



ST. ANNE'S COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai)


Accredited by NAAC

ANGUCHETYPALAYAM, PANRUTI – 607 106.

7.2 BEST PRACTICES

INDEX

S. No	Best Practice
1	Projects into Proceedings
2	Creation and maintenance of an Eco-friendly Campus


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Cuddalore-(Dist), Pin: 607 110.

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Best Practice I

1. Title of the Practice: Projects into Proceedings

Every year, at St. Anne's College of Engineering and Technology, our Final year students do projects as per University Curriculum. They discuss the projects with their Project Supervisor. Deep discussion with the Project Supervisor results in the preparation of structured abstracts. When these abstracts are approved by the Project Supervisor, the full-fledged projects are converted into research papers. These research papers are presented in the Conferences organized by the Institution annually. The papers presented in the conferences are published in the National/International Journals holding the ISSN number.

2. Objective of the Practice

Transferring projects into publishing paper in conference proceedings helps students engage in purposeful and relevant learning. Furthermore, it is instrumental in making students explore knowledge. Conferences serve as a means for the promotion of research not only for presenting but also for publishing in conference proceedings. Conference papers can be an effective way to try out new ideas, introduce one's work to their colleagues and hone their research questions. When students are ready to share their knowledge, the best way to do it is by publishing their work. Undoubtedly, publications are an excellent medium of scientific communication. In its purest form, the purpose of publishing original research studies is to disseminate the results of experiment, thereby informing the audience about a new concept or about advances in a technology or scientific field. Publishing papers will provide a level of professionalization to a resume which many undergraduates do not have.

3. The Context

Owing to globalization, we have been exposed to a lot of opportunities. However, global career opportunities remain highly competitive. At this juncture, we have to explore knowledge. Hence, the Institution has been patronizing the staff members and the students in presenting papers in National/International Conferences and publishing papers in Conference proceedings since 2017. The Final Year project work is an important component of higher education degree. Students convert their Project works into research papers, presenting the paper in National/International Conferences and publish the research papers in the proceedings. Many engineering students rarely understand the significance of attending academic conferences. It is true that the professional and personal development of students, in large, depends on attending academic conferences. An international academic conference provides us with an ideal platform to meet fellow researchers from all over the world and team up with them to conduct studies on a wider or deeper level.

Disseminating the results of project is an important part of the undergraduate research process. If no one else ever learns about the research, then no one can build off of what we've discovered. The student will likely find himself exhilarated by the conference experience. They will learn a lot and be energized to continue their research in the future. It is vital to regularly interact with our peers. The field of teaching and education is the foundation of progress. Learning and understanding new practices, frameworks, challenges and trends are essential to anyone working in the field of teaching and education.

4. The Practice

Our students have Project Work as a course in the Eighth Semester curriculum. Their area of interest is collected and the students are grouped into various batches. The Supervisor is allocated based on the area of interest of the students and the staff members. The students select many papers from the journals available in the library and on the internet based on their area of interest.

Our students carry out a thorough study of the published papers in order to provide the most recent and relevant base papers in their area of interest. Of these papers, the Supervisor selects one paper which is feasible and having more scope. The ideas presented in the base paper are further explored for fresh insight. Some students may choose their novel idea for project work.

