/10	CIMIOS VESI
-		32 15 CS	2208					Λ		15 EM	33 3103			34 45 57	ا 15 تا

Department of ECE

Dr. A.S. C.S. SASTRY
Department of ECE

Manage of the state of the stat				satellites					· · · · · · · · · · · · · · · · · · ·	
			-	Identify the different phases of cellular communication concepts	2					
				Understand the optical communication transmission media and principles of operation	2			\ \ 7	1	
				Acquire the fundamental concepts of a digital image processing system	m		***************************************			
				Identify and exploit analogies between the mathematical tools used for 1Dand 2D signal analysis and processing by analysing 2D signals in the frequency domain through the Fourier transform	т.				κ	Students acquires
37 15 EC	Digital Image Processing	2-2-2	15 EC 2206	Design and implement with Matlab algorithms for digital image processing operations such as histogram equalization, enhancement	m	<u> </u>	A. Maria		3 Added	the basics of signal processing applications
				Design and implement with Matlab algorithms such as restoration, filtering, and de-noising which developsan appreciation for the image processing issues.	m		\$1311 N. (4.5)	30 3 1 1.	**************************************	
				New techniques and be able to apply these techniques to real world problems.	m			· · · · · ·		
Professional Electives	al Electives			Communication stream						a a silanda de la constante de
38 15 EC	RF System	, ,	15 EC	Differentiate different RF components and transmission lines				2 2	Retained	Student can able to apply this
3252	Design))	3108	Demonstrate the smith chart applications, multiport networks			2	2		concepts in designing RF systems like TxRx
					-					4

F. A. S. C. S. J. A. S. T. R. J. Professor & Head

bright	Š			. 4		
systems.		5 5	Distinguish microwave and millimetric wave circuits	ý	2	
microwave		2 2	Design different microwave filters	3709	Wave Circuits	4164
the skill to work microwave systems and	Retained		Identify transformers and microwave resonators	3-0-0	Microwave and millimeter	15 EC
Students acquires		2	Differentiate different Microwave components			
		2 2	Compare different types of electronic counter measures		22	
jobs.		2 .	Differentiate different radar transmitters and receivers	3108	AIDS	4163
design of radar systems that	- x	2	Illustrate the operation of MTI Radar and types of tracking methods	3-0-0 15 EC	Radar and Navigational	15 EC
Students acquires the skill regarding the analysis and	Retained	2 2	Compare different types of radars and their limitations			
	п	2	Evaluate the antenna performance with measurement techniques			
microwave communication systems		2	Select the antennas and arrays based on the specific application	3108	Systems	4162
the skill to work microwave systems and	Retained	0	Distinguish different types of radiation from apertures	3-0-0 15 EC	Radiation	39 15 EC
Students acquires		2	Demonstrate the radiation mechanism and antenna parameters			
		2 2	Develop different types of RF amplifiers			
systems & antennas		2 2	Design different RF-Filters based on stability and gain			

Dr. A.S. C.S. SASTRY
Professor & Head
Department of ECE
K. L. University
Green Fields, VADDESWARAM

Students acquires	microwave systems and	microwave communication systems.			Students acquires the skill regarding the analysis and	design of cellular systems.		serinante strabusta	the skill regarding	design of satellite			
	micro	microwa commur systems.	A CONTRACTOR OF THE STATE OF TH		- Control of American	design o systems.		10		designo			
Retained					Retained	*, . *		1166 d.166 166 d.184 d.1	Retained		****		
2	2	7	73	7	2	7		-7	2	7		2	2
										-			
Describe the EMI specifications and standards	Demonstrate the EMI control techniques and design guidelines	Distinguish different passive components for EMC	Evaluate the EMI measurements using different techniques	Demonstrate different wireless communication systems and radio propagation mechanism	Distinguish different equalizers and diversity techniques in propagation	Illustrate different wireless communication system standards	Select OFDM in the channel estimation and implementation	Demonstrate the basic concepts of satellite communication and orbital mechanics	Illustrate the satellite subsystems and link design	Interpret transmitters and receivers usage in	tracking and error control mechanism	tracking and error control mechanism Develop the GPS based navigation system	tracking and error control mechanism Develop the GPS based navigation system Dramatize the importance of optical
	15 EC	3-0-0 3108			15 EC 15 EC 2205				15 EC 3108)) i)			15 EC
		EMI/EMC			Cellular Communication 3-0-0	Ŋ			Satellite Communication3-0-0	v			Ontical
	15 EC	42 4165	Loverno		15 EC				15 EC) 1 1			15 EC

