



THE EEE VIDYAMAN

Department of Electrical & Electronics Engineering

Global Academy of Technology, Bangalore-98

(Approved by AICTE, Delhi and Affiliated to VTU, Belgaum)

ACADEMIC YEAR – 2022-23

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About GAT

Global Academy of Technology, established in the year 2001, is one of the most sought-after engineering and management colleges in Bangalore, Karnataka. Located in a sprawling campus of 10-acre land GAT has contemporary multi-media smart classrooms, modern laboratories, seminar halls, auditorium, an up-to-date library with volumes of recommended and reference books along with e-journals and well-equipped computer centre. Students at GAT experience 24 x 7 high speed Wi-Fi facilities and web-based CMS & LMS for video streaming which is an integral part of e-learning. GAT provides ample opportunities for various co-curricular and extra-curricular activities for the students. A large cafeteria and well-maintained hostels for both boys and girls are available. The campus brims with more than 2000 students and 300 experienced staff involved in effective Teaching and Learning Process. Fully established mentoring, peer learning and counselling by proctors ensure holistic development of all students. GAT has academic alliances with various industries and research organizations to provide current industry perspective to the students.

Vision statement

To be premier institution with excellent learning and teaching environment for imparting quality education to students in engineering and management with futuristic needs of society.

Mission statements

M1: To create conducive environment of continuous teaching learning and improvement for students and faculty through the state-of-the-art infrastructure.

M2: To promote research & innovation by collaborating with industries.

M3: To inculcate ethical values and environmental consciousness amongst students through holistic development programmes to serve the society.

About EEE Department

Electrical Engineering is the mother of all electrical sciences. Its sound foundation is the plinth on which new branches have emerged rapidly. This is a compelling and broad field that plays an increasingly important role in making positive contribution to the betterment of society and human condition. The department of Electrical and Electronics Engineering has been effectively functioning since the commencement of the college in 2001. The department strives to be in the forefront in educating the students in the fundamentals as well as emerging technologies. The aim of the department is to prepare students for the continually changing, high-technology world of electrical engineering by providing old theoretical foundation in science, mathematics, and engineering with substantial hands-on laboratory experience, and a curriculum that challenges students to think and act logically.

Department Vision statement

To be a foremost education programme in the field of Electrical & Electronics Engineering to train the students to face global challenges and succeed in their future endeavors.

Department Mission statements

- Strengthen learning environment that facilitates quality education in the field of Electrical & Electronics Engineering.
- Enhance the Industry Institute interaction continuously to enable faculty and students work on real time engineering problems.
- Improve the quality of value-added programmes to enhance the technical and intellectual capabilities of students ensuring their success in competitive examinations for higher studies, employment, and research.

Program Educational Objective

PEO1: Engage in the design of systems and applications in the field of Electrical and Electronics Engineering and allied Engineering Industries.

PEO2: Applying the knowledge of Electrical and Electronics Engineering to solve problems of societal relevance.

PEO3: Engage in life-long learning through continued education, professional practices, and technical training and/or higher education and research.

PEO4: Exhibiting enhanced levels of leadership and commitment to professional ethics and social awareness in their professional careers.

Program Specific outcomes

PSO1: Design DC machines, transformers, and dynamic AC machines for given specifications.

PSO2: Understand generation, transmission, distribution, and utilization of electric power.

PSO3: Design analog and digital electronic circuits and controller for operation and maintenance of electrical systems.

From,



Dr. P.K. KULKARNI
Professor & HOD

It gives me immense pleasure in bringing out newsletter “**EEE VIDYAMAN**”.

The department was started with the primary objective to be a foremost programme in the field of electrical and electronics engineering to train the students to face the global challenges and to address the societal problems. Since its inception, the department has been offering infrastructural facilities which include a variety of state of art equipment with modern computing facilities to aspiring professional students to meet contemporary requirements of the industry. The department is dynamic and vibrant with a blend of young experienced and enthusiastic faculty. Department is actively involved in academic and research activities in electrical and electronics engineering and multidisciplinary fields.

The department strives to provide a conducive environment for the students to develop analytical and practical skills and utilize them to solve the real- life problems. To encourage the students, the department conducts training on regular basis on present trends in hardware and software, organize workshops, industrial visits, and internships periodically. The department’s newsletter is a step forward to showcase academic achievements of our faculty and students.