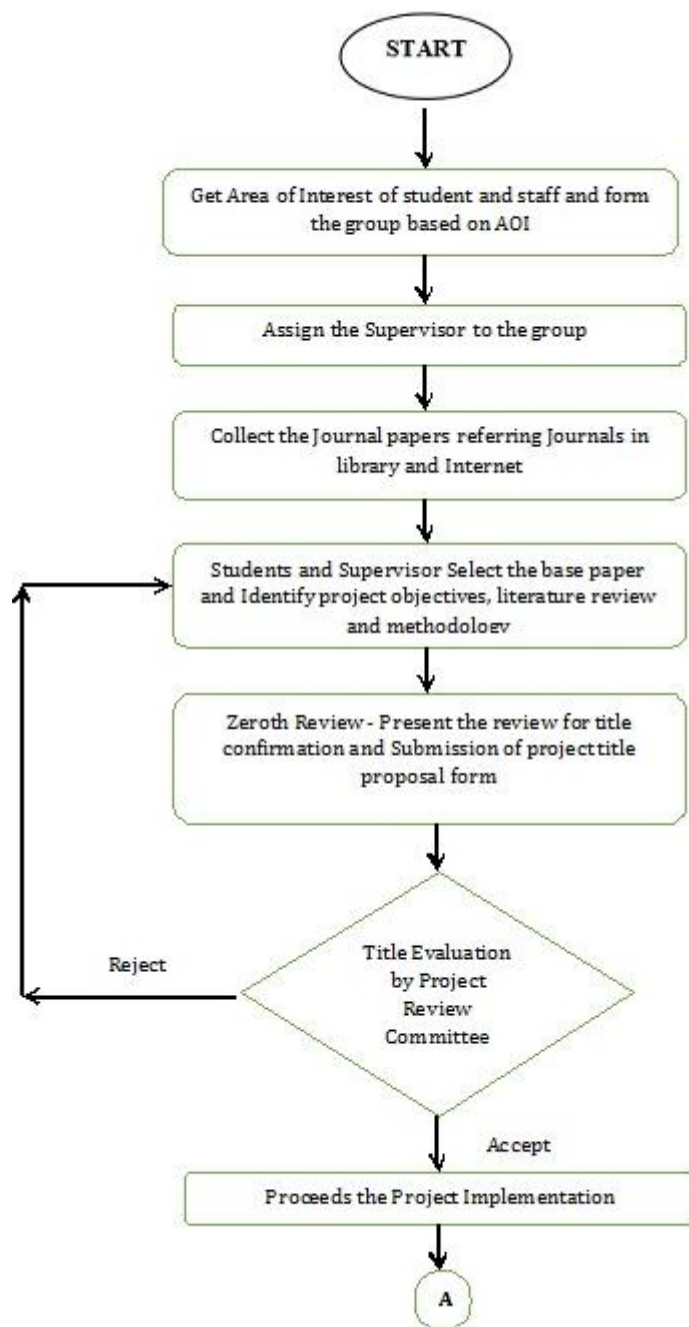
The Project Review Committee which includes the Project Supervisor, Project Co-ordinator and one faculty member as Evaluator who is nominated by the Head of the Department. There shall be four reviews including zeroth review during the semester. The project batch should make a power point presentation and present its reviews. An Assessment Record should be maintained by each batch and the status of the project work should be recorded in it. It is the responsibility of the project batch to get it signed by the respective Supervisor every week in order to ensure the progress of the project work. The review report should be duly approved and countersigned by the respective guide before submitting it at the time of the review.

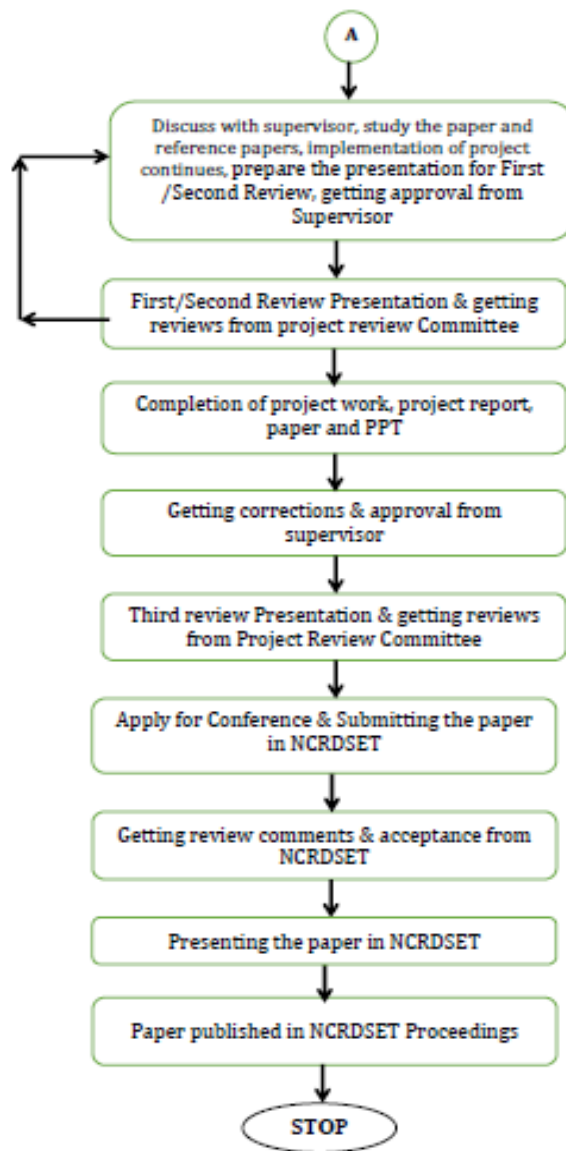
The students prepare and present their idea for the zeroth review to confirm the title of the project to the Review Committee. After the presentation, the Review Committee analyses the feasibility of the project. If the committee is satisfied with the response of the batch members, it approves the title of the project.

