

ADHIYAMAAN COLLEGE OF ENGINEERING
(An Autonomous Institution)
Dr.M.G.R. Nagar, Hosur – 635130

POLICY ON PEER GROUP LEARNING SUPPORT

Policy No.: IQAC/PGLS/2025/01

Effective From: Academic Year 2025–26

1. Preamble

Adhiyamaan College of Engineering (Autonomous), Hosur, is committed to providing a learner-centric academic environment that promotes active participation, collaborative learning, and continuous academic improvement. Recognizing that students often learn effectively from their peers, the institution adopts a structured **Peer Group Learning Support Policy** to facilitate knowledge sharing among students through guided peer interaction. This initiative complements classroom instruction by encouraging academically proficient students to mentor and support their classmates under faculty supervision.

The policy seeks to establish a culture of collaborative learning where students actively engage in academic discussions, clarify concepts, solve problems collectively, and develop leadership and communication skills. Peer learning also provides an inclusive platform for slow learners to receive additional academic assistance in a non-threatening environment, thereby improving confidence, participation, and academic performance.

2. Policy Statement

The institution shall promote Peer Group Learning Support as an integral component of the teaching-learning process. Every department shall identify opportunities to organize structured peer learning sessions based on the academic needs of students. These activities shall be planned, monitored, and documented under the guidance of faculty members while ensuring equal learning opportunities for all students.

The policy encourages collaborative learning not only in theory subjects but also in laboratory courses, programming practice, communication skills, aptitude training, project work, and placement preparation.

The policy primarily aims to:

- Enhance collaborative learning among students.
- Improve academic performance and learning outcomes.

- Encourage leadership through peer mentoring.
- Support slow learners through structured academic assistance.
- Strengthen student engagement and participation.

3. Scope

This policy is applicable to all undergraduate and postgraduate programmes offered by the institution. Peer learning activities may be organized throughout the academic year depending on departmental requirements. The programme may be implemented during regular class hours, tutorial hours, bridge courses, remedial coaching sessions, laboratory practice, placement training, and value-added courses.

Departments are encouraged to identify students requiring academic support and provide appropriate peer mentoring opportunities in consultation with course faculty.

4. Implementation Framework

The implementation of the Peer Group Learning Support Programme shall be coordinated by the IQAC in association with the respective departments. At the beginning of every semester, departments shall identify suitable peer mentors based on academic performance, communication skills, leadership qualities, and faculty recommendations. Faculty coordinators shall orient the selected mentors regarding teaching methodologies, ethical practices, and expected learning outcomes before assigning them to student groups.

Peer learning sessions may be conducted in classrooms, laboratories, seminar halls, libraries, or online platforms whenever required. Faculty members shall supervise the sessions to ensure that the academic content delivered is accurate and aligned with the course outcomes. Attendance, feedback, photographs, and session reports shall be maintained as institutional records.

The implementation process includes:

- Identification of learning needs.
- Selection and orientation of peer mentors.
- Preparation of semester-wise schedules.
- Faculty-supervised peer learning sessions.
- Collection of feedback and outcome analysis.

5. Roles and Responsibilities

The successful implementation of the programme requires coordinated efforts from various stakeholders. The IQAC shall monitor institutional implementation and

periodically review the effectiveness of the policy. Heads of Departments shall ensure departmental participation, nominate faculty coordinators, and approve peer mentors. Faculty coordinators shall organize sessions, monitor student participation, and evaluate programme outcomes.

Peer mentors are expected to conduct interactive sessions, encourage collaborative learning, clarify doubts, and motivate fellow students to actively participate. Students attending the sessions shall maintain regular attendance, actively engage in discussions, complete assigned activities, and provide constructive feedback for continuous improvement.

6. Monitoring and Evaluation

The effectiveness of the Peer Group Learning Support Programme shall be evaluated periodically through qualitative and quantitative measures. Departments shall assess improvements in student participation, classroom engagement, internal assessment performance, and overall academic progress. Student feedback shall also be collected after every activity to identify strengths and areas requiring improvement.

The programme shall be reviewed based on:

- Student attendance.
- Feedback analysis.
- Improvement in academic performance.
- Course outcome attainment.
- Faculty observations.
- Departmental review reports.

IQAC shall consolidate these reports and recommend suitable improvements for subsequent semesters.

7. Expected Outcomes

The Peer Group Learning Support Programme is expected to strengthen the institution's learner-centric academic practices by encouraging collaborative learning and active student participation. Through regular interaction with peer mentors, students are expected to improve their conceptual understanding, communication abilities, analytical thinking, and confidence in learning. The programme will also nurture leadership qualities among peer mentors while creating an inclusive academic environment that supports students with diverse learning needs.

The anticipated outcomes include improved pass percentage, enhanced course outcome attainment, better classroom interaction, increased student confidence, and stronger teamwork among learners.

8. Documentation

Each department shall maintain comprehensive documentation related to peer learning activities for quality assurance and accreditation purposes. All records shall be submitted to IQAC at the end of every semester for review and institutional documentation.

The documentation shall include:

- Policy approval.
- Peer mentor list.
- Faculty coordinator orders.
- Session schedules.
- Attendance records.
- Session reports.
- Student feedback.
- Outcome analysis.
- Photographs.
- Action Taken Report.

Prepared by

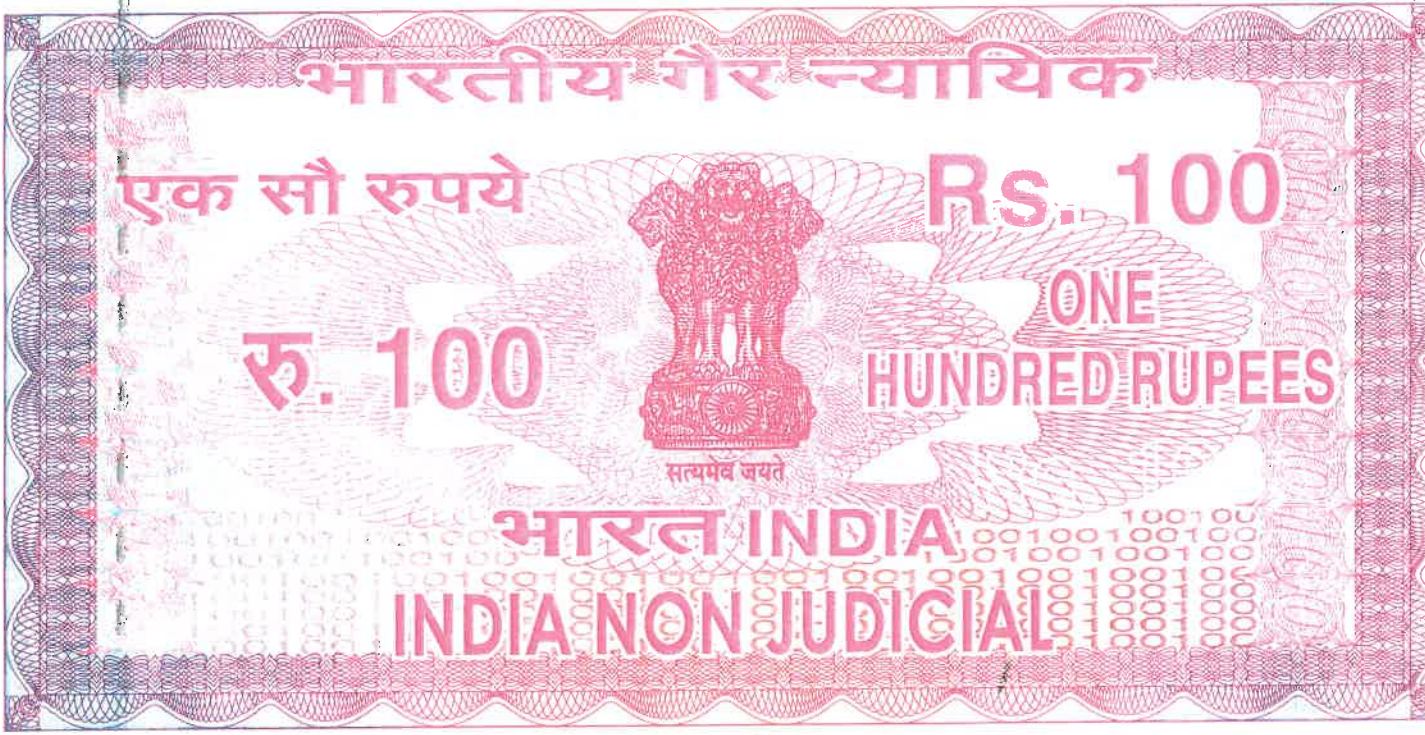
[Signature]
IQAC



Approved by

[Signature]
Principal
PRINCIPAL

Adhiyamaan College of Engineering (Autonomous)
Dr.M.G.R. Nagar, HOSUR-635130



தமிழ்நாடு தமில்நாடு TAMILNADU 20 FEB 2024
Principal, Adhiyamaan college of
Engineering - Hosur

DD 624160
K. SELVARANI
STAMP VENDOR
LICENCE No. 868/199
HOSUR-635 109

MEMORANDUM OF
UNDERSTANDING (MoU)

BETWEEN

State Institute of Rural Development & Panchayat Raj - Tamil Nadu. Chennai

And

College (PI) Adhiyamaan College of Engineering (Autonomous), Hosur,
Krishnagiri District-635130

20th February, 2024,

This Memorandum of 'Understanding (MoU) is made and executed at Hosur on this 20th February of the year 2024 between State Institute of Rural Development (here in after called SIRD&PR), a statutory body of Government of Tamil Nadu, having its registered office at Maraimalai Nagar, Chennai (which expression shall, where the context so admits, be deemed to include its executors, administrators and assigns) be the First Party.

And

Director,
State Institute of Rural Development &
Panchayat Raj, Tamil Nadu @
Maraimalainagar - 603209
Chengalpattu District.

Adhiyamaan College of Engineering (Autonomous), Hosur, Krishnagiri District and its established in the year 1991 (which expression shall, where the context so admits, be deemed to include its executors, administrators and assigns) be the Second Party or the Participating Institution (PI).

Both Parties have reached the following intent to collaborate as per below described articles of this MOU.

PURPOSE of MoU:

The MoU is aimed at collaborating on the 'Handholding Support for CB&T activities of 3-tier PRIs in collaboration with **AIs/loE, Specialized Agencies (NGOs)** ' under the Revamped RGSA scheme implemented by the First party. The second party (PI) will work as a partner for preparation of quality thematic Gram Panchayat Development Plans (GPDPs) and and achieve the goals of locally achieving the sustainable development (LSDG) by the Village Panchayats at the grassroots level requires collaboration and the development of strong partnerships with **(AI/loE/ Specialized Agencies (NGOs))**.