P Project Solve So

15 EC Theory & Coding Coding Coding Committee the programming concept of SDR Mander of SDR Mandare the programming concept of SDR Mandare and Coding	200			2	Distinguish active jamming and passive		
optical fibers, optical transmitters and detectors Illustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding behavior and coding behavior and coding coding behavior and coding behavior and coding coding behavior and coding behavior and coding behavior and coding coding behavior and coding behavior and coding coding coding behavior and coding coding behavior and coding coding coding behavior and coding coding coding behavior and coding codin	design of various electronic warfare	Added		7	Demonstrate the jamming techniques used in electronic warfare		48 4171 4171
15 EC Software and Describe the architecture of SDR 4120 Defined Radio Deficient at the programming concept of SDR 4130 Defined Radio Deficient at the programming concept of SDR 12 EC Software and Defined Radio Differentiate the programming concept of SDR 12 EC Software the programming concept of SDR 12 EC Differentiate the programming concept of SDR 12 EC Differentiate the programming concept of SDR 12 EC Differentiate the segment design tradeoffs 13 EC Differentiate the segment design tradeoffs 14 EC Differentiate the segment design tradeoffs 15 EC Differentiate the s	Students acquires the skill regarding			7	Distinguish different methods of warfare and target identification	Fundamentals	
Of optical fibers, optical transmitters and detectors Illustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding the source Theory & Demonstrate the encoding of the source Output Coding Coding Coding Distinguish different binary cyclic codes and convolution codes Demonstrate the concept of Software defined radio Demonstrate the architecture of SDR Added A170 Defined Radio II SEC Software B180 B181 B181 B182 B182 B182 B182 B182 B183 B184 B184 B185 B184 B185 B184 B185 B185 B185 B185 B185 B185 B185 B185			П		Differentiate the segment design tradeoffs		
optical fibers, optical transmitters and detectors Illustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding Theory and coding Coding Coding Demonstrate the importance of error control in coding Distinguish different binary cyclic codes and convolution codes Demonstrate the concept of Software defined convolution codes Demonstrate the concept of Software defined radio Table Coding Coding Demonstrate the concept of Software defined convolution codes Defined Radio Defined Radi	design SDR			2	Illustrate the programming concept of SDR		ì
of optical fibers, optical transmitters and detectors lilustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding the source Theory & 3-0-0 15 EC Illustrate the importance of error control in 2 2 3 3 3 3 3 3 3 3	the skill regarding the analysis and	Added		2	Describe the architecture of SDR	Sadio	47 15 EC 4170
of optical fibers, optical transmitters and detectors Illustrate the advanced optical fiber systems Illustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding Demonstrate the encoding of the source output Illustrate the importance of error control in coding Coding Distinguish different binary cyclic codes and convolution codes	Students acquires			2	Demonstrate the concept of Software defined radio		
of optical fibers, optical transmitters and detectors Illustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding Demonstrate the encoding of the source Theory & 3-0-0 2205 Illustrate the importance of error control in coding			*	2	Distinguish different binary cyclic codes and convolution codes		
optical fibers, optical transmitters and detectors Illustrate the advanced optical fiber systems Test the optical fiber transmission and reception mechanism Describe the basic terminology of information theory and coding the source output Demonstrate the encoding of the source output Test advanced optical fiber transmission and reception mechanism Describe the basic terminology of information 2 Theory and coding of the source 2 Theory & 3-0-0 Theory & 3-0-0				7	Illustrate the importance of error control in coding		4169
tical fibers, optical transmitters and tectors tectors Istrate the advanced optical fiber systems st the optical fiber transmission and seption mechanism scribe the basic terminology of information 2 Retained	information for wireless		9	2	Demonstrate the encoding of the source output		15 EC
tical fibers, optical transmitters and tectors tectors Istrate the advanced optical fiber systems st the optical fiber transmission and ception mechanism	Students acquires the skill regarding the security of	Retained			Describe the basic terminology of information theory and coding		
tical fibers, optical transmitters and tectors tectors Istrate the advanced optical fiber systems			2		Test the optical fiber transmission and reception mechanism		÷
tical fibers, optical transmitters and tectors				7	Illustrate the advanced optical fiber systems		
tical fibers, optical transmitters and					detectors		
בווסווסנומרם נווב משומווומסוסו מושישה מהכנומה מ	systems			- 2	optical fibers, optical transmitters and		
	design of optical				Demonstrate the transmission characteristics		

