

**STAFF SELF APPRAISAL REPORT****2021-2022****KSSEM**

Field	Data	SCORE
Name	Dr. Arun Kumar M	
Present Address, Mob.No., e-mail id.	No. 647, 5 <sup>th</sup> main 12 <sup>th</sup> cross, MCR Layout, Vijayanagar, Bangalore - 560040	
Age and Date of Birth	45 years, 04/12/1976	
Qualification	B.E, M.E, Ph.D	
Designation and Department	Associate Professor	---
Teaching Experience (After PG)	17 years 10 months	
Other Experience(If any)	2 years as faculty for software training 1 year as lecturer in SCTIT	
List of Subjects Taught till date (use separate sheet if necessary)	<ol style="list-style-type: none"> <li>1. Signals and systems</li> <li>2. Basic electrical engineering</li> <li>3. Basic electronics</li> <li>4. Programming in C++</li> <li>5. Field theory</li> <li>6. Power electronics</li> <li>7. Digital signal processing</li> <li>8. Embedded systems</li> <li>9. Real time embedded systems</li> <li>10. Automotive electronics</li> <li>11. Control systems</li> <li>12. Flexible AC transmission systems</li> <li>13. Industrial Drives and application</li> <li>14. Linear and non-linear optimization</li> <li>15. FACTS and HVDC Transmission</li> </ol>	
Number of FDPs attended since joining service (Attach Separate List)  Enclosed: Annexure – 01	<ol style="list-style-type: none"> <li>1. Innovation, Business Models and Entrepreneurship (61%)</li> <li>2. Patent Search for Engineers and Lawyers (60%)</li> <li>3. NPTEL - Ethics in engineering practice(Exam Consolidated score: 69%)</li> <li>4. NPTEL - Teaching and learning in general programs (Exam Consolidated score: 75%)</li> <li>5. NPTEL - NBA Accreditation and Teaching – Learning in Engineering (Exam Consolidated score: 75%)</li> </ol>	--

	6. NPTEL - Managing Intellectual Property in Universities (Exam Consolidated score: 78%) 7. NPTEL - Intellectual Property (Exam Consolidated score: 85%) 8. NPTEL - Technical English (Exam Consolidated score: 65%) 9. SWAYAM ARPIT – Assessment of practical and social skills in higher education (Exam Consolidated score: C grade)	
*Subjects taught in the Assessment Year and percentage pass (Both Theory & Practicals) (10marks for each x Percentage) If Online please indicate.	1. Artificial Intelligence Techniques for Electric and Hybrid Electric Vehicles : $(100/100)*10 = 10$ 2. Power Electronics: $(64.3/100)*10 = 6.43$ 3. Basic Electrical Engineering: $(61/100)*10 = 6.1$ 4. FACTS and HVDC Transmission: (Expected Awaited Result = $(90/100)*10 = 9$ ) 5. Power Electronics Lab: $(100/100)*10 = 10$ 6. Basic Electrical Engineering Lab: $(100/100)*10 = 10$	51.53/40
Details of UG Projects Guided (5 marks/ project guided) Provide Titles (HOD to endorse)	1. Solar Power Indoor Air Purifier (8 <sup>th</sup> sem) 2. Smart Shoes for Visually Impaired People (6 <sup>th</sup> sem) 3. Smartphone Controlled Robotic Car (6 <sup>th</sup> sem)	10/10
Details of PG Projects Guided (5 marks/ project guided) Only for MBA/M.Tech. Provide Titles (HOD to Endorse)	1. 2.	/10
Percentage of classes held ( No. of classes taken/no. of classes allocated x 5) Give details. HOD to Endorse.	1. Artificial Intelligence application to Electric and Hybrid Electric vehicles: $(37/39)*5 = 4.74$ 2. Power Electronics: $(52/52)*5 = 5$ 3. Basic Electrical Engineering = $(40/40)*5 = 5$ 4. FACTS and HVDC Transmission = $(40/40)*5 = 5$	4.93/5
Student Feedback for Offline / Online classes. (Av. Percentage x 5 marks) Give details. HOD to verify. Enclosed: Annexure – 02	1. 7 <sup>th</sup> sem: 89.43 2. 5 <sup>th</sup> sem: 96 3. 1 <sup>st</sup> sem: 88.50 $((89.43+96+88.5)/3)*0.01*5=4.57$	4.57/5

\* Marks to be awarded for subjects for which end exam was conducted

Details of students mentored during current assessment year. (Furnish details)		--
Details of Participation in VTU Bodies (2 Marks) Furnish details and proofs.		/2
Details on Examination related Activity (2marks each) Marks only for external responsibility.)	<ol style="list-style-type: none"> <li>1. Practical Exams</li> <li>2. Conduction of Theory exams</li> <li>3. Paper Setting</li> <li>4. Evaluation</li> </ol>	8/8
List of FDPs attended during the Assessment year (5 marks each) (Attach Certificate copies) Provide Title, dates etc. HODs to verify	<ol style="list-style-type: none"> <li>1) Innovation, Business Models and Entrepreneurship (Consolidated score: 61%) Enclosed: Annexure – 03</li> <li>2) Patent Search for Engineers and Lawyers (Consolidated score: 60%) Enclosed: Annexure – 04</li> </ol>	10/10
Financial Assistance received during current year for attending FDPs	Rs.	--
Status of Ph.D. [Attach proof for each stage and for every claim] Ph.D. Completed – 10 marks.	<ol style="list-style-type: none"> <li>1. Awarded (2 marks)</li> <li>2. Thesis Submitted and awaiting reports (1 mark)</li> <li>3. Thesis Preparation (2 Mark)</li> <li>4. Experimentation/Data Collection in completed (1 mark)</li> <li>5. Comprehensive viva voce completed (1 mark)</li> <li>6. Appeared for Course work exams (1 mark)</li> <li>7. Applied for registration formalities (1 mark)</li> <li>8. Identified Guide/Research Centre and preparing research Proposal (1mark.)</li> <li>9. Not thought of pursuing Ph.D. (zero)</li> </ol>	10/10
Research Publications: (5 marks each) Provide Full Details. HODs to verify.	<ol style="list-style-type: none"> <li>1. "Non-Invasive Device to Measure and Monitor Lung Capacity", International Journal of Innovative Research in Science, Engineering and Technology, Vol 10, Issue</li> </ol>	5/10

[Attach copies of Title Page] Enclosed: Annexure – 05	12, December 2021, pp 15860 – 15867. Another two papers are ready for submission to publish.	
Seminars / Workshops / Conferences attended (5 Marks each) Data to be verified by HODs. [Attach Certificate Copies]	1. 2.	/10
Financial Assistance received during current year for attending such events.	Rs.	--
Registered as Research Guide (Reasons for not registering)	No If ' Yes ' furnish details.	-
Research Scholars registered with details	No If Yes, 5 marks	/5
Details of Patents Applied for (If any) One application 5 marks Provide Details.		/5
Academic Programs organized and supported during current year.(Only FDP/Workshop/Seminar / Conference) . Do not include Webinars.		/5
Details of programs attended for skill development like MOOCs, MOODLES, COURSERA, NPTEL and others (Only programs >= 20 hours need to be considered.		/5
Details of Utilization of NPTEL and other Online materials for augmenting own lectures. Provide proof for using this in the classroom. HOD to	Following NPTEL materials were referred to students as additional study materials <ul style="list-style-type: none"> <li>• <a href="https://nptel.ac.in/courses/108/106/108106170/">https://nptel.ac.in/courses/108/106/108106170/</a></li> <li>• <a href="https://nptel.ac.in/courses/108107114/">https://nptel.ac.in/courses/108107114/</a></li> <li>• <a href="https://nptel.ac.in/courses/108105066">https://nptel.ac.in/courses/108105066</a></li> </ul>	/5

Verify.		
Details of Project Proposal submitted during the current year. (At least one) Provide Details	Solar Air Purifier is submitted to VTU for VTU financial assistance.	5/5 115
Details of Project Funds Received. (including KSCST & VTU financial assistance)	Rs.	/5
Consultancy Revenue Generated	Rs.	/5
Details of Participation in cultural events during the current year	NOT APPLICABLE FOR CURRENT YEAR	
Additional Responsibilities in the Department/ College Example: Head, Coordinator, Accreditation etc.(2marks for each responsibility)	<ol style="list-style-type: none"> <li>1) Head of the Department, EEE</li> <li>2) College NAAC 7 coordinator</li> <li>3) Dept Mini-Project coordinator</li> <li>4) Dept Time-table coordinator</li> <li>5) Dept IA coordinator</li> <li>6) Dept IQAC coordinator</li> </ol>	10/10 6/10
Details of Live Membership for Professional Bodies (IEEE CSI SEA ISTE .....)(2marks for first membership & 3 marks for second membership)	Life member IETE Initiated to upgrade Life member IETE to Fellow member IETE.	2/5
Contribution to Cultural / Sports Events (Furnish Details) [Marks to be granulated based on the responsibility and participation by the HOD.]	Actively involved in all the cultural activities especially with respect to disciplinary committee.	5/5 2/5
Contribution towards Branding, Admissions, etc [Marks to be granulated based on the responsibility and participation by the HOD.]	Telephonic call	5/10

TOTAL

  
Signature of faculty

Date: 16/7/2022



Comments from the HOD:

Signature of the HOD

Comments of the Principal after the discussion:

  
Signature of the Principal

CEO



# MARKSHEET

Name: ARUN KUMAR M

DOB: 04-12-1976

Discipline	Year	Course Name	Marks		Total Marks (100%)	Status	Performance
			Assignment (25%)	Exam (75%)			
MG	2021	Innovation, Business Models and Entrepreneurship	17.5	43.5	61	Pass	Elite
HS	2021	Patent Search for Engineers and Lawyers	18.71	41.5	60	Pass	Elite
MG	2020	Ethics in Engineering Practice	22.5	46.5	69	Pass	Elite
GE	2020	Teaching And Learning in General Programs: TALG	20	54.75	75	Pass	Elite + Silver
HS	2019	Managing Intellectual Property in Universities	23.33	54.75	78	Pass	Elite + Silver
HS	2018	Intellectual Property	20.53	64.13	85	Pass	Elite
HS	2018	Technical english for engineers	16.79	48	65	Pass	Elite
HS	2018	Patent Law for Engineers and Scientists	22.5	32.25	55	Pass	-
HS	2018	Patent Drafting for Beginners	14.25	33.75	48	Pass	-



**PROF. ANDREW THANGARAJ**  
 NPTEL COORDINATOR  
 IIT MADRAS

ID	DEPARTMENT NAME
AE	Aerospace Engineering
AG	Agriculture
CE	Architecture
BT	Biotechnology
CH	Chemical Engineering
CY	Chemistry and Biochemistry
CE	Civil Engineering
CS	Computer Science and Engineering
EE	Electrical Engineering
EC	Electronics & Communication Engineering
ED	Engineering Design
BT	General
HS	Humanities and Social Sciences
MG	Management
MA	Mathematics
ME	Mechanical Engineering
MM	Metallurgy and Material Science
MM	Mining Engineering
GE	Multidisciplinary
OE	Ocean Engineering
PH	Physics
SS	Special Lecture Series
DE	Textile Engineering

Total Mark
>=90
75-89
>=60

Performance
Elite + Gold
Elite + Silver
Elite





# K. S. School of Engineering & Management, Bangalore - 560109

Department of Electrical & Electronics Engineering

Staff Feedback (2021-22) Odd Sem

Seventh Sem

Faculty Name: Dr. Arun Kumar M

Sl. No.	1. Effective Planning & organisation	2. Punctuality / Class time Utilization	3. Ability to teach / explain / effective use of board	4. Interaction / Motivating students	5. Subject knowledge	6. Presentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
1	5	5	5	5	5	5	5	5	5	
2	4	4	4	4	4	4	4	4	4	
3	4	4	4	4	4	4	4	4	4	
4	4	4	3	3	4	4	5	3	4	
5	5	5	5	5	5	5	5	5	5	
6	5	5	5	5	5	5	5	5	5	
7	4	3	4	5	4	5	4	5	5	
Col. Total	31	30	30	31	31	32	32	31	32	
Col. Avg.	4.428571	4.285714	4.285714	4.428571	4.428571	4.571429	4.571429	4.428571	4.571429	
Over all %	89.43									

Head of Department

Associate Professor

Head of the Department

Department of Electrical & Electronics Engineering  
K S School of Engineering and Management  
Bangaluru-560 109

Principal



KSSEM

# K. S. School of Engineering & Management, Bangalore - 560109

Department of Electrical & Electronics Engineering

Staff Feedback (2021-22) Odd Sem

Fifth Sem

Faculty Name: Dr.ArunKumar M

Sl. No.	1. Effective Planning & organisation	2. Punctuality / Class time Utilization	3. Ability to teach /explain / effective use -of board	4. Interaction / Motivating students	5. Subject knowledge	6. Presentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
1	5	5	5	5	5	5	5	5	5	
2	5	5	5	5	5	5	5	5	5	
3	5	5	5	4	5	4	4	4	4	
Col. Total	15	15	15	14	15	14	14	14	14	
Col. Avg.	5.00	5.00	5.00	4.67	5.00	4.67	4.67	4.67	4.67	
Over all %	96.00									

  
Head of Department

Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
K S School of Engineering and Management  
Bangaluru-560 109

  
Principal

## K. S. School of Engineering &amp; Management, Bangalore - 560109

Department of Basic Science  
Staff Feedback (2021-22) Odd Sem  
First Sem 'B' Sec

Faculty Name: Dr. Arun Kumar

Sl. No.	1. Effective Planning & organisation	2. Punctuality / Class time Utilization	3. Ability to teach /explain / effective use of board	4. Interaction / Motivating students	5. Subject knowledge	6. Presentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
1	5	5	5	5	5	4	5	5	5	5
2	4	4	3	4	5	3	4	2	4	4
3	5	5	5	5	5	5	5	5	5	5
4	3	3	3	3	3	3	3	3	3	3
5	2	5	2	1	3	2	4	2	4	5
6	5	5	4	5	4	5	4	5	4	5
7	5	5	4	5	5	5	5	5	5	5
8	5	5	5	5	5	5	4	5	5	5
9	4	5	4	5	5	5	5	5	5	5
10	5	5	5	5	5	5	5	5	5	5
11	5	5	5	5	5	5	5	5	5	5
12	5	5	5	5	5	5	5	5	5	5
13	5	5	5	5	5	5	5	5	5	5
14	5	5	5	5	5	5	5	5	5	5
15	4	4	4	4	4	4	4	4	4	4
16	4	4	4	4	4	4	4	4	4	4
17	4	4	4	4	4	4	4	4	4	4
18	5	5	5	5	5	5	5	5	5	5
19	4	4	4	4	4	4	5	4	5	5
20	4	4	4	4	4	4	4	4	4	4
21	4	4	4	3	4	3	4	3	4	5
22	4	5	4	3	5	4	4	4	5	4
23	5	5	5	5	5	5	5	5	5	5
24	5	5	4	5	5	4	5	5	5	5
25	5	5	5	5	5	5	5	5	5	5
26	5	5	5	5	5	5	5	5	5	5
27	5	5	5	5	5	5	4	5	5	5
28	4	5	4	4	4	3	2	3	3	5
29	3	3	3	2	3	3	3	3	3	2
30	4	4	5	5	5	5	5	5	5	5
31	5	5	5	5	5	4	4	4	5	4
32	5	5	4	4	5	4	4	4	4	5
33	4	4	4	4	4	4	4	4	4	4
34	4	4	4	4	4	4	4	4	4	4
35	5	5	5	4	5	5	5	4	5	5
36	5	5	5	5	5	4	4	4	5	5
37	4	3	4	3	4	4	3	4	4	4
38	4	4	4	3	3	3	3	4	4	4
39	4	4	4	2	4	3	4	3	4	4

40	5	5	5	5	5	4	4	3	4	5
41	3	4	2	3	4	2	3	3	4	4
42	5	4	5	4	5	4	5	4	5	4
43	4	5	3	4	3	3	3	3	4	4
44	5	5	5	5	5	5	5	5	5	5
45	5	5	5	5	5	5	5	5	5	5
46	5	5	5	5	5	5	5	5	5	5
47	5	5	5	5	5	5	5	5	5	5
48	5	5	5	5	5	5	5	5	5	5
Col. Total	215	222	209	206	218	203	208	204	218	221
Col. Avg.	4.48	4.63	4.35	4.29	4.54	4.23	4.33	4.25	4.54	4.60
Over all %	88.50									

*P. S. Sudev*

Head of Department

Principal

*K. Ramesh*

(Annexure - 03)

Roll No: NPTEL21MG63S43221890

To ARUN KUMAR M  
NO. 647, 5TH MAIN, 12TH CROSS  
MRCR LAYOUT, VIJAYANAGAR  
BENGALURU  
KARNATAKA - 560040  
PH. NO :9483892689



No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP

Duration of NPTEL course: 8 Weeks



# NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

**ARUN KUMAR M**



for successfully completing the course

**Innovation, Business Models and Entrepreneurship**

with a consolidated score of **61 %**

Prof. Andrew Thangaraj  
NPTEL Coordinator  
IIT Madras

(Aug-Oct 2021)

Prof. Dileep N. Malkhede  
Advisor-I (Research, Institute & Faculty Development)  
All India Council for Technical Education

Roll No: NPTEL21MG63S43221890

The candidate has studied the above course

To validate and check scores: <http://nptel.ac.in>

Roll No: NPTEL21HS103S23221813

To ARUN KUMAR M  
 NO. 647, 5TH MAIN, 12TH CROSS  
 MRCR LAYOUT, VIJAYANAGAR  
 BENGALURU  
 KARNATAKA - 560040  
 PH. NO :9483892689

No. of weeks of NPTEL Courses	Equivalence of NPTEL course with regular FDP
4	$\frac{1}{2}$ FDP of one week
8	Full FDP of one week
12	$1\frac{1}{2}$ FDP



Duration of NPTEL course: 8 Weeks



# NPTEL-AICTE Faculty Development Programme

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to


**ARUN KUMAR M**

for successfully completing the course

**Patent Search for Engineers and Lawyers**with a consolidated score of **60 %**

  
 Prof. Andrew Thangaraj  
 NPTEL Coordinator  
 IIT Madras

(Aug-Oct 2021)

  
 Prof. Dileep N. Malkhede  
 Advisor-I (Research, Institute & Faculty Development)  
 All India Council for Technical Education

Roll No: NPTEL21HS103S23221813

To validate and check scores: <http://nptel.ac.in/noc>

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams. This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 24<sup>th</sup> July 2018, similar to other refresher / orientation courses.  
 F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