The students start implementing the approved project title. Every week, they should meet their Supervisor and inform about the project progress. Students must be ready with the presentation for the first review. Review Presentation Material is shown to the project Supervisor by the students before the review. The suggestions made by the Project Supervisor are incorporated in the presentation. Three reviews are conducted. The project demo is shown and the project report is submitted in the third review.

After completion of the implementation of the project, the paper is prepared with the guidance of the Project Supervisor. Most of the final year students present their project work in the

National/International Conferences conducted in our College every year. The papers presented in the conference are published in the conference proceedings.





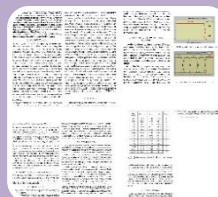
Project Title Approval



Project Implementation progress



Project Demo



Project to Paper

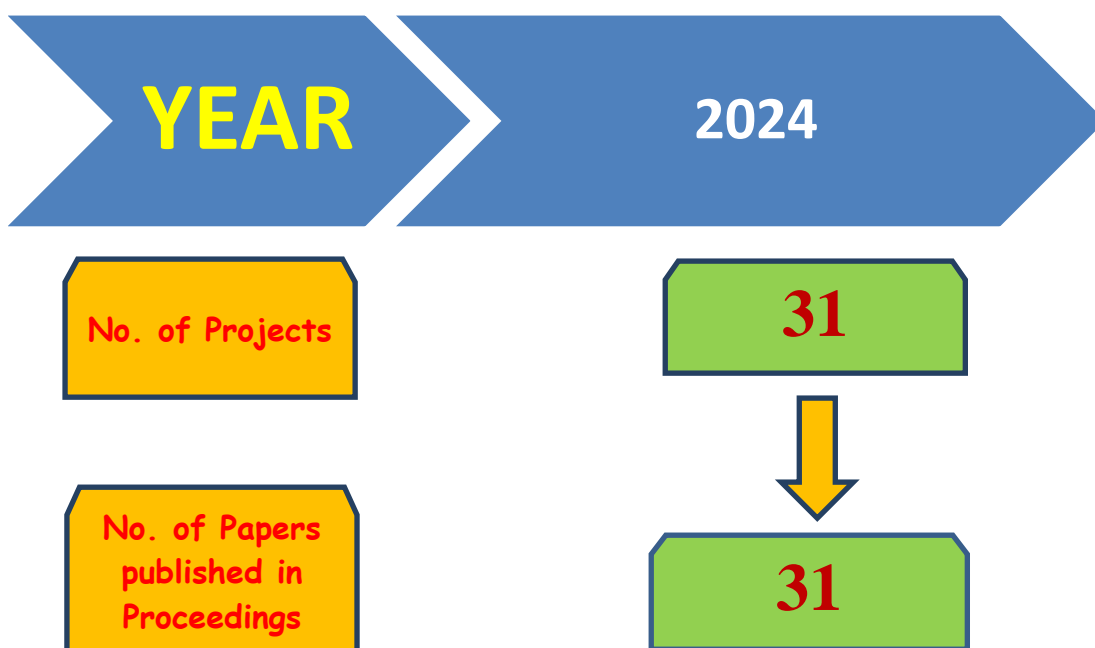


Conference Proceedings

5. Evidence of Success

The final year students have Project Work as a subject in the Eighth Semester Curriculum. Hence, all the final year students do their project group wise. They are presenting four reviews and prepare a project report after a successful completion of the project work. In our Institution, we conduct National/International Conferences every year. We have conducted seven National Conferences and one International Conference in our Institution, till now. All the final year students must write a paper for their project work and present it in the Conference and it is published in the Conference Proceedings. Few students present their papers in conferences organized by other institutions and publish the papers in journals also. It is true that merely writing a research paper well may not be enough to achieve success in presenting it.

The Conference Proceedings have been kept in our College Library and all the Department Libraries. The junior students can also access the conference proceedings from the Library and can refer to them for their project.



