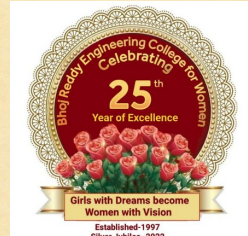




# **Bhoj Reddy Engineering College for Women**



Sponsored by Sangam Laxmibai Vidyapeet, Approved by AICTE and Affiliated to JNTUH)  
Vinaynagar, I S Sadan Crossroads, Hyderabad – 500 059, Telangana

# **ELECTRIKA**

## **Technical Magazine**

Academic Year: 2022 Volume - IV

**Department of Electrical and Electronics  
Engineering**



**Website: [www.brecw.ac.in](http://www.brecw.ac.in)**



Bhoj Reddy Engineering College for Women is run by Sangam Laxmibai Vidyapeet, a registered voluntary social action group working since 1952 for empowerment of women and girls through education. The vidyapeet has more than 71 years of experience in the field of education.

The College was established in 1997. It is managed by an executive committee consisting of persons with long experience in the field of education. Within a short period, it has emerged as one of the premier engineering colleges in the state.

#### **Founders of Sangam Laxmibai Vidyapeet**



#### **Vision**

BRECW develops confident and articulative young women into dynamic Engineers equipped with skills, knowledge, values and an attitude to contribute to the society

#### **Mission**

BRECW is committed to providing a challenging, enriching, safe and supportive technical learning environment through its core values of responsibility, respect and compassion.

Fosters intellectual, spiritual and personal development of young women so that they develop the tools necessary to lead meaningful lives.

Offers academic curriculum along with an extensive co-curricular program with the support of dedicated staff who ensure that students identify their strengths and develop their skills such as teamwork, leadership, creativity and entrepreneurship.

Develops independent, adaptable thinkers with a passion for learning, courage to take risks and initiative to apply what is learned.





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## **About EEE**

The EEE branch offers a wide variety of employment opportunities to its graduates. They can choose a career in Electronic Power Systems, Power Electronics, Electronics and Software, etc. Electrical and Electronic Engineering is an exciting and dynamic field. Electrical engineers are responsible for the generation, transfer and conversion of electrical power, while electronic engineers are concerned with the transfer of information using radio waves, the design of electronic circuits, the design of computer systems and the development of control systems such as aircraft autopilots.

These sought-after engineers can look forward to a rewarding and respected career. A number of jobs in public and private sectors are open to them. The department has well-established labs as per norms of the JNTUH.

The department continues to add special equipment to the Projects Lab for carrying out better projects within the college.

## **Vision**

To develop effective and ethical young women graduates in Electrical and Electronics Engineering for strengthening the society.

## **Mission**

- » To provide innovative electrical techniques that contribute to the socio-economic growth with values of compassion and responsibility
- » To imbibe overall development of electrical women engineers towards leading fruitful lives.
- » To create a transformative educational experience for students focused on multi-disciplinary knowledge, leadership, and entrepreneurship.
- » To impart application-oriented knowledge and inculcate analytical thinking to solve technological problems in the industry.



**Programme Outcomes (PO's)**

PO1 - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 - Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 - Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 - Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.



PO10 - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

### **Program Education Objectives (PEO's)**

PEO I: Exhibit strong knowledge in basic sciences and electrical engineering enabling them to analyse, design and provide solutions for energy related complex problems by applying appropriate techniques.

PEO II: Demonstrate their technical, communication and leadership skills in professional environment or as entrepreneurs with social responsibility.

PEO III: Develop ethical values and aptitude for life-long learning that enables them to stay abreast with latest technology needed for successful professional career.

### **Program Specific Outcomes (PSO's)**

PSO I: Facilitate technical solutions for different power issues to maintain the stability and reliability of power systems.

PSO II: Understand the computational tools / methods for designing, analysing and controlling the various electrical drives, power electronic converters used in industry.





### Principal's Message



Dr J Madhavan  
M.E, Ph.D, MISTE, MIE  
Principal

Dear Students,

Empowerment of girl students for their versatile progress through education is our cherished motto. BRECW is established to create, nurture, and shape technical professionals and leaders to create an inclusive and sustainable society in a national and international perspective.

At BRECW, Students are provided with opportunities for interaction with the experts from the Industry through Guest Lectures, Industrial Visits, Vocational Training (internships), Seminars and Workshops etc. To align with the curricula, we have excellent faculty, state-of-the-art infrastructure and laboratories. Spacious green campus, good library and peaceful atmosphere ensures that learning becomes a wonderful experience.