# CERTIFICATION OF PUBLICATION



## International Journal of Innovative Research in Science, Engineering and Technology

*(A Monthly Peer Reviewed Journal)*

Website: [www.ijirset.com](http://www.ijirset.com) Email: [ijirset@gmail.com](mailto:ijirset@gmail.com)

This is hereby Awarding this Certificate to

**DR. ARUN KUMAR**

Department of EEE, KS School of Engineering and Management, Bengaluru, India

Published a paper entitled

**Non Invasive Device to Measure and Monitor Lung Capacity**

in IJIRSET, Volume 10, Issue 12, December 2021



e-ISSN : 2319-8753  
p-ISSN : 2347-6710

**ISSN**  
INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDEX

**INNO SPACE**  
SJIF Scientific Journal Impact Factor

  
Editor-in-Chief

Amexure-05

# Non Invasive Device to Measure and Monitor Lung Capacity

Dr. Shivakumara Swamy.R<sup>1</sup>, Dr. Arun Kumar<sup>2</sup>, Shiva Kumar KS<sup>3</sup>, Chandrashekhar L<sup>4</sup>, Dinesh S<sup>5</sup>

Department of MTE, Acharya Institute of Technology, Bengaluru, India

Department of EEE, KS School of Engineering and Management, Bengaluru, India

Department of EEE, Acharya Institute of Technology, Bengaluru, India

Department of MTE, Acharya Institute of Technology, Bengaluru, India

Department of MTE, Acharya Institute of Technology, Bengaluru, India

**ABSTRACT-** In this current scenario during the pandemic like asthma, copd (chronic obstacle pulmonary disease) and the current viral disease like covid-19 has been growing rapidly across the world, this disease directly affect the lungs. During this scenario we use spirometer which measures the lung function to diagnose various respiratory illness by injecting the mouthpiece into our mouth which brings abdominal pain for patients, facial exacerbated by a mouth and stress incontinence for the patients [1]. The goal of our project is to design a low cost device based on pulmonary lung function analyzer by FEV/FVC ratio wrt non invasive method that the patients can take the test with less efforts where they need not put the mouth piece in their mouth and accurate results are obtained that are in agreement between the measurement result and actual value. In this device the flow meter is connected to BMP280 sensor, which detects the pressure with which we are blowing. After the data is taken from bmp pressure sensor, it is sent to Node MCU ESP8266 which is a wifi module, built along with microcontroller unit that is interfaced with android app known as BLYNK(legacy), through the embedded C programming language. These values are sent via wifi module to the mobile app as mentioned in the block diagram (given below). Finally the result is obtained at Blynk app that displays your percentage of our lungs. This work in faster response and any number of test can be taken by not going to doctor, by using this device. This process of application was tested for several people as shown in the diagram, so this project encourages easy and reassuring use and to design a low cost device that are used for routine respiratory health checkups.

**KEYWORDS:** Node MCU, BMP280 Pressure Sensor, Blynk(legacy)

## INTRODUCTION

This pandemic COVID-19 has made us realize that we not only have to take care of the external parts but also the internal organs too. One of the internal organs, the lungs play the most vital role and needs to be given special attention specially in these hard times. The main role of lungs is to bring in air from the atmosphere and pass oxygen into the bloodstream. From there, it circulates to the rest of the body. Help is required from structures outside of the lungs in order to breathe properly. To breathe, we use the muscle of the diaphragm, the intercostal muscles (between the ribs), the muscles of the abdomen, and sometimes even muscles in the neck. The diaphragm is a muscle that is domed at the top and sits below the lungs. It powers most of the work involved in breathing. As it contracts, it moves down, allowing more space in the chest cavity and increasing the lungs' capacity to expand. As the chest cavity volume increases, the pressure inside goes down, and air is sucked in through the nose or mouth and down into the lungs. As the diaphragm relaxes and returns to its resting position, the lung volume decreases because the pressure inside the chest cavity goes up, and the lungs expel the air. COVID-19 is a respiratory disease, one that especially reaches into your respiratory tract, which includes your lungs. COVID-19 can cause a range of breathing problems, from mild to critical. Older adults and people who have other health conditions like heart disease, cancer, and diabetes may have more serious symptoms. A major issue with COVID-19 is with gas exchange in the alveolus. There is a very tight connection between the alveolar epithelium (type-1 cells) and the capillary. COVID-19 infects AT2 cells, kills them and floods the alveolus. In addition, there is evidence for micro thrombosis, which may block the vascular side. Clinically, this may appear as several conditions: severe bronchopneumonia, acute respiratory distress syndrome (ARDS) or sepsis. Pneumonia is inflammation and fluid in the lungs, making it difficult to breathe. Patients can experience shortness of breath, fevers and cough, which can be productive. More severe inflammation can lead to ARDS, which can require significant treatment including the use of oxygen therapies.



## STAFF SELF APPRAISAL REPORT

2021-2022

## KSSEM

Field	Data	SCORE
Name	MANJULA B G	
Present Address, Mob. No., e-mail id.	#10, "Sri Vittala Chaithanya Nilaya, J.P.Nagar 7 <sup>th</sup> Phase, 7 <sup>th</sup> Main, Shreyas Colony, Bangalore: 560078 Mobile No: 8884123708 E-mail id: manjula.b.g@kssem.edu.in	---
Age and Date of Birth	Forty-Six and 15-07-1976	
Qualification	M. Tech	
Designation and Department	Associate Professor, Department of Electrical and Electronics Engineering.	
Teaching Experience (After PG)	10 years 5 months	
Other Experience (If any)	1. Lecturer in Reddy Jana Sangha Polytechnic for 4 Years and 1 Months. 2. Trainee Engineer in Therelek Engineer's Pvt Ltd, Bangalore for 1 Year and 7 Months. 3. Guest Lecturer in Guru Nanak Dev Government Polytechnic (Govt. of Delhi and NCR) New Delhi for 5 months.	
List of Subjects Taught till date (use separate sheet if necessary)	Attached Annexure I	
Number of FDPs attended since joining service (Attach Separate List)	Attached Annexure II	--
*Subjects taught in the Assessment Year and percentage pass (Both Theory & Practicals) (10marks for each x Percentage) if Online please indicate.	1. Power System Analysis 2 - 100% 2. Electrical Machine Design - 78.6 % 3. Power System Planning - 100 % 4. Power System Simulation Lab-100% 5. Basic Electrical Engineering Lab-100% 6. Power System Operation and Control- Waiting for results. 7. Basic Electrical Engineering- SEE not yet conducted. 8. Basic Electrical Engineering Lab- SEE not yet conducted.	40/40
Details of UG Projects Guided	1. Design and Development of Power Generation Model using Power Hump.	10/10

(5 marks/ project guided) Provide Titles (HOD to endorse)	2. Design and Development of Substation Monitoring and Control System.	
Details of PG Projects Guided (5 marks/ project guided) Only for MBA / M.Tech. Provide Titles (HOD to Endorse)	NA	0/10
Percentage of classes held ( No. of classes taken/no. of classes allocated x 5) Give details. HOD to Endorse.	<ol style="list-style-type: none"> <li>1. Power System Analysis 2 - 100%</li> <li>2. Electrical Machine Design – 100 %</li> <li>3. Power System Planning – 100 %</li> <li>4. Power System Operation and Control– 100 %</li> </ol>	5/5
Student Feedback for Offline / Online classes. (Av. Percentage x 5 marks) Give details. HOD to verify.	$\frac{92.57 \times 5}{100} = 4.63$	4.63/5
Details of students mentored during current assessment year. (Furnish details)	Final year Six students Pre- Final year Four students	--
Details of Participation in VTU Bodies (2 Marks) Furnish details and proofs.	NIL	0/2
Details on Examination related Activity (2marks each) Marks only for external responsibility.)	<ol style="list-style-type: none"> <li>1. <b>Practical Exams:</b> Appointed as Examiner for Practical Exams and UG Project Viva -Voce Examiner.</li> <li>2. <b>Conduction of Theory exams:</b> RS in 2021-22 theory exams.</li> <li>3. <b>Paper Setting:</b> A theory Paper for VTU UG Courses.</li> <li>4. <b>Evaluation:</b> Electrical Machine Design.</li> </ol>	8/8
List of FDPs attended during the Assessment year. (5 marks each) (Attach Certificate copies) Provide Title, dates etc. HODs to verify	<ol style="list-style-type: none"> <li>1. Participated in 3-day Faculty Development Programme on " Outcome Based Education" at K.S. Institute of Technology Bengaluru from 17<sup>th</sup> -19<sup>th</sup> March 2022.</li> <li>2. Participated in 5-day Faculty Development Programme on "Power and Energy Systems: Technical Progressions and Research Opportunities" from 19th to 24th July 2021 funded by New Gen IEDC, GST Government of India organised by Department of Electrical and Electronics Engineering, BNMIT, Bengaluru.</li> </ol>	10/10