6. Problems Encountered

The students encounter the following problems while converting a project into a paper for presenting it in a conference:

- The scope of the project might be limited or insufficient to convert it into a paper. The problem statement may be simple. The project may sometimes have a few objectives or a single objective or an easier one. Some of the application projects may be simple such as management system projects. A small project may sometimes have limited scope.
- At times, the students may not obtain the expected output of the project, thereby resulting in deviation from the expected output of the project. It is difficult to convert the project into a paper without the expected output.
- In publication, plagiarism is the most important criterion for accepting the paper in Conferences. While writing a paper, students may suffer to express the ideas in their own words. Instead, they copy the content from many reference papers and make them of their own. Hence, there may be a chance of plagiarism in the paper. If plagiarism is high, Conference Committee will reject the papers.
- Students do not know how to write a paper for presenting it in a conference and publishing it in a journal. They lack experience and exposure in writing a research paper.
- The absence of mathematical model in a project may become an impediment in converting the project into a paper in a conference. It is mandatory that every research paper should have a well-defined mathematical model. In the absence of a mathematical model, no parameters can be set for evaluation. Mathematical model and parametric evaluation co-exist with each other. The absence of any one of these would be meaningless.

Project Discussion with Project Supervisor



Presenting the Papers in NCRDSET



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SCAN ME

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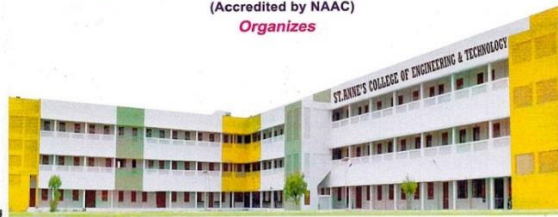
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 Organizes



7th National Conference
 on
Advancements in
Engineering, Science and Technology
(NCAEST '24)
02nd May 2024

NCAEST'24**About the Congregation of Sister's of St. Anne**

The Congregation of the Sisters of St. Anne, Tiruchirappalli, founded by the Servant of God, Rev. Mother Annammal, in 1858, strives to live up to the charism of the Foundress, "Simplicity in life and Service to the poor", for the past 164 years. The Congregation follows the footsteps of its Foundress, and involves in multifarious service like Evangelization, Education, Social work and Medical service with explicit involvement in caring the differently abled. With this purposeful vision, St. Anne's College of Engineering and Technology is established by the Congregation in the year 2009, to uplift the social status of poor, weak, marginalised and destitute young women, particularly widows, from the unethical and evil clutches of society through education.

About the Institution

Reading the signs of the times, the Congregation of the Sisters of St. Anne, Tiruchirappalli has vowed to place the thrust on opting for the poor. It has been working for the cause of the education and the upliftment of the poor and the downtrodden. After a thorough study, reflection, prayer and discernment, we have proposed to extend our mission by establishing the professional bachelor degree programmes (B.E - Mechanical Engineering, B.E - Computer Science and Engineering, B.E - Electrical and Electronics Engineering, B.E - Electronics and Communication Engineering) in the name and style of St. Anne's College of Engineering and Technology, chiefly focusing on the option for the economically challenged people in the academic year 2009-2010.

Our aim is to give hope and dignity to the student community through education by means of which character is moulded, strength of mind is increased, intellect is enhanced and also by means of which one can stand on one's own feet. We train the youth to see the good in every human being and to take the best out of each individual, to inculcate a strong sense of values in every student and to help every person promote love, peace and justice in the society.

About the Conference

Seventh National Conference on Advancements in Engineering, Science and Technology 2024 (NCAEST'24) will target state-of-the-art as well as emerging topics pertaining in the field of Science, Engineering and Technology and effective strategies for its implementation. It also provides a premier interdisciplinary platform for researchers, academicians, industry persons, practitioners, educators and students to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered, and solutions adopted in the fields of innovation. The objective of this National conference is to provide opportunity for the participants to interact and exchange ideas, experience and expertise in the current trend and strategies. Besides this, participants will also be enlightened about vast avenues, current and recent technological developments in various domain and its applications will be thoroughly explored and discussed.