At BRECW we ensure students to get the best start to their future career so that they could become smart and responsible citizens of our glorious country.

Our commitment to excellence is evident in the myriad opportunities we provide our students. Through guest lectures, industrial visits, vocational training (internships), seminars, and workshops, students interact closely with industry experts. Our excellent faculty, state-of-the-art infrastructure, and well-equipped laboratories complement our rigorous curricula.

Our spacious green campus, comprehensive library, and peaceful atmosphere ensure that learning is not just enriching but also enjoyable. At BRECW, we lay a strong foundation for our students' future careers, aiming for them to become smart and responsible citizens of our glorious country.

I extend my best wishes to all our students for grand success in their careers and prosperity in their future lives.

I wish all the students a grand success in their career and prosperity in their future life.



**HOD's Message**

Mrs S Deepti  
M.E(PS), LMISTE  
Assoc. Prof & HoD-EEE

On behalf of our faculty, it is my privilege to welcome all of you to the Department of Electrical Engineering at Bhoj Reddy Engineering College for Women. We take pride in our faculty, a team of highly capable and dedicated professionals, most of whom have academic experience and degrees from leading universities of the India. We provide ample opportunities to our faculty and students, through in-house trainings, workshops and trainings outside the college campus for further growth and development in their areas of expertise.

We at EEE Department are committed with the following objectives.

- The Department has taken up the task of developing competent Electrical engineers of high quality, capable of facing various challenges of the power situation in the country.
- To produce graduates with the necessary background and scientific skills to work professionally in several fields in particular with IT Industries and Power sectors.
- To train and encourage the graduates for personal and professional success with awareness and commitment to their ethical and social responsibilities, both as individuals and in team environments



## EEE Gold Medalist



**Bhoj Reddy Engineering College for Women**  
(Sponsored by Sangam Laxmibai Vidyapeet, Approved by AICTE and Affiliated to JNTUH)

**Department of Electrical and Electronics Engineering**



**Congratulations**  
**Ms. Kondam Amukthamalyada**  
Roll No: 18321A0204      Batch: 2018-22

The Management, Principal, Staff and Students of Bhoj Reddy Engineering College for Women congratulate you for being provisionally awarded University Gold Medal with CGPA of 8.63 in B Tech Electrical & Electronics Engineering among all affiliated Colleges in Jawaharlal Nehru Technological University Hyderabad, JNTUH.



Kondam Amukthamalyada was awarded Gold Medal and cash prize by the our college management during the Silver Jubilee Celebrations of BRECW on 17 December 2022.





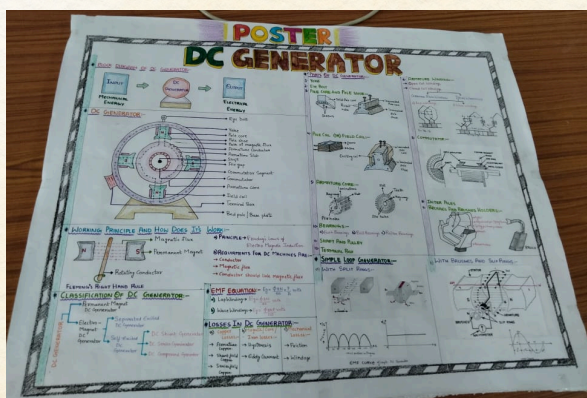
## Annual Technical Event - 25 March 2022



Poster Presentation



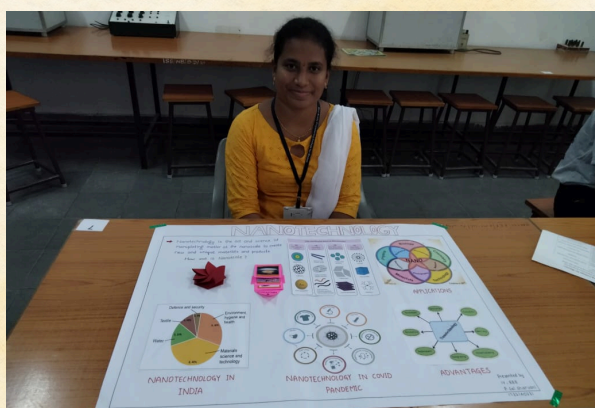
Working Model Invitation



Poster Presentation by 2nd EEE Student



EEE Faculty Group Photo near Rangoli



Final Year EEE Student Participated in Poster Presentation



II EEE Student Participated in Poster Presentation



### Paper Presentation



1. B Sravya 2. V Kavya ,P Vasumathi

### Poster Presentation



1 B Tanvika,P Srija 2.S Shireesha, J Hari Prasanna

### Working Model



(1.T Gayatri,P B Harshitha 2.Y Archana,M Bhavya sri, S Chandrika & K Sai Chandana)