Financial Assistance received during current year for attending FDPs	NIL	--
Status of Ph.D. [Attach proof for each stage and for every claim]  Ph.D. Completed – 10 marks.	<ol style="list-style-type: none"> <li>1. Awarded (2 marks)</li> <li>2. Thesis Submitted and awaiting reports (1 mark)</li> <li>3. Thesis Preparation (2 Mark)</li> <li>4. Experimentation/Data Collection in completed (1 mark)</li> <li>5. Comprehensive viva voce completed (1 mark)</li> <li>6. Appeared for Course work exams (1 mark)</li> <li>7. Applied for registration formalities (1 mark)</li> <li>8. Identified Guide/Research Centre and preparing research Proposal (1mark.)</li> <li>9. Not thought of pursuing Ph.D. (zero)</li> </ol>	3/10
Research Publications: (5 marks each) Provide Full Details. HODs to verify. [Attach copies of Title Page]	Manjula B G, Nikitha P, Sai Darshan G, Varshini K "Design and Development of Power Generation Model using Power Hump." in International Journal of All Research Education & Scientific Methods, (IJARESM), ISSN No: 2455-6211, Volume 10, Issue 7, July - 2022.	5/10
Seminars / Workshops / Conferences attended (5 Marks each) Data to be verified by HODs. [Attach Certificate Copies]	<ol style="list-style-type: none"> <li>1. Participated in one week workshop on "Advanced Technologies in Electrical and Electronic Systems (ATEES-2022)" organized by department of Electrical and Electronics Engineering KLS Gogte Institute of Technology in association with IEEE Power and Energy student chapter and technically co-sponsored by IEEE North Karnataka Sub Section (NKSS) during 03<sup>rd</sup> to 7<sup>th</sup> January 2022.</li> <li>2. Attended a online user awareness program on Springer Nature e resources jointly organised by Visvesvaraya Technological University Consortium and Springer Nature on 13<sup>th</sup> December 2021.</li> </ol>	10/10
Financial Assistance received during current year for attending such events.	NIL	--
Registered as Research Guide (Reasons for not registering)	NA	-
Research Scholars registered with details	NA	0/5
Details of Patents Applied for (If any) One	NIL	0/5

application 5 marks. Provide Details.		
Academic Programs organized and supported during current year. (Only FDP /Workshop /Seminar / Conference). Do not include Webinars.	NIL	0/5
Details of programs attended for skill development like MOOCs, MOODLES, COURSERA, NPTEL and others (Only programs >= 20 hours need to be considered.	NIL	0/5
Details of Utilization of NPTEL and other Online materials for augmenting own lectures. Provide proof for using this in the classroom. HOD to Verify.	<ol style="list-style-type: none"> <li>1. <a href="https://nptel.ac.in/courses/108/102/108102047/">https://nptel.ac.in/courses/108/102/108102047/</a></li> <li>2. <a href="https://www.youtube.com/watch?v=ohkJg8JxFPY">https://www.youtube.com/watch?v=ohkJg8JxFPY</a></li> <li>3. <a href="https://nptel.ac.in/courses/108/101/108101040/">https://nptel.ac.in/courses/108/101/108101040/</a></li> <li>4. <a href="https://nptel.ac.in/courses/108/104/108104052/">https://nptel.ac.in/courses/108/104/108104052/</a></li> </ol>	5/5
Details of Project Proposal submitted during the current year. (At least one) Provide Details	Two final year UG Project were submitted for financial assistance in Visveswaraya Technological University for the academic year 2021 – 22	5/5
Details of Project Funds Received. (including KSCST & VTU financial assistance)	Project Proposal entitled Design and Development of Power Generation Model Using Power Humps has been sanctioned by KSCST for Rs.6000/-	5/5
Consultancy Revenue Generated	NIL	0/5
Details of Participation in cultural events during the current year	NOT APPLICABLE FOR CURRENT YEAR	
Additional Responsibilities in the Department/ College Example: Head, Coordinator, Accreditation etc.	<ol style="list-style-type: none"> <li>1. NAAC 1 Coordinator</li> <li>2. Alumni Coordinator</li> <li>3. News Letter Coordinator</li> <li>4. Anti-ragging Squad committee Member</li> <li>5. Project Coordinator</li> <li>6. Stock Verification Committee</li> </ol>	<span style="color: green;">c/10</span> 10/10

(2marks for each responsibility)		
Details of Live Membership for Professional Bodies (IEEE CSI SEA ISTE .....) (2marks for first membership & 3 marks for second membership)	Life member of Indian Society for Technical Education Membership No. LM94795	2/5
Contribution to Cultural / Sports Events (Furnish Details) [Marks to be granulated based on the responsibility and participation by the HOI.]	<ul style="list-style-type: none"> <li>Coordinated with students for department allotted events.</li> <li>Member disciplinary committee near the stage during Aarohana 2021-22.</li> </ul>	5/5 2/5
Contribution towards Branding, Admissions, etc [Marks to be granulated based on the Responsibility and participation by the HOI.]	<ul style="list-style-type: none"> <li>Tele-calling</li> </ul>	05/10
<b>TOTAL</b>		<b>132.6/190</b>

Date: 16/07/2022

126  
150

*Ranjana BS*  
Signature of faculty

Comments from the HOD:

- \* Strong in her conventional area of subjects.
- \* Methodological in her work.
- \* Reluctant to accept new work.

*HOD*  
Signature of the HOD

Comments of the Principal after the discussion:

Satisfactory performance.  
Completed. Sincere in her efforts.  
Pursuing Ph.D and to be  
*CEO*

*K. Srinivas*  
Signature of the Principal

## Annexure I

### List of Subjects Handled from 2012-13 August to Till Date

Sl. No	Semester/Year	Class	Subject	Theory/Lab
1	III /2012-13	EEE	Electrical and Electronic Measurements and Instrumentation Engineering	Theory
2	V /2012-13	EEE	DC and Synchronous Machines	Theory
3	V /2012-13	EEE	Transformers and Induction Machine Laboratory	Lab
4	VI/ 2012-13	EEE	Switch Gear and Protection	Theory
5	IV /2012-13	EEE	Transformer and Induction motor	Theory
6	VI /2012-13	EEE	DC and Synchronous Machines	Lab
7	V /2013-14	EEE	DC and Synchronous Machines	Theory
8	VII /2013-14	EEE	Electrical Power Utilization	Theory
9	II /2013-14	ECE	Basic Electrical Engineering.	Theory
10	VIII /2013-14	EEE	Power System Operation and Control	Theory
11	VI /2013-14	EEE	DC and Synchronous Machines Lab	Lab
12	III /2014-15	EEE	Analog Electronic Circuits	Theory
13	I /2014-15	EEE	Basic Electrical Engineering.	Theory
14	V /2014-15	EEE	Transformers and Induction Machine	Lab
15	VI /2014-15	EEE	Power System Analysis and Stability	Theory
16	VIII	EEE	Power System Operation and Control	Theory

	/2014-15			
17	VI /2014-15	EEE	DC and Synchronous Machines Lab	Lab
18	V /2015-16	EEE	DC and Synchronous Machines	Theory
19	VII /2015-16	EEE	Industrial Drives and Applications	Theory
20	III /2015-16	EEE	Analog Electronics Lab	Lab
21	VI /2015-16	EEE	Digital Signal Processing	Theory
22	VIII /2015-16	EEE	Power System Operation and Control	Theory
23	VI /2015-16	EEE	Control System Lab	Lab
24	I /2016-17	CSE	Basic Electrical Engineering.	Theory
25	V / 2016-17	EEE	DC and Synchronous Machines	Theory
26	V / 2016-17	EEE	Transformers and Induction Machines Lab	Lab
27	II /2016-17	CIVIL	Basic Electrical Engineering.	Theory
28	VIII /2016-17	EEE	Power System Operation and Control	Theory
29	VI /2016-17	EEE	DC and Synchronous Machines Lab	Lab
30	I/ 2017-18	CSE	Basic Electrical Engineering.	Theory
31	VII /2017-18	EEE	Electrical Power Utilization	Theory
32	III / 2017-18	EEE	Electrical Machines Lab 1	Lab
33	V /2017-18	EEE	Transformers and Induction Machines Lab (parallel course)	Lab
34	VIII /2017-18	EEE	Power System Operation and Control	Theory

35	II /2017-18	ECE	Basic Electrical Engineering.	Theory
36	IV /2017-18	EEE	OP AMP and LIC Lab	Lab
37	I/ 2018-19	CSE	Basic Electrical Engineering.	Theory
38	VII 2018-19	EEE	Utilization of Electrical Power	Theory
39	III / 2018-19	EEE	Electrical Machines Lab 1	Lab
40	VII /2018-19	EEE	Electrical Power Utilization (Exit scheme)	Theory
41	I/ 2018-19	CSE	Basic Electrical Engineering.	Lab
42	II/ 2018-19	ECE	Basic Electrical Engineering.	Theory
43	VIII/ 2018-19	EEE	Power System Operation and Control (15EE81)	Theory
44	VIII/ 2018-19	EEE	Power System Operation and Control (10EE82)	Theory
45	IV/ 2018-19	EEE	Electrical Machines Lab II	Lab
46	I/ 2019-20	CSE	Basic Electrical engineering (18ELE13)	Theory
47	III/ 2019-20	EEE	Transformers and Generators (18EE33)	Theory
48	III/ 2019-20	EEE	Electrical Machines Lab 1	Lab
49	IV/ 2019-20	EEE	Electric Motors (18EE44) (online)	Theory
50	VIII/ 2019-20	EEE	Power System Operation & Control (15EE81)	Theory
51	II/ 2019-20	ECE	Basic Electrical engineering (18ELE23) (online)	Theory
52	IV/ 2019-20	EEE	Electrical Machines Lab II	Lab