Dr.A.S.C.S. SASTRY
Professor & Head
Denartment of ECE

-			***		jamming	
	Section of the sectio				Judge the false identification of targets and methods to overcome	
					Differentiate different electronic navigational aids	
		Electronic		ر ت 1		Students acquires the skill regarding the analysis and
49 4172		Navigation Systems	3-0-0	3108	Illustrate the working principle of GPS antenna 2 Added design system	design of various electronic warfare
					Discriminate ship master compass and automatic steering techniques	techniques
					Demonstrate different types of radars	
	15 EC	-		15 EC	Illustrate the working principle of MTI radar 2 the sk and its tracking mechanism the and its tracking mechanism the and its tracking mechanism the angle of MTI radar the angle of MTI radar the sk and its tracking mechanism the angle of MTI radar the sk and its tracking mechanism the angle of MTI radar the sk and its tracking mechanism the sk a	Students acquires the skill regarding the analysis and
50 41.	4173 K	Kadar	3-0-5			design of radar
					Demonstrate basic principles synthetic 2 aperture radar	communications
					Distinguish different computational 2 Stude techniques	Students acquires
51 15	15 EC El	Computational Electromagneti 3-0-0		15 EC 2205	Illustration on FEM based methodology 2 Added comp	the skill regarding the methods of computational
	<u>S</u>	w			Illustration on a one-dimensional introduction to the method of moments	techniques in electromagnetics
			6			

Students acquires the skill regarding statically signal	Added	7	To establish the theory necessary to understand and use Statistics and related constructions.		3-0-0	Statistical Signal Processing	15 EC 54 4176
		7	To emphasize on Vector space framework for optimal filtering				
		2	To emphasize on efficient algorithms for adaptive systems.				
processing for VLSI circuits		7	To establish the theory necessary to understand theWiener filter, search methods and the LMS algorithm	15 EC 2002	3-0-0	Adaptive signal Processing	15 EC 4175
Students acquires the skill regarding applications adaptive signal	Added	7	To establish the theory necessary to understand and use of Adaptiveness in system control and related constructions.			4	
		7	To emphasize on efficient algorithms for Fuzzy based systems.				
		7	To emphasize on efficient algorithms for ANN based systems.				
intelligent control system.		7	To establish the theory necessary to understand the Biological foundations to intelligent systems	15 EC 2206	3-0-0	Intelligent Systems and	15 EC 52 3253
Students acquires the skill regarding applications of firzy logics based	Added		To establish the theory necessary to understand and use of Intelligence in system control and related constructions.				
			Signal Processing Stream				
		1	approach				
			Illustration on MOM based methodology				

Dr. A.S. C.S. SASTRY
Professor & Head
Department of ECE
No in iversity
K. L. in iversity
K. L. in iversity