This will create an impact on the minds of readers, by way of providing larger overview and dimensions of the department. Finally, I congratulate my students for participating in various extra-curricular activities and competitive examinations. My best wishes to all for their bright career and future endeavors.

Faculty Development Programs (FDPs)

Continuous improvement, unlearning, learning, and relearning is most important attribute for teachers. FDP online, offline and hybrid mode programmes have been attended by the faculty to keep in track with latest technology and trends.

1. Ten-day online FDP on “**Computational Mathematics for Data Science**” from 1st to 12th August 2022 in association with **IIT, Allahabad**.
2. Five-day online FDP on “**Inculcating Universal Human Values in Technical Education**” from 31st October to 4th November 2022 in association with **AICTE**.
3. Ten-day hybrid mode FDP on “**Deep Learning in Biomedical Image Analysis**” from 5th December to 16th December 2022 in association with **AICTE (ATAL)**.

Department Published in National / International Conferences

Papers have been published by the department faculty in various conferences and journals for the academic year 2022-23.

Papers Published by Faculty

1. “**Development of Fault Tolerant Flight Control System For Handling Actuator Stuck Faults**”, by Mrs. Nagarathna.k in journal of Aerospace Sciences And Technologies.
2. “**Power Quality Improvement Of Railway Traction Using Passive Shunt Filter**”, by Dr. Ruma Sinha published in journal of emerging technologies and innovation resepaarch(JETIR).
3. “**Fuzzy Based Cascaded Maultilevel Inverter For Large Scale Solar Pv Integration**”, by Dr.G Jayachitra in journal of emerging technologies and innovation research(JETIR).
4. “**Unified Power Quality Conditioner Fore V-V Connected Electrified Railway Traction Power Supply System**”, by Dr. Ruma Sinha published in.
5. “**Fuzzy Based Perturb And Observe Mppt Algorithm For Grid Tied Pv System**”, by Dr. J Jayachitra and Dr. Ruma Sinha in
6. “**Comparative Study Of PI And Fuzzy Logic Controlled D-STATCOM For Improving Power Quality**”, by Dr. ruma Sinha by in 4th international conference for emerging technology(INCET).

Conference Presentation by Faculty

1. “**Detection of Trespassers Walking In Footpath To Avoid Accidents Using Machine Learning Techniques**”, presented by Nagarathna k in the 2023 three days international conference on nano composites for aerospace applications(ICNCAS-2023) held at the department of basic sciences and electronics & communication engineering, combridge institute of technology, Bengaluru, india.
2. “**Impact Of Communication Delay In A Coordinated Control VPP Model With Demand Side Flexibility: a case study**”, by Mausri Bhuyan in 3rd international conference on modelling, simulation and optimization (comso 2022) held during 21-23 december 2022 organized ny national institute of technology silchar, india.

Patents

Patent published on intelligent low cost battery swapping technology for E-vehicles on 20th January 2023.Contributors: Anitha Sastry, Ruma Sinha and Jayachitra.

MOU's

Sl. No	Company
1	Power Research & Development Consultants Pvt. Ltd., Bengaluru
2	ENERFRA Rajajinagar, Bengaluru
3	ATS Learning solutions, New Delhi [CSE, ISE, EEE, ECE]
4	Advanced Electronic Systems
5	TMI Systems

Papers Presented by Students

1. “**Comparative Study of PI and Fuzzy Logic Controlled D-STATCOM for Improving Power Quality**”, presented by B N Revanth, Nikhil Bhimsa and Lekhana V R on 26-28 may 2023 at the 4th IEEE International Conference on Emerging Technologies (INCET2023) under the guidance of Mrs. Ruma Sinha-Scopus indexed.

Student Achievements

Class Toppers AY:2022-23

#	USN	NAME	Photo
01	1GA19EE019	GAGAN R	
02	1GA19EE040	RAKSHITHA BANAKAR	
03	1GA19EE044	SRIDHAR SAMANTRI	

Internship:

1. Internship at IISc Bangalore in the Department of Computer Science and Automation for a period of one month fifteen days with a stipend of 18,000/-.