Now therefore the parties hereto have agreed to enter into a memorandum of understanding considering the long-term benefits of sharing the knowledge and resources of the PIs and establish a collaboration, by undertaking joint responsibilities and activities in their respective field of excellence, resources, knowledge and expertise.

AREAS OF COLLABORATION

The parties hereby agree to work collaboratively on following points for the effective and efficient engagement by fulfilling the purpose of this MoU. The mutually agreed activities by and between the parties are as under:

A. The second party (PI) will mobilise the students as part of its academic social responsibility (ASR) to engage with rural communities and PR institutions for the UBA facilitation. This will be done by creating suitable groups of students from different disciplines of studies to fit into the thematic areas. It will be ideal if students from the same panchayat can be included in the group. These student groups shall be guided by the academic staff to carry out the grass-root level interactions and development interventions. These groups can be also suitably named for identification and visibility of their rural development engagements (For eg. GP Development Corps).

B. The second party (PI) will leverage its internal resources from different departments viz knowledge of sustainable development by establishing a multidisciplinary group (involving different departments and faculties for different action domains) within the institution to engage in the rural development activities by identifying the panchayats and create an enabling eco-system for the last mile delivery of development. This eco-system shall be hybrid in nature that it will enable to crate values by leveraging the low/no cost activities among the communities. It is expected that organisation/institution may provide support to village panchayats to mobilise people, basic data collection, need assessment, various campaign, livelihood creation and at least 10 no/low cost activities are


Director,

State Institute of Rural Development &
Panchayat Raj, Tamil Nadu @
Maraimalai nagar - 603209
Chengalpattu District.

identified per theme and included in the Gram Panchayat Development Plan every year and implement it to establish the momentum of self-development.

C. The second party (PI) will mobilise the community in identified panchayats by the help of its team of faculties and students to sensitise the scope and options of sustainable development and capacitate them in achieving the development goals.

D. The second party (PI) will prepare Gram Panchayat Development Plans (GPDP) of the identified village panchayats involving the panchayat administration and the local communities. This will involve the assessment of development potential of the panchayat, actual level of development currently and the gaps to be filled. It further envisages to prepare a detailed document as per the prescribed format covering the chapters in detail and coordinate for its approval from gram sabha and subsequently to handhold in implementing the approved plan.

E. The second party (PI) will associate with the identified panchayats in implementing the GPDP by imparting necessary skills, capacities and establish sustainable linkages in achieving the goals in the 9 themes. The nine intervention themes for the second party (PI) to work in a systematic and prioritised manner to bring in sustainable development at local level are

1. Poverty free/enhanced livelihood
2. Healthy Village
3. Child friendly village
4. Water sufficient village
5. Clean and Green village
6. Self sufficient infrastructure
7. Socially secured village
8. Village with good governance and
9. Engendered development

F. The second party (PI) will document and show case the development outcomes enabled by their planning and handholding of its implementation in the respective panchayats by using appropriate media and technologies.

G. The first party will pay the second party (PI) an amount of Rs.20,000 (Rupees Twenty Thousand Only) for a year per village panchayat. 50 percent of this amount will be released after the PI identifies the village panchayats to work with and submit a preliminary report of its strength and capacities in carrying out the said functions in the selected locations and getting the concurrence of the village panchayats to collaborate in the program. The second instalment of 50 percent will be released after the plan is prepared by incorporating the priority interventions covering the nine themes in the form of low cost/no cost activities to be carried out and started its implementation after approval by the gram sabha and its uploading in the designated web portal.



Director,
State Institute of Rural Development &
Panchayat Raj, Tamil Nadu @
Maraimalainagar - 603209
Chengalpattu District.

H. The list of village panchayats the PI has identified to work with are as follows.

1. ~~Thorapalliagraharam~~
2. Perandapalli
3. Bukkasagaram
4. Alur
5. Muthali

I. The main strategy to achieve the set goals is an inclusive approach - involving all the stakeholders. This could be done by creating specialized new GP development corps involving students. Further the academic institution can aim to involve existing youth clubs, SHGs, local NGOs and other social capitals and CBOs.

Term and Termination:

The term of this MoU shall be for a period of five years from the date of execution, unless terminated earlier by a written notice of thirty (30) days by a Party seeking such termination to the other Party hereto. However, all commitments and obligations till date of termination will be honoured by both the parties.

Dispute Resolution:

Any and all disagreements / differences / disputes arising here under shall be resolved amicably by the designated senior executives / officers of the good offices of both Parties. The legal jurisdiction for this MoU will be the Chennai Metropolitan courts only.

IN WITNESS WHERE OF, the parties have executed this MoU by their duly authorized representatives.

State Institute of
Rural Development & Panchayat Raj

The collaborating college


Signature
Director,
State Institute of Rural Development &
Panchayat Raj, Tamil Nadu @
Maraimalai Nagar - 603209
Chengalpattu District.

Witnessed by:

Sign

இணை இயக்குநர்
மாநில உருவாக்க(ம)அராட்சி நிறுவனம்
தமிழ்நாடு மறைமலை நகர்
செங்கல்பட்டு மாவட்டம்-603209.


Signature
(Competent authority
approved by the PI with seal)
Principal
Adhiyamaan College of Engineering (Autonomous)
Dr. M.G.R Nagar, Hosur-635 130

Witnessed by:

Sign

Name

1. Dr. Venkatesh Selum
DEAN (ACADEMIC)
2. Dr. R. Dhanaasekaran
DEAN - IR



Adhiyamaan College of Engineering (Autonomous)



Head of Institute (HOI) Letter

To

The District Collector

Krishnagiri

Tamilnadu

Subject: Identification of villages under the Unnat Bharat Abhiyan, a flagship program of Ministry of Education, GoI.

Dear Sir,

Ministry of Education (MoE), Government of India has launched a flagship Program at National level called Unnat Bharat Abhiyan (UBA), with the vision to involve professional and higher educational institutions in the development process of rural areas in the country to achieve sustainable development and better quality of life and experiential learning among students. Indian Institute of Technology Delhi has been designated as the National Coordinating Institute by the Ministry of Education GoI for this program.

Our Institution/ University/ college/ Name of your Institute Adhiyamaan College of Engineering (Autonomous) and AISHE Code C-37105 has agreed to participate in UBA as a Participating Institute (PI). Dr/ Mr/ Mrs (Name of Coordinator) Dr. M. Ashokkumar and (contact details) 8695697989, has been duly authorized in this regard from our side to carry on the activities of UBA in our organization as Project Coordinator.

Under the UBA program every Participating Institute is to connect with a cluster of villages near by Institution in consultation with the District Administration. This is to bring to your kind notice that we have proposed the following villages.

S.No	Name of village	Panchayat Name	Block name	District	State
1	Thorapalli Agraharam	Thorapalliagraharam	Hosur	Krishnagiri	Tamilnadu
2	Muthalli	Muthali	Hosur	Krishnagiri	Tamilnadu
3	Alur	Alur	Shoolagiri	Krishnagiri	Tamilnadu
4	Bukkasagaram	Bukkasagaram	Shoolagiri	Krishnagiri	Tamilnadu
5	Moranapalli	Perandapalli	Shoolagiri	Krishnagiri	Tamilnadu

In view of the above the Project Coordinator may contact your officer for the purpose. We request you to please help and cooperate in the matter.

With regards

Your Sincerely

M. Ashokkumar



Signature of UBA Coordinator of PI

Stamp of P.I

School list

S.No	Village name	School high school	Higher secondary school
1.	Thorappalli Agraharam Sub Villages (13)	Panchayat union middle school. Thorappalli (0.9 km)	
2.	Perandapalli	R M Govt high school; Perandapalli (0.4 km) Rajaji Memorial Government High School (1.3 km)	
3.	Bukkasagaram Sub Villages (2)	BEGGILI Village - Govt (English) School(2.0 km)	Govt.Hr SecSchool; Bukkasagaram(0.2 km)
4.	Alur Sub Villages (5)	Government Matriculation School(9.5 km)	
5.	Muthali Sub Villages (5)	High School Mathigiri	

Subject Expert Groups & Details

UNNAT BHARAT ABHIYAN

1	Prof. P. M. V. Subbarao Rural Energy Systems Indian Institute of Technology, Delhi pmvs@mech.iitd.ac.in 011-26591142	6	Dr. R. Ramesh Capacity Building, Strategy for Convergence and Implementation of Various Govt. Schemes National Institute of Rural Development and Panchayati Raj, Hyderabad rramesh.nird@gov.in , 8465888003
2	Dr. Koumudi Patil Rural Craft and Artisans Development and Rural Industrialization and Entrepreneurship Development Indian Institute of Technology, Kanpur kppatil@iitk.ac.in, 2597685	7	Dr. R.N. Padaria Sustainable Agriculture System Indian Agricultural Research Institute, New Delhi. iariseg2022@gmail.com 9968966766
3	Prof. Indumathi Nambi Sanitation And Solid Waste Management Indian Institute of Technology, Madras indunambi@civil.iitm.ac.in 04422574289	8	Prof. Pramod Kumar Environment and Sustainable Resource Management University of Delhi drpramod_chem@aurobindo.du.ac.in 991111771
4	Prof. Vivek Kumar Liquid Waste Management Indian Institute of Technology, Delhi vivekk@rdat.iitd.ac.in 1126596581	9	Prof. K. Ravichandran, Prof. Seema Sharma, IIT Delhi Rural Livelihood and Entrepreneurship Development Gandhigram Rural Institute, Dindigul seemash@dms.iitd.ac.in 9443567827, 011-26596352
5	Prof. Manoj Kumar Tiwari Water Resource Management Indian Institute of Technology, Kharagpur mktiwari@swr.iitkgp.ac.in 03222282874, 9002491978	10	Prof. Praveen Kumar Rural Infrastructure Indian Institute of Technology, Roorkee praveen.kumar@ce.iitr.ac.in 91-1332-285470



