

Kammavari Sangham (R) 1952 K. S. GROUP OF INSTITUTIONS

K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

Approved by AICTE, New Delhi; Affiliated to VTU, Belagavi, Karnataka; Accredited by NAAC www.kssem.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

Report on Two-day's Workshop on 'Creativity & Innovation for Engineers' (CIE-2022) on $10^{\rm th}$ & $11^{\rm th}$ October 2022

Type of activity: Workshop for Faculty & Students

Date/duration of activity: 10/10/2022 & 11/10/2022

Venue: Aryabatta Seminar Hall

Number of participants: 30+69

Facilitator/Resource Person: Pavan Kumar Arasappa

pavankumar@connect.hku.hk

www.linkedin.com/in/pavankumar1011

1 Overview:

Creativity is neither innate nor limited to those considered talented. Research shows that scarcity and desperation often lead to innovation that can surprise us. We look at several innovations around us day to day. A street vendor who uses a plastic bottle with holes as a sprinkler for the flower he sells, a friend who used his mobile phone as a paperweight, and a consumer electronics company that removed the headphone jack and caused ripples in an industry have one thing in common. They did something with the resources in hand or the environment in which they were used. They were examples of creativity "Inside the Box". The street vendor didn't need a sprinkler; he just needed to keep the flowers fresh. The friend didn't need a paperweight; they just needed to keep the papers from flying. They merely worked within a closed world defined by constraints.

If a creative idea surpasses contemplation and finds practical application in real life, its innovation. What we call in India as JUGAAD is an approach to problem-solving with limited resources in an innovative way. It is just a subset of creative problem-solving inside the box. The thinking way or methodology behind Jugaad and other creativity templates can be easily learnt and that's the purpose of this workshop.

2 Target Group

Faculty Members from various departments, 7th Sem Students from Mechanical & Civil Engineering

3 WORKSHOP OBJECTIVES:

To teach participants several systematic creative problem-solving methodologies that are backed by scientific research and complement the tools acquired in engineering. This workshop will focus on new product ideation.

The workshop offers participants the opportunity to learn how to solve problems, identify opportunities, and generate those elusive ideas that potentially generate benefits.

4 WORKSHOP OUTLINE

(Each session is 3 hours of interactive learning with classroom exercises)

Day 1: Introduction to the principle of closed world and templates

Defining creative solutions. Fixedness, its advantages and disadvantages. Conventional approaches to the study of creativity. Value of creativity in engineering. Difference between creativity, innovation and Jugaad. Definingthe closed world. Templates that can be applied to think creatively. How to manipulate components inside the box. Subtraction (with replacement) and multiplication template.

Day 2: Division, Attribute Dependency, Task-unification, and Contradiction

Concept, precautions, examples, and exercises for each template. Well-defined problems for participants to work on. Contradiction and its application. Learning and applying attribute dependency template in a classroom exercise. Discussion about final-year projects



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

No.15, Mallasandra, Off. Kanakapura Road, Bengaluru-560109, Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi, Accredited by NAAC

Department of Mechanical Engineering

organising Two day workshop

on

Creativity & Innovation for Engineers



Resource Person:

Mr.Pavan Kumar Arasappa

Management Consultant (Intern), MLC Asia Pacific Limited

Alumni of KSSEM - Mech

Date:

10th & 11th October,2022

Venue:

Aryabhata seminar hall

Patrons:

Dr.Balaji.B

Prof.& HOD

Mechanical Engineering

Dr. K. Rama Narasimha

Principal/Director

KSSEM

Dr. K. V. A. Balaji

CEO

KSGI



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109 DEPARTMENT OF MECHANICAL ENGINEERING

Two-day's Workshop on 'Creativity & Innovation for Engineers'