III EEE &amp; II EEE Students Participated in Circuitrix



EEE Faculty Group Photo at Rangoli, Technical Event Inaugural Ceremony



Prize Distribution by Faculty for Working Model Winners



Working Model by IV EEE Students

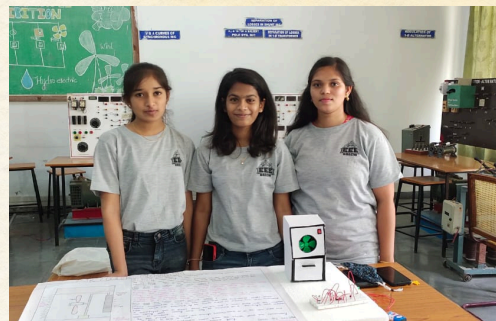


## Silver Jubilee - Technical Events

As a part of Silver Jubilee Celebrations – 2022 of BRECW, EEE department has organized Annual Technical Events Day for all EEE Students on 15-12-2022 from 09:30 to 16:30 Hrs in EEE department.



Poster Presentation by Rajalakshmi & Farah Nazz



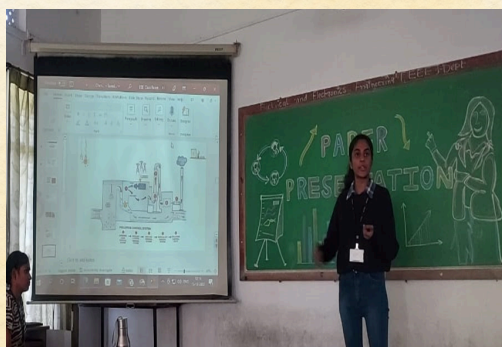
Poster Presentation by Siri Chandana, Sahithi, Vijayalakshmi



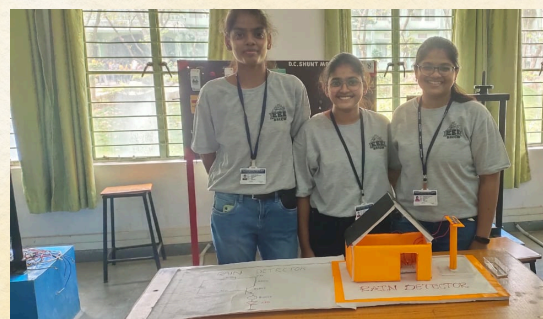
Rangoli at our Department Entrance



HOD is observing the Poster Presentation made by the students



paper Presentation by IVd EEE Student



Poster Presentation by 3rd EEE Students





Paper Presentation by Prasanna & Hari Prasanna (3rd EEE)



Paper Presentation by Nandini & Pooja of (2nd EEE)



M Bhavya Siri & B Swetha (4th EEE) won 1st Prize, Ch Renusrija (3rd EEE) won 2nd Prize for Poster Presentation



Working Model by E Roshini, K Kavya, B Niharika & M Saicesha (4th EEE)



**Best Projects****1. Gesture Controlled Lamp Dimmer****ABSTRACT**

As the world gets more and more technologically advanced, we find new technology coming in deeper and deeper into our personal lives at home, industries etc. There is a requirement of good lightning which allows clear vision and refreshing view. At the same time, energy needs to be conserved not only to cut cost but also to preserve the resources for longer use.

The developed hardware system helps in increasing and decreasing light intensity as required with simple hand gestures. This system is an efficient solution for operating many electrical appliances wirelessly through a Micro Electro Mechanical System (MEMS) sensor which can be used in real time.

The main controlling device of the whole system is PIC Microcontroller. MEMS accelerometer, RF transmitter are used at transmitter end. RF receiver and lamp dimmer are used at receiver end. In this we are using wireless communication between gesture and lamp using RF wireless technology to control the lamp intensity.