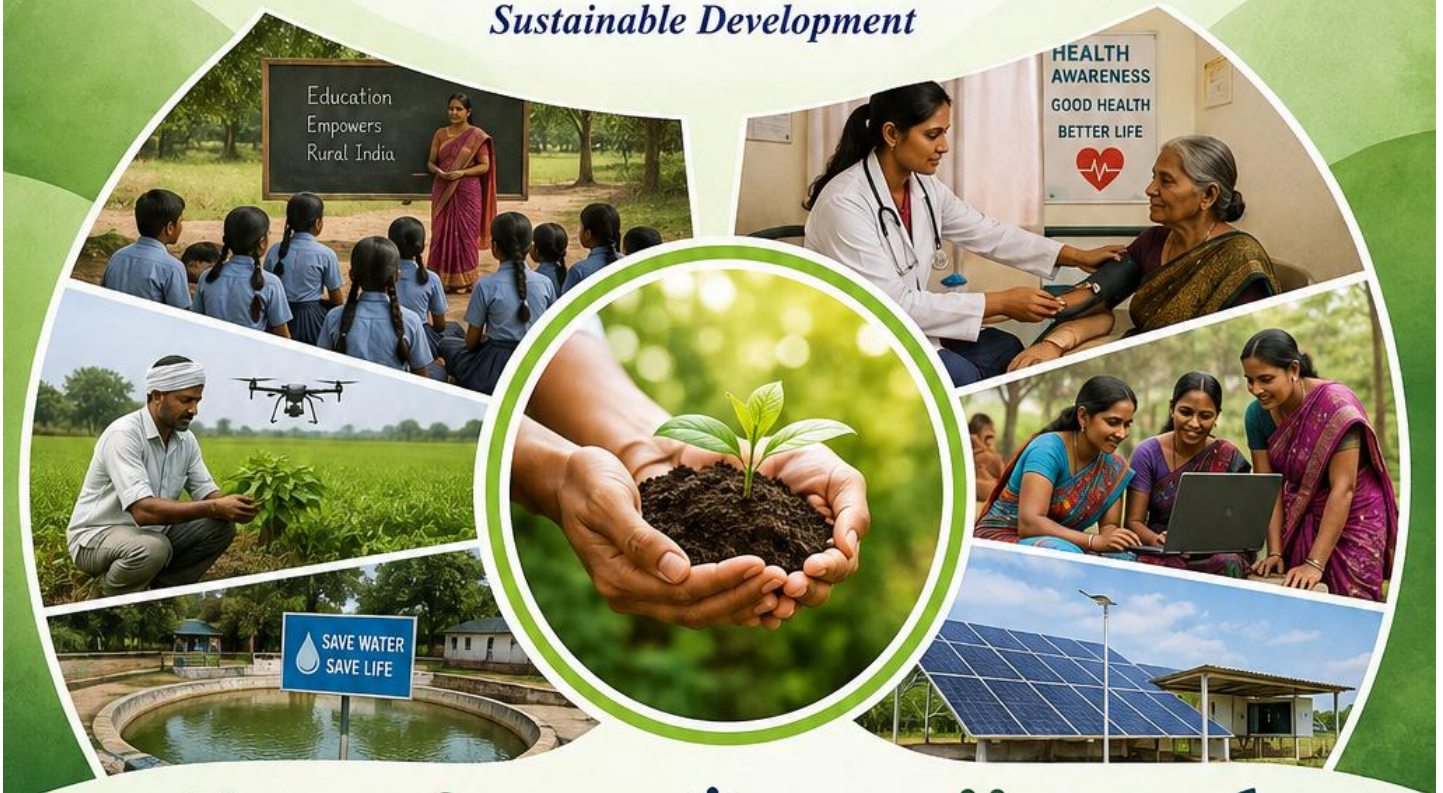
ADHIYAMAAN
COLLEGE OF ENGINEERING
(AUTONOMOUS)
HOSUR – 635 109, TAMIL NADU



UNNAT BHARAT ABHIYAN (UBA) ANNUAL REPORT

ACADEMIC YEAR 2025 – 2026

*Transforming Rural India
through Knowledge,
Innovation and
Sustainable Development*



5
ADOPTED
VILLAGES



15
ACADEMIC
DEPARTMENTS



450+
STUDENT
VOLUNTEERS



2000+
COMMUNITY
BENEFICIARIES



20+
EXTENSION
ACTIVITIES

*"Together we learn, together we serve,
for a developed and empowered rural India."*



ADHIYAMAAN COLLEGE OF ENGINEERING
(An Autonomous Institution Affiliated to Anna University, Chennai)

UNNAT BHARAT ABHIYAN (UBA) – ANNUAL REPORT

Academic Year 2025–2026

1. Introduction

Adhiyamaan College of Engineering (Autonomous), Hosur, actively participated in the **Unnat Bharat Abhiyan (UBA)**, a flagship initiative of the Ministry of Education, Government of India, during the Academic Year 2025–26. The programme aims to bridge the gap between higher educational institutions and rural communities by promoting sustainable development through technological interventions, community participation, and experiential learning. Throughout the academic year, the institution organized several outreach programmes focusing on education, healthcare, environmental sustainability, agriculture, digital literacy, women empowerment, and skill development. Faculty members, student volunteers, village representatives, and local stakeholders worked collaboratively to address the developmental needs of the adopted villages while enriching students with real-world learning experiences.

2. Objectives

The institution implemented UBA activities with the following objectives:

- To promote sustainable rural development through technology and innovation.
- To improve the quality of life in adopted villages.
- To strengthen community participation in developmental initiatives.
- To provide experiential learning opportunities for students.
- To support Government welfare schemes and Sustainable Development Goals (SDGs).

3. Adopted Villages

As part of the Unnat Bharat Abhiyan initiative, the institution has adopted five villages in Krishnagiri District in consultation with the District Administration for implementing rural development programmes. The adopted villages include Thorapalli Agraharam, Muthali, Alur, Bukkasagaram, and Moranapalli (Perandapalli Panchayat). These villages serve as the focus areas for implementing educational, social, environmental, health, and technology-based interventions.

S.No	Village	Block	District
1	Thorapalli Agraharam	Hosur	Krishnagiri
2	Muthali	Hosur	Krishnagiri
3	Alur	Shoolagiri	Krishnagiri
4	Bukkasagaram	Shoolagiri	Krishnagiri
5	Moranapalli (Perandapalli Panchayat)	Shoolagiri	Krishnagiri

4. Village Need Assessment

At the beginning of the academic year, faculty members and student volunteers conducted baseline visits to the adopted villages to understand the socio-economic conditions and identify the developmental priorities. The interactions with Panchayat officials, school teachers, self-help groups, farmers, and local residents helped the institution design need-based extension activities.

The assessment focused on:

- Educational needs of school students
- Health and sanitation issues
- Drinking water and environmental concerns
- Agricultural practices
- Digital literacy
- Women empowerment
- Skill development requirements
- Awareness of Government welfare schemes

5. Educational Development Programmes

Education remained one of the major focus areas under UBA during the academic year. Various programmes were organized in Government schools to motivate students towards higher education and improve their learning outcomes. Faculty members and student volunteers conducted interactive sessions, demonstrations, and mentoring activities to enhance students' academic interest and career aspirations.

Major initiatives included:

- Career Guidance Programme
- Higher Education Awareness
- STEM Learning Sessions
- Science Demonstrations
- Spoken English Classes

- Digital Literacy Programme
- Mathematics Skill Development
- Personality Development Sessions
- Distribution of Educational Learning Materials

6. Health, Hygiene and Nutrition Initiatives

Healthcare awareness programmes were organized in collaboration with healthcare professionals to promote preventive healthcare and healthy lifestyles among villagers. The programmes focused on early diagnosis, nutrition, hygiene, and wellness practices.

The activities included:

- General Health Camp
- Blood Pressure Screening
- Diabetes Screening
- Eye Screening Camp
- Dental Check-up
- Nutrition Awareness
- Menstrual Hygiene Awareness
- Yoga and Wellness Programme
- First Aid Awareness

7. Environmental Sustainability Initiatives

Environmental conservation remained an important component of UBA activities. Students actively participated in campaigns aimed at improving environmental awareness and encouraging sustainable practices within the villages. These activities promoted community participation in protecting natural resources and maintaining cleaner surroundings.

Major activities organized were:

- Tree Plantation Drive
- Plastic-Free Village Campaign
- Village Cleanliness Drive
- Waste Segregation Awareness
- Compost Pit Demonstration
- Water Conservation Awareness
- Rainwater Harvesting Awareness
- Green Village Campaign

8. Agriculture and Rural Livelihood Development

Considering agriculture as the primary occupation in the adopted villages, the institution organized awareness programmes on sustainable agricultural practices and modern farming technologies. Faculty members interacted with farmers and encouraged the adoption of resource-efficient farming methods.

Programmes included:

- Organic Farming Awareness
- Soil Health Awareness
- Vermicomposting Demonstration
- Precision Agriculture Awareness
- Drip Irrigation Awareness
- Government Agricultural Scheme Awareness
- Water Conservation in Agriculture

9. Women Empowerment and Financial Inclusion

Women's empowerment programmes were conducted to strengthen the capacity of Self-Help Groups (SHGs) and encourage financial independence. Awareness programmes emphasized entrepreneurship, digital banking, and government welfare schemes.

Key initiatives included:

- Entrepreneurship Awareness
- Digital Banking and UPI Training
- Financial Literacy Programme
- Self-Help Group Interaction
- Skill Development Workshops
- Government Scheme Awareness for Women

10. Digital Literacy and Technology Outreach

To bridge the digital divide in rural communities, the institution organized several technology-based awareness programmes. Students demonstrated digital tools and guided villagers on using online platforms for education, banking, and public services.

Major activities included:

- Digital Literacy Campaign
- Cyber Safety Awareness

- DigiLocker Awareness
- Online Banking Training
- Smartphone Usage Training
- e-Governance Services Awareness
- AI and Emerging Technologies Awareness

11. Skill Development and Youth Empowerment

Recognizing the importance of employability and entrepreneurship, various skill development programmes were organized for rural youth. The sessions aimed to improve communication, technical competence, and career readiness.

The programmes covered:

- Communication Skills
- Employability Skills
- Personality Development
- Resume Preparation
- Interview Skills
- Entrepreneurship Awareness
- Career Guidance
- Competitive Examination Awareness

12. Student Participation

Student participation formed the backbone of the UBA initiative. Students from various engineering disciplines actively contributed to planning and implementing extension activities. Their involvement enhanced experiential learning, leadership qualities, teamwork, and social responsibility while providing practical exposure to rural development challenges.