Student Name: Harshith D R
Semester: 8th Semester

Sports

1. **Dheeraj Kumar R (1GA19EE017)** participated at **VTU State Level Wrestling (Men and Women) Championship 2022**, which was held at Global Academy of Technology, Bengaluru, on 12th & 13th December 2022.
2. **Jeevan Gowda P (1GA18EE015)** participated at **VTU Single Weight-lifting Tournament 2021**, which was held at Jyothy Institute of Technology, Bengaluru on 22nd February 2022.
3. **Jeevan Gowda P (1GA18EE015)** participated at **All India Inter University Weight-lifting Championship 2021**, which was held at

Chandigarh University, Mohali, Punjab, from 8th to 12th March 2022

4. **Bhoomika S** of 3rd semester secured **Second Place** at **VTU State Level Netball Championship 2022-23** held at St. Joseph Engineering College from 29th -30th march 2023
5. **Arun B T** of 8th semester secured **First Place** at **Inter Collegiate Bengaluru South Division Level Handball Tournament 2022-23** held at Global Academy of Technology from 10th -11th march 2023.
6. **Harshini S** of 1st semester secured **Third Place** at **VTU State Level Taekwondo Championship 2022** held at Siddhaganga Institute of Technology, Tumakuru from 20-21 December 2022.
7. **Dheeraj Kumar R** of 8th semester participated in **Tug-of-War** at Sai Vidya Institute of Technology on January 04th 2023.
8. **Dheeraj Kumar R** of 8th semester secured **Third Place** at **VTU State Level Championship 2022-23 in Wrestling (86 Kg)** category held at Vidyavardhaka College of Engineering (VVCE) Mysore (12/12/2022-13/12/2022).
9. **Dheeraj Kumar R** of 8th semester secured **Second Place** in **Tug-of-War** during Interact 2022 (03/06/2022-04/06/2022).
10. **Dheeraj Kumar R** of 8th semester secured **Second Place** in **Tug-of-War** at BMS College of Engineering (06/06/2022-07/06/2022).
11. **Nikhil Gowda N K** of 8th semester secured **Second Place** in **Tug-of-War** at BMS College of Engineering (06/06/2022-07/06/2022).
12. **Nikhil Gowda N K** of 8th semester Participated in **Tug-of-War** at Sai Vidya Institute of Technology (04/01/2023).
13. **Nikhil Gowda N K** of 8th semester secured **Second Place** in **Tug-of-War** during Interact 2022 (03/06/2022-04/06/2022).
14. **Nikhil Gowda N K** of 8th semester secured **Second Place** in **Volleyball** during Interact 2022 (03/06/2022-04/06/2022).

Events Conducted

1. The technical talk was given by **Dr. Balaraman K**, Executive Director, Idam Infrastructure Advisory Pvt. Ltd. on topic **“Energy Transition”** on the date 22nd July 2023.



2. Technical paper presentation was held on theme **“Power and Energy”** organized by IEEE PES student branch at GAT. It was held on 15th March 2023.



3. International Yoga day was conducted on 21st June 2023. It was organized by IEEE PES Student Branch GAT.



4. Effective public speaking was held on 28th Jan 2023 for 1st, 3rd and 5th semester students. The objective of the event was to enhance and encourage aspects like courage, confidence, thinking and effective communication to the students.





5. Two weeks FDP was held between 5th to 16th Dec 2022. It was held on the topic of “**Deep Learning in Biomedical Image Analysis**”.



Industrial Visit

An industrial visit was organised for the **students of 3rd and 5th sem.** The visit was to **Pavagada Solar Park at Pavagada**, Tumkur district of Karnataka on 6th Jan 2023. Pavagada Solar Park is a solar park covering an area of 53 square kilometres (13,000 acres) in Pavagada taluk, Tumkur district, Karnataka. Completed in 2019, the park has a capacity of 2,050 MW. As of April 2021, it is the world's third largest photovoltaic solar park after the 2,245 MW Bhadla Solar Park in Rajasthan and 2,200 MW Huanghe Hydropower Hainan Solar Park in China. It is the second largest in India. The total project cost was ₹14,800 crore (US\$2.1 billion).



Best Outgoing Project for the Academic 2022-2023 EEE Department.

Part of a student's journey in educational life is to work on projects, either final year or otherwise. They even get an opportunity to showcase their hard work and talent at various Institutional, National, or International levels. The projects that have performed well at various levels have been highlighted in this section.

❖ **Multipurpose Farmer Green Cart**

Prajwal Gowda, Bharath, Pratiksha Reddy, Sneha

Guided By: **Mrs. NAGARATHNA K**

Project titled “**Multipurpose Farmer Green Cart**” developed by EEE final year students of Global Academy of Technology won the **First Place** and cash prize of **10,000/-**, under the theme Green Energy in the **7th National Level Techno Exhibition** held at Dr. Ambedkar Institute of Technology, Bangalore.



