

**V.V. SANGHA'S
RAO BAHADUR Y MAHABHALESWARAPPA ENGINEERING
COLLEGE, BALLARI
UNDERGRADUATE ENGINEERING PROGRAM
(TIER II) FIRST TIME ACCREDITATION**

PPT HANDOUT

**SUBMITTED TO
NATIONAL BOARD OF ACCREDITATION
(NBA)**

**SUBMITTED BY
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**





V.V Sangha's
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Cantonment, Ballari - 583104



Department of Electrical & Electronics Engineering

**Cordial Welcome to
NBA Peer Committee Members
26TH to 28th MAY-2023**

**Dr. S. Kotresh
HoD-EEE**



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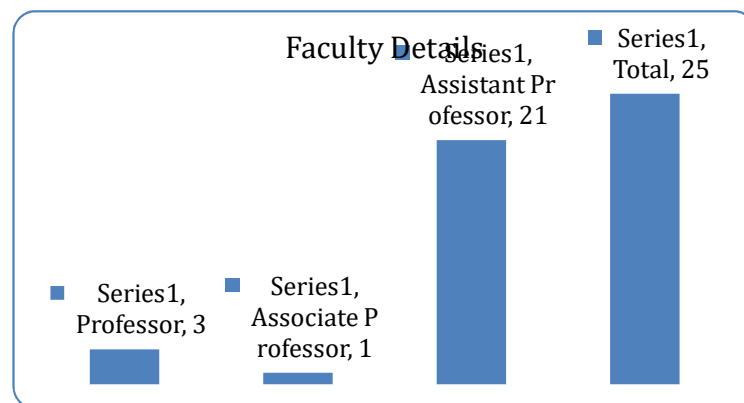


PROGRAMME DETAILS

Program	Est. year	Sanctioned Intake	Current year	Sanctioned Intake
UG Electrical & Electronics	1983	40	2021-22	120
	From 2013	120		
Research Centre	2018	Research Scholars Ph.D.		02
Doctorates in the Department: 06 PhD Pursuing Faculty : 06				

FACULTY DETAILS

Professor	03
Associate Professor	01
Assistant Professor	21
Total	25





Vision of the Department

To produce Professionally Excellent, Knowledgeable, Globally Competitive, Socially Responsible Electrical & Electronics Engineers and Entrepreneurs

Mission of the Department

- To impart quality education in Electrical & Electronics Engineering
- To establish a continuous Industry-Institute Interaction, Participation and collaboration to inculcate skilled Electrical & Electronics Engineers.
- To build human values with social responsibilities, entrepreneur skills and professional ethics among the Electrical & Electronics Engineers
- To focus on innovation and development of technologies by engaging in wide range of research areas in Electrical & Electronics Engineering



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Teaching & Non Teaching Staff

Sl. No.	Name of the staff	Designation
01	Dr. S.Kotresh.	Professor & H.O.D.
02	Dr.U.M.Netravati	Professor
03	Dr.B.DoddaBasavanagoud	Professor
04	Dr.K.Raghavendra Prasad	Associate Professor
05	Mrs.Anusuya Patil	Assistant Professor
06	K.K.Gururaj	Assistant Professor
07	Hanumantharao	Assistant Professor
08	H.M.Elia Sundaram	Assistant Professor
09	Dr.Shambulinganagouda	Assistant Professor
10	Kumuda.B	Assistant Professor
11	Gayatri.J	Assistant Professor
12	A.Sharana Basappa	Assistant Professor
13	Linganagouda R	Assistant Professor
14	H.Vinaykumar	Assistant Professor
15	Shanthakumar.U	Assistant Professor

S.No	Name of the staff	Designation
16	HanumanthaReddy	Assistant Professor
17	Rajashekar.K	Assistant Professor
18	B.Deepa	Assistant Professor
19	Ravikumar.H.M	Assistant Professor
20	Amrutha.GE	Assistant Professor
21	Diwakar.K	Assistant Professor
22	A.Meenakshi	Assistant Professor
23	Gangadhar.J	Assistant Professor
24	G.K.Sharmila	Assistant Professor
25	R.Manjunatha	Assistant Professor

S.No	Name of the staff	Designation
1	M.Veeresh	Foreman
2	Prabhudeva	Instructor
3	Ereshamma	Instructor
4	Veerabhadrapa	Asst.Instructor
5	Nandeesh	Asst.Instructor
6	ChannaVeeranagoud	Mechanic
7	Ayyanagoud	Electrician
8	Suresh.K	Peon



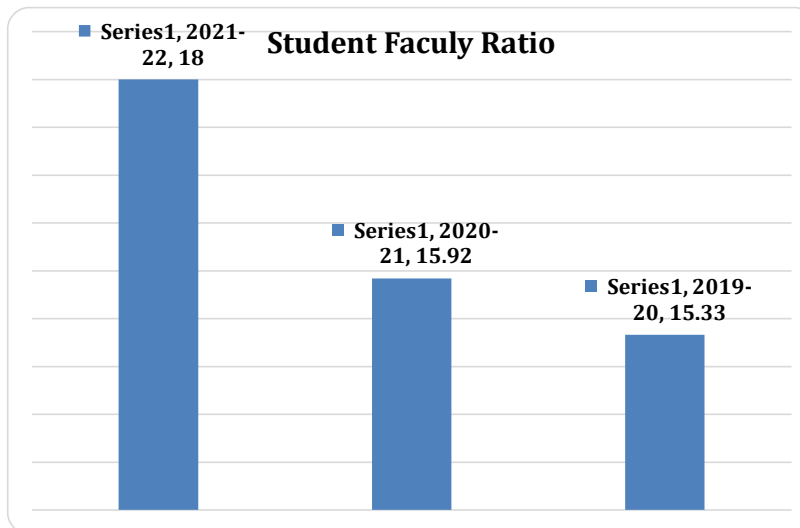
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Student Faculty Ratio (SFR) = S / F

YEAR	II	III	IV	TOTAL STUDENTS (S)	FACULTY (F)	SFR= S/F
2021-22	138	138	138	414	23	18.00
2020-21	138	138	138	414	26	15.92
2019-20	138	138	138	414	27	15.33

Average SFR excluding First Year– 16.41



CADRE PROPORTION - UG

Academic Year	Professors	Associate Professors	Assistant Professors	Total No. of Faculty
2021-22	3	1	21	25
2020-21	3	1	24	28
2019-20	3	2	24	29

FACULTY RETENTION(%)

Keeping 2019-2020 as Base year

Academic Year	Percentage (%)
2021-22	79.93
2020-21	96.55
Average faculty retention = 88.24%	



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RESEARCH CENTER

Sl No	Details	Number
1	Number of Doctorates	6
2	Research Supervisors	3
3	Research scholars (Ph.D) (EEE Research center + Other RRC)	02 + 05 = 07

Total Area	2000 Sqft	Nos
System Configuration	Dell Optiplex 3020 Windows-7, 32 Bit 8GB Ram i 5 Processor 250 GB HDD Keyboard, Mouse 17.5 LED Monitor DVD Writer	20
Other Equipments	Projector Projector Screen Canon Printer UPS CC Cameras	1
Rooms	Computer Lab Workspace Area Meeting Hall	1



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FUNDED RESEARCH PROJECTS

Sl. No	Faculty	Department	Funding Agency	Funded research projects with funding details
1	Hanumantha Reddy / Dr.S.Kotresh	EEE	NAIN,	Rs. 3,00000/- Title: Automated bio fertilizer generating unit
2	Dr.S.Kotresh/ Shanthakumar	EEE	NAIN	Rs. 26,500/- Title: Distribution board of 3 phase and single phase with display
3	LinganaGoud.R	EEE	KSCST	Rs.5,500/- Title: Smart Electric Cart for Street Venders
4	A.SharanaBasappa	EEE	KSCST	Rs.5,500/- Title: Automatic waste segregator
5	H.Vinaykumar	EEE	VTU Financed	Rs.5000/- Portable Energy Meter
6	LinganaGoud.R	EEE	VTU Financed	Rs.5,000/- Title: Smart Electric Cart for Street Venders
TOTAL AMOUNT				Rs. 3,47000/-



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Publications

Type of journal/publications	No of papers/publications		
	2019-20	2020-21	2021-22
UGC Approved International Journals	19	14	39
IEEE,SPRINGR, ELSVIER, SCOPUS INDEXED,WEB OF SCIENCE	01	03	01
Total year wise	20	17	40

Patents

Name of the Applicant	Application No.	Title of the Invention	Date of filing of application	Publication Date
Dr.K Raghavendra Prasad	202321000046	Artificial intelligence based approach for evaluating and reveling consumer in sights through visual analysis of social media images	02.01.2023	13.01.2023
Dr.K Raghavendra Prasad	202211075980	data science and AI Based Automatic medical report generation and classification of breast cancer along its stages	27.12.2022	06.01.2023