Student contributions included:

- Village Surveys
- Awareness Campaigns
- School Mentoring
- Health Camp Support
- Environmental Drives
- Technology Demonstrations
- Documentation and Data Collection

13. Faculty Contribution

Faculty members played a vital role in mentoring students and coordinating community engagement programmes. They collaborated with village leaders and local authorities to ensure that every activity addressed community needs and generated measurable outcomes.

Faculty responsibilities included:

- Programme Planning
- Village Coordination
- Student Mentoring
- Expert Lectures
- Documentation
- Impact Assessment
- Outcome Evaluation

Department-wise UBA Activities (AY 2025–26)

Date	Department	Activity	Village
18-07-2025	Civil Engineering	Rural Infrastructure and Water Conservation Survey	Thorapalli Agraharam
02-08-2025	Mechanical Engineering	Farm Equipment Maintenance & Energy Conservation Awareness	Alur
14-08-2025	Electrical & Electronics Engineering	Electrical Safety and Energy Conservation Awareness	Muthali
23-08-2025	Electronics & Communication Engineering	Smart Irrigation and IoT Awareness Programme	Bukkasagaram
05-09-2025	Computer Science & Engineering	Digital Literacy Programme for School Students	Thorapalli Agraharam
13-09-2025	Information Technology	Cyber Safety and Digital Banking Awareness	Moranapalli
27-09-2025	AI & Data Science	Artificial Intelligence Applications in Agriculture	Alur
10-10-2025	AI & Machine Learning	Emerging Technologies for Rural Development	Bukkasagaram
18-10-2025	Biomedical Engineering	Health Screening and First Aid Awareness Camp	Muthali
08-09-2025	Biotechnology	Nutrition, Food Safety and Water Quality Awareness	Thorapalli Agraharam

22-11-2025	Chemical Engineering	Safe Drinking Water and Environmental Pollution Awareness	Moranapalli
06-12-2025	Architecture	Sustainable Rural Housing and Green Building Awareness	Alur
20-12-2025	MBA	Financial Literacy and Entrepreneurship Development for SHGs	Bukkasagaram
10-01-2026	MCA	Computer Literacy and e-Governance Services Awareness	Muthali
24-02-2026	Science & Humanities	Career Guidance, Communication Skills and Higher Education Awareness	Thorapalli Agraharam
07-02-2026	NSS & UBA Cell (All Departments)	Mega Village Cleanliness and Tree Plantation Drive	All Adopted Villages
21-02-2026	UBA Cell	Health, Hygiene and SDG Awareness Programme	Moranapalli
07-03-2026	Multi-disciplinary Team	Women's Empowerment and Government Welfare Scheme Awareness	Bukkasagaram
21-03-2026	Multi-disciplinary Team	Smart Village Development Workshop	Alur
11-04-2026	All Departments	Rural Innovation Exhibition & Technology Demonstration	Thorapalli Agraharam
18-04-2026	All Departments	Village Development Review Meeting with Panchayat	All Adopted Villages

Month-wise Summary

July 2025

The UBA activities commenced with village visits, baseline surveys, and infrastructure assessment carried out by the Department of Civil Engineering. The survey identified priority areas for intervention in consultation with village Panchayats and local stakeholders.

Highlights

- Village baseline survey
- Infrastructure assessment
- Water conservation awareness

August 2025

Engineering departments focused on rural infrastructure, energy conservation, and smart agriculture technologies by conducting awareness programmes for villagers and farmers.

Highlights

- Farm equipment awareness
- Electrical safety
- Smart irrigation demonstrations

September 2025

The institution emphasized digital empowerment through digital literacy, cyber safety, AI awareness, and digital banking programmes for school students and villagers.

Highlights

- Digital literacy
- Cyber security
- AI awareness
- Digital payments

October–November 2025

Health, nutrition, food safety, and environmental awareness programmes were organized with active participation from Biomedical, Biotechnology, and Chemical Engineering departments.

Highlights

- Health camp
- Nutrition awareness
- Water quality awareness
- Pollution control

December 2025

The institution promoted sustainable rural housing and entrepreneurship through Architecture and MBA department initiatives.

Highlights

- Green buildings
- Financial literacy
- SHG empowerment

January 2026

Technology-based education and higher education awareness programmes were conducted for school students and rural youth.

Highlights

- Computer literacy
- Career guidance
- Communication skills

February–April 2026

The concluding phase of UBA activities focused on environmental sustainability, women's empowerment, innovation, and impact assessment through multidisciplinary participation.

Highlights

- Tree plantation
- Clean village campaign
- Women's empowerment
- Rural innovation exhibition
- Village review meeting

Annual Participation Summary

Stakeholder	Participation
Academic Departments	15
Faculty Members	80
Student Volunteers	450
Adopted Villages	5
Government Schools Covered	5
Major UBA Activities	21
Community Beneficiaries	2,000 (approximately)

14. Outcomes and Impact

The activities conducted under UBA during AY 2025–26 significantly contributed to strengthening the relationship between the institution and the rural community. The programmes improved awareness among villagers while enabling students to apply their technical knowledge to societal problems. The collaborative approach adopted by the institution resulted in meaningful community engagement and enhanced the visibility of the institution's extension activities.

Key outcomes include:

- Improved educational awareness among school students.
- Enhanced community participation.
- Increased awareness on health and hygiene.
- Promotion of sustainable environmental practices.
- Improved digital literacy.
- Better understanding of Government welfare schemes.
- Enhanced student social responsibility.
- Stronger institution–community partnership.

15. Sustainable Development Goals (SDGs)

The UBA activities undertaken during the academic year contributed directly to several Sustainable Development Goals by integrating education, health, environment, livelihood, and community development into a unified outreach framework.

The major SDGs addressed include:

- SDG 1 – No Poverty
- SDG 3 – Good Health and Well-being
- SDG 4 – Quality Education
- SDG 5 – Gender Equality

- SDG 6 – Clean Water and Sanitation
- SDG 8 – Decent Work and Economic Growth
- SDG 11 – Sustainable Communities
- SDG 12 – Responsible Consumption
- SDG 13 – Climate Action
- SDG 17 – Partnerships for the Goals

16. Future Action Plan (AY 2026–27)

Building upon the outcomes achieved during the academic year, the institution proposes to expand the scope of UBA through innovative and technology-enabled rural development programmes.

Future initiatives include:

- Smart Village Development Projects
- Rural Innovation Challenge
- Village Digital Resource Centre
- AI-based Agriculture Advisory
- School STEM Innovation Labs
- Women's Entrepreneurship Development
- Renewable Energy Demonstration
- Water Resource Mapping
- Annual Rural Development Conclave
- Community-Based Research Projects

Conclusion

The Unnat Bharat Abhiyan activities carried out during the Academic Year 2025–26 demonstrate Adhiyamaan College of Engineering's commitment to holistic rural development and community engagement. The initiatives not only contributed to the socio-economic development of the adopted villages but also strengthened experiential learning, social responsibility, and civic engagement among students. The institution remains committed to expanding the reach and impact of UBA in the coming years through sustainable, technology-driven, and community-oriented development initiatives.

Prepared by UBA Coordinator

M. Srinivas



aozl

Principal
PRINCIPAL

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Dr.M.G.R. Nagar, HOSUR-635130

ADHIYAMAAN COLLEGE OF ENGINEERING
(An Autonomous Institution)
Dr.M.G.R. Nagar, Hosur – 635130

Peer Teaching – First year Academics

AY 2025-26

Skill Series-1

Effective Communication – Basics

Time Table:

		I	II	III	IV	V	VI	VII
05-11-2025	Wednesday					CSE-C (Joanna-I-ECE-B)	ECE-C & CSE-A (Soundhar Rajkumar-I CSBS)	CY-A & BT/CH (JS Dhiya-I-CSBS)
06-11-2025	Thursday	ECE-A & EEE/BME (JS Dhiya-I-CSBS)	CSBS & CSE-C (Soundhar Rajkumar-I CSBS)	ECE-B (Praval- I ECE)		CSBS (Nisban)	Mech (Roshni-I-ECE)	CSE-B (Joanna-I-ECE-B)
07-11-2025	Friday	CSE-B (Praval-I ECE)		CY-A (Soundhar Rajkumar-I CSBS)	AIDS-A (Joanna-I-ECE-B)		AIDS-A (Nisban)	
10-11-2025	Monday						Aero & Civil (Soundhar Rajkumar-I CSBS)	IT (Praval-I ECE)
11-11-2025	Tuesday	CSE-A & AIDS-B (Joanna-I-ECE-B)	CY-B (Roshni-I-ECE)		CY-B (Roshni-I-ECE)			AI&ML (Nisban)

List of PEER Identified:

Name	Department	Contact Number	Subjects of Interest
JOANNA BASKARAN	ECE-B	7674022001	Physics, Maths, Soft Skills
VINGESH M S	AI DS	914250066	Maths, Python, Physics
TARUNA SHREE S	AI DS	8220290779	Python
HARINATH	IT	8220960119	Electronics, Physics
SOUNDHAR RAJKUMAR	CSBS	9035480865	Python, Softskills
BHAVESH K	Cyber	9043120181	Maths, Physics
SHYAM V	Mech	8248603694	Physics
KALAI SELVI A	CSE-B	8610034815	Maths
MATHIVATHANI B	CSE-B	8344270576	Maths
NITHIYASRI V	CSE-B	8870489165	Python
KISHORE M	CSE-B	7812869251	Physics, Maths, Electronics
PAVITHRA G	CSE-B	9043349445	Chemistry
JAYA SHREE.S	CSE-B	8951759659	Python
KARTHIKEYAN V K	CSE-B	8056386473	Maths, Python
JOSHIKA G	CSE-B	8608506235	Maths
NITHYA SHRI M	CSE-B	9342805569	Maths, Chemistry
MOHAMAD ASIEF B	CSBS	9159778699	Maths, Python
DHIYA J S	CSBS	8867104252	Softskills, Physics, Chemistry
SREE LAKSHMI P	AIML	8089134126	Chemistry
ZUNERA BEGUM U	AIML	8778923387	Physics
NISBAN	AIML	9488529047	Soft Skill, English-Speaking
REHAAN	AIML	9994968381	Python
ROSHNI	ECE-B	9345292100	Soft Skill, Physics, Chemistry


HoD-First Year
Dr. K. SIVAKUMAR, M.Sc., P.hd.,
Professor & Head
Department of Chemistry
Adhiyamaan College of Engineering (Autonomous)
HQSUR - 635 130, Krishnagiri Dist.