Day 1-10th October 2022

9.00am	Welcome Guest and Invocation song
9.05am	Welcome Address & Workshop Overview
	-Dr. Balaji B, Prof & Head, ME Dept.
9.10am	Lighting the Lamp
9.15am	Address by our CEO -Dr. K V A Balaji
9.20am	Address by our Principal/ Director -Dr. K Ramanarasimha
9.25am	Resource Person introduction- Ms. Rajalakshmi,7 th Sem ME
9.25am	Address by Resource Person-Mr. Pavan Kumar A
9.30am	Vote of Thanks -Dr. P N Jyothi, Prof. ME Dept.
9.35am	Session-1 Begins
11.30am	Tea Break
11.40am	Session-1 Resumes
12.30pm	Session-1 Ends
	D 2 11th O 1 1 2022
	Day 2-11 th October 2022
9.00am	Session-2 Begins

9.00am	Session-2 Begins
11.30am	Tea Break
11.40am	Session-2 Resumes
12.15pm	Session-2 Ends
12.20pm	Valedictory & Certificate Distribution



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

#15, Mallasandra, Near Vajarahalli, Off Kanakapura Road, Bengaluru - 560109

Certificate of Participation

This is to certify that

Dr. PNJYOTHI,

Department of Mechanical Engineering

has participated in two days workshop on "Creativity and Innovation for Engineers" organized

by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

Program Coordinator

Dr. P N Jyothi

Head of the Department

Dr. B. Balaji

Principal / Director

Dr. K. Rama Narasimha



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

#15, Mallasandra, Near Vajarahalli, Off Kanakapura Road, Bengaluru - 560109

Certificate of Participation

This is to certify that

Mr. Umesh Kumar Singh,

Department of Civil Engineering

has participated in two days workshop on "Creativity and Innovation for Engineers" organized

by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

Program Coordinator

Dr. P N Jyothi

Head of the Department

Dr. B. Balaji

Principal / Director

Dr. K. Rama Narasimha



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

#15, Mallasandra, Near Vajarahalli, Off Kanakapura Road, Bengaluru - 560109

Certificate of Participation

This is to certify that

Mrs. Rupa Chatterjee Das,

Department of Master of Business Administration

has participated in two days workshop on "Creativity and Innovation for Engineers" organized

by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

Program Coordinator

Dr. P N Jyothi

Head of the Department

Dr. B. Balaji

Principal / Director

Dr. K. Rama Narasimha



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

#15, Mallasandra, Near Vajarahalli, Off Kanakapura Road, Bengaluru - 560109

Certificate of Participation

This is to certify that

Ms RAJALAKSHMI VEERESH,

Department of Mechanical Engineering

has participated in two days workshop on "Creativity and Innovation for Engineers" organized