Text Books/Chapters in Journal

Name of the Author	Title of the BOOK/Link
Mrs.Deepa B	Micro Phasor Measurement Unit (μ PMU) in Smart Distribution Nfor Intellietwork: A Cyber Physical System Algorithms gent Systems ISBN 978-981-16-7135-7 ISBN 978-981-16-7136-4 (eBook) https://doi.org/10.1007/978-981-16-7136-4
Dr.K.Raghavendra Prasad	Concepts of Block chain Technologies, ISBN -978-81-960902-2-7 AGPH Books
Dr.S.B Shiva Kumar	Basic Electrical Engineering (Bar Code –Audio Book) Tech Voyage LTD /978-93-5291-411-1



Activities in the EEE Department

- Seminars/Webinars
Workshops
- Field Visits/ Internships
- Faculty Development Program
- International Conference
- Social Service Activities



Invited talk on “what Industry needs from Fresh Engineers” from Medini Technologies, Bengaluru was organized for 6th semester students of EEE





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Webinar on in Interpersonal skills



Interaction with Industry



Two days Workshop on “Hands on Session on Advanced Micro-Controller





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Infrastructure

LAB NAME	Carpet Area (sq.mt)
Basic Electrical Engineering	85.5
Electrical Machines I & II	277.6
Electronics /OP amp Lab	66.96
Power Electronics/Control Systems Lab	68.66
Micro Controller / Circuit Simulation Lab	79.6
PSS Lab/ DSP Lab	66
Relay and HVE Lab	68.66
Project Lab	85.5

Computer & Software Details	Quantity
Computers	80
Laptop	02
Air Conditioners	05
Projectors	08
Printers	09
Auto CAD (Electrical), MATLAB , P-Spice	----
Internet Facility	100 MBPS
Department Library	544 (books)



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Electrical Machines Lab



Electronics /OP AMP LIC Lab



Relay & High Voltage Lab



DSP/Power System Simulation Lab



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Power Electronics /Control Systems Lab



CAED Lab



Microcontroller/Circuit Simulation Lab



Research Lab



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Student Projects of EEE Department





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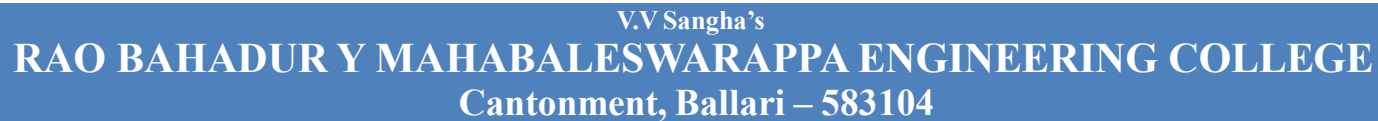


Student Projects of EEE Department



Garbage carrier vehicle





Student Achievements and Activities





FACULTY INTERACTION WITH OUTSIDE WORLD

Members of Board of Examiners in Last 4 Years (BOE/BOS), University Nominee

- Dr. S.Kotresh, Dr.U.M.Netravati Dr.HanumantaRao,
Dr.B.DoddaBasavanagoud, Dr.K.Raghavendra Prasad

Books Published

- Dr.K.Raghavendra Prasad, Deepa .B, Dr.S.B.Shivakumar

Interaction with Government, Consultancy works

- H.M.Elia Sundaram, A.Sharana Basappa, LinganaGoud R
U.ShanthaKumar , Hanumantha Reddy

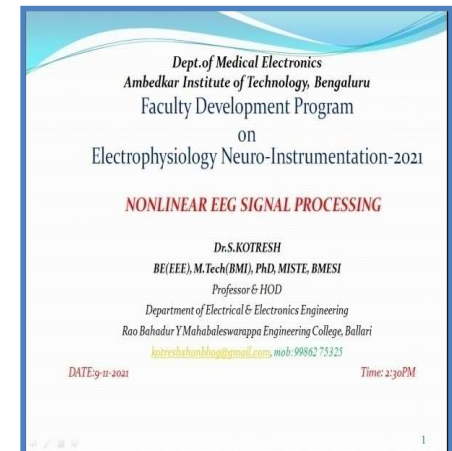
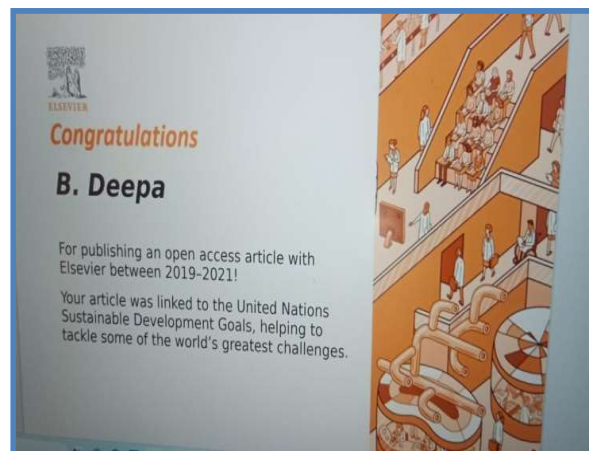
- Resource Person in Faculty Development Programs
Dr.S.Kotresh



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Interaction with outside world





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Professional Body Membership

Institute of Electrical & Electronics Engineering



ISTE (Indian Society for Technical Education)



IETE (INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING)



BMESI (Bio-Medical Engineering Society of India)





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THIRD PARTY INSPECTION /CONSULTANCY

Third party inspection is carried out as extending services to public sector, government organization etc. and generating revenue to the institution.



Government
Of
Karnataka



District
Administration
DC Office
Ballari

Urban Local
Bodies
of
Ballari Dist.



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Department of Electrical & Electronics Engineering

Testing and Technical Consultancy Cell

Financial Statement of Revenue earned by T.C.C for the Years 2018-19 to 2020-21

Year	Total Amount Earned Through Consultancy Rs	65% Consultancy Share to Faculty Rs	35% Institutional Share Rs
2018-19	1,02,050/-	66,332.50/-	35,717.50/-
2019-20	1,20,258/-	78,167.70/-	42,090.30/-
2020-21	1,00,000/-	65,000/-	35,000/-
Total Rs	3,22,308/-	2,09,500.20/-	1,12,807.80/-



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Department of Electrical & Electronics Engineering

STUDENTS INFORMATION

STUDENTS INTAKE

Description	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15
Sanctioned intake of the program	120	120	120	120	120	120	120	120
Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/institutions, plus no. of students migrated to this program	50	36	54	68	73	100	99	115
Number of students admitted in 2nd year in the same batch via lateral entry	88	94	84	70	66	46	59	39
Total number of students admitted in the Program	138	130	138	138	139	146	158	154



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Department of Electrical & Electronics Engineering

STUDENTS INFORMATION

ENROLMENT RATIO

Academic Year of Admission	N	N1	Enrollment Ratio= $(N1/N)*100$
2021-22 (CAY)	120	50	41.66
2020-21 (CAYm1)	120	36	30.00
2019-20 (CAYm2)	120	54	45.00
Avg Enrolment: 38.88 % (2018-19 to 2020-21)			



STUDENTS INFORMATION

STUDENTS PROGRESSION-WITHOUT BACKLOGS

Year of Entry	N1+N2+N3	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
2021-22	50+88+00=138	21	--	--	--
2020-21	36+94+00 = 130	28	17+21=38	--	--
2019-20	138 (54+84+00)	40	30+26=56	24+17=41	--
2018-19	138 (68+70+00)	40	35+24=59	31+11=42	27+11=38
2017-18	139 (73+66+00)	38	30+12=42	29+11=40	29+10=39
2016-17	146 (100+46+00)	36	20+4=24	20+4=24	19+4=23
2015-16	158(99+59+00)	45	25+15=40	25+14=39	24+12=36



STUDENTS INFORMATION

STUDENTS PROGRESSION – GRADUATION IN FOUR YEARS

Year of Entry	Total No of Students	Number of students who have successfully graduated in stipulated period of study (With Backlog + Without backlog)			
		I Year	II Year	III Year	IV Year
2021-22	50+88+00=138	27+21=48			
2020-21	36+94+00 = 130	08+28=36	86+38=124	-	
2019-20	138 (54+84+00)	14+40=54	77+56=133	92+41=133	-
2018-19	138 (68+70+00)	21+40=61	68+59=127	84+42=126	88+38=126
2017-18	139 (73+66+00)	24+38=62	57+42=99	59+40=99	53+39=92
2016-17	146 (100+46+00)	46+36=82	77+24=101	77+24=101	77+23=100
2015-16	158(99+59+00)	34+45=79	67+40=107	63+39=102	58+36=94