ADHIYAMAAN COLLEGE OF ENGINEERING
(An Autonomous Institution), HOSUR

Peer Teaching Initiative – First Year Academics

Skill Series – I

Effective Communication – Basics

Academic Year: 2025–26

1. Introduction

As part of the institution's student-centric teaching-learning practices, the Internal Quality Assurance Cell (IQAC) introduced the **Peer Teaching Initiative** for first-year students under the **Skill Series**. The initiative aims to promote collaborative learning by utilizing academically proficient senior students as peer mentors to support the holistic development of first-year learners.

The first session of the Skill Series focused on "**Effective Communication – Basics**", addressing the importance of communication skills in academic success, personality development, and employability.

2. Objectives

The programme was organized with the following objectives:

- To improve the communication skills of first-year students.
- To enhance confidence in public speaking and interpersonal communication.
- To promote peer-assisted learning through student mentors.
- To develop leadership and mentoring abilities among senior students.
- To create an engaging and collaborative learning environment.

3. Programme Details

Particular	Details
Programme	Peer Teaching – Skill Series I
Theme	Effective Communication – Basics
Academic Year	2025–26

Organized by	Internal Quality Assurance Cell (IQAC)
Beneficiaries	First Year B.E./B.Tech Students
Resource Persons	Selected Senior Student Peer Mentors

4. Schedule of Sessions

The programme was conducted from **05 November 2025 to 11 November 2025** across various first-year sections according to their regular timetable.

Department-wise Sessions Conducted

05 November 2025 (Wednesday)

- I CSE-C
- I ECE-B
- I ECE-C
- I CSE-A
- I Cyber Security-A
- I Biotechnology
- I Chemical Engineering

06 November 2025 (Thursday)

- I ECE-A
- I EEE
- I Biomedical Engineering
- I CSBS
- I CSE-C
- I ECE-B
- I Mechanical Engineering
- I CSE-B

07 November 2025 (Friday)

- I CSE-B
- I Cyber Security-A
- I AI & DS-A

10 November 2025 (Monday)

- I Aeronautical Engineering
- I Civil Engineering
- I Information Technology

- Soft Skills
- Communication Skills

The peer mentor pool comprised students from:

- Computer Science & Engineering
- AI & Data Science
- AI & Machine Learning
- Electronics & Communication Engineering
- Information Technology
- CSBS
- Cyber Security
- Mechanical Engineering

A total of **23 student peer mentors** were identified for the programme.

7. Teaching Methodology

The sessions adopted interactive teaching methodologies, including:

- Ice-breaking activities
- Self-introduction exercises
- Group discussions
- Pair communication activities
- Vocabulary enhancement
- Body language practice
- Voice modulation techniques
- Confidence-building exercises
- Question-and-answer sessions
- Peer interaction and feedback

8. Outcomes

The programme successfully achieved its intended objectives. The major outcomes observed include:

- Improved confidence among first-year students in speaking before peers.
- Enhanced classroom interaction and participation.
- Better awareness of effective verbal and non-verbal communication.
- Increased collaboration between senior and junior students.

11 November 2025 (Tuesday)

- I CSE-A
- I AI & DS-B
- I Cyber Security-B
- I AI & ML

A total of **21 first-year class sections** participated in the programme.

5. Peer Mentors Engaged

The sessions were delivered by trained senior student mentors possessing strong academic records and communication abilities.

Lead Peer Trainers

- Joanna Baskaran – I ECE-B
- Soundhar Rajkumar – I CSBS
- Praval – I ECE
- Dhiya J. S. – I CSBS
- Nisban – I AI & ML
- Roshni – I ECE-B

These mentors handled multiple sessions across different departments during the programme schedule.

6. Pool of Identified Peer Tutors

To sustain the Peer Teaching Initiative throughout the academic year, IQAC identified a pool of talented student mentors from various departments based on their academic performance, communication skills, and willingness to mentor juniors.

The identified mentors possess expertise in:

- Mathematics
- Physics
- Chemistry
- Python Programming
- Electronics
- English Speaking

- Development of leadership, mentoring, and presentation skills among peer tutors.
- Establishment of a sustainable peer-learning ecosystem within the institution.

9. Impact

The Peer Teaching initiative served as an innovative academic support mechanism by integrating student mentors into the teaching-learning process. The programme strengthened collaborative learning, encouraged knowledge sharing, and contributed to improving the overall academic engagement of first-year students.

The initiative also aligns with the institution's quality objectives of promoting student participation, experiential learning, and outcome-based education.

10. Conclusion

The **Peer Teaching – Skill Series I on Effective Communication – Basics** was successfully conducted across all targeted first-year classes. Active participation from both peer mentors and first-year students resulted in a productive and engaging learning experience.

Based on the positive response received, IQAC recommends continuing the Peer Teaching Initiative with additional Skill Series covering communication, programming, mathematics, aptitude, soft skills, and subject-specific academic support throughout the academic year.


IQAC

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"Celebrating 34 Years of Excellence in Higher Education"

Peer Talk Session - 1



 **Session Topic**

"Building Blocks of Python: Step Into Coding With Confidence"

Organized by
The Peer Empowerment Club

 **Session Mentor**



Mr. Soundhar Rajakumar
CSBS

 **Venue**

 **9:30 - 10:30**
MBA Lecture Hall

 **17/11/2025**

Chief Patron
Dr. R. Radhakrishnan
Principal

Event Coordinator
Dr. K. Sivakumar,
IQAC Head

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PEER EMPOWERMENT CLUB

REPORT ON PEER TALK SESSION – 1

"Building Blocks of Python: Step into Coding with Confidence"

Date: 17 November 2025

Time: 9.30 AM – 10.30 AM

Venue: MBA Lecture Hall

Organized by: Peer Empowerment Club

Session Mentor: Mr. Soundhar Rajakumar, CSBS (I Year)

Total Student Participated: 56

1. Introduction

The Peer Empowerment Club of Adhiyamaan College of Engineering organized Peer Talk Session – 1 on 17 November 2025 with the theme "Building Blocks of Python: Step into Coding with Confidence." The programme was conducted as part of the institution's student-driven learning initiatives to promote collaborative learning and strengthen the programming skills of first-year students through peer-assisted teaching.

The session was facilitated by Mr. Soundhar Rajakumar (CSBS), an academically proficient student mentor, who shared his knowledge and practical experience in Python programming.

2. Objectives

The programme was organized with the objective of introducing students to Python programming through a learner-friendly approach while encouraging collaborative learning and peer mentoring. The session aimed to build students' confidence in coding by explaining fundamental programming concepts with practical examples and demonstrations. It also sought to motivate beginners to explore programming as an essential skill for higher studies, internships, innovation, and future career opportunities.

The specific objectives of the programme were:

- To introduce the fundamentals of Python programming.
- To enhance logical and computational thinking.
- To familiarize students with Python syntax and basic programming concepts.

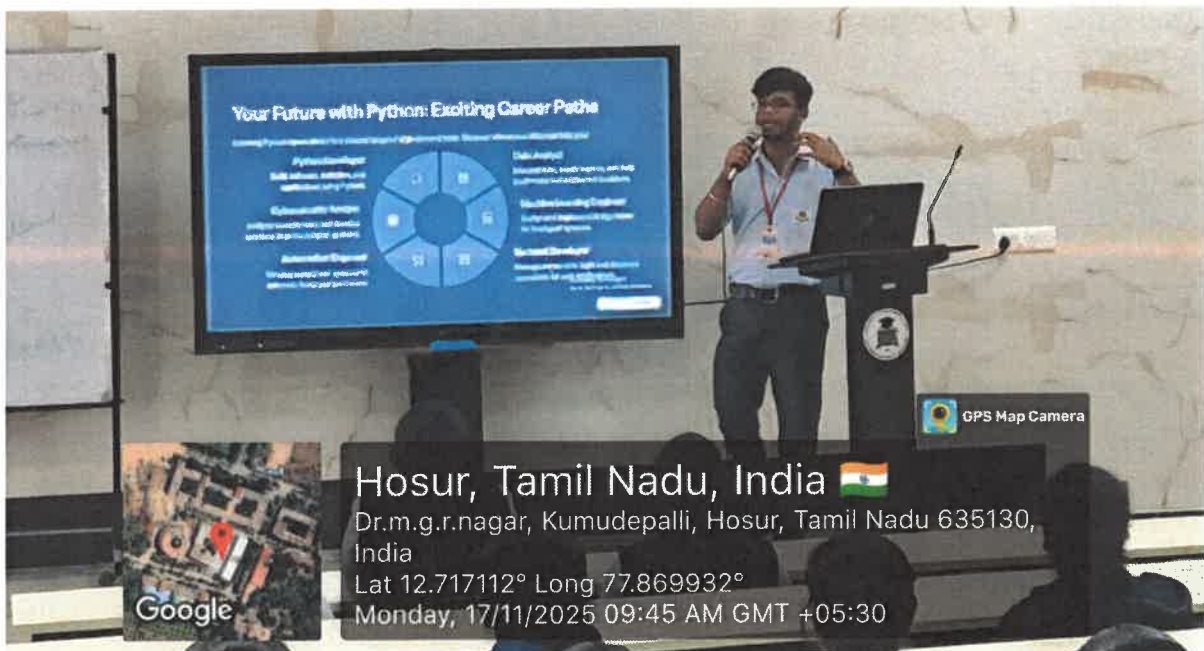
- To encourage collaborative and peer-assisted learning.
- To improve students' confidence in writing simple Python programs.

3. Programme Overview

The session commenced with a welcome address highlighting the significance of peer learning in higher education and the role of the Peer Empowerment Club in fostering academic excellence. The Event Coordinator emphasized that peer learning creates an inclusive academic culture where students feel comfortable asking questions, discussing concepts, and learning through interaction.

The resource person, **Mr. Soundhar Rajakumar**, introduced participants to Python as one of the most versatile and beginner-friendly programming languages widely used in software development, artificial intelligence, data science, automation, and web applications. Through live demonstrations and practical examples, he explained the importance of understanding programming logic before learning advanced coding techniques.

The session was highly interactive, with participants actively engaging in discussions, solving programming exercises, and clarifying their doubts throughout the programme.



4. Session Highlights

The programme covered the essential building blocks required for beginners to start their programming journey. The concepts were explained through real-world examples, enabling students to relate programming logic to practical situations.

The major topics discussed during the session included:

- Introduction to Python and its applications.
- Installation of Python and development environment.
- Variables and data types.
- Input and output statements.
- Operators and expressions.
- Conditional statements.
- Looping constructs.
- Basic functions.
- Simple coding exercises.
- Common programming errors and debugging techniques.