by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

Program Coordinator

Dr. P N Jyothi

Head of the Department

Dr. B. Balaji

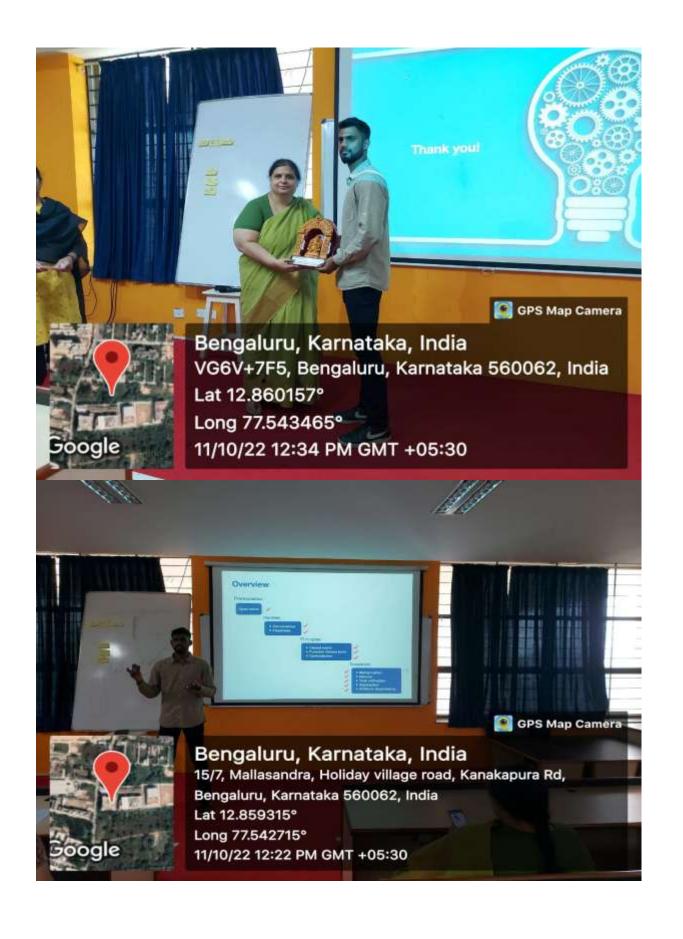
Principal / Director

Dr. K. Rama Narasimha













Program Coordinator

[Ar - total yoli]

Head of the Department

Professor & Head

K.S. Group Of Institutions
K.S. School Of Engineering & Management
Bangalore-560 109

K S SCHOOL OF ENGINEERING AND MANAGEMENT

DEPARTMENT OF MECHANICAL ENGINEERING

TWO DAYS WORKSHOP ON CREATIVITY AND INNOVATION FOR ENGINEERS ON 10th & 11th OCTOBER 2022

REGISTRATION FORM

		REGISTRATION FOR			,	
SI No USN	NAME	MAIL ID	PHOŃE NUMBER	BRANCH	SEM	SIGNATURE
1 1KG 2000003	M. Vin ay.	Vinay mallimpattuly32 Com	8792310084	mc-	5	m our
2 186214560		darshan 0002003@grad	9113859266	ME	5	Parker N.
3 / KG & ONE and		jishula 30 Qquail. ion	98805 98809	ME	5	Ibunla
4 lkg simeros		approace work	8792681313	ME	5	
5 1K421H PG11	200 100 1000	Pavan gowda 922031	9663288267	ME	5	200
6 INGRIMENTO		mohan(ex) phone has to 7 +3+30000	8050344558	ME	5	(2)
7 KG 70 HE007		prothwinder @ smot com		ME	5	plathin.
	Chendrakarth.			ME	5	Class
					5	(Milcojus)
9 HIGZIMEKOT	Shacetlilat. XV.	Mallikasium N.988030.0	9606474203	MG	7	Chare
		Preethandlinsh > 100 @c		ME	7m	chethar.Ki.
11 1K419 4000	Chethan.le	chethank2204@gmailcom	8088626312	ME	714	(MITTALLE)
12/1/6/19/19/2012	M. Paul Tela	Rtcia 8900@ amail.6				2.10
	Bisuth vi Rai	bollineniPsuthvisai 4909mg		100 000 000	7	tout Truing!
	In reddy present		9676310510	ME	74	fraker to
	Ventat Raghaven VI			ME	7 12	vality
16 1 KOZIMELDE	Mahendra S	Mahindry Sunpert Hay	207383884J	ME	Soy	100
17 KYZIME	too Bharath	showth kumara83400	6361442394		544	The state of the s
18 KGAMEDIZ	· Kajalakelini Voigee	4 grajalokelim Vovush 2000	9 9 5 1 3 5 6 9 3 5 6	ME	7/9	P
	Harsha.L	harshayouda 9700 gm	: 9148 980267			HU
20 ThraimE41:	Regional of	Pure jupille 250 gmail	9731389983	MG	541	noi'
21 IKEZOMEY	of Regardro.K.J	1 Kristnavagharcodvascus mi	4108326730	WE	700	A T
22 1 KG20 MF	was Stathock. N	Santhoch (2) 123	8197531006	ME	7,,	100
23 1 CG 20ME4	toy mobile. 3	Mohlemohic noi@gnul	9740 49907	1 ME	7+	Arab. 20
24 IKG MEG	18 PRADERY B	Bradupa (aakoo) @fm:	9986065599	me	عنه	8
25 1 KG 19MF0	os Bhargari. B. Redd		1.8431982259	ME	7 1	Mayuris.
	6 Gagan G. R	gagang 11804 agmail.	on 9986136623	ME	7th	9
27 ! KGAMFOX	2) A Danis Dennat	bharruchionadonyucuage que			7 141	Theu
28 15G19MFN	3 MANU 23	marshmarshammin	0 74830 7098	ME	74	AN
29 149191900	of congareddy	mariphmaniphognatic prograddygwda e grai	K 7795182314	ME	74	
30/ KG 19MEO	14 Molaha vardhan M	5 mels lavardhanoora que	1 PL97510446	ME	The	
31 1KG19MD	on Lustr AS		m 9441268920		714	Juith
32 (K419001	5 Preethip	Parethikokila agmaili	9353440128	CV	th	Q.
33 1KG 19KVDY	9 Siddama goul	a goudreddy kandalliagmi	1 9606567136	CV	7+	0
	Monisha. R.P				7.14	
	5 Harshitha S		1 2 30 62 7000	7 CV	24	100
36 1461904	DIS Alleholistha	N nishchithan2001@gma	0 2 10 2 20 630	9 CV	7	
37 1/62001	43 Shwetha. M	A soachuathacaca Caraca	9015950	5 CV	7 +	4
		A mashwetha962@gmal	99800010	4 CV	_	
39 11/-16/11	ou teethana l	I co At a calabel and	18088191	7 01	714	
40 11/2 2 4 1	to Rishore					
		Kidhore gowda. S1234	p 300 (4023)		_	Bh.
41 144300000		Bharyan nodha 1949 @ gmail	9481632895	cv	724	Bhargar . m
43 / LC	of Marwalla.	M mmamouthourague	434964711	3 CV	711	
1-43114620CV	102 byap so sad y	add Typowoly dos solg	221 F 280 EF 08 W	Cr	1.4v	Aut E
	V . 0	•				1