STUDENTS INFORMATION

STUDENTS PROGRESSION – GRADUATION IN FOUR YEARS

Year of Entry	Total No of Students	Number of students who have successfully graduated in stipulated period of study (With Backlog + Without backlog)			
		I Year	II Year	III Year	IV Year
2021-22	50+88+00=138	21+27			
2020-21	36+94+00 = 130	8+28=36	38+86=124		
2019-20	138 (54+84+00)	13+41=54	84+52=136	41+102=133	-
2018-19	138 (68+70+00)	20+41=61	68+59=127	83+42=125	81+45=126
2017-18	139 (73+66+00)	23+38=61	59+41=100	60+39=99	58+38=96
2016-17	146 (100+46+00)	43+36=79	77+24=101	77+24=101	77+23=100
2015-16	158(99+59+00)	34+45=79	67+40=107	63+39=102	59+36=95
2014-15	154 (115+39+00)	58+32=90	80+27=107	79+25=104	82+22=104



STUDENTS INFORMATION

SUCCESS RATE IN THE STIPULATED PERIOD – WITHOUT BACKLOGS

Description	2018-19 to 2021-22	2017-18 to 2020-21	2016-17 to 2019-20
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable (X)	138	139	146
Number of students who have graduated without backlogs in the stipulated period (Y)	38	39	23
Success Index (SI) = Y/X	0.28	0.28	0.16
Average Success Index	0.24		



STUDENTS INFORMATION

SUCCESS RATE IN THE STIPULATED PERIOD WITH BACKLOGS

Description	2018-19 to 2021-22	2017-18 to 2020-21	2016-17 to 2019-20
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	138	139	146
Number of students who have graduated in the stipulated period	126	92	100
Success Index (SI)	0.913	0.661	0.685
Average Success Index	0.753		



STUDENTS INFORMATION

ACADEMIC PERFORMANCE OF SECOND YEAR STUDENTS

Academic Performance	2020-21	2019-20	2018-19
Mean of CGPA (X)	5.19	6.80	6.42
Total no. of successful students (Y)	124	133	127
Total no. of students appeared in the examination (Z)	130	136	131
API = $X * (Y/Z)$	4.93	6.59	6.13
Average API = $(AP1 + AP2 + AP3) / 3$	5.88		



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STUDENTS INFORMATION

ACADEMIC PERFORMANCE OF THIRD YEAR STUDENTS

Academic Performance	2019-20	2018-19	2017-18
Mean of the percentage of marks of all successful students in Third Year/10 CGPA (X)	6.85	6.73	7.08
Total no. of successful students (Y)	133	125	99
Total no. of students appeared in the examination (Z)	133	127	99
API = X* (Y/Z)	6.85	6.58	7.08
Average API = (AP1 + AP2 + AP3)/3	6.84		



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PLACEMENT & HIGHER STUDIES

Item	2021-22	2020-21	2019-20
Total No. of Final Year Students (N)	126	99	103
No. of students placed in companies or Government Sector (x)	59	47	57
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	00	04	04
No. of students turned entrepreneur in engineering/technology (z)	--	--	--
$x + y + z =$	59	51	61
Placement Index : $(x + y + z) / N$	0.47	0.52	0.59
Average placement = $(P1 + P2 + P3) / 3$	52.7%		



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STUDENTS ADMITTED HIGHER STUDIES

Students Admitted to Higher Studies during 2020-21

Sl.No	USN	Name of the Student	PG Course	University	Name of the institution
1	3VC17EE041	NARASIMHA NAYAKA B	MS	University of Hertfordshire	University of Hertfordshire
2	3VC17EE055	SIRI.R.P	MS	University of Applied Sciences, Germany	Ernst-Abbe-Hochschule Jena
3	3VC17EE072	VIJAYARAJ.L.SINGAVI	M.Tech	Deemed to be University, Girinagar, Pune	Defence Institute of Advanced Technology
4	3VC17EE073	VINEETH KUMAR V	M.Tech	Manipal	MNIT, Manipal

Students Admitted to Higher Studies during 2019-20

S.No	USN	Name of the Student	PG Course	University	Name of the institution
1	3VC16EE011	B.SNEHA	M.Tech	VTU	Oxford College of Engineering, Bangalore
2	3VC16EE024	KARISHMA.J.M	M.Tech	VTU	Oxford College of Engineering, Bangalore
3	3VC16EE054	POOJA.D	M.Tech	Autonomous	Dr. AIT, Bangalore
4	3VC16EE081	STELLA M S	M.Tech	Autonomous	BMS College of Engineering



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DEPARTMENT BUDGET

Total Budget in 2021-22: Rs.10,00,000		Actual expenditure : Rs.4,65138		Total no. of students:469
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
2,50,000	7,50,000	1,18,780	3,46,358	992

Total Budget in 2020-21: Rs.8,75,000		Actual expenditure:Rs.4,96,146		Total no. of students:454
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
2,50,000	6,35,000	1,60,668	3,35,478	1,092.83

Total Budget in 2019-20: Rs.8,00,000		Actual expenditure:Rs.6,84,940		Total no. of students:441
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
6,00,000	2,00,000	5,89,750	95,190	1,553.15



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Distinguished Department Alumni



Shakeel Ahmed
 Sr. Vice President, JSW, Toranagallu.



Dr. Basavaraj Banakar
 Registrar (Eval)
 Davangere University



Achuta Rama Rao
 Telugu Actor/Producer,
 Hyderabad



Ramesh.H
 Executive Engineer
 RT SECTION, TB DAM, Hospet



H.M. Mallikarjuna Swamy
 Chief Manager AERDC, HAL
 Bengaluru



Jaya Lalitha
 Superintend Engineer KPCL



Kutubuddin Basha
 Executive Engineer
 RT SECTION, Ballari



T.K. Nagaraj Rao
 Sr. Manager, MRPL
 Mangalore



Dr. Ashokkumar
 Director - Administration
 RGM College of Engg. Nandyal



Sumeer Ali.H
 Executive Engineer
 O&M SECTION, Ballari



G.L. Raghavendra Prasad
 Vidharti Enterprises &
 Consultants, Bengaluru



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Alumni Entrepreneurs

Sl No	Name of the Entrepreneur	Company Name	Contact No
1	G.L.Raghavendra Prasad	Vidharti Enterprises & Consultants, Bengaluru	6361929828
2	Mallikarjuna Gouda	Aditya Textile Park Garment Factory, Ballari	9535835166



