

Department of Mathematics

Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II

Subject: E	ngg. M	lathem	atics -	I						Subje	et Co	le: 17N	/ATI	1	
	**************************************					Course				.,		·			
CO1	Know	the tec	chniqu	e of su	ccessi	ve diffe	erentia	tion an	d find	ing the	nth de	rivativ	e of s	tandar	d
	function	on. Und	derstan	d the v	arious	conce	pts and	d interp	pretation	ons of p	olar ci	irves.			
000	Effect	tive wa	y of re	presen	ting co	omplica	ated fu	inction	s using	g Taylo	rs and	Maclau	irins s	series,	
CO2	Calcul	ate the	limit	of a fu	inction	at a po	oint nu	merica	lly and	algeb	raically	using	LHO	spitai	s
	rule									1	· C .		Tor	ıca Da	etial .
	To us	e Partia	al deriv	atives	to cal	culate 1	rates o	f chang	ge of m	iultivar	late Iu	ncuons o posit	ion i	uelocii	tuai
CO3		tives to				change	of mu	Itivaria	ite fun	ctions,	Anaryz	e posi	.1011,	VC1001	.3
		ccelerat				·	1 64								
	dime	nsion u	ising tr	e calc	ulus of	valued	1 Tunci	Formula	o in Ir	teoral	Calcul	us Rec	ogni	se and	
CO4	Knov	v the de	erivatio	ons of	standa d: Gara	ra reau	cuon i	ormuia ne Nev	uton's	law of	cooling	y.	, o <u>o</u>		
	solve	first or se matr	der ord	hniary	os for	colvino	cyctes	m of lir	ear ec	uation	s in the	differ	ent ar	eas of	
CO5		se maur algebr		miiqu	CS 101 3	SOLVILLE	sysic	iii Oi iii	ioui oc	aution.	,				
<u> </u>	Illical	aigeoi	<u>a.</u>		C)-P()-	PSO N	/lappin	g			·	-		
							Os		<u>. </u>	············				PSOs	,
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	2	3													
CO2	3	3						ļ		ļ					
CO3	2	3			ļ				-	-	-				
CO4	2	3			<u> </u>				-				-		_~
CO5	3	2				ļ		ļ	-				 		
Average	2.4	2.8					<u> </u>	<u> </u>	1	<u> </u>	<u> </u>	L	<u> </u>		

Subject	: Engg. Mathematics - II	Subject Code:17MAT21
Subject	Course Outo	
CO1	Solve differential equations of electrical circ elementary heat transfer.	
CO2	Solve partial differential equations fluid med	chanics, electromagnetic theory and heat transfer.
CO3	Evaluate double and triple integrals to find a plane and solid region.	rea, volume, mass and moment of interia of
CO4	Evaluation of beta and gamma function and	its application.
CO5	Use Laplace transform to determine general	or complete solutions to linear ODE

					C	O-PO-	PSO M	1appin	ıg						
COs							Os							PSO s	š
CUS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	2													
CO2	3	3													
CO3	3	2													
CO4	3	3													
CO5	3	2													
Average	3	2.6				, ,									

HOD

Dr. Padmaja Venugopal, Ph.D. Professor and Head

Professor and Head
Department of Mathematics
S.J.B. Institute of Technology
67, BGS Health & Education City,
Uttarahalli Road, Kengeri, Bangalore-60.



l Jai Sri Gurudev ll Sri Adichunchanagiri Shikshana Trust ®



SJB Institute of Technology

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BGS Health and Education City, Kengeri, Bangalore-560 060

Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II

Subject: E	ngine	ering	Physi	cs		···	2€2	·	· · · · · · · · · · · · · · · · · · ·		Subie	ct Cod	e:17P	HY12	/22
						Cou	rse O	utcon	1es						
CO1	Gain basic	Knov	wledge epts to	e abou	ut Mo	dern t the s	physi skills i	cs and	d qua blem	ntum 1 solving	nechang and te	ics and	l will	updat	e the
CO2	Stud	y of n	nateria	al proj	pertie	s and	their	applic	ation	s is the	e prime roblem	role to		erstanc	and
CO3	Stud deve	y Las lop sk	ers a	nd O _l	ptical	fiber	s and	its a	pplic	ations	to imp	ort kn	owled olicati	lge ar	nd to
CO4	Und appl														
CO5	stud	pplications and to solve the problems. Expose shock waves concept and its applications to bring latest technology to the tudents at the at initial stages to develop research orientation programs and understand asic concepts of Nano science and technology to solve the engineering problems. CO-PO-PSO Mapping													
					C	O-PO	D-PSC) Maj	pping						
COs				<u> </u>	_		POs							PSOs	
COS	1	2	3	4	5	6	7	8	9	. 10	11	12	1	2	3
CO1	2	2											}		
CO2	2	2			1									-	
CO3	2	2													
CO4	2	1							33 20						
CO5	2	1													
All the second s															

Head of the Department
Department of Physics
SJB Institute of Technology
BGS Health & Education City
Kengeri, Bangalore-560 060

Subject: I	Engine	ering	Phys	ics L	ab					Subj	ect Co	de: 17	PHY	L17/27	'
						Cour	se Ot	ıtcom	ies						
CO1	Deve	elop sl	cills to	impa	art pra	ctical	know	ledge	in rea	al time	solut	ion.			
CO2	com	erstand parisonical k	n of r	esults	, conwith	cept, theor	work etical	ing a	nd aj	oplicates and	tion of Design	of new gn new	tech	nology	and with
CO3	Gain unde	know rstand	vledge l more	of no	ew co	ncept vledge	in the	solu t the s	tion o	f prac	tical o	oriented ical pro	l prob	olems a	and to
CO4	Unde	V	d me	asure	ment	techn	ology				3.48.70	rument			time
					C	O-PC	-PSO	Mar	ping			 			
Cos							Pos							PSO	S
Cus	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3			3											
CO2	3			3											
CO3	3			3											
CO4	3			3	_										
Average	3			3											

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Head of the Department

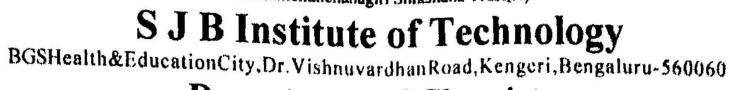
Department of Physics

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Department of Chemistry

Course Outcomes and CO-PO-PSO Articulation Matrix Semester-I/II

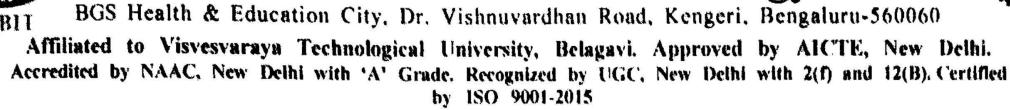
Subject: I	inginee	ring C	hemist	ry			·			Subj	ect Co	de:17CH	E12/	/22		
						Cour	se Ou	tcomes	}		***************************************					
COI	Under electro	stand ochemi	the u	ise of ergy sy	free	energ	gy in	equili	bria ı	using	thermo	odynamic	c cc	onsider	ation,	
CO2	Modit	stand a ication electr	i of sur	face p	roperti	es of m	netals t	ts of c	orrosio lop res	on of n	netals a	and cont rosion, v	rol ovear,	of corr tear, i	osion. mpact	
CO3	Apply and liv	the k	nowled andard	ige for s of pe	Produ	action Utilizat	& conion of	sumpti solar e	on of onergy f	energy for diff	for incerent u	dustrializ seful for	zation ms c	n of co	ountry gy.	
CO4	Analy	Inderstand and explain different techniques of instrumental method of analysis, Fundamental														
CO5		nanagement and water chemistry Understand and explain different techniques of instrumental method of analysis, Fundamental principles of nanomaterial.														
			· · · · · · · · · · · · · · · · · · ·	· ·	(CO-PC)-PSO	Mapp	ing	-				1.15		
COs								POs								
COS	1	2	3	4	5	6	7	8	9	10	11	12				
CO1	3															
CO2	3															
CO3	3															
CO4	3	*														
CO5							2									
Average	3						2									