	amail.com	T	10
William Rayland	Mmachandrago, 1080 910855531	Cilil 7	
44 KG SCOURS FEMALVANCISM	1. Larroddylly @ grey 8296125 919	Civil	1 h. dul
46 KG20CV411 Sadhashiva	Sadashiva ran 2808, 886/286155	1441	t // Sad
40 12 G 20 C 1 31 1/10 7 1 1	C. a. Salar 9897 Pansland 7780910550	CV 7	Suma
47 (KGUTU) 12 Schail all 194 Bare	Schailalty 7697 Comilard 7180920550 Salmanbashir 122 Comilar 7780870900	CU 4	h Bahar
48 HEGT CHOOL Salman Books	James 16 king word in w 17710 7761899886	CV 7	W 1000
49 TEGITO MATORIAN ETT SING	VPnodblo Kyozox 789281811	C V 7	4 Virodh
50 KGZOCHIS PROCH. MI	projused 66 76 Quarilion 86950838 70	CVT	the Ries
51 / kb 20(4408 Praywal. L.V	Simil partizo Ogmula, 7349738961	cu z	7 5
52 MG 19(40) SUNCEL N.D	Okanda 30 ma (mair con FR928 77103	CV 7	e sto
53 [Kgravas) Skanda N		CUZ	H
54/KG19CVDOX Rhanath .S.	Swith Sune 1 130 gran for 9 388805	ME 7	to Co
55 KUIGMEOIG SUMITHIG	Sunth, must it smanning at Suscition		n Wan
56 Infolgovoly P. Vivay	vivayyadav24510gmin 6360597200	CUT	
57 KG200407 LOVEFA KUMAR	NAMERICA POTOMORETORINE 979008230	mech 7	
58 Ilmumbold Shotauran D. P	no bournon 6537 Davis 9731044 506	ME 3	m de
59 leagamens Han ishak	hasishkhasishk77714@gradon 90368080	M.E 7	h down
60 K'alqueon Lokush. A.B	maiduo14@ gmail.on 797598423D		u alesticer. N
61 1Klapontho chethan A.N	chettan an 120 Squail com 9 986623908 Karthika Kun39 Qquail com 9916409485	METH	
62 MGROMERS Kastlik. K	Rastlika Kinsy Rightal Constitution	-/4	· Alexa
63 KG19 CVOG SRINI TISH	Sainitish 963@gmaile 9632174525		
64	•		
65			1
66			
67			
68			
69			
70			
71		-	
72			
73			
74			
75			~
76			
77			-
78			+
79			
80 1			4