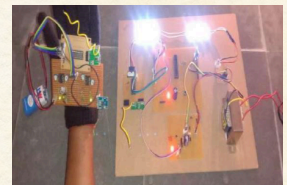
by

CH. Tejaswi 19321A0256

S. Harshini 19321A0215

CH. Kavya Sri 19321A0220

Afreen 19321A0201

**2. Automatic Power Factor Correction using Microcontroller****ABSTRACT**

The main aim of the project is to correct the power factor automatically using microcontroller. In the present technological revolution, power is very precious. Inductive loads are main reason for low power factor in power system. A low value of power factor leads to increase in electric losses and also draws a penalty by the utility. Therefore, suitable methods are developed to improve the power factor automatically. To improve the power factor to desired level, reactive power compensators are used in the power system. The most commonly used device is capacitor bank/s which are switched ON and OFF manually based on the requirements. If automatic switching can be employed for the correction devices, not only will it improve the response time but also removes any scope for error.

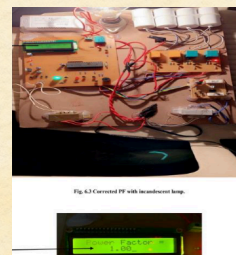
by

K. Usha 19321A0258

Sahera Banu 20325A0204

T. Aishwarya 19321A0202

K. Haritha 19321A0214





### 3. Water Level Monitoring, Controlling and Alerting System in Dams using DTMF Technology

#### ABSTRACT

This project provides an efficient solution for monitoring and control of dam water with automatic gate control. This system also enables the remote monitoring and control based on DTMF technology. Automated sensors and remote communication aims at building a highly automated irrigation system making use of sensors like water level indicators, gate status monitoring sensor, gate health sensor and feed back generating system etc. The objective of this project is fulfilled by employing a gate position monitoring and control system, and remote communicating modem. The project makes use of a microcontroller, which acts as a central controlling unit and GSM Module to send an alert message to the authorized person to open/close gates. This module is capable of communicating with the input and the output modules. .

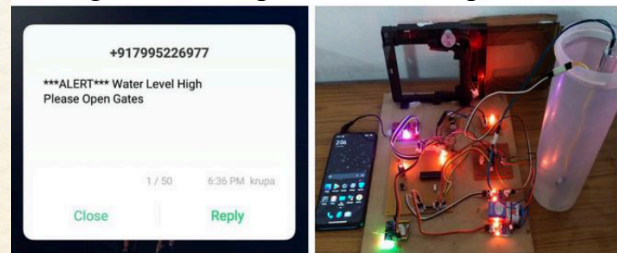
by

Nalla Sushmitha 19321A0252

Nishitha T 19321A0230

Jyothi Merugu 19321A0217

Krupani Katta 19321A0223



### 4. Smart Parking System

#### ABSTRACT

In present days, it is the most difficult task for the drivers for finding the availability of parking slot in cities and it tends to become harder with the increase in number of private car users. This situation can be taken as an opportunity for smart cities to undertake actions in order to enhance the efficiency of their parking resources and thus leading to reduction in searching times, traffic congestion and road accidents. Problems pertaining to the parking and traffic obstruction can be solved if the drivers can be informed in advance about the availability of the parking slots at and around their intended destination. Cloud acts as an intermediate between things and applications, in order to conceal all the complexities and functionalities necessary for running the application.

by

Roshini Edla 19321A0233

Kavya Kolichelam 19321A0219

Niharika Badepally 19321A0229

Sai Eesha Mamidi 19321A0238





## Telangana Liberation Day

**Bhoj Reddy Engineering College  
for Women****Poster Presentation****“Telangana Liberation Day”****Date: 17.09.2022****Venue: Seminar Hall I (WB-401)**



## Faculty Attended FDPs

S.No.	Name of the participant	Title of the FDP / professional development/administrative training program	Dates (from-to)
1.	S Deepti	One-week National Level Online Faculty Development Programme on “Challenges and Measures in Evolving Power Systems” Department of Electrical and Electronics Engineering, Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad.	6-11 June 2022
		One week online FDP on Research Opportunities in Electrical Power Engineering Prasad V. Potluri Siddhartha Institute of Technology Kanuru, Vijayawada- 520 007. Andhra Pradesh, India	23-27 March 2022
		National level five-day online Faculty Development Program “Mentoring for Institutional Social Responsibility and Facilitation for Community Engagement” Mahatm Gandhi National Council of Rural Education, Department of Higher Education, Ministry of Education, Government of India.	7-11 March 2022
		NPTEL-AICTE Faculty Development Program “Electrical Distribution System Analysis”.	July – September 2021
2.	R Manju Bhargavi	AICTE EAnd Learning (ATAL) Academy Online Elementary FDP on "Futuristic Electric Transportation Systems" at SREE VIDYANIKETHAN ENGINEERING COLLEGE, A.RANGAMPET	20-24 September 2021
		AICTE Training and Learning (ATAL) Academy Onlin Elementary FDP on "Challenges and Control of Green and Sustainable Energy systems using Artificial Intelligence techniques" by BVRIT HYDERABAD College of Engineering for Women.	9-13 August 2021
3.	S Asha Kiranmai	Two week STTP-Optimization Tools and Solving Real World Problems in the field of Electrical Engineering P.R. Pote Group of Education and Welfare Trust's College of Engineering & Management, Amravati & ST. Vincent Pallotti College of Engineering & Technology, Nagpur	6 – 18 June 2022