53	VII 2020-21	EEE	Power System Planning (17EE744)	Theory
54	I/ 2020-21	CSE	Basic Electrical engineering (18ELE13)	Theory
55	III/ 2020-21	EEE	Electrical Machines Lab 1	Lab
56	I/ 2020-21	CSE	Basic Electrical Engineering.	Lab
57	VIII/ 2019-20	EEE	Power System Operation & Control (15EE81)	Theory
58	II/ 2020-21	EEE	Transmission and Distribution (18EE43)	Theory
59	IV/ 2020-21	EEE	Electrical Machines Lab II	Lab
60	II/ 2020-21	ME, CIVIL	Basic Electrical Engineering.	Lab
61	V/ 2021-22	EEE	Electrical Machines Design	Theory
62	VII/ 2021-22	EEE	Power System Analysis-2 (18EE71)	Theory
63	VII/ 2021-22	EEE	Power System Planning (17EE744)	Theory
64	VII/ 2021-22	EEE	Power System Simulation Lab	Lab
65	VIII/ 2021-22	EEE	Power System Operation & Control (18EE81)	Theory
66	II/ 2021-22	ECE	Basic Electrical engineering (21ELE23)	Theory
67	II/ 2021-22	ECE/AI&DS	Basic Electrical Engineering (21ELE27).	Lab

## ANNEXURE II

### FDP, Conferences, Workshops & Seminars Attended and Organized

- Participated in 3-day Faculty Development Programme on "Outcome Based Education" at K.S. Institute of Technology Bengaluru from 17<sup>th</sup> -19<sup>th</sup> March 2022.
- Participated in one week workshop on "Advanced Technologies in Electrical and Electronic Systems (ATEES-2022)" organized by department of Electrical and Electronics Engineering KLS Gogte Institute of Technology in association with IEEE Power and Energy student chapter and technically co-sponsored by IEEE North Karnataka Sub Section (NKSS) during 03rd to 7<sup>th</sup> January 2022.
- Attended a online user awareness program on Springer Nature e resources jointly organised by Visvesvaraya Technological University Consortium and Springer Nature on 13<sup>th</sup> December 2021.
- Participated in 5-day Faculty Development Programme on "Power and Energy Systems: Technical Progressions and Research Opportunities" from 19th to 24th July 2021 funded by New Gen IEDC, GST Government of India organised by Department of Electrical and Electronics Engineering, BNMIT, Bengaluru.
- Participated in 5-day Faculty Development Programme (Online) on "Recent Trends in Power Systems" from 05/07/2021 to 09/07/2021 organised by Saphthagiri College of Engineering Bengaluru.
- Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Smart Cities" from 2021-1-18 to 2021-1-22 at Dayananda Sagar Academy of Technology and Management.
- Attended webinar on "Scientific Writing for journals" by Springer Nature in collaboration with Visvesvaraya Technological University Consortium on 20<sup>th</sup> September 2020.
- Participated in the Webinar Programme on "Connected Car-A Vehicle Technology" conducted by Department of Electrical and Electronics Engineering, SJBIT, Bengaluru on 6-6-2020
- Participated in the Webinar on "Internet of Things for Energy Efficient Buildings" organized by National Productivity Council on 27<sup>th</sup> June 2020
- Participated in National Level Webinar on "Control Aspects of Grid Connected Photovoltaic Systems" dated 7<sup>th</sup> July 2020 organized by Department of Electrical and Electronics Engineering, Sir M Visvesvaraya Institute of Technology Bengaluru
- "Employability Post COVID Era: Expectation of Industry Vs Education System's Preparedness" organized by ASSOCHAM INDIA on 10th July 2020
- National level FDP on "Research Initiatives in Renewable Energy Systems" conducted by the Department of Electrical and Electronics Engineering on 21<sup>st</sup> -25<sup>th</sup> July 2020.
- Three days FDP on "EPLAN for Electrical Engineers" organized by the Department of Electrical and Electronics Engineering Nitte Meenakshi Institute of Technology from 22<sup>nd</sup> to 24<sup>th</sup> January 2020
- Attended One day Workshop on "New Approach to the Revised Assessment and Accreditation of NAAC" on 4<sup>th</sup> January 2019 held at Global Academy of Technology, Bangalore.

- Participated in One Week Workshop on "Research Methodology" held between 30<sup>th</sup> July to 4<sup>th</sup> August 2018 at VTU Human Resource Development Centre for Post Graduate Studies, Muddenahalli, Chikkaballapur District.
- Participated in TEQIP -III Sponsored One Week Workshop on "Recent Trends in Power System Operation and Control" held during 11<sup>th</sup> to 15<sup>th</sup> June 2018 in the National Institute of Technology Surathkal Mangalore.
- Participated in Two days Faculty Development Program on Research Proposal Preparation towards Ph.D. Admission Programmes" held on 24<sup>th</sup> and 25<sup>th</sup> June 2016 at KSSEM Bangalore.
- Participated in Two days workshop on "Review of Latest Trends in Transformer Design, Manufacture and CAED" held on 28<sup>th</sup> and 29<sup>th</sup> March 2016 at KSSEM Bangalore.
- Participated in the FDP on "Outcome Based Education and Bloom's Taxonomy" held during 4<sup>th</sup> and 5<sup>th</sup> December 2015 at KSSEM Bangalore.
- Participated in the FDP on "Training the Trainer Workshop on Intellectual Property Rights Significance for Academia" held at Bangalore on 31<sup>st</sup> July 2015
- Organized one day national conference on "Horizons in Power Engineering "(NCHPE-15) by the department of Electrical and Electronics Engineering on 29<sup>th</sup> April 2015 held at KSSEM Bangalore.
- Participated in the "Young Researchers Meet" organized by IEEE PES Bangalore Chapter on 6<sup>th</sup> December 2014 at Bangalore
- Participated in the Two-day workshop on "Lab View" conducted by Cranes Software International Ltd and National Instruments on 4<sup>th</sup> and 5<sup>th</sup> September 2014
- Participated in one day workshop on "Research Methodology" held at KSSEM on January 30,2014
- Attended three days Training Program on "MI-Power Software" held at KSSEM Bangalore from 10<sup>th</sup> to 12<sup>th</sup> September 2013.
- Organized three Days VTU-VGST Sponsored FDP on "Recent Advances in Nano Devices and Sensor Technology" held at KSSEM Bangalore from 8<sup>th</sup> to 11<sup>th</sup> July 2013.
- Attended Three-day workshop on "National Level Workshop on Computer Aided Electrical Drawing" held at HKBK College of Engineering, Bangalore from 7<sup>th</sup> to 9<sup>th</sup> January 2013.
- Participated in Two days workshop on "Recent Trends in Communication Computing and Signal Processing" held at Guru Tegh Bahadur Institute of Technology, New Delhi on March 30-31, 2012.
- Participated in one day workshop on "Recent Trend and Advances in Power Electronics and Drives" held at Guru Tegh Bahadur Institute of Technology, New Delhi on March 17,2012.



Kammavari Sangham(R)1952

# K. S. INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi; Affiliated to VTU, Belagavi, Karnataka; Accredited by NAAC  
#14, Raghuvanahalli, Kanakapura Main road, Bengaluru-560109  
Tel : 28435723 Email : principal@ksit.edu.in Web : www.ksit.edu.in



3 DAYS FACULTY DEVELOPMENT PROGRAM  
on  
"OUTCOME BASED EDUCATION"



## Certificate of Participation



This is to certify that ...Ms...MANJULA Bg...KSSEM.....

has participated in the 3 Days Faculty Development Program on "Outcome Based Education"

at K.S. Institute of Technology Bengaluru from 17<sup>th</sup> - 19<sup>th</sup> March 2022.

Dr. P. N. Sudha  
Chief Coordinator NBA  
Prof. & Head ECE Department

Dr. S. Bhaskar  
Head - Office of PG Studies  
Kumaraguru College of Technology

Dr. Dilip Kumar K.  
Principal & Director K.S.I.T.

Dr. K. V. A. Balaji  
CEO K. S. Group of Institutions



www.bnmit.ac.in

# B. N. M. Institute of Technology

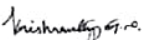
An Autonomous Institution under VTU. Approved by AICTE.  
27<sup>th</sup> Cross, 12<sup>th</sup> Main, Banashankari 2<sup>nd</sup> Stage, Bengaluru - 560 070, INDIA  
Ph: 91-80-26711780/81/82 E-mail: principal@bnmit.in, www.bnmit.org



## Certificate

This is to certify that Dr./Mr./Ms./Mrs. MANJULA BG  
K S School of Engineering and Management has participated  
in Faculty Development Program on "Power and Energy Systems: Technical Progressions and  
Research Opportunities", funded by NewGen IEDC, DST, Govt. of India, organized by Department  
of Electrical & Electronics Engineering, BNMIT Bengaluru from 19<sup>th</sup> to 24<sup>th</sup> July 2021.