algorithms for real time applications. To study applications in signal processing, communications. The course has computer and research projects involving independent study. To study applications in sensing where statistics and probability play an important role. To establish the theory necessary to understand and use speech based systems and probability play an important sort related constructions. To entablish the theory necessary to understand and use speech signal processing, speech based systems. To study applications in speech signal processing, speech based systems. To study applications in speech sensing independent study. To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		<u> </u>	To emphasize construction of efficient		processing
To study applications in signal processing, communications. The course has computer and research projects involving independent study. To study applications in sensing where statistics and probability play an important role. To establish the theory necessary to related constructions. To emphasize on efficient algorithms for speech based systems. The course has computer and research projects involving independent study. To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		<u> </u>	ications.		
To study applications in sensing where statistics and probability play an important role. To establish the theory necessary to understand and use speech based systems and related constructions. To emphasize on efficient algorithms for speech based systems. The course has compute and research projects involving independent study. To study applications in speech sensing software in mobile. To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		<u> </u>		1	
To establish the theory necessary to understand and use speech based systems and related constructions. To emphasize on efficient algorithms for speech based systems. To study applications in speech signal processing, speech based systems. The course has computer and research projects involving independent study. To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		<u>. </u>			
To emphasize on efficient algorithms for speech based systems. To study applications in speech signal processing, speech based systems. The course has computer and research projects involving independent study. To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To establish to the organize on efficient algorithms for to emphasize on efficient algorithms for				Added	Students acquires the skill regarding speech signal
To study applications in speech signal processing, speech based systems. The course has computer and research projects involving independent study. To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To establish to establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		15 EC b	hasize on efficient algorithms for ystems.		
To study applications in speech sensing software in mobile. To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		2206 TT P P P P P P P P P P P P P P P P P P		***************************************	
To establish the theory necessary to understand and use of multimedia in system control and related constructions. To establish the theory necessary to understand and use of Motion Estimation To emphasize on efficient algorithms for		. r - v	ns in speech sensing		
To establish the theory necessary to and use of Motion Estimation To emphasize on efficient algorithms for	1 11	15 FC		Added	Students acquires the skill regarding multimedia signal
	ı <u>'</u>			odava e e e e e e e e e e e e e e e e e e	
		<u></u>			

					יוומינון ורמום טמטרם טעטרבונט.		
					To emphasize on Multimedia Content Representation and Retrieval		
	,			r F (To establish the theory necessary to understand and use of Intelligence in system control and related constructions.	Added	Students acquires the skill regarding neural networks and fuzzy control
57	15 EC 4179	Neural Networks and Fuzzy Control	3-0-0	2206	To establish the theory necessary to understand and use of Back propagation networks in system control and related constructions.		
					To emphasize on efficient algorithms for ANN 2 2 based systems.		
					To emphasize on efficient algorithms for Fuzzy 2 based systems.		
					VLSI Stream		
					Understand the functionality and Electrical Properties of MOS and BJT Devices	Retained	Students acquires the skill regarding
L	15 EC	Analog VLSI		15 EC	Analyzing and design of passive & active 2 2 current mirrors		design of VLSI circuits.
× ×	3251	Design	0-0-6	3107	Analyze different active MOS loads and frequency responses		
					Study of the different amplifiers and feedback 2		
59	15 EC	Applications of	3-0-0	15 EC	Understand the basic concepts of MEMS	Added	Students acquires
						-	1.

multimedia based systems.

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
LK.L. University
LK.L. University

4154 MEMS		3107	technology and Micro system design			the skill regarding
Technology			Analyze the fabrication process methods and micro system level packaging	2		the applications of MEMS technologies
			Study of the switching devices for MEMS devices.	2		
			Study of the Actuation mechanisms for MEMS devices	2		
			Understand the VLSI design methodologies and design rules		Added	Students acquires the skill regarding the applications of CAD for VISI
15 EC CAD for VLSI 4155 Design	3-0-0	15 EC 2204	Analyze the basic concept of floor planning, routing and simulation	2 2		de Sign
			Study of the modeling process	2 2		
			Study of the synthesis process	2 2		
			Understand the basic concept reliability and modeling of faults as a requisite for achieving manufacturing quality of semiconductor devices and then identifies difficulties in VLSI testing	7	Retained	Students acquires the skill regarding the testing of VLSI systems and circuits.
15 EC Design for 4156 Testability	3-0-0	15 EC 2204	Analyze the fault tolerant system can be viewed as a design moving through different abstraction levels, a historical view of the development of VLSI system	2		
			Study of the test pattern generation for BIST architectures	2	Application of the control of the co	
			Study of the specific BIST architectures	2		