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OBE PHILOSOPHY

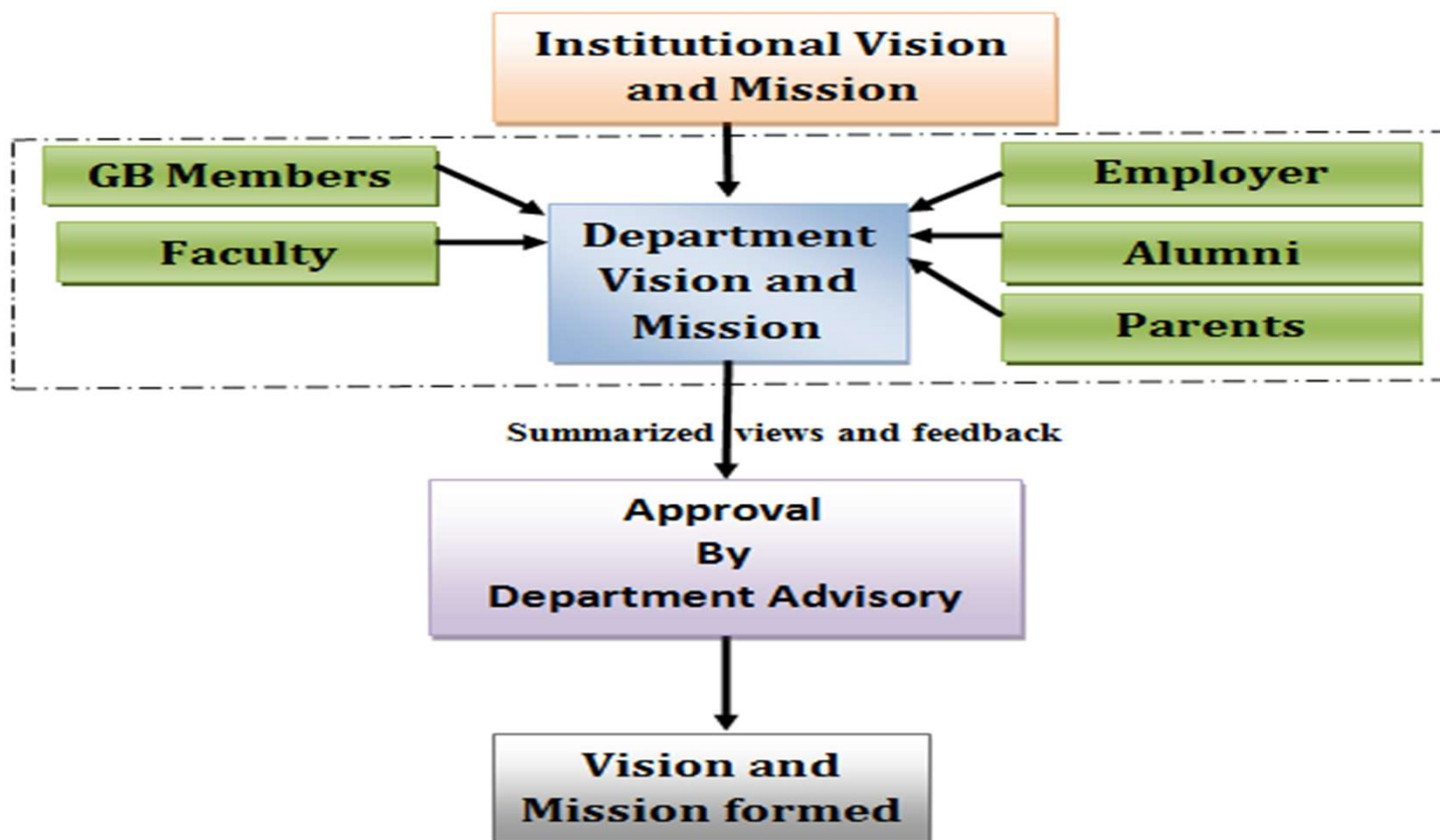


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Process for defining the Vision and Mission of the Department



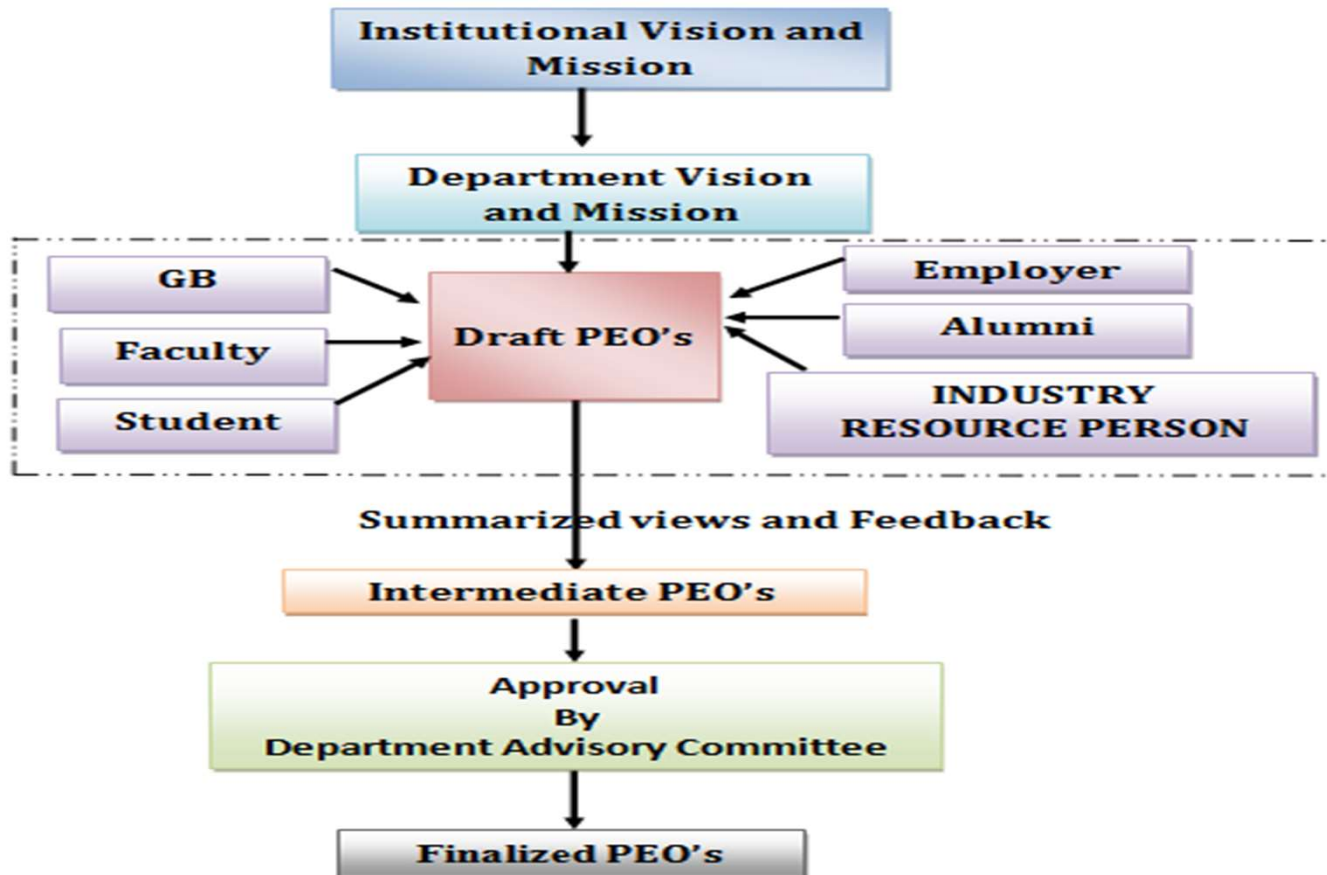


Programme Educational Objectives (PEO's)

- Graduates will have successful professional career with employment in various industrial and government sectors, both at national and international level endowed with competence and ethical acumen.
- Graduates will have ability to pursue higher education and career in multi disciplinary areas involving core engineering subjects with appropriate solutions to social and environmental issues.
- Graduates will have capacity for lifelong learning with emerging technologies in academics, as an entrepreneur or in research and development



Process for defining the PEOs





MAPPING OF PEOs WITH MISSION OF THE DEPARTMENT



PEO Statements	(M1) Quality education	(M2) Industry – Institute Interaction	(M3) Entreprene urship and Ethics	(M4) Innovation Research and Development
PEO 1: Graduates will have successful professional career with employment in various industrial and government sectors, both at national and international level endowed with competence and ethical acumen.	3	3	2	2
PEO 2: Graduates will have ability to pursue higher education and career in multidisciplinary areas involving core engineering subjects with appropriate solutions - to social and environmental issues	2	2	2	2
PEO 3 : Graduates will have capacity for lifelong learning with emerging technologies in academics, as an entrepreneur or in research and development	3	3	3	2
1 indicates Slightly 2 indicates Moderate 3 indicates substantial				



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INPUTS FOR VISION, MISSION, PEOs

Stake Holders	Particulars
Industry	  4 DEPARTMENTS
Alumni	30 Numbers
Parents	10 Numbers
Faculty	20 Numbers



Vision, Mission and PEOs are disseminated in

- Class Room
- Faculty Room
- HOD's Room
- Labs
- Student Induction Program
- Workshops, Student chapters, and Technical Talks.

Vision, Mission and PEOs are published on

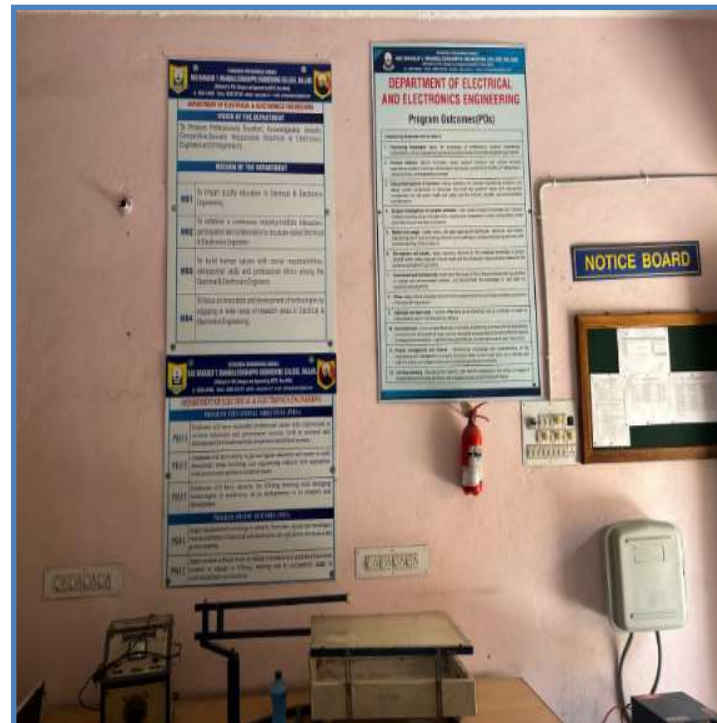
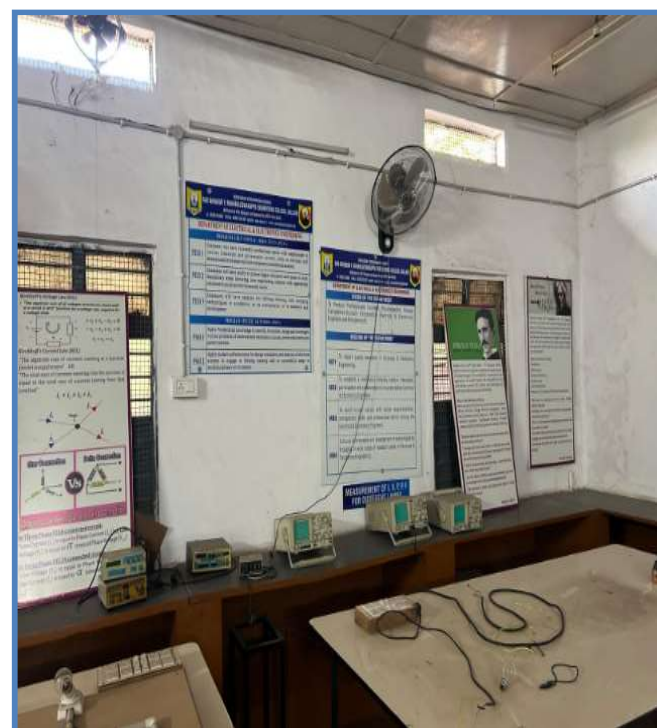
- Institute web site (www.rymec.in)
- Laboratory Manuals
- Departmental News letter
- Internal Assessment (CIE) Books