  
Dr. R.V. Parimala  
HOD EEE

  
Dr. Krishnarudrthy G. N.  
Principal

  
Dr. S. Y. Kulkarni  
Additional Director

  
Prof. T. J. Rama Murthy  
Director



National Institutional Ranking  
Framework Ministry of Human  
Resource Development, Govt. of India  
has Ranked BNMIT at No.186 at all India level, under  
Engineering Category (including IITs, NITs and IITs)



All UG branches -  
CSE, ECE, EEE, ISE &  
Mechanical Engg.  
accredited by NBA for academic  
years 2018-19 to 2021-22



National  
Assessment and  
Accreditation  
Council has awarded BNMIT with  
'A' Grade



BNMIT has secured  
34<sup>th</sup> Rank in All  
India TIMES Survey  
2021, among top 100 Engineering  
Institutions in India



**SPRINGER NATURE**

**CERTIFICATE OF PARTICIPATION**

**Online user awareness program on Springer Nature e-resources**

jointly organized by

**Visvesvaraya Technological University Consortium & Springer Nature.**

This is to certify that

*Prof./Dr./Mr./Ms.* **Manjula B G**

has successfully participated in the online user awareness program on Springer Nature e - resources organized by VTU Consortium and Springer Nature on 13<sup>th</sup> December, 2021.

**Dr. K.R. Mulla**  
Librarian and Head, VTU

**Mr. Vikash Kumar**  
Director - Sales, Springer Nature



K S Gogte Institute of Technology

(An Autonomous Institution under Visvesvaraya Technological University  
"Jnana Ganga", Udyambag, Belagavi- 590008)



1902



## One week International Workshop (ATEES-2022)

### *CERTIFICATE OF PARTICIPATION*

This is to certify that Manjula B G of K S School of Engineering and Management, Bengaluru has actively participated in the one week workshop on "Advanced Technologies in Electrical and Electronic Systems (ATEES-2022)" organized by department of Electrical and Electronics Engineering in association with IEEE Power and Energy student chapter and technically co-sponsored by IEEE North Karnataka Sub Section (NKSS) during 03<sup>rd</sup> to 7<sup>th</sup> January 2022.

Prof.S.N.Dodamani  
Dr.R.B.Magadam  
Coordinators

Dr.D.B.Kulkarni  
Convener

Dr.J.K.Kittur  
Principal



# Karnataka State Council for Science and Technology

(An autonomous organisation under the Dept. of Science & Technology, Govt. of Karnataka)

Indian Institute of Science Campus, Bengaluru – 560 012

Telephone: 080-23341652, 23348848, 23348849, 23348840

Email: office.kscst@iisc.ac.in, office@kscst.org.in • Website: www.kscst.iisc.ernet.in, www.kscst.org.in

**Mr. H. Hemanth Kumar**  
Executive Secretary

11th May, 2022

Ref: 7.1.01/SPP/91

The Principal,  
K.S. School of Engineering and Management  
# 15, Mallasandra, off. Kanakapura Road  
Bengaluru - 560 062

Dear Sir/Madam,

**Sub :** Sanction of Student Project - 45th Series: Year 2021-2022

**Project Proposal Reference No. :** 45S\_BE\_3533

**Ref :** Project Proposal entitled **DESIGN AND DEVELOPMENT OF POWER GENERATION MODEL USING POWER HUMPS**

We are pleased to inform that your student project proposal referred above, has been approved by the Council under "Student Project Programme - 45th Series". The project details are as below:

<b>Student(s)</b>	Ms. NIKITHA P	<b>Department</b>	ELECTRICAL AND ELECTRONICS ENGINEERING
	Mr. SAI DARSHAN G		
	Ms. VARSHINI K		
<b>Guide(s)</b>	Mrs. MANJULA B.G	<b>Sanctioned Amount (in Rs.)</b>	6,000.00

### Instructions:

- The project should be performed based on the objectives of the proposal submitted.
- Any changes in the project title, objectives or students team is liable for rejection of the project and your institution shall return the sanctioned funds to KSCST.
- Please quote your project reference number printed above in all your future correspondences.
- After completing the project, 2 to 3 page write-up (synopsis) needs to be uploaded on to the following Google Forms link <https://forms.gle/YMn9K7XETu96i8KbA>. The synopsis should include following:
  - Project Reference Number
  - Title of the project
  - Name of the College & Department
  - Name of the students & Guide(s)
  - Keywords
  - Introduction / background (with specific reference to the project, work done earlier, etc) - about 20 lines
  - Objectives (about 10 lines)

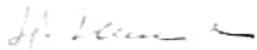


- 8) Methodology ( about 20 lines on materials, methods, details of work carried out, including drawings, diagrams etc)
- 9) Results and Conclusions (about 20 lines with specific reference to work carried out)
- 10) Scope for future work (about 20 lines).
- e) In case of incometed projects, the sanctioned amount shall be returned to KSCST.
- f) The sanctioned amount will be transferred by NEFT to the bank account provided by the College/Institute.
- g) The sponsored projects evaluation will be held in the Nodal Centre/Online Mode and the details of the same will be intimated shortly by email / Website announcement.
- h) After completion of the project, soft copy of the project report duly signed by the Principal, the HoD, Guide(s) and student(s) shall be uploaded in the following Google Forms Link <https://forms.gle/PciAaAVisn6bn8AM7>. The report should be prepared in the format prescribed by the university.

Please visit our website for further announcements / information and for any clarifications please email to [spp@kscst.org.in](mailto:spp@kscst.org.in)

Thanking you and with best regards,

Yours sincerely,



(H. Hemanth Kumar)

Copy to:

- 1) The HoD  
ELECTRICAL AND ELECTRONICS ENGINEERING  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU
- 2) Mrs. MANJULA B.G  
ELECTRICAL AND ELECTRONICS ENGINEERING  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU
- 3) THE ACCOUNTS OFFICER  
KSCST, BENGALURU



# ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿಶ್ವವಿದ್ಯಾಲಯ ಕಾನೂನುಬಾಹಿರವಾಗಿರುವುದರಿಂದ ಸ್ವಾಭಾವಿಕವಾಗಿ ಸ್ಥಗಿತವಾದುದು  
ಶಿಕ್ಷಣ ಮತ್ತು ಸಂಶೋಧನೆ - ಕರ್ನಾಟಕ ಸರ್ಕಾರ

## Visvesvaraya Technological University

State University of Government of Karnataka Established as per the VTU Act, 1994  
Bhana Sangama, Belagavi-590018, Karnataka, India



Dr. B. E. Rangaswamy Ph.D.  
Registrar (Evaluation)

Phone: (0831) 2498131  
Fax: (0831) 2498184

No. VTU/Exam/P/D. 1312/21

Date: 10/12

15 DEC 2021

### Coursework Completion Certificate

SN: 1KG18PEE01

Name: MANJULA B.G.

Subject Code	Subject Title	Grade	Exam
16EPS154	Power System Voltage Stability	C	FEB-2020
16ESE21	Power System Operation	C	APRIL-2019
16ESE24	Power System Planning	C	NOV-20
16PHDRM	Research methodology	C	APRIL-2019

*Rangaswamy* BE

Registrar (Evaluation)

*24/12/21*

#### Grade Table

Grade	S	A	B	C	F
Marks	90 To 100	80 To 89	70 To 79	60 To 69	50 To 59

To  
Registrar

*K. Ganga*

*24/12/21*



# Design and Development of Power Generation Model using Power Humps

Manjula BG<sup>1</sup>, Nikitha P<sup>2</sup>, Sai Darshan G<sup>2</sup>, Varshini K<sup>1</sup>

<sup>1</sup>Associate Professor, Electrical & Electronics Engineering, K.S.S.E.M, Bengaluru, India

<sup>2</sup>Student, Electrical & Electronics Engineering, K.S.S.E.M, Bengaluru, Karnataka State, India

Corresponding Author: Mrs. Manjula BG

## ABSTRACT

Energy is the primary need for survival of all organisms in the universe. But in this fast moving world, population is increasing day by day and the conventional energy sources are depleting. The extensive usage of energy has resulted in an energy crisis over few years. Therefore to overcome this problem we need to implement the techniques of optimal utilization of conventional sources for conservation of energy. This project includes how to utilize the energy which is wasted when the vehicles pass over a power hump. Lots of energy is generated when vehicle passes over it. We can trap the energy generated and produce power by using the power hump as power generating unit. The kinetic energy of the moving vehicles can be converted into mechanical energy of the shaft through rack and pinion mechanism. Then, this mechanical energy will be converted to electrical energy using generator which will be saved with the use of a battery. The energy we save during the day time can be used in the night time for lighting street lights. Therefore, by using this arrangement we can save the energy which can be used for the fulfillment of future demands. This project harvests energy from power hump by making gear arrangement and using electronic gadgets. Large amount of electricity can be generated saving lot of money. The principle involved is potential energy to electrical energy conversion. There is a system to generate power by converting the potential energy generated by vehicle going up on a power hump into electrical energy. Whenever the vehicle is allowed to pass over the dome it gets pressed downwards such that the wheels are compressed and the rack which is attached to the bottom of the dome moves downward in reciprocating motion of rack into rotary motion of gears but the two gears rotate in opposite direction connected to the generator.

**Keywords:** Rack and pinion, Power Hump, Dynamo, Chain drive, Flywheel.

## INTRODUCTION

Increasing demand in energy adds to the need for identifying non-conventional resources of energy. An energy crisis is any situation where there is a bottleneck (or price rise) in the supply of energy resources to an economy.

In recent years, the Ukraine gas dispute and the Russia-Belarus energy dispute have been mostly resolved before entering a crisis stage. Market failure is possible when monopoly manipulation of markets occurs. A crisis can develop through actions like union organized strikes and government embargoes. The cause may be ageing over-extended infrastructure and sometimes bottlenecks at oil refineries and port facilities restrict fuel supply.