Subject:	Engine	eering	Chemi	istry L	ab			•		Subje	ct Coc	le: 170	CHEL	17/27	
						200-11000-1000-1100	rse Ou								
CO1	mater	ials in	volved	for qu	ick and	accura	ate resi	ılts.		erials u					
CO2	Carry	ing ou arative	t differ ly mor	ent typ e quan	tities o	f mate	rials in	volved	for go	oncernod resu	ed in n	nateria	ls usir	ng	
					(CO-PC)-PSO	Mapp	ing						
~~							100	POs			337000 22-9.				
COs	1	2	3	4	5	6	7	8	9	10	11	12		<u> </u>	
CO1	2														
CO ₂	2														
Average	2								<u> </u>				<u> </u>		

Head of the Department Department of Consults! 3.18 Institute of Techon " 10. 245 Moolet & February 1 Kangeri, Dannielle 1/10 %.







Department of Information Science and Engineering

Course Outcomes and CO-PO-PSO Articulation Matrix

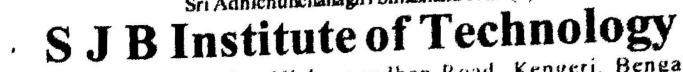
Semester-I/II

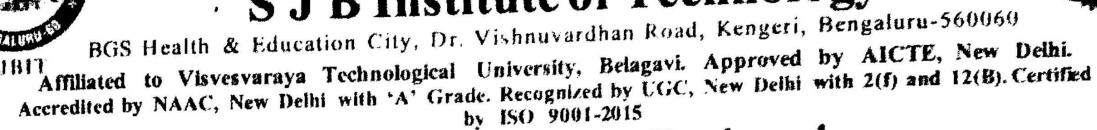
Subject: P	rograi	nmin	g in C	and I	Data S	tructu	res	(ISE)		Subj	ect C	ode:	7PCI	D13/2:	3	
						Course									 .	
CO1	Achie	eve kr	owle	dge of	desig	gn and	deve	lopme	ent of	C pro	blem	solvin	g skil	ls		
CO2										angua						
CO3						r prog										
CO4										g conc	epts					
CO5	Illust	nonstrate structures and files in C programming concepts strate the basic concepts of pointers and data structures CO-PO-PSO Mapping														
				· · · · · · · · · · · · · · · · · · ·												
00		CO-PO-PSO Mapping POs PSOs														
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	3	2	2	2	1	1			<u> </u>							
CO2	3	3	2	3												
CO3	2	3	3	2	3											
CO4	2	3	3	2									<u></u>			
Average	3	2	2	2					ļ	1						
	2.6	2.6	2.4	2.2	2	11			<u> </u>	1_				<u> </u>		

Subject: (Compu	ter Pr	ogran	nming						Su	bject	Code	: 17CP	L16/2	26	
						Course										
CO1	Under staten	nents	and lo	oping	g cond	epts										
CO2	Abilit	y to d	lemor	strate	and i	mpler	ment a	applic	ations	using	array	/S & S	trings			
CO3	Apply struct	ity to demonstrate and implement applications using arrays & strings ly the knowledge efficiently by adopting the various features of C functions, tures, pointers and files. CO-PO-PSO Mapping														
					CO			Mapp	ing		- 		T *	000-		
CO-				_		PC)s	r	1 -	1 4 4			-	SOs		
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	3	2		2					ļ				3	2		
CO2	2	2											2	2	<u></u>	
CO3	3	2							de Meralli.			3	3	2		
Average	2.67	2		2								3	2.67	2		

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Dept. of Information Science & Linguisco my S.J.B. Institute of Technology Kengeri, Bangalore-560 060.