## Enrichment courses

**Artificial intelligence for Renewable energy Systems**

Bhoj Reddy Engineering College for Women, Hyderabad has organized an add on Program on “Artificial intelligence for Renewable energy Systems “from 13/09/2021 to 18/09/2021. Our faculty Ms. S Mayuri, Assistant Professor, EEE department, extended welcome note for program to the participants. The Resource Person Mr. U Vikramsena Reddy, Coign Consultants Private Limited, Ballad Estates, Tarnaka, Secundrabad took over the session and gives the brief introduction to the Artificial intelligence for Renewable energy Systems.



In this Programme, the resource person explained about the overview of renewable energy and its significance in combating climate change, Introduction to Artificial Intelligence (AI) and its potential applications in various industries and Challenges faced in optimizing renewable energy systems (intermittency, variability, etc.).



## Design of Solar PV Systems

Bhoj Reddy Engineering College for Women, Hyderabad has organized an add on Program on “Design of Solar PV Systems “from 19/09/2022 to 24/09/2022. Our faculty J Ashwini Kumari, Assistant Professor, EEE department, extended welcome note for program to the participants. The Resource Person Mr. B Purushotham Chary, Coign Consultants Private Limited, Ballad Estates, Tarnaka, Secundrabad took over the session and gives the brief introduction to the Design of Solar PV Systems.



In this Programme, the resource person explained the concepts of Solar photovoltaic system, design of Solar PV systems, power calculations and hands on experience on how to install the Solar PV system. This Programme also helps the students in doing their mini and major projects using PV systems.