An energy crisis may emerge during cold winters. The availability of regular conventional fossil fuels will be the main power generation, but there is a fear that they will get exhausted eventually by the next few decades. We have to investigate some approximate, alternative, new sources for the power generation, which is not available for very few years. The exiting topic for today is the pollution. It suffers all the living organisms of all the land, in aqua and in air. Power stations and automobiles are the major pollution producing places. We have to investigate other types of renewable sources, which produce electricity without using any fossil fuels, which is not producing any harmful products. The latest technology which is used to generate the power is renewable energy "POWER HUMP".

## LITERATURE REVIEW

[1] G. S. Shama Prabu et al has briefed that when vehicle is in motion it produces various forms of energy like, due to friction between vehicles wheel and road i.e. though surface heat energy is produced, also when vehicle is travelling at a constant speed there is a change in wind velocity. The principle involved is potential energy to electrical energy conversion.



# IJARESM

ISSN: 2455-6211, New Delhi, India

International Journal of All Research Education & Scientific Methods

An ISO & IIRC Certified Peer-Reviewed Multi-Disciplinary Journal

UIN Journal No.: 7647

## Certificate of Publication

Manjula B G

Associate Professor, Electrical & Electronics Engineering, K.S.S.E.M. Bengaluru, India

### TITLE OF PAPER

**Design and Development of Power Generation Model**

**using Power Humps**

has been published in

**IJARESM, Impact Factor: 7.429, Volume 10 Issue 7, July- 2022**

Paper Id: IJ-130722059

Certificate No.: 177221012

Date: 17-07-2022



Website: [www.ijaresm.com](http://www.ijaresm.com)  
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Authorized Signatory



KSSEM

K. S. School of Engineering & Management, Bangalore - 560109


Department of Electrical & Electronics Engineering

Staff Feedback (2021-22) Odd Sem

Fifth Sem

Faculty Name: Mrs. Manjula B G

Sl. No.	1. Effective Planning & organisation	2. Punctuality / Class time Utilization	3. Ability to teach /explain / effective use of board	4. Interaction / Motivating students	5. Subject knowledge	6. Presentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
1	5	5	5	5	5	5	5	5	5	5
2	5	4	5	4	5	4	5	4	5	4
3	5	5	4	4	5	4	4	4	4	4
Col. Total	15	14	14	13	15	13	14	13	14	13
Col. Avg.	5.00	4.67	4.67	4.33	5.00	4.33	4.67	4.33	4.67	4.33
Over all %	92.00									

  
Head of Department

Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
K S School of Engineering and Management  
Bengaluru-560 109

  
Principal

**KSSEM**

# K. S. School of Engineering & Management, Bangalore - 560109

## Department of Electrical & Eletronics Engineering

### Staff Feedback (2021-22) Odd Sem

#### Seventh Sem

Faculty Name: Mrs. Manjula B G

Sl. No.	1. Effective Planning & organisation	2. Punctuality / C/lass time Utilization	3. Ability to teach /explain / effective use of board	4. Interaction / Motivating students	5. Subject knowledge	6. Pr�sentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
1	5	5	5	5	5	5	5	5	5	
2	5	5	5	5	5	5	5	5	5	
3	4	5	4	4	4	4	5	5	5	
4	4	5	4	3	4	5	5	4	5	
5	5	5	5	5	5	5	5	3	4	
6	5	5	5	5	5	5	5	5	5	
7	4	4	4	4	4	4	4	4	4	
Col. Total	32	34	32	31	32	33	34	34	33	
Col. Avg.	4.571429	4.857143	4.571429	4.428571	4.571429	4.714286	4.857143	4.857143	4.428571	
Over all %	93.14									

  
 Head of Department

Associate Professor  
 Head of the Department  
 Department of Electrical & Electronics Engineering  
 K S School of Engineering and Management  
 Bengaluru-560 109

  
 Principal

**STAFF SELF APPRAISAL REPORT****2021-2022****KSSEM**

Field	Data	SCORE
Name	HEMAPRIYA M	
Present Address, Mob.No., e-mail id.	#007, Elegant Paradise, 18 <sup>th</sup> main, Narayanagara, Doddakallasandra, Bangalore. 560061 9900519825 hemapriya@kssem.edu.in	---
Age and Date of Birth	42years, 24-08-1979	
Qualification	B.E; M.Tech	
Designation and Department	Assistant Professor Electrical and Electronics Engineering	
Teaching Experience (After PG)	8 years	
Other Experience(If any)	<ul style="list-style-type: none"> <li>➤ 9 Months as PCB designer using CAD,</li> <li>➤ 1 semester as Guest Faculty teaching TIM for Evening College students in BMS college of Engineering</li> </ul>	
List of Subjects Taught till date (use separate sheet if necessary)	<b>At KSSEM:</b> <ol style="list-style-type: none"> <li>1. Digital System Design</li> <li>2. Computer Aided Electrical Drawing</li> <li>3. Industrial Drives and Application</li> <li>4. Electrical machine Design</li> <li>5. Electric Motors</li> <li>6. Signals and System</li> <li>7. Power System Protection</li> </ol>	
Number of FDPs attended since joining service (Attach Separate List)	6 Annexure 1	--
*Subjects taught in the Assessment Year and percentage pass (Both Theory & Practicals) (10marks for each x Percentage) If Online please indicate.	<u>Odd Semester</u> <b>Theory</b> 1.Signals and Systems: 75% 2.Power System Protection: 100% <b>Lab</b> 3.Microcontroller: 100% 4.Basic Electrical Engineering Lab: 100%	37.5/40

	<b>Even Semester</b> <b>Theory</b> <b>1.CAED: Results Awaiting</b> <b>2.Industrial Drives and Applications: Results Awaiting</b> <b>Lab</b> <b>3.Control System Laboratory: Results Awaiting</b> <b>4.Basic Electrical Engineering Lab: Results Awaiting</b>	
<i>Vahid</i> <b>Details of UG Projects Guided (5 marks/ project guided) Provide Titles (HOD to endorse)</b>	<b>1.Design and Development of IOT Surveillance System</b> <b>2. -</b>	<b>5/10</b>
<b>Details of PG Projects Guided (5 marks/ project guided) Only for MBA/M.Tech. Provide Titles (HOD to Endorse)</b>	-	<b>/10</b>
<b>Percentage of classes held (No. of classes taken/no. of classes allocated x 5) Give details. HOD to Endorse.</b> <i>Vahid</i>	<b>1. Odd Semester</b> <b>Theory</b> <b>1.Signals and Systems: 100%</b> <b>2.Power System Protection: 100%</b>  <b>Theory</b> <b>1.CAED: 100%</b> <b>2.Industrial Drives and Applications: 100%</b>	<b>5/5</b>
<b>Student Feedback for Offline / Online classes. (Av.Percentage x 5 marks) Give details. HOD to verify.</b> <i>Vahid</i>	<b>1.Signals and Systems: 96%</b> <b>2.Power System Protection: 97.14%</b>	<b>4.83/5</b>

\*Marks to be awarded for subjects for which end exam was conducted



Details of students mentored during current assessment year. (Furnish details)	5 <sup>TH</sup> Semester Students: 10	--
Details of Participation in VTU Bodies (2 Marks) Furnish details and proofs.	-	/2
Details on Examination related Activity (2marks each) Marks only for external responsibility.)	1. Practical Exams - 2m 2. Conduction of Theory exams -2m 3. Paper Setting 4. Evaluation -2m	6/8
List of FDPs attended during the Assessment year (5 marks each) (Attach Certificate copies) Provide Title, dates etc. HODs to verify <i>V. K. S. H. S.</i>	1) Recent Trends in Power Systems 2) Power and Energy Systems: Technical Progressions and Research Opportunities	10/10
Financial Assistance received during current year for attending FDPs	-	--
Status of Ph.D. [Attach proof for each stage and for every claim]  Ph.D. Completed – 10 marks.	1. Awarded (2 marks) 2. Thesis Submitted and awaiting reports (1 mark) 3. Thesis Preparation (2 Mark) 4. Experimentation/Data Collection in completed (1 mark) 5. Comprehensive viva voce completed (1 mark) 6. Appeared for Course work exams (1 mark) 7. Applied for registration formalities (1 mark) 8. Identified Guide/Research Centre and preparing research Proposal (1mark.) 9. Not thought of pursuing Ph.D. (zero)	/10
Research Publications: (5 marks each) Provide Full Details. HODs to verify. [Attach copies of Title Page]	1. Design and Development of IOT Surveillance System	/10
Seminars / Workshops / Conferences attended (5 Marks)	1.	/10

each) Data to be verified by HODs. [Attach Certificate Copies]	2.	
Financial Assistance received during current year for attending such events.	Rs.	--
Registered as Research Guide (Reasons for not registering)	Yes / No If ' Yes ' furnish details.	-
Research Scholars registered with details	Yes / No If Yes, 5 marks	/5
Details of Patents Applied for (If any) One application 5 marks Provide Details.	-	/5
Academic Programs organized and supported during current year.(Only FDP /Workshop /Seminar / Conference) . Do not include Webinars.	"Skill Enhancement and Electrical Safety"	--/5
Details of programs attended for skill development like MOOCs, MOODLES, COURSERA, NPTEL and others (Only programs >= 20 hours need to be considered.	-	/5
Details of Utilization of NPTEL and other Online materials for augmenting own lectures. Provide proof for using this in the classroom. HOD to Verify.	CAED	5/5
Details of Project Proposal submitted during the current year. (At least one) Provide Details	Design and Development of IOT Surveillance System	5/5
Details of Project Funds Received. (including KSCST & VTU financial assistance)	Rs.-	/5
Consultancy Revenue Generated	Rs.-	/5
Details of Participation in cultural events during the current year	NOT APPLICABLE FOR CURRENT YEAR	
Additional Responsibilities in the Department/ College Example: Head, Coordinator , Accreditation etc.(2marks for each responsibility)	1) NAAC Criteria- 2&4 Department Coordinator 2) Department Placement Coordinator 3) Department DELTRONE Coordinator	6/10