5. Learning Methodology

The session adopted an experiential and student-centric teaching approach that encouraged active participation. Instead of conventional lecture-based delivery, the mentor demonstrated programming concepts through live coding and interactive problem-solving activities. Students were encouraged to ask questions, predict program outputs, and participate in short coding exercises that reinforced conceptual understanding.

The learning strategies adopted included:

- Live coding demonstrations.
- Interactive discussions.
- Problem-solving exercises.
- Practical programming examples.
- Question-and-answer sessions.
- Peer interaction and collaborative learning.

6. Outcomes

The programme significantly enhanced students' interest in learning programming and provided a strong foundation for further exploration of Python. Participants developed a better understanding of programming logic and gained confidence in writing and executing basic Python programs independently.

The key outcomes observed were:

- Improved understanding of Python fundamentals.
- Enhanced logical reasoning and computational thinking.
- Increased confidence in coding among beginners.
- Greater awareness of career opportunities in programming.
- Strengthened collaborative learning through peer interaction.
- Development of leadership and communication skills among peer mentors.

7. Impact of the Programme

The Peer Talk Session successfully demonstrated the effectiveness of peer-assisted learning in technical education. Students appreciated the informal and interactive learning atmosphere, which enabled them to understand programming concepts more comfortably than in a traditional classroom setting. The session also inspired many participants to continue learning Python independently and participate in future technical activities organized by the Peer Empowerment Club.

The initiative contributed to strengthening the institution's learner-centric teaching practices while promoting academic excellence, leadership, teamwork, and lifelong learning.

8. Feedback

Participants expressed positive feedback regarding the programme and appreciated the practical teaching approach adopted by the student mentor. Most students felt that the session simplified programming concepts, encouraged active participation, and motivated them to explore Python further. Faculty members also appreciated the confidence, subject knowledge, and communication skills demonstrated by the peer mentor.

Overall, the programme received an excellent response from participants, highlighting the effectiveness of peer learning in enhancing student engagement and academic performance.

Prepared by IQAC



A handwritten signature in green ink, appearing to be "aazl".

Principal
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Peer Talk Session - 2



Session Topic

"Sensors: The Eyes and Ears of Technology"

Organized by

The Peer Empowerment Club

Session Mentor



Ms. J S Dhiya
CSBS

Venue

9:30 - 10:30
MBA Lecture Hall

18/11/2025

Chief Patron

Dr. R. Radhakrishnan
Principal

Event Coordinator

Dr. K. Sivakumar,
IQAC Head

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PEER EMPOWERMENT CLUB

REPORT ON PEER TALK SESSION – 2

"Sensors: The Eyes and Ears of Technology"

Date: 18 November 2025

Time: 9.30 AM – 10.30 AM

Venue: MBA Lecture Hall

Organized by: Peer Empowerment Club

Session Mentor: Ms. J. S. Dhiya, CSBS

Total Students Participated: 61

1. Introduction

The Peer Empowerment Club of Adhiyamaan College of Engineering organized Peer Talk Session – 2 on 18 November 2025 with the theme "Sensors: The Eyes and Ears of Technology." The session was conducted to familiarize students with the importance of sensors in modern engineering applications and to demonstrate how sensing technologies play a vital role in automation, robotics, smart devices, healthcare, transportation, industrial systems, and the Internet of Things (IoT).

The programme was facilitated by Ms. J. S. Dhiya (CSBS), who shared her technical knowledge through an interactive and student-friendly presentation. The session exemplified the vision of the Peer Empowerment Club by promoting peer-assisted learning and enabling students to learn complex technological concepts through collaborative interaction.

2. Objectives

The programme was designed to provide participants with a foundational understanding of sensor technology and its applications across various engineering domains. It also aimed to inspire curiosity towards emerging technologies while encouraging active participation in technical discussions through peer learning.

The objectives of the programme were:

- To introduce the concept and working principles of sensors.
- To explain different types of sensors used in engineering applications.
- To create awareness of sensors used in IoT and smart systems.

- To enhance students' understanding of automation technologies.
- To promote collaborative and peer-assisted learning.



3. Programme Overview

The programme commenced with a welcome address highlighting the significance of peer learning in improving conceptual understanding and technical competency. The Event Coordinator emphasized the role of the Peer Empowerment Club in creating opportunities for students to share knowledge and develop leadership skills through academic engagement.

During the session, Ms. J. S. Dhiya explained that sensors act as the "eyes and ears" of technological systems by detecting physical, chemical, or environmental changes and converting them into measurable signals. She illustrated how sensors are integrated into everyday devices such as smartphones, automobiles, healthcare equipment, industrial automation systems, and smart home technologies. The concepts were supported with practical examples and real-world applications, making the session highly engaging and relevant to students from different engineering disciplines.

Students actively participated throughout the session by asking questions, discussing applications of sensors, and exploring the future scope of sensor-based technologies.

4. Session Highlights

The technical session covered the fundamental concepts and applications of sensor technology. The discussion focused on helping students understand how sensors contribute to intelligent systems and automation.

Major topics covered during the programme included:

- Introduction to sensors and transducers.
- Working principles of sensing devices.
- Types of sensors and their classifications.
- Temperature, pressure, proximity, motion, light, and humidity sensors.
- Sensors used in smartphones and wearable devices.
- Sensors in industrial automation and robotics.
- Role of sensors in Internet of Things (IoT).
- Smart city and healthcare applications.
- Future trends in sensor technology.

5. Learning Methodology

The session followed an interactive learning approach that combined conceptual explanations with practical illustrations. Students were encouraged to relate sensor technology to devices they use in their daily lives, making the learning experience meaningful and application-oriented.

The learning activities included:

- Interactive presentations.
- Real-life case studies.
- Demonstration of sensor applications.
- Question-and-answer sessions.
- Group discussions.
- Peer interaction and collaborative learning.

6. Learning Outcomes

At the end of the programme, participants gained a clear understanding of the role of sensors in modern engineering systems and developed an appreciation for their widespread applications in emerging technologies. The session enhanced students' curiosity towards automation and IoT while strengthening their technical knowledge through peer-assisted learning.

The major learning outcomes were:

- Understanding the fundamentals of sensor technology.
- Identification of different types of sensors and their applications.
- Awareness of sensors used in smart devices and automation.
- Improved analytical thinking through application-based discussions.
- Enhanced confidence in exploring interdisciplinary technologies.
- Increased participation in collaborative learning activities.

7. Impact of the Programme

The programme successfully created awareness among students about one of the most fundamental technologies used in modern engineering systems. Participants realized the importance of sensors in enabling intelligent decision-making across industries and appreciated the interdisciplinary nature of sensor technology.

The peer-learning model made the technical concepts more approachable and encouraged students to interact freely with the session mentor. The programme also contributed to developing communication, presentation, and leadership skills among student mentors while promoting a culture of collaborative academic learning within the institution.

8. Feedback

The participants appreciated the relevance of the session and expressed that the practical examples helped them understand the concepts effectively. Students particularly enjoyed learning about sensors used in smartphones, smart homes, healthcare equipment, and autonomous systems. The interactive discussions and real-world illustrations made the session informative and engaging.

Faculty members commended the session mentor for delivering the technical content confidently and effectively through peer-assisted learning.


Prepared by IQAC

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Dr.M.G.R.Nagar, Hosur-635 109.





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Peer Talk Session - 3



 **Session Topic**

**"Euler's Theorem - The Gateway to
Homogeneous Functions"**

**Organized by
The Peer Empowerment Club**

 **Session Mentor**



Ms. Joanna Baskaran
ECE - B

 **Venue**

 **9:30 - 10:30**
MBA Lecture Hall

 **19/11/2025**

Chief Patron
Dr. R. Radhakrishnan
Principal

Event Coordinator
Dr. K. Sivakumar,
IQAC Head

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PEER EMPOWERMENT CLUB

REPORT ON PEER TALK SESSION – 3

"Euler's Theorem – The Gateway to Homogeneous Functions"

Date: 19 November 2025

Time: 9.30 AM – 10.30 AM

Venue: MBA Lecture Hall

Organized by: Peer Empowerment Club

Session Mentor: Ms. Joanna Baskaran, ECE-B

Total Students Attended: 61

1. Introduction

The Peer Empowerment Club of Adhiyamaan College of Engineering organized Peer Talk Session – 3 on 19 November 2025 with the theme "Euler's Theorem – The Gateway to Homogeneous Functions." The programme was designed to strengthen students' understanding of one of the fundamental concepts in Engineering Mathematics and its applications in higher-level engineering courses.

The session was delivered by Ms. Joanna Baskaran (ECE-B), who explained the concepts of homogeneous functions and Euler's Theorem through a structured, student-friendly approach. The programme aimed to simplify mathematical concepts using peer-assisted learning, enabling first-year students to overcome difficulties in understanding calculus-based applications while promoting collaborative learning.

2. Objectives

The programme was organized to improve students' conceptual understanding of homogeneous functions and their applications in engineering mathematics. The session also aimed to encourage analytical thinking, mathematical reasoning, and confidence in solving higher-order mathematical problems through peer learning.

The objectives of the programme were:

-
- To introduce the concept of homogeneous functions.
 - To explain Euler's Theorem with mathematical derivations.
 - To demonstrate the applications of Euler's Theorem in Engineering Mathematics.
 - To improve analytical and problem-solving skills.

- To promote collaborative and peer-assisted learning.

3. Programme Overview

The programme commenced with a welcome address emphasizing the significance of peer learning in strengthening conceptual understanding of technical subjects. The Event Coordinator highlighted that mathematics forms the foundation for several engineering disciplines and encouraged students to utilize peer-learning opportunities for mastering complex concepts.

During the session, **Ms. Joanna Baskaran** explained the concept of homogeneous functions and illustrated how Euler's Theorem establishes the relationship between a function and its partial derivatives. The theorem was derived step-by-step using simple mathematical reasoning, enabling students to understand the underlying concepts rather than memorizing formulas. The mentor also demonstrated several solved examples and discussed examination-oriented problem-solving strategies to help students apply the theorem effectively.

The session was highly interactive, with participants actively solving problems, asking questions, and engaging in mathematical discussions throughout the programme.

4. Session Highlights

The technical session focused on simplifying mathematical concepts and connecting theoretical knowledge with practical problem-solving approaches.