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VISION, MISSION AND PEOs - Dissemination





EEE Program Curriculum Structure

Course component	Curriculum Credit content (% of contribution)
Basic sciences +HSMC	$28/174 = 16\%$
Engineering Sciences	$20/174=12\%$
Professional Courses- Core	$93/174 = 53.45\%$
Professional/Open courses -Electives	$18/174=10.35\%$
Project/Internship/Seminar/ MiniProject	$15/174 = 8.62\%$



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Programs organized to fill Curriculum gaps

RAO BAHADUR Y MAHABALESWARAPPA ENGINEERING COLLEGE
Department of Electrical & Electronics Engineering

ALUMNI TALK ON
ELECTRICAL MAINTENANCE AND SCOPE OF EEE

Mr. T. K. NAGARAJ RAO (Alumni of VEC/RYMEC-1996 Batch)
GENERAL MANAGER (ELEC. MAINTT),
MANGALORE REFINERIES AND PETROCHEMICALS LTD, MANGALURU

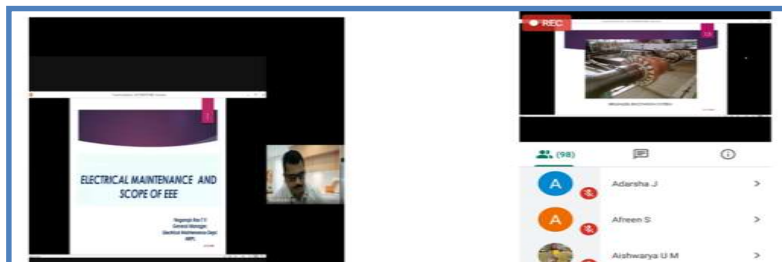
**ONLINE PLATFORM-
GOOGLE MEET**

CONVENER
Dr. S. KOTRESH
Head, Department of
Electrical & Electronics Engineering

COORDINATOR VIDYUTSAV
E. RAJASHEKHAR

DATE -21ST JULY
TIME :6PM TO 7PM

Best wishes from
Dr.T.HANUMANTHA REDDY, PRINCIPAL



Resource Person- TECHNICAL SESSION ON GATE

Mr.Pabba Ramesh, Senior Faculty, Electrical and Electronics Engineering,
ACE Engineering Academy, Chennai

V.V. Sangha's
Rao Bahadur Y. Mahabaleswarappa Engineering College, Ballari
Department of Electrical & Electronics Engineering

In Association with Jane Aerospace Pvt Ltd
Organizing students webinar on
"Drones and Artificial Intelligence"

Date: 15/05/2021 Time: 04:00PM to 05:00PM

Platform
Zoom, YouTube

Resource Person
Mr. Leo Peter Charles
Founder & MD,
Jane Aerospace Pvt Ltd

Conveners
Mr.Hanumantha Reddy
Mr.Rajashekar.K

Coordinators
Mr.Diwakar.B
Mr.Shivakumar. I

HOD-EEE
Dr.S.Kotresh

Principal
Dr.T.Hanumantha Reddy

V.V. Sangha's
Rao Bahadur Y. Mahabaleswarappa Engineering College, Ballari
Department of Electrical and Electronics Engineering
In association with
Internal Quality Assurance Cell

Organizes
Webinar on
"INTERPERSONAL SKILLS"
For Final Year and Pre-Final Year Students
Date:17/12/2020 Time:02:30PM to 3:30PM

Resource Person
Ms. Sonu Prakashchand
Manager-IT Solutions, EB Lilly and Company

Organizer: Dr. U M Netravathi

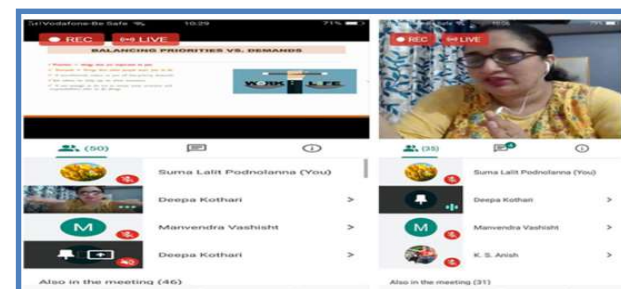
Coordinators: Mr. U. Shanitha Kumar, Mr. Diwakar B, Mr. Shiva Kumar I

Chairman-RYMEC: Sri J. S. Basavaraj
Sri K. M. Shivamurthy
Asst Secretary

Dr. K. Venkesh
Principal

Dr. Veeragangadhar Swamy T M
RGM-RYMEC

Dr. S. Kotresh
HOD-EEE



NBA **State Level IEEE Project Symposium**
IEEE
BANGALORE SECTION
"PRAKALP 2K22"
Open For All Engineering Streams UG & PG, On 17th June 2022 at 10.00 AM
Organised by : IEEE - RYMEC, STUDENT BRANCH (STB99412)
In association with **VIDYUTSAV-2022**
Electrical & Electronics Engineering Department
STAFF & STUDENTS
Inaugural Venue : RYMEC Auditorium / Vaedictory Venue : CSE Seminar Hall





Internship Visit Details and Gap filling/Impact Analysis

YEAR	GENERATION (Conventional/Non conventional)	Transmission & Distribution	Control & Maintenance	TOTAL
2021-22	30 students	65 students	40 students	135
	22.22%	48.14%	29.63%	
2020-21	78 students	09 students	38students	125
	62.40%	7.20%	30.4%	
2019-20	13 students	68 students	45students	126
	10.31%	53.97%	35.72%	
Avg	31.64%	36.43%	31.91%	100%

Subjects Covered : T & G, EM, EPG, PE, FT, T&D, PS-I/II, PSOC, PSP/SGP, HVE etc



Course Outcomes and Program Outcomes



Course: Transformer & Generators ; Course Code: 17EE33

At the end of the Course, Students will be able to

C203.1	Demonstrate the construction, operation and performance of single phase and three phase transformers.
C203.2	Explain the use of autotransformer, tap changing and tertiary winding transformer of operating transformer in parallel.
C203.3	Discuss the armature reaction and commutation in a DC generator.
C203.4	Analyse the construction, performance of synchronous machines.