Professor & Head

the skill regarding the design of semiconductor memories			Retained Students acquires the skill regarding the design of LOW power VLSI circuits				Added Students acquires the knowledge and skill regarding the physics of nanoelectronics				Added Students acquires the knowledge	
2	N	2 1	2 7	7	2	2	7	2 1	2 1	2 1	2 1	2 2
memories and memory technologies	Analyze the fault modeling, testing of Ics, memory reliability and radiation effects	Study of the advanced Memory Technologies	Study of the High-Density Memory Packaging Technologies	Understand the sources of Power dissipation and	Applicatives to minimize the power dissipation Analyze the functionality of Analog and Digital power analysis	Study of the low power system, clock distribution	Study of the different Algorithms & Architectural Level Methodologies	Understand the recent and past challenges of microelectronic devices	Analyze the Nano computer architectures and fabrication techniques	Study of the Ferro electric thin film properties and gas sensors	Study of the gas sensitive FETs	Understand the different design and programmable design techniques
	Design of Semiconductor 3-0-0 3-107	Memories			wer VLSI	Design			Nano 3-0-0 15 EC			VLSI Sub 3-0-0 15 EC System Design
	15 EC 4157	1			15 EC	415 8			15 EC	† 0		65 4160

Students acquires

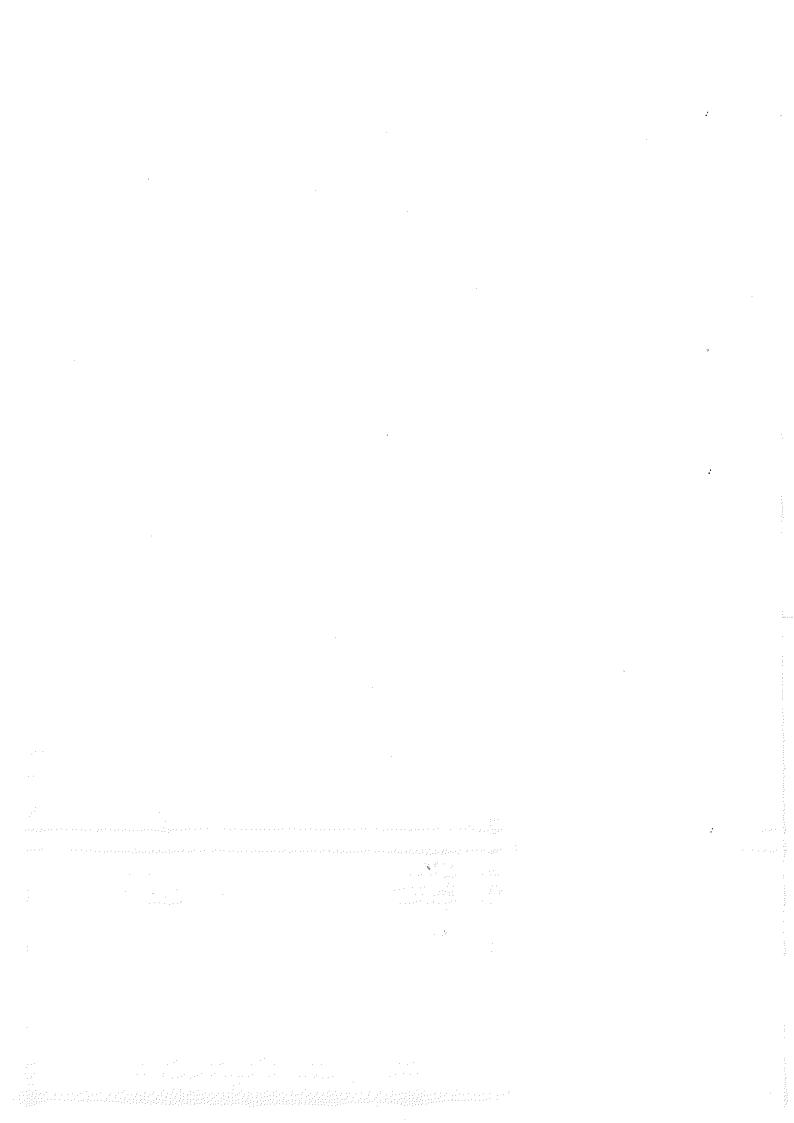
Added

Understand the basic semiconductor

Dr.A.S.C.S. SASTRY
Professor & Head
Professor & Fed
Department of ECE
K.L. University
Green Fields, VADDESWARAM