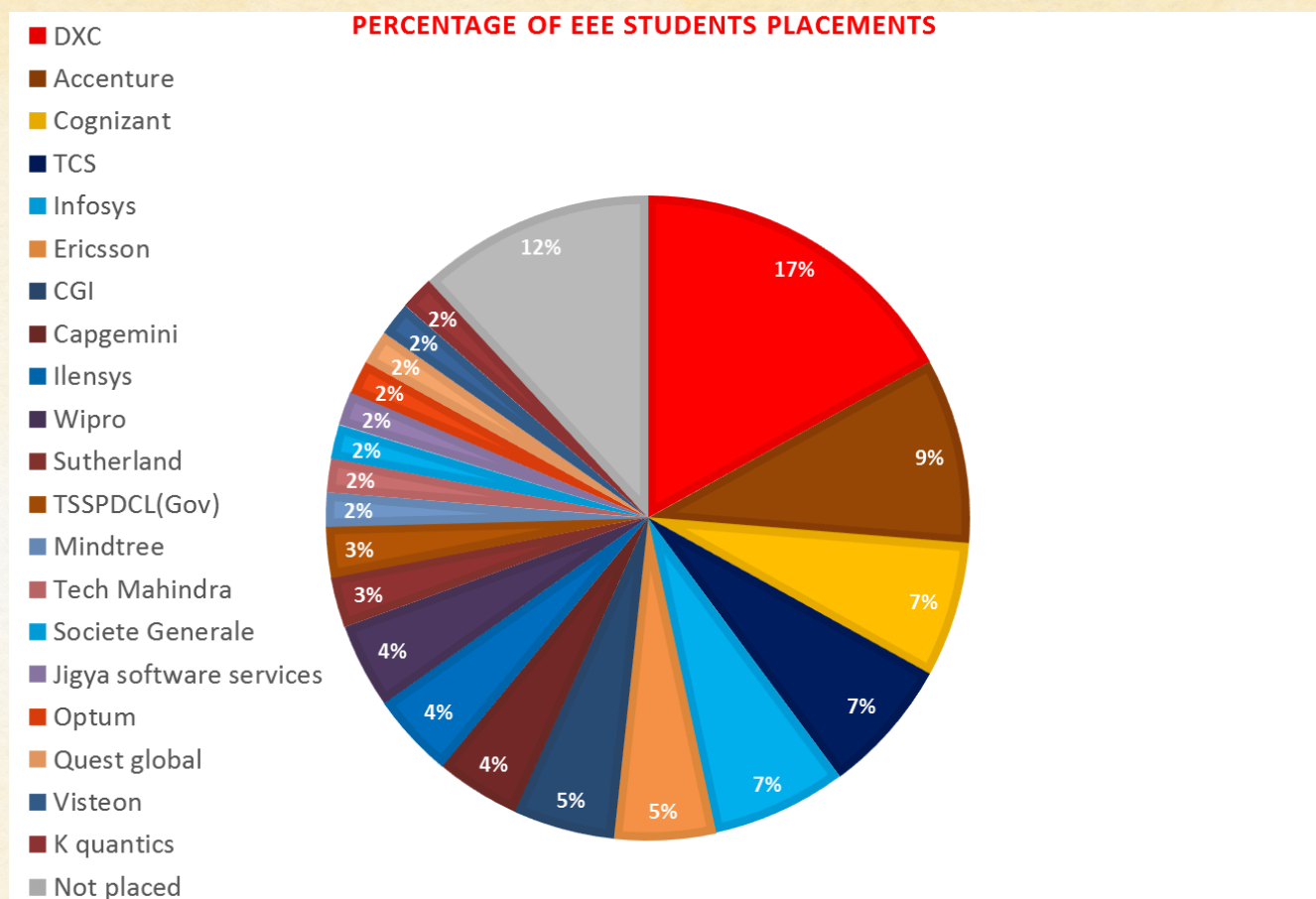
## Student Placement Data

S.No	Company	No of EEE students' placements	Percentage of students' placements	Salary (in Lakhs)
1	DXC	13	20	4.2
2	Accenture	7	11	4.2
3	Cognizant	5	8	4.2
4	TCS	5	8	3.36
5	Infosys	5	8	3.6
6	Ericsson	4	6	5.0
7	CGI	4	6	3.7
8	Capgemini	3	5	4.0
9	Ilensys	3	5	4.2
10	Wipro	3	5	3.5



11	Sutherland	2	3	4.2
12	TSSPDCL(Gov)	2	3	5.5
13	Mindtree	1	2	4.5
14	Tech Mahindra	1	2	4.0
15	Societe Generale	1	2	7.0
16	Jigya software services	1	2	2.4
17	Optum	1	2	5.5
18	Quest global	1	2	4.0
19	Visteon	1	2	6.0
20	K quantics	1	2	1.8
21	Not placed	9	14	-







### Special Features of Bhoj Reddy Engineering College for Women

- Exclusively for women, with good discipline and security
- Women Protection Cell and Anti-Sexual Harassment Cell are established
- Centrally located and well connected by RTC bus services to various parts of the twin cities.
- The college is just 4 kms from Koti Bus Stop
- Housed in buildings with a total plinth area of 20,000 square meters
- Well-equipped and state-of-the-art laboratories as per the norms specified by JNTUH & AICTE
- Cultural and co-curricular activities are encouraged for overall personality development of students
- Technical Associations are formed to promote professional activities in each department
- Practical training to the faculty and students during summer vacation
- IEEE, ISTE, IETE, CSI student chapters are formed
- Alumnae Association is formed to provide a forum for alumnae interaction
- Post box facility is available within the campus
- More than 90% of the final year students have taken up live problems from industries as their design projects
- Well-designed classrooms with audio visual aids
- Indoor and outdoor sports and games facilities
- Banking facility is available adjacent to the campus
- Sangam Laxmibai Vidyapeet, the sponsor of the college, is a non-profit organisation
- Students are encouraged to write technical papers and to participate in seminars, workshops and conferences conducted by the college and other institutions
- Private hostels exclusively for women are available within 200 meters of the campus

#### Editors Board

Ms J Ashwini Kumari-Asst. Professor-  
EEE  
S Pooja - III EEE (22325A0206)  
S Gnaneshwari - III EEE (21321A0207)  
Humera - II EEE (23325A0205)  
Ruchitha - II EEE (23325A0211)  
J Sriya Deepthi - II EEE (22321A0228)

#### Address

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