Program coordinator

Head Wile Department of Mechanical Engineering
K.S. Group Of Institutions
K.S. School Of Engineering & Management
Bangalore-560 109

K S SCHOOL OF ENGINEERING AND MANAGEMENT

DEPARTMENT OF MECHANICAL ENGINEERING

TWO DAYS WORKSHOP ON CREATIVITY AND INNOVATION FOR ENGINEERS ON 10th & 11th OCTOBER 2022

ATTENDANCE SHEET

		ATTENDANCE SHE	ST		
SI No	USN	NAME	BRANCH	SEMESTER	SIGNATURE 10/10/2022
1	1KG19ME008	Harishik	MIE	7 8h	4
2	1KB19MEOUS	Chethan.K	MVE	7 sh	children 15
3	IKG 20 MECOG	branav	M.E	< An	brase
4	1KGZOMGHO8	Shaer-Hilax.x.V.	M.E	Tex	Thoras
5	1KG19MEDI7	Rajalakehni Veeresh	ME	The	Roce
6	1 KG19MED14	Mokela Varidhan MT	MF	71	The same of the sa
7	1 KG 19MED18	Shoraran NP	ME	7th	970
8	IKG 19MEOU	Ankerh. A.	ME	MAN	X
9	ik Grium E020	unked Ragharar.	ME	-ju	0
10	Itala ME 019	Sunth . G.	MF	7111	FILE
_11	1KG19 CV009	Mamentha.M	CV	7th	1 Lamenstra.
12	1KG20CV413	Shwetha, M. A	CV	Ath	Thurtha
13	1KG20CV 402	JAYAPROGAD YADAV. K	CA	न्म	Dur
14	1 - 1 .	Umesh kumar Songh	CV	71	While
15	LKGITCVOIL	Grusypha Shouth M	CÚ	7+4	Control
16	1Kh2001408	Kasmal, L.V	CV	7th	P
17	1KG20CV407	NAVEEN KUMAR S	CV	Jth	Haren
18	1K419CV023	Surece N Paris	2	740	17 Que.
19	1K61201415	Vinagh. M	CV	7-14	Knoon M
20	149190019	siddanna. Gouda	CV	716	Sparde
21	1KG19W015	preeth? p	CV	-fth	Beetlin's
22	1KG20CV401	BHARGAVM	Cv	zih	Bhargar y
23	115 G20 CV404	KISHORE'S	CV	7 24	Eistore
24	1441962006	KEERTHANA.	CV	7 th	Di
25	1kg19cy005	HARSHITHA.	ev	7 th	Huch 11
26	1KB20CV406	MONISHA.R.P	CV	7th	processo
27	10000	RANJITHA.P.M.	CV	7th.	Peace
28		Nida Manzoor	CV	4th 5th	Pida
29	1KG20CV003	Chandan K	CV		thankank
30	1	Niskhitha. N	CV	5 th	Mila
31		Sminidhi & Joshi	C٧	7th	Soilis
32			CV	= th	Joils Di
	1 KG & IMEHIO	Motion Kristina W	ME	544	Mr.~
34	++1	Darkhan M	ME	54	
	IFB31MEHO3	Danatran S	ME	5th	000
36	1/2 RDIMEHII	Parken Cy	WE	564	Polon
37	1 KasomE 809	Jeshow	ME	5eh	-5
	FOOTMORDAL 8	Prothum 3R	ME	15th	Pos
38	0				
39	9 1K921MELD 1 0 1K920 MEOO 3	Chadro M. Vingy:	ME	564	Common