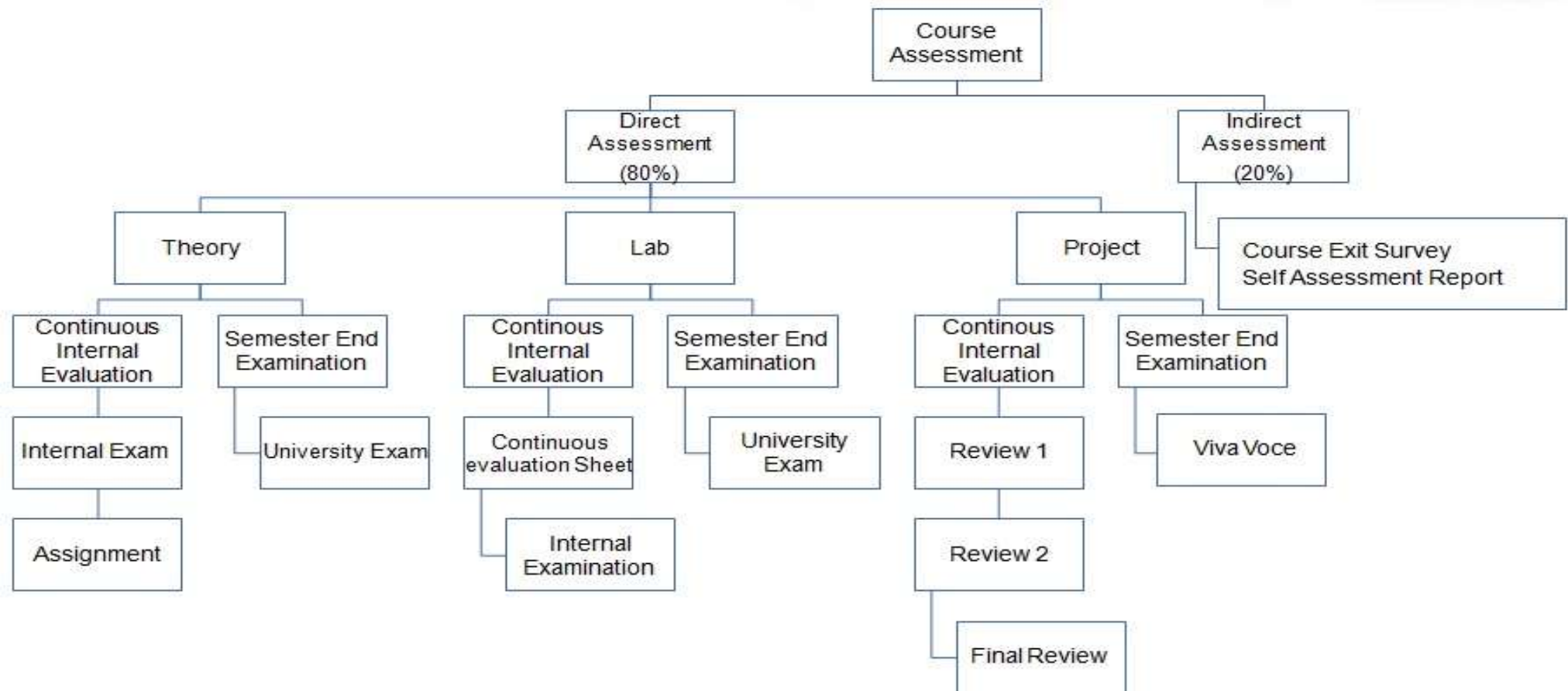
PSO1	Apply fundamental knowledge to identify, formulate, design and investigate various problems of electrical and electronics circuits, power electronics and power systems.
PSO2	Apply modern software tools for design simulation and analysis of electrical systems to engage in lifelong learning and to successfully adapt in multidisciplinary environment.

PROGRAM OUTCOMES (POs)

- **PO1:** Engineering Knowledge
- **PO2:** Problem Analysis
- **PO3:** Design/Development of Solutions
- **PO4:** Conduct investigations of complex problems
- **PO5:** Modern Tool usage
- **PO6:** Engineer & Society
- **PO7:** Environment & Sustainability
- **PO8:** Ethics
- **PO9:** Individual & Team work
- **PO10:** Communication
- **PO11:** Project Management & Finance
- **PO12:** Life long learning

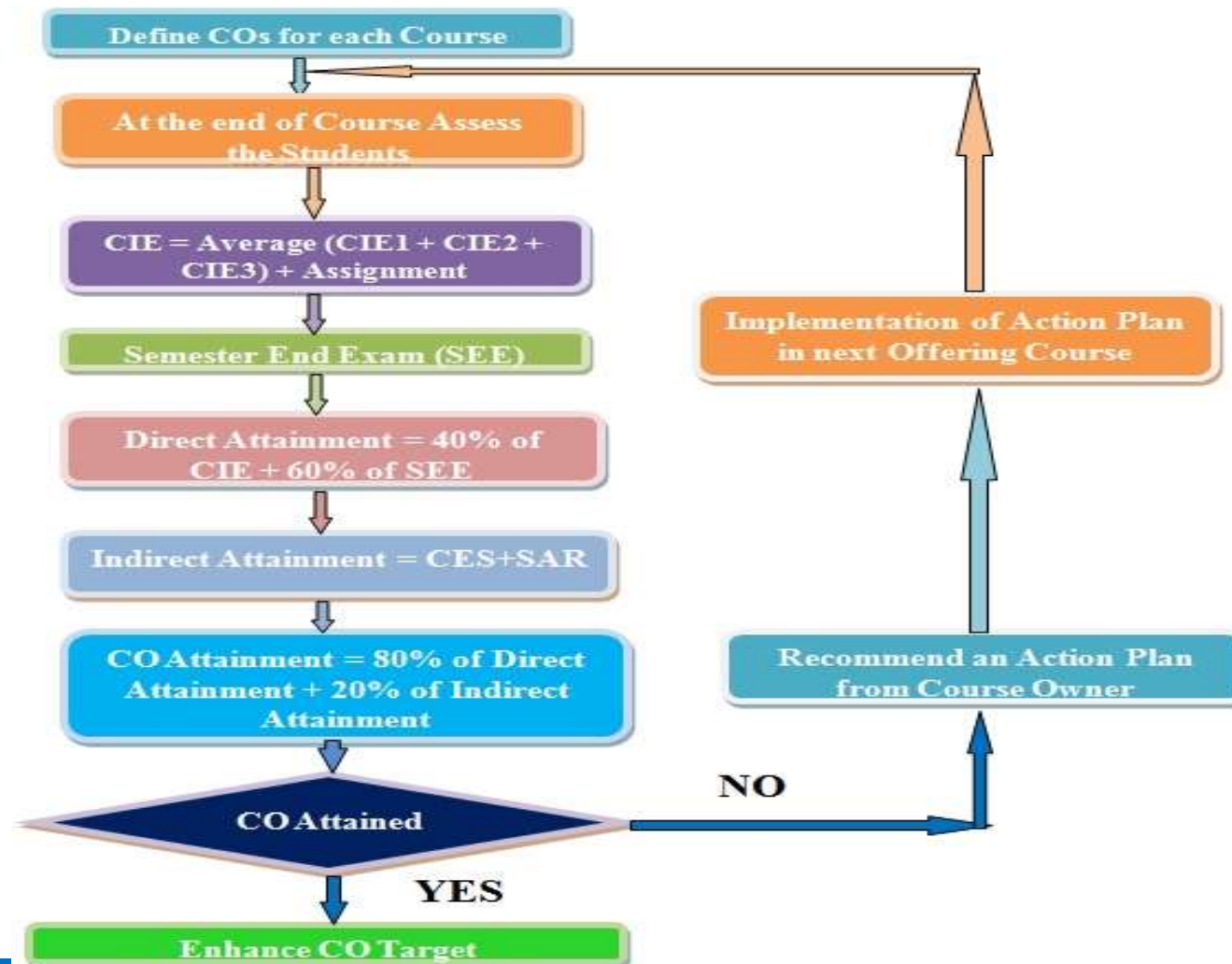


Course Outcomes Assessment Process





Course Outcomes Assessment Process





Attainment Of Course Outcomes

Evaluation of Theory Course

A1. Three Continuous Internal Evaluation tests including Assignment

A2. Semester End Examination

A3. Course Exit Survey and Self Assessment Report

A1. Attainment through Continuous Internal Evaluation Assessment (Test + Assignment)

Attainment Level	Significance
Level 3	80% Students scoring more than 60% of maximum marks.
Level 2	70% Students scoring more than 60% of maximum marks.
Level 1	60% Students scoring more than 60% of maximum marks.

A2. Attainment through Semester End Examination

Attainment Level	Significance
Level 3	80% Students scoring more than 40% of maximum marks.
Level 2	70% Students scoring more than 40% of maximum marks.
Level 1	60% Students scoring more than 40% of maximum marks.



Attainment of Course Outcomes contd.,



A3. Attainment through Course Exit Survey (CES) and Self Assessment Report (SAR)

Levels	Significance
Level 5	Excellent
Level 4	Very Good
Level 3	Good
Level 2	Average
Level 1	Below Average

Final CO attainment calculation for Theory

Continuous Internal Evaluation(CIE) test analysis

- ❖ Microanalysis is done for all three CIE test question wise and by calculating % of students scoring more than 60% of maximum marks per question.
- ❖ Final CIE test analysis for each CO is done by calculating average for all three CIE test and Assignment.