Department of Civil Engineering

Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II

Subject: H	710	nta of (Civil I	Engin	eering	and	Mech	nanics		Sub	ject C	ode:	17CI	V13/2	3
Subject: E						A-11 MGA	4 15144	MMA	•						
	IInde	erstand	vario	us fie	lds of	Civil	Engi	neerir	ıg, In	porta	nce of	Infra	struct	rural	
CO1															
	Dete	lopme rmine	the re	cultan	t of g	iven f	orce s	ysten	ns and	analy	zing	bodie	s with	roug	ח
CO2	_			4								11 10 00		The second name of	
	Sulla	pute th	Ontac	otiva i	forces	in he	ams &	the	effect	sthat	devel	op as	a resu	ilt of t	he
CO3	1 040	100	CO SOLD STREET												
604			~	oid &	comr	ute N	lomei	nt of I	nertia	of Re	gular	& Bu	ilt up	Secti	ons
CO4	Loca	gorize	the	vario	ne tv	nes C	f mo	otion	of b	odies	and	illust	rating	g thro	ugh
CO5					us ty	pes c									
CO3	num	erical p	proble	ms			00	<i>f</i>	<u> </u>						
					CO	-PO-P		viapp	mg					PSOs	
COs						· PC	<u> </u>	0	1 0	10	11	12	1	2	3
COs	1	2	3	4	5	6	_7_	8_	9	10	11	12			
CO1	2														
CO2	3	3								-				<u> </u>	
CO3	3	3								-				 	
CO4	3	3													
	2	2								-	_				
Average	2.6	2.75							<u>l </u>	1	1	<u> </u>		<u>L</u>	1

Subject	: Environmental Studies	Subject Code: 17CIV18/28
	Course Outcome	S
CO1	Understand the principles of ecology and en	vironmental issues that apply to air,
CO1	land and water issues on a global scale	
CO2	Develop critical thinking and/or observation	skills, and apply them to the analysis
COZ	of a problem or question related to the environment	onment
CO3	Demonstrate ecology knowledge of a comple	ex relationship between biotic and
003	abiotic components	
CO4	Apply their ecological knowledge to illustrate	te and graph a problem and describe
CO4	the realities that managers face when dealing	g with complex issues
	CO-PO-PSO Mapp	

	 .					<u> </u>	os							PSOs	}
Cos	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
COI						1	2					1			ļ
CO1						1	2					1		<u> </u>	↓_
CO3						1	2					1			<u> </u>
CO4						1	2					1			↓
Average						1	2				<u> </u>	2		1	1

HOD

Head of Department

Department of Civil Engineering

S J B Instit te of Technology

Uttarahatli Road, Kengen

Bengaluru-560 060





S J B Institute of Technology

BGS Health & Education City, Dr. Vishnuvardhan Road, Kengeri, Bengaluru-560060

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Department of Computer Science and Engineering

Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II

Subject: l	Progra	mmin	g in (and	Data	Struct	tures			Sub	ject C	ode:	17PC	D13/2	3
						Cours		tcome	es		823	x (2)		_	
CO1	Achi	eve k	nowle	edge,	with r	espec	t to th	e dev	elopm	ent of	C pro	oblem	solvi	ng ski	lls.
CO2	Und	erstan	ding a	and ar	nalyzi	ng bas	sic pri	neiple	es of p	rograi	mmin	g in C	langu	iage	
CO3		gn and													
CO4		ctive i								· — — —			2		· • · · · ·
CO5	Section 1997	erstan													
	&					-PO-									<u> </u>
CO-			•				Os			- 				PSOs	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	_ 2	_3_
CO1	3		1		!]	3		_1_
CO2	1	2											1	2	
CO3	1		2										1		2
CO4	1	2			-			+=				·	1	2	
Average	3	1			İ							1	3	1	
	1.8	1.7	1									1	1.8	1.7	1

Subject:	Compu	iter P	rogra	mmin	g					Su	bject	Code	: 17CP	1.16/	26
			· · · · · · · · · · · · · · · · · · ·	i ne re orbitali		Cours	e Out	come	S	· 					
COI	stater	nents	and I	oopin	g con	cepts		55082 664				-	ndition		
CO2													strings		
CO3	Apply struct				d file	s.	by ad PSO			variou	s feat	ures o	of C fur	etior	is,
			<u> </u>			P		- Pr	6			· · · · · · · · · · · · · · · · · · ·	F	SOs	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	2		2									3	2_	
CO2	2	2											2	2	<u> </u>
CO3	3	2								!		3	3	2_	
Average	2.67	2		2						!		3	2.67	2	<u> </u>