❖ **IOT Based Smart Irrigation System**

Gagan K, Dhanusha A P, Kamal Hassan P, Prathwika P S

Guided By: **Mr Balagopal Reddy G**

The project was selected under Karnataka State Council for Science and Technology (KSCST)

Students Placed in Companies

S.NO	USN NO	NAME	COMPANY NAME
1	1GA19EE003	ANJITHA RAVINDRAN	NTT DATA Global Delivery Services Pvt Ltd Federal Bank Ltd HCL Technologies Ltd Accord Global Technology Solutions
2	1GA19EE051	VIJAY VINITH G	Cognizant Technology Solutions & Larsen & Toubro Infotech Ltd-Level 0 Bosch Limited (RBIN)
3	1GA19EE019	GAGAN R	TATA Consultancy Services (TCS) -Ninja Larsen & Toubro Infotech Ltd-Level 0
4	1GA19EE021	HARSHA M	Cognizant Technology Solutions & Larsen & Toubro Infotech Ltd-Level 0
5	1GA19EE047	SNEHA J	NTT DATA Global Delivery Services Pvt Ltd Sonata Software Limited
6	1GA19EE018	GAGAN K	Hiveminds Innovative Market Solutions Pvt. Ltd. BYJU'S-Think & Learn Pvt Ltd
7	1GA19EE026	LEKHANA VR	Hiveminds Innovative Market Solutions Pvt. Ltd. BYJU'S-Think & Learn Pvt Ltd
8	1GA19EE049	UMESH	Hiveminds Innovative Market Solutions Pvt. Ltd. BYJU'S-Think & Learn Pvt Ltd
9	1GA19EE055	KAVYA E	Hiveminds Innovative Market Solutions Pvt. Ltd. BYJU'S-Think & Learn Pvt Ltd
10	1GA19EE016	DHANUSHA A P	NTT DATA Global Delivery Services Pvt Ltd Federal Bank Ltd

11	1GA19EE052	DEEKSHITH S GOWDA	Hiveminds Innovative Market Solutions Pvt. Ltd & BYJU'S-Think & Learn Pvt Ltd
12	1GA19EE044	VISHWAS B	Cognizant Technology Solutions & Bosch Limited (RBIN)
13	1GA19EE014	SHREEDHAR SAMANTRI	TATA Consultancy Services (TCS) -Ninja
14	1GA19EE040	DEEKSHA S	Cognizant Technology Solutions
15	1GA19EE043	RAKSHITHA BANAKAR	Cognizant Technology Solutions
16	1GA19EE045	SAHANA S	Cognizant Technology Solutions
17	1GA19EE030	SHWETHA K	Cognizant Technology Solutions
18	1GA19EE004	NIHAARIKA D	NTT DATA Global Delivery Services Pvt Ltd
19	1GA19EE012	ANUSHA N	Hiveminds Innovative Market Solutions Pvt. Ltd.
20	1GA19EE052	CHANDANA R	Hiveminds Innovative Market Solutions Pvt. Ltd.
21	1GA19EE015	DEEKSHITH S GOWDA	Hiveminds Innovative Market Solutions Pvt. Ltd.
22	1GA19EE028	NAVYA N	Hiveminds Innovative Market Solutions Pvt. Ltd.
23	1GA19EE046	SIDDALINGAYYA M GADGIMATH	Hiveminds Innovative Market Solutions Pvt. Ltd.
24	1GA19EE008	B N REVANTH	Accord Global Technology Solutions
25	1GA19EE010	BASAVARAJ G B	BYJU'S-Think & Learn Pvt Ltd
26	1GA19EE037	PRATHWIK A P S	BYJU'S-Think & Learn Pvt Ltd
27	1GA19EE048	SOUNDARYA B R	BYJU'S-Think & Learn Pvt Ltd
28	1GA19EE050	VASUKI A M	BYJU'S-Think & Learn Pvt Ltd
29	1GA19EE053	VIVEK T B	BYJU'S-Think & Learn Pvt Ltd
30	1GA20EE409	VISHWADATTA GOWDA N	BYJU'S-Think & Learn Pvt Ltd

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Student EEE Dept.GAT