and skill regarding the design of VLSI kill system.		2	Added Students acquires the knowledge and skill regarding	processes of VLSI circuits	2	7	
7	7 7 7		2	2	7	7	
Analyze the different memory and array subsystems	Study of the power and clock distribution for systems	Study of the custom, cell based design methodologies	Understand the basic fabrication process and maintenance of Clean Rooms and Wafer Cleaning process	Analyze the techniques to deposit various films by using Chemical Vapor Deposition	Analyze the techniques to deposit various films by using Physical Vapor Deposition and Multilevel Metallization Techniques	Study of the Rapid Thermal Processing Techniques and Etching Process	
	v			2 0 0 15 EC			
				VLSI	Technology		
			15 EC 4161				

Dr.A.S.C.S. SASTRY
Professor & Head
Department of ECE
K L University
Green Fields, VADDESWARAM
Guntur Dist. A.P, India, Pin:522 502.



	MINUTES
Name of the meeting' Board of Studies	
held on 15/1/2014, at 3-20 A.M./P.M. under the chairman	nship of Sri ASCS Sastry
at' Department Library of ECE	
The BOS meeting of ECE	department was held
on 15/12/16 in the Department	library to approve
the following agenda	
to Syllabous/content modifice	chan of Analog
Electronic Circuiet Design (15 EC 2103)
then torre	
	170 re Drescut
The following members	
1) Dr. A.S.C.S. Sastry Cha	
B-L-PRAKASH AL	
3) Dr-Harbibullakhan - De	Jek Jr(
y Dr.T.V.Ramakrishna-	
5) Dr. K. S. Ramosh -	1 1
6) Dr-K.S.N. Marthy -	(cen. ann)
7) DV. S. Lakshni Warayana-	(5/12/2016
8) Dr. K. Sarat Kerwan -	Somo 15/12/2016
g) Dr.M.V. Gopala Las -	7. July
(2) DV-D-Veakata Rathan.	DVEN
11) Dr. G.V. Subba Ras -	a de la companya del companya de la companya de la companya del companya de la co
12/ Dr. K. Kuman Naik -	Hal/
13) Dr.p. V.V. Keshere -	Kilhou.
14) Dr. Bit. p. Medhaer -	
96	

BOOK	
2. The name of the Company.	St. 1
 The place at which the meeting was held. 	
4. At the end of the minutes. Chairman to sign mentioning the nursecording the minutes of the meeting.	umber of correction made, if any, in
15) Dr.s. Koteschara Ros	
(6) Dr. K. Stiaivasa Ras	128
17/ Dr. K. Ch-Srikouya	
18 Dr-B-Polaiah	
19) Dr. V. Rajesh	3
20) Dr-Yogesh Misra	mism
21) Dr.D. Bhattacharya	Intelled
22) Mr. M. Venkate Nevayona If	Brysolas
23) Mr. D. S. Rom Keran	Professor & Alternate HOD Department of ECE
	VADDESWARAM Guntur Dt., A.P., India.
1) The weapers felt that there con	nhe modéfications
either in the content by proper	triangetus Same
or then combe change in the M	18
Course de lively.	
y It is resolved that the member	is come reposition
suitable justifications for mod	
wit BOS meeting and there	š i
for the change from the next ac	
0	
And the second s	The second secon

KL UNIVERSITY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MINUTES OF THE BOARD OF STUDIES MEETING

Board of Studies of the Department of Electronics and Communication Engineering met on 15th December 2016 in the Department Library to discuss the follow the issues related to the changes / modifications required in the curriculum for the coming semester/s and came out with the following resolutions:

1. The course of Analog Electronic Circuit Design (15 EC 2103) was being felt as a heavy course (content wise) by the students.

The members felt that there can be modifications either in the content by proper trimming the same or there can be a change in the modalities of the course delivery.