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Head of the Department
Dept. of Computer Science and Engineering
SIB INSTITUTE OF TECHNOLOGY
BGS Health & Education
No. 67, Ulteralian Road

Bengaluru 560 👀

S J B Institute of Technology

BIT BGS Health & Education City, Dr. Vishnuvardhan Road, Kengeri, Bengaluru-560060

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Department of Mechanical Engineering

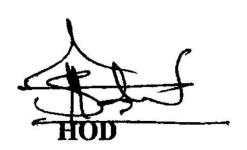
Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II

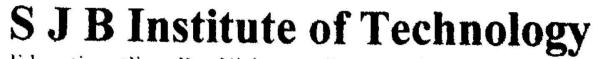
Subject:	Ele	ments	of N	1echa	nical	Engin	eerin	g		Sub	ject C	ode:	17MI	E14/24	
						-	e Ou		S	4					
CO1	Iden	tify di	fferer	nt sou	rces o	fener	gy an	d thei	r conv	ersion	n proc	ess			
CO2	Desc	ribe t	he wo	rking	of bo	ilers.	hvdra	ulic t	urbine	s and	pump	S		Trackles	
CO3	Disc	uss th	e wor	king o	of IC	engin	es, pri	nciple	e of ef	rigera	tion &	e air-c	ondit	ioning	ζ.
CO4	Disti	inguis ower t	h the	types	of en	gineer	ring m	ateria	ls, me	tal jo	ining	proces	sses a	nd typ	es
CO5	Cate	gorize igurat	diffe	erent t	ypes	of lat	he &	millin	g mac	hine o	perat	ions, I	Robot	tic	
					CC	-PO-	PSO	Mapr	ing	# Table 1		72 d sa		-	
COs							Os							PSOs	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	2	2				1								
CO2	2	2	2												
CO3	3	2													
CO4	3	3	2												
CO5	2	2													
Average	2.6	2.2	2				1						•		

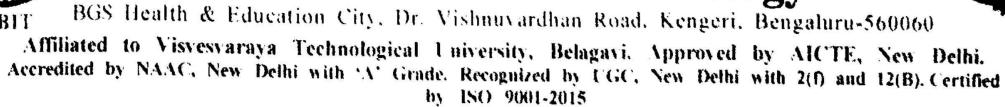
Subject:	Work:	shop l	Practic	ce						Subj	ect C	ode:	17WS	L16/2	:6
					(Cours	e Out	tcome	·S						
CO1	The state of the s									mode					
CO2	their	appli	ication	1S	-								lerstan		of
CO3	Perfe	orm s	olderi	ng an	d weld	ding o	f diffe	erent s	sheet 1	netal	and w	elded	joints		
CO4	Und	erstan	d the	basics	s of w	orksh	op pra	actices	S						
					CO	-PO-	PSO :	Mapp	ing						
CO-						P	Os		765					PSOs	
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3								2				3		
CO2	2								2			2	2		
CO3	3								2				3		
CO4	2							<u> </u>				2	2		
Average	2.5								2			2	2.5		

Subject:	COMP	UTER	AIDEI	DENG	INEE	RING	DRAW	/ING		Subje	ect Co	de:17C	ED14/	24	
								tcome							
CO1	Analy	ze ortl	hogona	l proje	ction p	rincipl	les, din	nension	is and a	annotai	ions in	engin	eering	drawin	g
CO2	Gene	rate en	gineeri	ng drav	wings a	as per	BIS co	des and	conve	ntions	-				
CO3	Deve	lop cor	nputeri	zed dr	awings	using	2D dra	afting p	ackage	es					
CO4	Build	geom	etric ob	jects u	sing de	evelop	ment o	f latera	l surfa	ces					
CO5	Conv	ert orth	ograph	nic viev	ws into	Isome	etric pr	ojectio	n			•			
	 				(CO-PC)-PSO	Mapp	ing				·		
Cos						P	Os							PSOs	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3							0 40	10				3		
CO2		3							i.					3	
CO3			3		3							1			3
CO4					3							1			
CO5					3						1	1		2 8	
Average	3	3	3		3							1	3	3	3