		-	575	Coliforation &
411117 12051 27	Matticaciona Budilia	MIE	3 11	The state of the s
42 1 KG21ME400	Mallicación Bulinal BHARATH KUMAR.P.	M.E	5+h	(MA)
	Mahindra-S	M.F	5000	De Charles
43 1 KG721 M£ 406	Chethon M	Civil	7th Sem	M. Chitton
44 1KG186 VOO 6		CIVIL	5 th Sem	Sulhmita
45 KG 20 CV008		Corl	5th Sem	Vanda S.R
46 Kin 2 CV407	Supail altof dance	رشائ	7th sem	Suhail
47 IKG 19CV022	Salman Bashir	civil	7th sem	Calman
48 IKC 190 1917	Bharath s. lodan		7th cen	1
49 KUICUOD 2	Skandol N.	CU	7th Sam	Que,
50 1KG 19 (VOQ)	Rc Ramachandron Coroulda	CV	7th rem	Romacharely
51 1KG18CV018	Sachshiya. M	CV	7th Sen	Klede
52 11620CV4/1	1. Puras	CV	7th Sem	L. Joseph
53 14618(7010	RAKSHITH. R	M.C.	-1th Stra	Por
54 1 K 8 120 MEY DG	Chethan AN	MIE	Thesen	COW
55 1 K 620 MEHOL	Karthi K.C	ME	7th Sem	100
56 1 K W 20 ME 403	vithesh's	M.E	Ith Sem	inshs
57 1 KG 21 ME 413	Porival.s	M.F	5th sem	Propies.
58 Y RG DIME 412	Harsha L	ME	5th em	the
59 [KG2]M/ 404		MÉ	7 Sern	
60 HKG19ME006	Lokush. A-B	M.B	Thesem	double
	28 haster 11 3	191.0		-86
62				
63				
64				
65	· ·			
66				
67				
68				
70				
71				
72				
				-
74				
76		•		
77				
78		-		
79				
80				1
80]				

Program Coordinator

Department Of Mechanical Engineering
K.S. Group Of Institutions
K.S. School Of Engineering & Management
Bangalore-560 109