Details of Live Membership for Professional Bodies (IEEE CSI SEA ISTE ..... ) (2marks for first membership & 3 marks for second membership)	-	/5
Contribution to Cultural / Sports Events (Furnish Details) [Marks to be granulated based on the responsibility and participation by the HOI.]	Department Cultural Coordinator: <ul style="list-style-type: none"> <li>Organized Quiz and Pick &amp; Speak events in AAROHANA 2021-2022</li> <li>Disciplinary committee</li> </ul>	5/5
Contribution towards Branding, Admissions, etc [Marks to be granulated based on the responsibility and participation by the HOI.]	1. Tele calling 2. Help Desk	10/10
<b>TOTAL</b>		<b>101.3/190</b>

Date: 16/7/2022

*Priya*  
Signature of faculty

**Comments from the HOD:**

- \* Should able to adjust to strenghed condition
- \* Eager to learn new subject.

*[Signature]*  
Signature of the HOD

**Comments of the Principal after the discussion:**

To take up Ph.D. seriously. To enrol for online Certification courses. Can improve.

*K. Ramesh*  
Signature of the Principal

*[Signature]*  
CEO

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109**  
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SESSION: 2021-22**

**Annexure 1**

<b>Sl.No</b>	<b>TITLE</b>	<b>ORGANISED BY</b>	<b>DATE(FROM-TO)</b>	<b>NO. OF DAYS</b>
1	Three Days National Level Online FDP on "Signal Processing Applications in Biomedical Engineering"	Department of Electrical and Electronics Engineering, Sir MVIT Bengaluru	23rd to 25th June 2020	3
2	National Level Five Days Faculty Development Program on " Building New Dimensions Towards Faculty Empowerment"	Department of Electrical and Electronics Engineering (Accredited by NBA) and R&D Center, TCE, Gadag, in association With Shanthala Power Limited, Hubli	27th to 31st July, 2020.	5
3	Power Electronic Applications in Electric Vehicles and Smart Grids	Department Of Electrical And Electronics Engineering BMS Institute Of Technology And Management	12th April to 19th April, 2021.	5
4	Power and Energy Systems: Technical Progressions and Research Opportunities	Department Of Electrical And Electronics Engineering BNM Institute Of Technology	19th July to 24th July, 2021.	5
5	Effective Utilization of VTU subscribed e-Resources Anywhere, Anytime, Any Device Using KSSEM Digital Library Powered by Knimbus	Department of library KSSEM	23rd August, 2021	1
6	Recent Trends in Power Systems	Department Of Electrical And Electronics Engineering Sapthagiri College Of Engineering	5th July to 9th July, 2021.	5



# SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to VTU, Belagavi and Approved by AICTE, New Delhi)  
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Accredited by NAAC with "A" Grade

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### PARTICIPATION CERTIFICATE

This is to certify that Hemapriya M, Faculty, Dept. of Electrical and Electronics Engineering, from KSSEM , Bangalore has participated in 5-day Faculty Development Programme (Online) on "Recent Trends in Power Systems" from 05/07/2021 to 09/07/2021.

FDP Coordinator

HOD, Dept. of EEE

PRINCIPAL



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# B. N. M. Institute of Technology

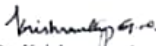
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27<sup>th</sup> Cross, 12<sup>th</sup> Main, Banashankari 2<sup>nd</sup> Stage, Bengaluru - 560 076, INDIA  
Ph: 91-80-26711780/81/82 E-mail: principal@bnmit.in, www.bnmit.org



## Certificate

This is to certify that Dr./Mr./Ms./Mrs. HEMAPRIYA M  
KS School of Engineering and Management has participated  
in Faculty Development Program on "Power and Energy Systems: Technical Progressions and  
Research Opportunities", funded by NewGen IEDC, DST, Govt. of India, organized by Department  
of Electrical & Electronics Engineering, BNMIT Bengaluru from 19<sup>th</sup> to 24<sup>th</sup> July 2021.

  
Dr. R. V. Parimala  
HOD EEE

  
Dr. Krishnamurthy G. N.  
Principal

  
Dr. S. Y. Kulkarni  
Additional Director

  
Prof. T. J. Rama Murthy  
Director



National Institutional Ranking  
Framework Ministry of Human  
Resource Development, Govt. of India  
has Ranked BNMIT at No.186 at all India level, under  
Engineering Category (including IITs, NITs and IIITs)



All UG branches -  
CSE, ECE, EEE, ISE &  
Mechanical Engg.  
accredited by NBA for academic  
years 2018-19 to 2021-22



National  
Assessment and  
Accreditation  
Council has awarded BNMIT with  
'A' Grade



BNMIT has secured  
34th Rank in All  
India TIMES survey  
2021, among top 100 Engineering  
Institutions in India



KO SCHOOL OF ENGINEERING AND MANAGEMENT



CERTIFICATE OF APPRECIATION



*Mrs. Anuradha Anurag Patil*

OF ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT HAS ACTIVELY  
PARTICIPATED IN THE PROGRAM  
"SKILL ENHANCEMENT AND ELECTRICAL SAFETY".

AT GOVERNMENT SCHOOL, RAMANAGARA VILLAGE  
DURING 28TH SEP - 08TH OCT 2021

*[Signature]*  
HEADMASTER GOVT.SCHOOL  
RAMANAGARA

PRINCIPAL  
KSSEM COLLGE



**KSSEM**

**K. S. School of Engineering & Management, Bangalore - 560109**


Department of Electrical & Electronics Engineering

Staff Feedback (2021-22) Odd Sem

Fifth Sem

Faculty Name: Mrs. Hemapriya M

Sl. No.	1. Effective Planning & Organisation	2. Punctuality / Class time Utilization	3. Ability to teach / explain / effective use of board	4. Interaction / Motivating students	5. Subject knowledge	6. Presentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
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2	5	5	5	5	5	5	5	5	5	5
3	5	5	5	5	4	4	4	4	4	4
Col. Total	15	15	15	15	14	14	14	14	14	14
Col. Avg.	5.00	5.00	5.00	5.00	4.67	4.67	4.67	4.67	4.67	4.67
Over all %	96.00									

  
Head of Department

Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
K S School of Engineering and Management  
Bangaluru-560 109

  
Principal





**KSSEM**

# K. S. School of Engineering & Management, Bangalore - 560109

Department of Electrical & Electronics Engineering

Staff Feedback (2021-22) Odd Sem

Seventh Sem

Faculty Name: Mrs. Hemapriya M

Sl. No.	1. Effective Planning & organisation	2. Punctuality / Class time Utilization	3. Ability to teach /explain / effective use of board	4. Interaction / Motivating students	5. Subject knowledge	6. Presentation of the subject / communication	7. Linking subject with practical application	8. Syllabus coverage / exam point of view	9. Evaluation of test / counselling	10. Attitude towards students
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3	4	4	4	5	5	4	5	4	5	
4	5	4	5	5	4	5	5	4	5	
5	5	5	5	5	5	5	5	5	5	
6	5	5	5	5	5	5	5	5	5	
7	5	5	5	5	5	5	5	5	5	
Col. Total	34	32	34	35	34	34	35	33	34	35
Col. Avg.	4.857143	4.571429	4.857143	5	4.857143	4.857143	5	4.714286	4.857143	5
Over all %	97.14									

Head of Department

Associate Professor  
 Head of the Department  
 Department of Electrical & Electronics Engineering  
 K S School of Engineering and Management  
 Bengaluru-560 109

Principal

*T. Rana*



# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 019, www.kssem.edu.in


Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408

## ENDORSEMENT

(From College, endorsement to be taken in the institution / Department Letter head)

(To scan this page and enclose in the project proposal)

This is to certify that 1) Mr. Jayawanth B, 2) Ms. Sushma Udupa K S are bonafide student(s) of Department of Electrical and Electronics, in the degree program of our institution. If the project proposal submitted by these students under the 45<sup>th</sup> series of Student Project Programme is selected by KSCST, we will provide the requisite laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps to see that the project team will exhibit / demonstrate their project in the nodal centre and in the State Level Seminar and Exhibition (if selected). If the student team fails to send the completed project report or fails to attend the evaluation in nodal centre or fails to attend the State Level Seminar and Exhibition, the supported project amount will be returned to KSCST.

  
(Hemapriya M)

(Name & Signature of Project  
Guide with Seal)

Email id:

hemapriya@kssem.edu.in

Contact No.:  
9900519825



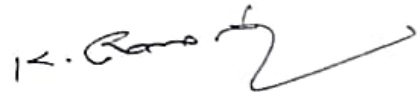
(Signature of HOD with Seal)

Email id:

hod.eec@kssem.edu.in

Contact No.:  
9183892689

Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
K.S. School of Engineering and Management  
Bengaluru-560 109



(Signature of the Principal with  
Seal)

Email id:

principal@kssem.edu.in

Contact No.:  
9900633688