The major topics covered included:

- Introduction to homogeneous functions.
- Degree of homogeneous functions.
- Statement and proof of Euler's Theorem.
- Partial differentiation techniques.
- Verification of Euler's Theorem.
- Solved numerical problems.
- Applications in Engineering Mathematics.
- Examination tips and shortcut methods.
- Practice exercises and discussion.

5. Learning Methodology

The session followed an interactive and learner-centred teaching methodology. Mathematical concepts were explained using graphical illustrations, derivations, and worked examples. Students were encouraged to solve problems independently before

discussing the solutions collaboratively with the mentor. Continuous interaction and doubt clarification ensured active participation throughout the programme.

The teaching strategies adopted included:

- Concept-oriented explanations.
- Step-by-step mathematical derivations.
- Problem-solving demonstrations.
- Interactive discussions.
- Practice exercises.
- Question-and-answer sessions.
- Collaborative peer learning.

6. Learning Outcomes

By the end of the session, participants developed a strong conceptual understanding of homogeneous functions and Euler's Theorem. Students gained confidence in applying mathematical principles to solve engineering problems and improved their analytical reasoning skills.

The major learning outcomes were:

- Better understanding of homogeneous functions.
- Ability to apply Euler's Theorem for problem solving.
- Improved mathematical reasoning and analytical skills.
- Enhanced confidence in solving university examination problems.
- Increased classroom participation through peer interaction.
- Greater appreciation of collaborative learning.

7. Impact of the Programme

The programme significantly reduced students' apprehension towards higher mathematics by presenting complex concepts in a simple and interactive manner. The peer-learning environment encouraged students to ask questions freely and actively participate in mathematical discussions, thereby improving their confidence and problem-solving abilities.

The session also demonstrated the effectiveness of student-led teaching in enhancing conceptual clarity, fostering teamwork, and developing leadership and communication skills among peer mentors. The initiative further strengthened the institution's learner-centric teaching practices and supported the objectives of Outcome-Based Education (OBE).

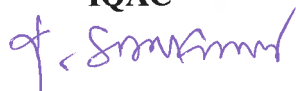
8. Feedback

Participants expressed high levels of satisfaction with the programme and appreciated the mentor's ability to simplify difficult mathematical concepts through systematic explanations and practical examples. Students found the solved problems, derivations, and examination tips particularly useful for understanding the theorem and preparing for assessments.

Faculty members commended the confidence, subject expertise, and presentation skills demonstrated by the peer mentor and appreciated the effectiveness of peer-assisted learning in mathematics education.

Prepared by

IQAC



Co-Ordinator-IQAC,
(Internal Quality Assurance Cell),
Adhiyamaan College of Engineering,
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Dr.M.G.R.Nagar, Hosur-635 109.



Principal

PRINCIPAL

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Dr.M.G.R. Nagar, HOSUR-635130



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Peer Talk Session - 4



Session Topic

"From Spark to Beam: The Science Of Lasers"

Organized by

The Peer Empowerment Club

Session Mentor



Ms. Roshini.M
ECE - C

Venue

9:30 - 10:30
MBA Lecture Hall

20/11/2025

Chief Patron

Dr. R. Radhakrishnan
Principal

Event Coordinator

Dr. K. Sivakumar,
IQAC Head

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PEER EMPOWERMENT CLUB

REPORT ON PEER TALK SESSION – 4

"From Spark to Beam: The Science of Lasers"

Date: 20 November 2025

Time: 9.30 AM – 10.30 AM

Venue: MBA Lecture Hall

Organized by: Peer Empowerment Club

Session Mentor: Ms. Roshini M., ECE-C

Total Student Attended: 67

1. Introduction

The Peer Empowerment Club of Adhiyamaan College of Engineering organized Peer Talk Session – 4 on 20 November 2025 with the theme "From Spark to Beam: The Science of Lasers." The programme was conducted to introduce students to the fundamental principles of laser technology and its wide-ranging applications in engineering, medicine, communication, manufacturing, defence, and scientific research.

The session was delivered by **Ms. Roshini M. (ECE-C)**, who presented the concepts of laser generation, properties, and practical applications through an engaging and interactive peer-learning approach. The programme was organized with the objective of enhancing students' scientific curiosity and promoting collaborative learning beyond the conventional classroom.

2. Objectives

The programme was designed to provide students with a comprehensive understanding of laser technology and its significance in modern science and engineering. It also aimed to develop analytical thinking by relating theoretical concepts to real-life technological applications.

The objectives of the programme were:

- To introduce the basic principles of laser technology.
- To explain the working mechanism of lasers.
- To familiarize students with different types of lasers.

- To highlight engineering and industrial applications of lasers.
- To encourage collaborative learning through peer mentoring.

3. Programme Overview

The programme began with a welcome address emphasizing the importance of peer-assisted learning in developing conceptual understanding and technical competence among students. The Event Coordinator highlighted that student-led knowledge-sharing initiatives play a significant role in strengthening academic engagement, leadership, and communication skills.

During the session, **Ms. Roshini M.** explained the origin of the term **LASER (Light Amplification by Stimulated Emission of Radiation)** and discussed the scientific principles governing laser generation. She introduced students to the concepts of stimulated emission, population inversion, active medium, optical resonator, and pumping mechanisms using simplified explanations and illustrative diagrams. The mentor further explained the unique properties of laser light, including coherence, monochromaticity, directionality, and high intensity, which distinguish lasers from ordinary light sources.

The session also showcased real-world applications of laser technology across multiple disciplines, enabling students to appreciate its growing significance in modern engineering and scientific innovation. Participants actively interacted with the mentor, raised questions, and engaged in discussions throughout the session.

4. Session Highlights

The session covered the fundamental concepts and technological advancements related to laser science. The topics were presented systematically to ensure that beginners could understand both theoretical principles and practical applications.

The major topics covered during the programme included:

- Introduction to laser technology.
- Principles of stimulated emission.
- Construction and working of lasers.
- Characteristics of laser light.
- Types of lasers.
- Laser applications in communication systems.
- Medical and industrial applications.
- Lasers in manufacturing and defence.
- Emerging trends in laser technology.

5. Learning Methodology

The session adopted a learner-centric and interactive methodology that combined conceptual explanations with practical illustrations. Scientific concepts were explained using visual representations, real-life examples, and application-based discussions to make learning more meaningful. Students were encouraged to participate actively by asking questions and sharing their observations on laser applications encountered in everyday life.

The learning strategies adopted included:

- Interactive multimedia presentation.
- Concept-based explanations.
- Demonstration through diagrams and illustrations.
- Real-life case studies.
- Group discussions.
- Question-and-answer session.
- Peer-assisted collaborative learning.

6. Learning Outcomes

The programme enabled students to develop a clear understanding of laser technology and its applications across diverse engineering domains. Participants gained confidence in explaining the scientific principles behind laser operation and appreciated the importance of photonics in emerging technologies.

The key learning outcomes included:

- Understanding the fundamentals of laser science.
- Knowledge of laser construction and working principles.
- Awareness of industrial, medical, and communication applications.
- Improved scientific reasoning and analytical thinking.
- Enhanced confidence in discussing advanced engineering concepts.
- Strengthened collaborative learning through peer interaction.

7. Impact of the Programme

The programme successfully enhanced students' awareness of one of the most significant technological innovations in modern science. The peer-learning environment encouraged students to actively participate in discussions and explore interdisciplinary applications of laser technology. The simplified explanations and practical examples helped participants connect theoretical concepts with engineering practice, thereby improving conceptual clarity and academic interest.

The programme also contributed to developing presentation, leadership, and mentoring skills among student mentors while reinforcing the institution's commitment to student-centric teaching practices and experiential learning.

8. Feedback

Participants expressed their appreciation for the informative and interactive nature of the session. Students found the explanations of laser principles easy to understand and appreciated the real-world examples demonstrating the applications of lasers in healthcare, manufacturing, fibre-optic communication, and scientific research. The practical orientation of the session encouraged many students to explore further learning opportunities in photonics and optical engineering.

Faculty members commended the session mentor for her excellent presentation skills, subject knowledge, and ability to simplify complex scientific concepts through peer-assisted learning.

Prepared by IQAC


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**Adhiyamaan
College of Engineering**

An Autonomous Institution

"Celebrating 34 Years of Excellence in Higher Education"



Peer Talk Session - 5



 **Session Topic**

**"The Hidden Heroes of Electronics:
Semiconductors"**

Organized by

The Peer Empowerment Club

 **Session Mentor**



Mr. T. Harinath
IT

 **Venue**

 **9:30 - 10:30**
MBA Lecture Hall

 **21/11/2025**

Chief Patron

Dr. R. Radhakrishnan
Principal

Event Coordinator

Dr. K. Sivakumar,
IQAC Head

Of the Students, By the Students, For the Students...

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ADHIYAMAAN COLLEGE OF ENGINEERING
(An Autonomous Institution Affiliated to Anna University, Chennai)

PEER EMPOWERMENT CLUB

REPORT ON PEER TALK SESSION – 5

"The Hidden Heroes of Electronics: Semiconductors"

Date: 19 November 2025

Time: 9.30 AM – 10.30 AM

Venue: MBA Lecture Hall

Organized by: Peer Empowerment Club

Session Mentor: Mr. I. Harinath, Information Technology (IT)

Total Students Attended: 59

1. Introduction

The Peer Empowerment Club of Adhiyamaan College of Engineering organized Peer Talk Session – 5 on 19 November 2025 with the theme "The Hidden Heroes of Electronics: Semiconductors." The programme was conducted to provide students with a fundamental understanding of semiconductor materials and their indispensable role in modern electronic devices and digital technologies.

The session was facilitated by Mr. I. Harinath (Information Technology), who explained the concepts of semiconductor physics, electronic components, and their practical applications through an interactive peer-learning approach. The programme aimed to bridge the gap between theoretical concepts and real-world applications while encouraging collaborative learning among students.

2. Objectives

The programme was organized to familiarize students with the fundamentals of semiconductor technology and its importance in electronic engineering. It also sought to inspire students to understand how semiconductor devices have transformed communication, computing, automation, and consumer electronics.

The objectives of the programme were:

- To introduce the fundamentals of semiconductor materials.
- To explain intrinsic and extrinsic semiconductors.
- To describe the working of PN junctions and semiconductor devices.
- To highlight applications of semiconductors in modern electronics.