Semester End Exam analysis

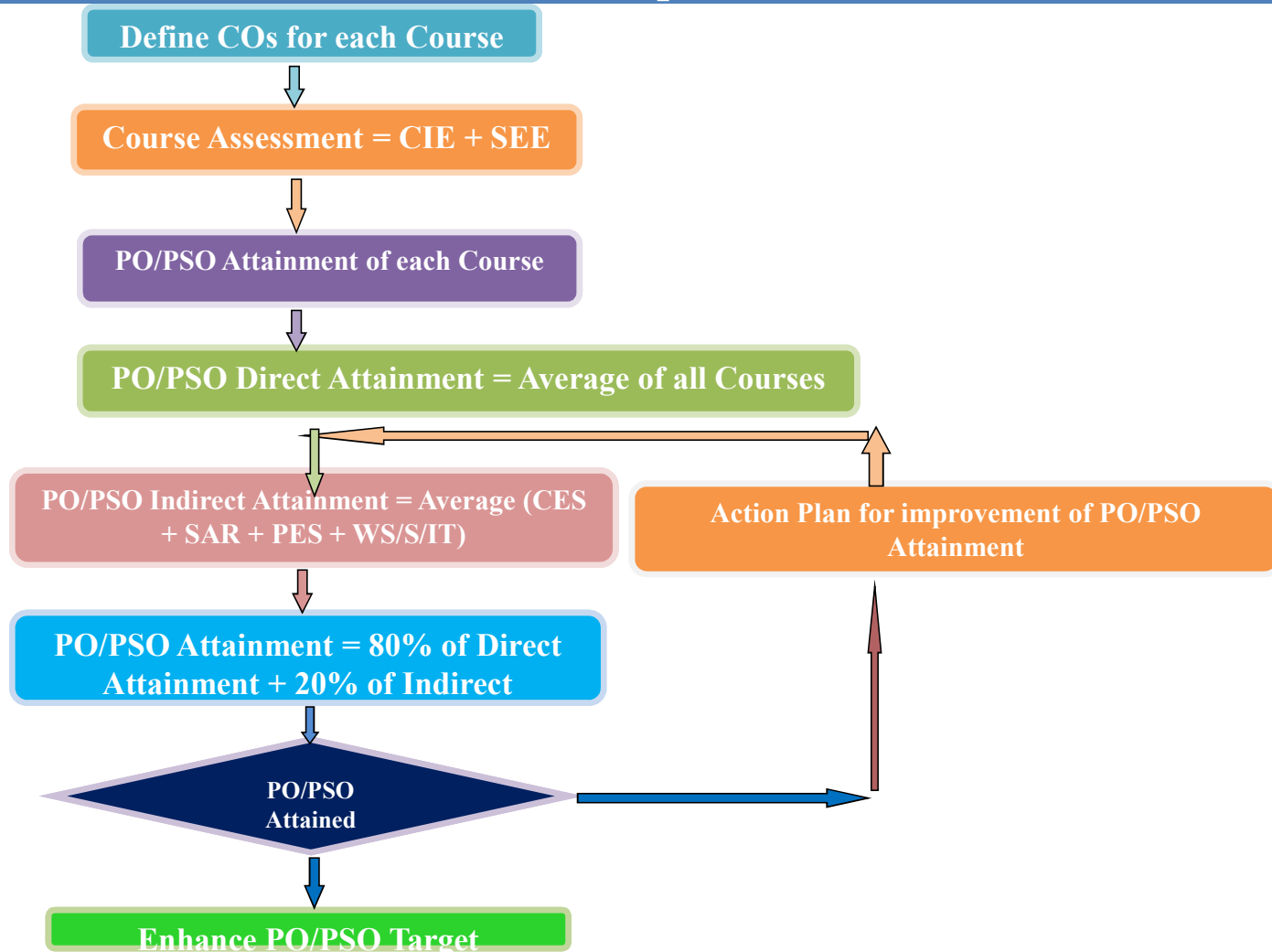
- ❖ Analysis is done by calculating % of students scoring more than 40% of maximum marks in Semester End Examination (conducted by University).

CO Attainment

- ❖ CO Direct Attainment is calculated by **60%** weightage given to Semester End Examination and **40%** weightage to Internal Assessment test.
- ❖ Final CO Attainment is calculated by **80%** weightage given to Direct Attainment and **20%** weightage to Indirect Attainment (using Course Exit Survey and Self Assessment Report)



PO and PSO Assessment process





PO and PSO Attainment



Overall PO ATTAINMENT 2018-2022 BATCH

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
PO ATTAINMENT DIRECT	2.70	2.39	1.36	1.25	0.59	0.62	0.50	0.32	0.81	0.90	0.60	0.78	1.10	0.60
PO ATTAINMENT DIRECT AND INDITECT	2.84	2.54	1.29	0.99	0.57	0.46	0.47	0.24	0.80	0.84	0.49	0.69	1.17	0.59
PO ATTAINMENT DIRECT *0.8	2.16	1.92	1.08	1.00	0.48	0.49	0.40	0.26	0.65	0.72	0.48	0.63	0.88	0.48
PO ATTAINMENT DIRECT AND INDITECT *0.2	0.57	0.51	0.26	0.20	0.11	0.09	0.09	0.05	0.16	0.17	0.10	0.14	0.23	0.12
PO ATTAINMENT(PO ATTAINMENT DIRECT *0.8+PO ATTAINMENT DIRECT AND INDITECT *0.2)	2.73	2.42	1.34	1.19	0.59	0.59	0.49	0.30	0.81	0.89	0.58	0.77	1.11	0.59
TARGET ATTAINMENT	2.76	2.46	2.31	2.12	2.39	1.58	1.83	1.50	2.15	2.06	2.04	1.89	1.66	1.60



PO and PSO Attainment



OVERALL PO ATTAINMENT 2017-2021 BATCH

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO1 1	PO12	PSO1	PSO2
PO ATTAINMENT DIRECT	2.13	1.84	1.38	0.61	0.61	0.59	0.55	0.27	0.62	0.62	0.47	0.61	0.70	0.79
PO ATTAINMENT DIRECT AND INDIRECT	2.19	2.00	1.47	0.64	0.68	0.52	0.56	0.26	0.57	0.59	0.44	0.76	0.85	0.65
PO ATTAINMENT DIRECT *0.8	1.70	1.47	1.11	0.49	0.49	0.47	0.44	0.21	0.50	0.50	0.37	0.49	0.56	0.63
PO ATTAINMENT DIRECT AND INDIRECT *0.2	0.44	0.40	0.29	0.13	0.14	0.10	0.11	0.05	0.11	0.12	0.09	0.15	0.17	0.13
PO ATTAINMENT(PO ATTAINMENT DIRECT *0.8+PO ATTAINMENT DIRECT AND INDIRECT *0.2)	2.14	1.87	1.40	0.62	0.62	0.58	0.55	0.26	0.61	0.61	0.46	0.64	0.73	0.76
TARGET ATTAINMENT	2.34	2.45	2.32	1.40	1.86	1.21	1.34	0.94	1.60	1.50	1.53	1.65	1.68	1.16



CONTINUOUS IMPROVEMENT

Actions taken based on the results of evaluation of each of the POs &PSOs

- Encouraged to take up projects, internships, Technical seminars in inter disciplinary areas as per VTU curriculum
- Planned for Industrial/ Power Plants Visit routinely which covers short falls in many Courses of the curriculum
- Invited Technical talk/webinars on Interpersonal Skills is organized for students to know their individual strengths.
- Motivating the students to follow NPTEL and Edusat Program Video Lectures
- Awareness program on Demand side management and Electrical safety measures to enhance the practical knowledge in collaboration with GESCOM
- Given projects by considering the overall socio cultural, environmental issues
- Encouraged the students on Electric vehicle design and Solar power generation under go green concept
- Tools used in Electrical laboratories/Mini projects, Solar cells, Drives, Firing circuits, Relays etc
- Encouraged the students to participate in Swatch Bharat Abhiyaan programs, waste management, E-Waste and its dispose
- Encouraged the students to fetch the grants towards projects from state funding agencies KSCST, Department of IT/BT Government of Karnataka and VTU
- Students are engaged in group activities like identifying major issues in villages and finding solution through final year projects