Department of Mechanical Engineering SJB Institute of Technology Kengeri, Bengaluru-560 060





Department of Electronics and Communication Engineering

Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II

Subject	E	asic I	Electr	onics						Sub	ject (Code:	17EL	N15/	25
					(Cours	e Ou	tcom	es	-1				- • •	
CO1	Abi	lity to	apply	y the a	applic	ation	s of d	iode i	n rect	ifiers,	filter	circu	its and	d BJT	
CO2	Abi (inv	lity to erting	anal	yse the	he b	iasing	of E	JT. I	Design	n sim	ole ci	rcuits tor an	like	ampli	fiers
CO3	bloc	ks in	nd the digiusing	tal el	ectroi	nics u	ising	umbe logic	r sys gate	tems s and	.Desig	gn dif lemen	feren t sim	t buil	ding ogic
CO4	Ana	lyse t	January 1997	ection				Desc	ribe tl	ne arc	hitect	ure an	d inte	rfacir	ng of
CO5	mod	lerstar Iulationsduce	on tec	e fun hnolo	ction gies.	ing o Unde	f a c	comm d the	unica basic	tion princ	syster iples	n, an of dif	alyze feren	diffe t type	erent es of
				to - 15 - 16	CO	-PO-	PSO .	Mapp	oing						
COs			•			P	Os]	PSOs	
COS	1	2	3	4	_5	6	7	8	9	10	11	12	1	2	3
CO1	2	2											2		
CO2	2	2	2										2		
CO3	2	2	2		\$ 25								2		
CO4	2	2			18-3- 1								2		
CO5	2	2											2		
Average	2	2	2										2		

HOD Head

Dept. of Electronics & Communication Engage
SJB Institute of Technology
Bengaluru-560060



|| Jai Sri Gurudev || Sri Adichunchanagiri Shikshana Trust (R)

SJB Institute of Technology

(A Constituent of BGS &SJB Group of Institutions and Hospitals)

BGS Health and Education City, Dr. Vishnuvardhana Road, Kengeri, Bengaluru-560060



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2(f) and 12(B) recognized by UGC, New Delhi.

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Department of Electrical & Electronics Engineering

Course Outcomes and CO-PO-PSO Articulation Matrix

Semester-I/II (Aca. Year 2017-18)

Subject:	Basic E	lectri	ical E	ngine	ering					Sub	ject (Code:	17EL	E15/2	25
					C	Cours	e Out	come	S						
CO1	1									-	netic	circuit	ts and	lalso	able
	to sol														
CO2	Analy altern these	ating	quan				-					the re other			
CO3	Expla deterr											pplica	tions	and	also
CO4	Practi	ce E	lectric	al Sa	fety I	Rules	& sta	andaro	ds and	d type	es of	electri	cal v	viring	and
C04	dome			g.						· Jp	01				
C04	1			g.	CO					сурс					
	1			g.	CO		PSO N			П				PSOs	
COs	1			g. 4	CO-	-PO-l	PSO N			10	11	12			
	dome	stic e	arthin			-PO-I	PSO N	Марр	ing					PSOs	
COs	dome	stic e	arthin			-PO-I	PSO N	Марр	ing					PSOs	
COs CO1	1 3	stic e	arthin			-PO-I	PSO N	Марр	ing					PSOs	
COs CO1 CO2	1 3 3 3	2 2	arthin			-PO-I	PSO N	Марр	ing					PSOs	

Co-ordinator Mr. Kubera U

HOD Dr. Babu N V

HOD
Dept. of EEE
S J B Institute of Technology
BGS Health & Education City,
Kengeri, Bengaluru-560 060.