Hence it was resolved that the members come up with suitable justifications for modifications by the next BOS meeting and the can be deliberations for the change from the next academic year.

Sl. No.	Name of the Faculty	Designation	Signature
1	Dr.Habibulla Khan	Dean - SA	ay_
2	Dr.A.S.C.S.Sastry	HOD	9
3	Prof B L Prakash	Professor & A.HOD	1 Ber
4	Dr.T.V.Rama Krishna	Professor& Asso.Dean	*
5	Dr.K.S.Ramesh	Professor	
6	Dr.K.S.N.Murthy	Professor	Fac
7	Dr.S.Lakshmi Narayana	Professor	2
8	Dr.K.Sarat Kumar	Professor, Dean (P&D)	- Stomman
9	Dr.M.Venugopal Rao	Professor, Asso.Dean	Yest
10	Dr.Venkata Ratnam D	Professor	DVR
11	Dr.G.V.Subbarao	Professor	
12	Dr.K.Kumar Naik	Professor	A AP
13	Dr.P.Venkat Vijay Kishore	Professor	Kistone
14	Dr.B.T.P.Madhav	Professor	1
15	Dr.Ranjan Kumar Senapati	Professor	
16	Dr.S.Koteswararao	Professor	QD
17	Dr.K.Srinivasarao	Professor	cl
18	Dr.K.Ch.Sri Kavya	Professor & A Dean.	23
19	Dr.B.Polaiah	Professor	30
20	Dr.V.Rajesh	Professor & Mincipal A	8 2
21	Dr.Yogesh Misra	Professor	mr for
22	Dr.Debmalya Bhattacharya	Professor	Mitter
23	Mr. M. Venkat Narayana	Assoc Prof	
24	Mr.D.S.Ram Kiran	Assoc Prof	Kiya.

25. Dr.7. Govardham

prof & AlDean

Chairman, BOS(ECE)
CHAIRMAN, BOS
DEPARTMENT OF ECE

MINUTES
Name of the meeting' <u>Bos Making</u>
The second framework
held on 10th 3m 20 17, at 10.30 A.M./P.M. under the chairmanship of Sri Dr. ASCS Soulary
at
This Bos meeting was held on lot June 2017 at Department Library
of ECF. The Azenta Points are attached here
1) modifications to the 2015-16 Circiculum
2) consider structure/content for 2017 admitted batch
3) DAC recommendations are approved for regulation 2017
The Following Members were Bresent
1) Dx: ASCS Sastry Chairman - Bos - Gargastry
2) Dr. Habibulla khan Dean-5A - Heeron
3) Dr. V. Rosech Ringipal -ASC
4) Dr. M. Venyapalaria o Ros Assoc. Dean - 17- levell.
5) Dr. G.V. Subbarra Recessor - Com
6) Dr. L svinivasakao BS& MEMS R6 Head -
7) Dy. Pyv Kishoye Respignal Breezsing RG Hand - Kill W
3) Dr. O. V. Ratnam Rosesson - Dy
9) Dr. P. Satyamonyama Bisesson & All. Head - my
10) Dr BTP Madhan Gusesson & CSR6, Head - Bl
%

Minutes of the meeting of BOS held on 10th June 2016

- 1) It is resolved to approve the modification suggested for the course of signal analysis (15EC2002) as per the attachment
- 2) It is resolved to approve the modifications in the curriculum for the course of signal processing (15EC2206) as per the attachment

These modifications are effective from 2015-16, 16-17 regulations and these changes are made keeping in view the continuity and the knowledge depth required by the student.

- 3) It is resolved to introduce modified course on Introduction to electronic engineering with emphasis on laboratory oriented practice and introduction to the basic concepts of electronics (Handout attached).
- 4) It is resolved trintroduce a new core course in the area of internet of things based on the feedback from industry and academic peers.

A Course "Internet of things and Sensor Instrumentation" is proposed for the 2017-18 batch. (Syllabus attached).

Dr.A.S.C.S. SASTRY

Professor & Head

Department of ECE

K L University

Green Fields, VADDESWARAM