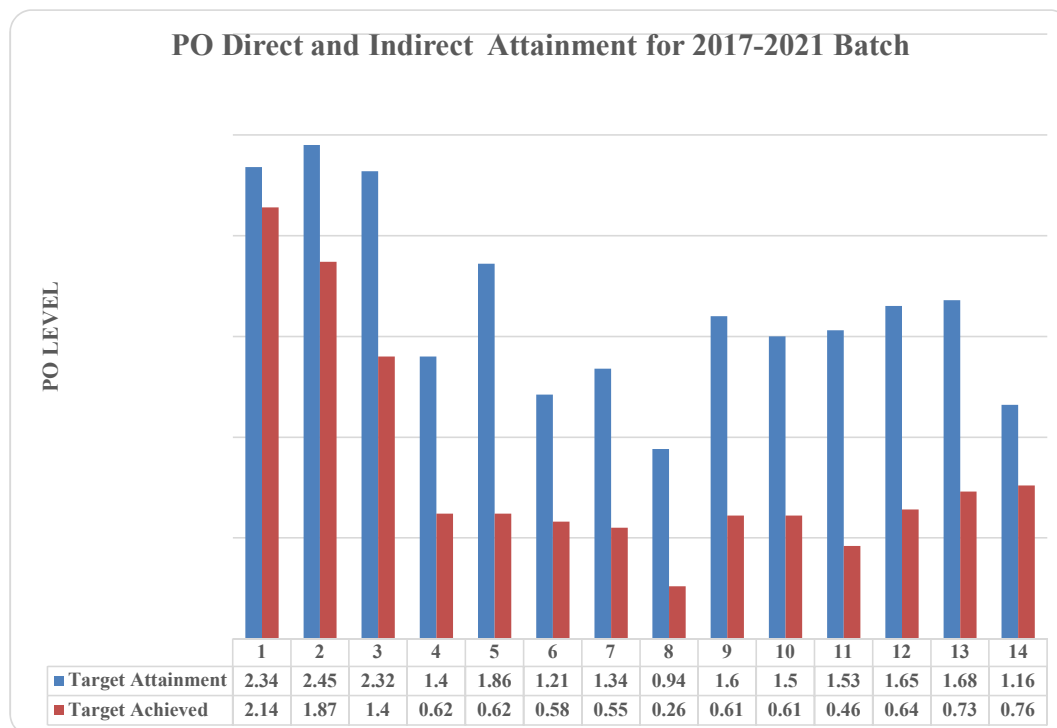
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CONTINUOUS IMPROVEMENT

Summary of the PO Attainment 2020-2021

2020-21			
PO's	Target (From Table 3.3.2)	Attainment	Attainment Gap
PO1	2.34	2.14	0.20
PO2	2.45	1.87	0.58
PO3	2.32	1.40	0.92
PO4	1.4	0.62	0.78
PO5	1.86	0.62	1.24
PO6	1.21	0.58	0.63
PO7	1.34	0.55	0.79
PO8	0.94	0.26	0.67
PO9	1.6	0.61	1.00
PO10	1.5	0.61	0.89
PO11	1.53	0.46	1.07
PO12	1.65	0.64	1.00
PSO1	1.68	0.73	0.94
PSO2	1.16	0.76	0.40



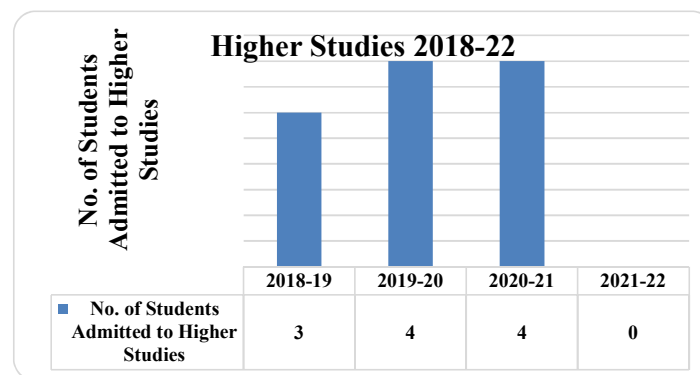
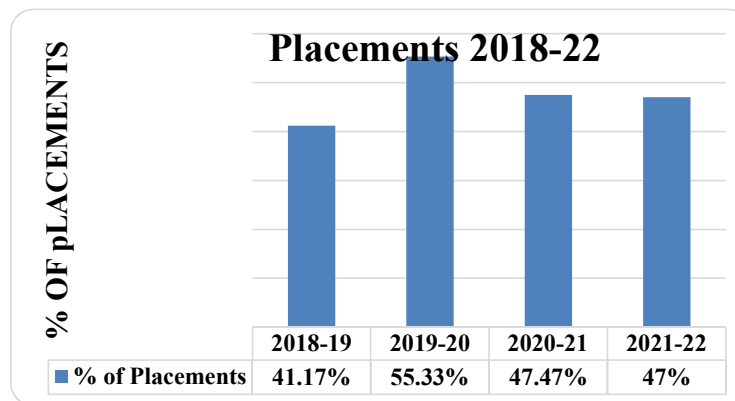


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Summary of Placement and Higher studies Details :(2018-2022)

Placement Details	2018-19	2019-20	2020-21	2021-22
No of Students Placed	42	57	47	59
Total number of Final year students	102	103	99	126
% OF STUDENT PLACED	41.17 %	55.33 %	47.47%	47%





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Improvement in the quality of students admitted to the Program

Item		CAY(2021-22)	CAY(2020-21)	CAY(2019-20)	CAY(2018-19)
National Level Exam		Nil	Nil	Nil	Nil
KCET Examination	No. of Students admitted	50	36	54	68
	Opening Score/Rank	55016	27672	16457	19940
	Closing Score/Rank	176926	206816	211847	209681
Lateral Entry Students (Diplo ma-KCET)	No. of Students admitted	94	84	70	66
	Opening Score/Rank	1496	32	659	2192
	Closing Score/Rank	13359	11166	14103	18036
TOTAL No of Students Admitted		50+94(DIP)=144	36+84(DIP)=120	54+70(DIP)=124	68+66(DIP)=134
Average CBSE/any other board result of admitted students		69	66	70	69



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Sl No	Best practices in the Department
1	Utility Projects implemented by the Final year students like Solar lightning, Electric Vehicles, Automatic Bio fertilizer Units, Lamp loads etc.,
2	Motivated and provided the students to go for internships at various organization like solar, thermal, Steel plants, KPCL, KPTCL etc.,
2	Regularly organizing Plantation drive, Blood donation camps, Vaccine drive with more than 350+ students donated blood voluntarily
3	Developed Department Library by insisting to donate Books from the out going students
4	Regularly Visiting Power stations and industries to gain the knowledge

RENEWABLE ENERGY PROJECT (Go Green concept)

A solar power generation unit of capacity 1.4KW is installed which meets the energy usage as follow.

Approximatly energy generated per day 8 units on bright sunlight days

S.N o	Utility Area	Appliances used	Energy consumption
1	Electrical Lab	Machines 6 LED Lamps, each 30W for 6 hours	1080 W-hr
2	HOD	Computer system 250W for 8 hours	2000 W-hr
		2 Tube lights, 40W for 8 hours	640 W-hr
		2 Fans, 70W for 6 hours	840 W-hr
3	HVE Lab	Computer system 250W for 8 hours	2000 W-hr
		2 Tube lights, 40W for 8 hours	640 W-hr
		1 Fans, 70W for 6 hours	420 W-hr
4	Class Room	Fans and Tube lights	6120 W-hr
Total Energy Consumption per Day approximately			13,740 W-hr
Units Consumed per day			13.74 UNITS
Energy Conserved per Month (25 Working Days)			344 UNITS
Billing at present rate 344*Rs 8.5			Rs 2920/-
YEARLY SAVING			Rs.35037-00

- If load exceeds 80% of the above load shown it get automatically connected to grid supply.
- Also as part of societal responsibility, students have done automated street lighting using LDR system which is also a great energy saving system.
- Also The RO drinking water system of EEE dept is solar powered.



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SWOT (Strengths, Weaknesses, Opportunities and Threats)

Strengths

Team work of faculty and staff

Qualified and experienced faculty members with 06 PhDs and 06 were pursuing.

Satisfactory Infrastructure and well settled alumni

Quality graduation program

Good performance of students in examination

Following academic calendar as per university guidelines and schedule

Close relationship between student and good academic professionals

Focused on application oriented student projects useful for the society and institution

Good committed staff and Capable to establish Laboratories as per curriculum independently.

Students, faculty and staff are committed to the college and community

Revenue generation from Third party inspection

Industry Established Training centre (TATA Technologies)

Weakness

Lack of full time research scholars

Lack of larger research projects

Lack of Research Infrastructure and funding

Lack of NRI student attraction

Lack of targeted advertisements to students out-of- state or out-of-region



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SWOT

(Strengths, Weaknesses, Opportunities and Threats)

Opportunities

Development of leaders in engineering

Interdisciplinary growth across departments

Practice-based research

Joint research programs

Training of faculty and supporting staff

Improvement in campus placement in Core

Threats:

Lack of interest in Core Engineering

Inclination towards IT related programs

Lack of publicity in areas of excellence, value and quality





Last preference for teaching side



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Cantonment, Ballari - 583104



MOU Agreement with Industries & Universities.

Sl. No.	Company	Logo
1	Tata Technologies Ltd. Pune	
2	Tech Fortune Technologies, Bengaluru	
3	Medini	
4	Infosys Spring board	
5	KITS Bangalore. Karnataka Innovation & Technology society(KITS) New age Incubation Network	