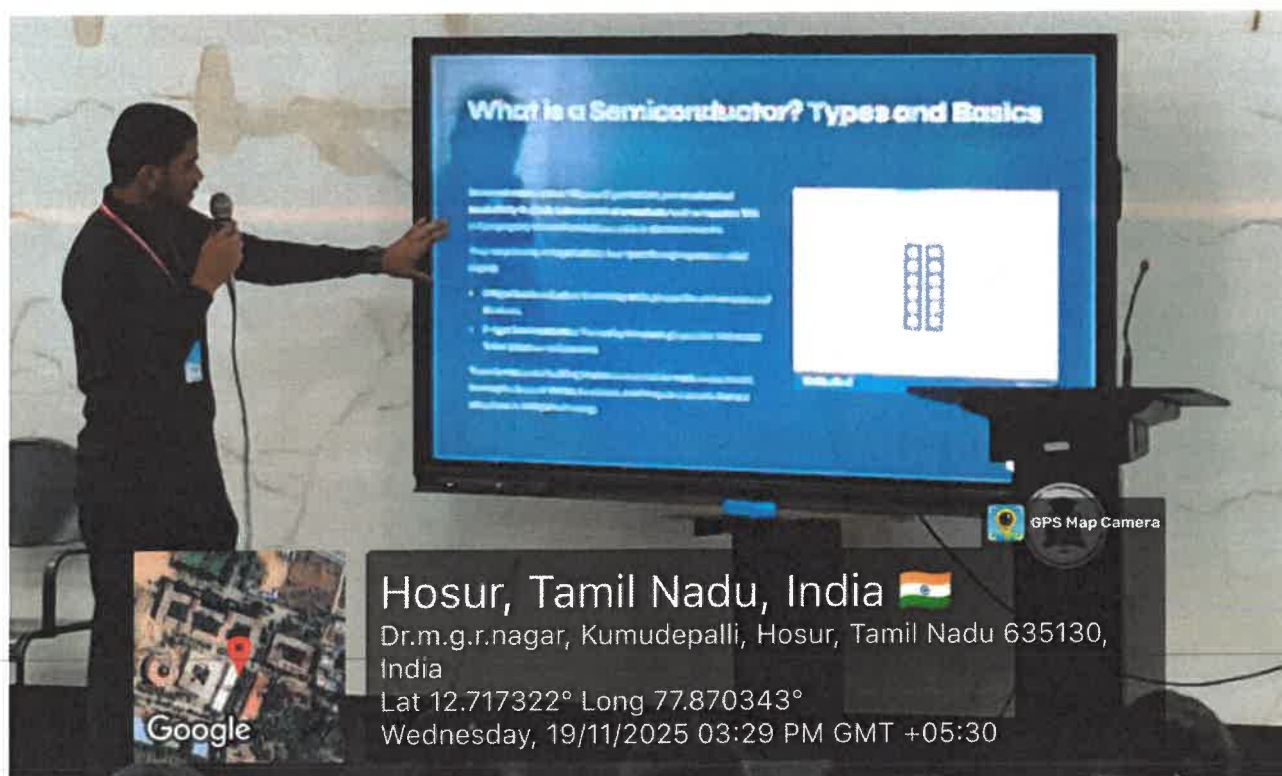
- To promote peer-assisted and collaborative learning.

3. Programme Overview

The programme commenced with a welcome address emphasizing the importance of peer learning in strengthening conceptual understanding and technical knowledge. The Event Coordinator encouraged students to actively participate in student-led learning initiatives, which complement classroom teaching and enhance academic engagement.

During the session, **Mr. I. Harinath** introduced semiconductors as the foundation of modern electronic systems. He explained the unique electrical properties of semiconductor materials such as silicon and germanium and discussed how controlled doping transforms these materials into useful electronic components. The mentor illustrated the operation of PN junction diodes, transistors, integrated circuits, and microprocessors using simplified diagrams and practical examples.

The discussion further highlighted the significance of semiconductors in smartphones, computers, communication systems, electric vehicles, medical devices, industrial automation, artificial intelligence, and the Internet of Things (IoT). Students actively interacted with the mentor by asking questions and participating in discussions on the future of semiconductor technology and its impact on society.



4. Session Highlights

The session comprehensively covered the fundamentals and applications of semiconductor technology. The topics were presented systematically with practical examples to enable beginners to appreciate the importance of semiconductors in everyday life.

The major topics discussed during the programme included:

- Introduction to semiconductor materials.
- Conductors, insulators, and semiconductors.
- Intrinsic and extrinsic semiconductors.
- Doping process.
- PN junction diode.
- Transistors and integrated circuits.
- Semiconductor manufacturing basics.
- Applications in consumer electronics.
- Emerging semiconductor technologies.

5. Learning Methodology

The session adopted an activity-based and interactive teaching methodology that combined conceptual explanations with application-oriented discussions. The mentor used diagrams, animations, and examples from commonly used electronic devices to simplify technical concepts. Students participated actively in discussions and connected the theoretical principles with real-life technological applications.

The teaching-learning strategies included:

- Interactive multimedia presentation.
- Concept-based explanations.
- Practical examples from electronic devices.
- Diagram-based learning.
- Question-and-answer sessions.
- Collaborative discussions.
- Peer-assisted learning.

6. Learning Outcomes

The programme enabled participants to develop a strong conceptual understanding of semiconductor technology and its applications across various engineering disciplines. Students gained awareness of the role played by semiconductor devices in powering modern electronic systems and developed greater interest in electronics and emerging technologies.

The major learning outcomes were:

- Understanding the fundamentals of semiconductor materials.
- Knowledge of semiconductor devices and their operation.
- Awareness of semiconductor applications in modern technology.
- Improved analytical and conceptual understanding.
- Enhanced confidence in learning electronics-related subjects.
- Strengthened collaborative learning and peer interaction.

7. Impact of the Programme

The programme significantly enhanced students' awareness of semiconductor technology and its contribution to technological advancement. The peer-learning environment enabled students to understand complex concepts through simple explanations and practical illustrations. Participants appreciated the relevance of semiconductor technology in current industrial developments, particularly in artificial intelligence, embedded systems, robotics, and smart electronics.

The programme also strengthened communication, presentation, and leadership skills among student mentors while promoting an inclusive and collaborative academic culture. The session reinforced the institution's commitment to learner-centric education and experiential learning through peer-assisted teaching.

8. Feedback

Participants expressed positive feedback regarding the clarity of the presentation and the practical examples used during the session. Students appreciated the explanations relating semiconductor concepts to smartphones, computers, electric vehicles, and everyday electronic gadgets. The interactive discussions helped them understand the importance of semiconductor technology in future engineering careers.

Faculty members appreciated the confidence, subject knowledge, and presentation skills demonstrated by the peer mentor and acknowledged the effectiveness of peer-assisted learning in improving conceptual understanding.

Prepared by

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Internal Quality Assurance Cell (IQAC)

CIRCULAR

Ref. No.: ACE/IQAC/2025-26/PGLS/001

Date: 10.07.2025

Subject: Meeting on Implementation of Peer Group Learning Support Programme – Academic Year 2025–26 – Reg.

The Internal Quality Assurance Cell (IQAC) proposes to implement the **Peer Group Learning Support Programme** as a structured academic initiative to strengthen collaborative learning, enhance student engagement, and provide academic support through peer-assisted learning. All Heads of Departments, Deans, Faculty Coordinators, and Student Representatives are requested to attend the meeting and actively participate in the deliberations.

The details of the meeting are as follows:

Particulars	Details
Meeting	Peer Group Learning Support – Policy Discussion & Implementation
Date	15 July 2025 (Tuesday)
Time	11.00 AM to 12.30 PM
Venue	IQAC Conference Hall
Organized by	Internal Quality Assurance Cell (IQAC)

Agenda

1. Welcome Address by the IQAC Head.
2. Need and significance of Peer Group Learning Support.
3. Presentation of the Institutional Policy on Peer Group Learning Support.
4. Discussion on the implementation framework across departments.
5. Selection criteria and responsibilities of Peer Mentors.
6. Preparation of semester-wise peer learning schedules.
7. Documentation requirements for IQAC, NAAC, and NBA.
8. Open discussion and suggestions from members.
9. Approval of resolutions and action plan.
10. Vote of Thanks.


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MINUTES OF THE MEETING

A meeting of the Internal Quality Assurance Cell (IQAC) was convened on **15 July 2025** in the IQAC Conference Hall to deliberate on the implementation of the **Peer Group Learning Support Programme** for the Academic Year 2025–26. The meeting was chaired by the Principal and attended by the IQAC Head, Deans, Heads of Departments, faculty coordinators, and student representatives.

The IQAC Coordinator welcomed the members and explained the need for introducing a structured peer learning framework to strengthen collaborative learning practices across the institution. The Principal emphasized that peer-assisted learning has become an effective pedagogical strategy adopted by leading higher educational institutions to improve academic engagement, reduce learning gaps, and develop leadership among students.

During the discussion, members observed that many academically competent students possess the ability to guide their peers effectively. It was proposed that such students should be identified and trained as peer mentors to conduct structured learning sessions under faculty supervision. The committee further discussed integrating peer learning with bridge courses, remedial coaching, programming practice, communication skills, laboratory learning, and placement training.

Members unanimously appreciated the proposal and recommended implementing the programme across all departments from the Academic Year 2025–26. The committee also suggested maintaining systematic documentation of all peer learning activities to support quality assurance initiatives and accreditation requirements.

Resolutions

After detailed deliberations, the following resolutions were unanimously approved:

- Approval of the Institutional Peer Group Learning Support Policy.
- Appointment of faculty coordinators in every department.
- Identification and orientation of peer mentors every semester.
- Preparation of department-wise peer learning schedules.
- Maintenance of attendance, feedback, and outcome reports.
- Semester-end review by IQAC for continuous improvement.

The meeting concluded with a vote of thanks proposed by the IQAC Head, who appreciated the valuable suggestions offered by all members and requested every department to ensure effective implementation of the programme.

LIST OF ATTENDEES

The meeting was attended by the Principal, IQAC Head, Dean (Academics), Dean (Research), Controller of Examinations, all Heads of Departments, Faculty Coordinators, Student Affairs Coordinator, and nominated student representatives of the Peer Empowerment Club.

Sl. No.	Name	Designation
1	Dr. R. Radhakrishnan	Principal
2	Dr. S. Venkatesan	Dean (Academics)
3	Dr. K. Sivakumar	IQAC Head
5-20	Prof. A. Krishnamohana Reddy	CoE
21	Heads of Departments	HoDs
22	Dr. Melvin	Faculty Coordinator
23	Mr. Kabilan (II CSE)	Peer Empowerment Club

Prepared by


IQAC Head


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