K S SCHOOL OF ENGINEERING AND MANAGEMENT

DEPARTMENT OF MECHANICAL ENGINEERING

TWO DAYS WORKSHOP ON CREATIVITY AND INNOVATION FOR ENGINEERS ON 10th & 11th OCTOBER 2022

ATTENDANCE SHEET

		ATTENDANCE SHE	EI		
SINo	USN	NAME	BRANCH	SEMESTER .	SIGNATURE 11/10/2022
1	1KG20ME408	SHREE THILAK.KV.	M.E	7 34	Shoutlib &
2	IKG19MEO11	LOKESH.A.B	M·E	744	The same of the sa
3	IKG 19ME OID	PRADEEP, A	m.E	7sh	Re
4	1KG19ME020	Venkat Raghaven v.	M.f	7 th	ver 1. of
5	1K419ME008	Harish.K	M.F	Jth	runish
6		Shravan	M. F	780	elm
7	IKG19MEOUS	Chethan.K	M-12	7 sh	6
8	1 KG19MF002	Awith A.S.	ME	7th	fuith of
9	1K919CV015	Poceethi. P	cv	士を	1
10		Siddama gonda	CV	74	R
11	(CG20CV403	Knorthick Naidy A	CV	7 hu	Car
12	11.17.0000	Harehitha's	cu	71	Hanrus.
13	1Ky1900006	Keerthana 1	cv	九	() () () () () () () () () ()
, 14	1	Blangav, m	CV-	JH.	Bue
15	1KG 201404	Kishbre. 3	CV	44	gia.
16	1KG20CN409	Rajula Sai jidhin	CV.	7th	Saijidhijk
17	THE TOTAL PROPERTY OF THE PARTY	PYVIJAY	CV	741,	Man
18	+ + + + + + + + + + + + + + + + + + +	3 Kanda, N	CV	Ath	As .
19		Banaen	CV	7th	Barreth
20		L. wkesh	CV	75	L. COKESH
2	11- 004 (-0	Progradit.V	CV	7 1	Res
22	1ku 19cvora	umesh Kumor singh	CN	71	WAY DO
23	3 1 KG 20 CV 407	MANEEN KUMAR	CV	7th	A CO
24	1 KGIZCVOIL	Guan Anghanth M	Cv	THE	(amply)
2:	1109	Banashree. B	CV	Flte	Strang
	6 1×G18CV024	Southosh kumar D	CV	th	South.
	1/kg18cv010	Suhas	CV	th	July
	8 1KG 19CV009	Manoutha.M	CV	of the	Mamenthank
	KG20CV402	Jaya prasad Yadav	CV	The	Sagaras
	1620 CV 410	Ray of the P. M	CV	-jth	Jany 24
3	1 Kg20 CV 406	Horrisha R. P	CV	th	Marin.
3:	2 1KG 20CV411	Sadal hiv M	CV	7th	- ada
	3 1KG 19CV023	Sunel pan. P	CV	7100	Selection of the select
	4 1×GIGMFDO3	Bhargari B. Redoly	ME	-San	Kling & Redy
	5 KGZIME 406	Mahendra-S	ME	7th	
	6 1KG 19M FOL2	M. Rayi Tefa	ME	-th	L DO
	7 KSIGMEO13	MANUP B T. Reddy prakash	ME	-H	
	8 ILGROMEA09	1 Keddy projects	ME	744	July Vallat.
4	9 1 KG 19ME 001 10 1 KG 19ME 007	Chano Venkat.	ME	Joh	Canar.
		1-1-1-01	1.0		19

			Str	
	500-C	ME	5	Danle N
41 1KGBIMEYOS	means.	ME	5 m	
42 KALIHEGOZ	Darshan N	MB	5th	Monuin
43 1KC220ME007	Prosbuin	ME	Som	Mos -
44 1 Kh 21 M & 911	Pav on	ME	5eh	motor
45 LKBDIME HIO	Mohan Krishna V	ME	5 th	Samo
46 1K(22)ME409	mohammed Saguris	C. E	5th	Nands. S. R
47 1 KUR CU407	Nanda s. R	C.V	711	Suhar
48 1KG19CV022	Shail altak dar	C.V	-fth	Galman
49 IKG 19 CVO17	Salman Basan	MIE	7+7	fagurd . J. M
50 KO120ME 402	Tarodish. ~		714	Dun
51 KG19MEDIZ	Rajalakshmi Veress	ME	714 714	Muse-
52 1KG19ME014	Makeha Davidhan	ME	700	Dod
53 112620 ME 405		ME	70h	Mariters
54 IKB 20 ME YOU	Mahik. B	ME	7 dr	Karlie
	Kaythik. C	ME		MM (d)
	Raythix. C Pruthviraj Bollineni	NE	Th	100
57				
58				1
59				
60			. ,	· / · · · · · · · · · · · ·
61				
63	3		111 Cl	8 1
64	228	7 2		
65		-		
66		1 - 1		X E 1
67		17-1		
68			V 1	2 11
69				
70				361 200 - 31
71			2	E DAY DAY A
72	7	1 2 1 1 2 2	63	
73		-1	3.1	N
74		1,1112		1010103
75				
76	14			y to constant
77		at to		1 1 2 2
78		1	1	A Total State
79	71		111	1
80	T.		. (1	11.6/

Program Coordinator

Department Of Mechanical Engineering
K.S. Group Of Institutions
K.S. School Of Engineering & Management
Bangalore-560 109