CONFERENCE THEMES**Computer Science**

1. Artificial Intelligence And Machine Learning
2. Cyber Security
3. Cloud Computing
4. Big Data Analytics
5. Internet of Things (IoT)
6. Natural Language Processing(NLP)
7. Block Chain Technology

Electrical

1. Smart Grid and Microgrid Systems
2. Renewable Energy systems
3. Emerging trends in Power system
4. Power Electronics controller
5. Evehicle charging design
6. Wireless charger for E-vehicles

Electronics & Communication

1. 5G Technology and Beyond
2. Green Electronics
3. Biomedical Image and Signal Processing
4. Robotics and Automation
5. Antenna and advanced VLSI design
6. Internet of Things (IoT).
7. Cognitive radio and networks
8. Ultra wide band communication

Mechanical

1. Green Manufacturing
2. Computational Fluid Dynamics
3. Alternative Fuels
4. Simulations of structure and component
5. New Product Development product

Engineering Science

1. Recent trends in applied mathematics
2. English language and globalisation
3. environment and green chemistry
4. Emerging physics in nano science and nano technology.

Important Dates

Submission of full paper : 26-04-2024
 Intimation of acceptance : 29-04-2024
 Registration : 30-04-2024

Paper Submission

Authors are invited to submit full length paper in the prescribed format available in the conference website. All the accepted papers abstracts will be published in the conference proceedings with ISBN Number.
 Conference Link: <https://stannescet.ac.in/ncaest24/>

Extended version of selected papers will be recommended for publication in below journals.

Scopus Indexed Journals

1. International Journal of Electrical and Computer Engineering (IJECE).
2. International Journal of Electrical and Electronics Engineering(IJEEE)
3. Journal of Electrical Systems (JES)

Note: Papers submitted by email, fax or post will NOT be accepted.

Registration Fee

UG/PG Students & Research Scholars : Rs. 300
 Faculty & Industry Participants : Rs. 500

Payment Modes

The registration fee is to be paid by Demand Draft drawn in favour of "The Principal, St. Anne's College of Engineering and Technology" payable at Panruti.
 or
 Online payment gateway available on conference website.
 or

National Electronic Funds Transfer (NEFT)

Account Number : 19680100033685

Account Name : The Principal
 St. Anne's College of Engineering
 and Technology

Account Branch : Panruti

IFSC Code : FDRL0001968

NCAEST'24

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7.2 Best Practices

7.2.2 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Best Practice II

1. Title of the Practice:

Creation and maintenance of an Eco-friendly Campus

An eco-friendly environment is developed in the SANCET campus to reduce the overall impact of the built-up environment on human health and the natural environment, through the efficient use of energy, water conservation, waste management, green initiatives and sustainable development.

2. Objective of the Practice

- The objective of the practice is to make the students and staff members to inculcate environmental values and consciousness.
- This practice ensures the protection of environment through green energy initiatives, energy conservation, renewable energy sources, ground water recharging, effective waste management measures, e-waste management and hazardous waste management.
- To raise environmental awareness among students, resulting in better environmental management, greater sustainability and an improvement in the quality of life for all the people associated with the campus.

3. The Context

Saving “Mother Earth” is an integral part of our institution education. Keeping the growing ecological concerns in mind, there is a dire need for immediate action to be carried out and promote eco-friendly practices. The environment has gone through drastic change due to factors like pollution, over usage of plastic and mismanagement of natural resources. In order to control the devastating environmental changes, awareness regarding environmental issues is served through the numerous green initiatives and practices have been taken in the campus.

SANCET has been nurturing sustainable practices to impart knowledge to create a green, clean and eco friendly campus. This practice of our institution helps students to develop an attitude of concern in eco friendly environment.

4. The Practice

Eco-Friendly Practices followed by both the faculty and the students on the campus are:

a) Energy Efficiency

A solar roof top photovoltaic system has been installed for generating 600 Watt on the roof top to promote renewable energy consumption in our Institution. This solar energy generation is completely used for street lights and pathway lights on the campus.

- The CFL fittings of higher wattage are replaced with the 65 numbers of LED fittings of lower wattage with the same luminous level for the Street Lights on the campus and corridor to promote the efficient utilization of energy.
- We use 376 numbers of LCD Monitors for consuming less power in our campus.
- A five star rating refrigerator has been installed in the Institution.
- The sign board of “SWITCH ON’ and “SWITCH OFF WHEN YOU LEAVE” are kept in most of the places towards saving energy.

b) Waste Management

- Separate bins are kept in various places on the campus to collect degradable and non-degradable waste.
- Liquid waste is directed to the gardens for watering the plants.
- E-waste such as malfunctioning, damaged circuit boards, keyboards, monitors, mouse, printers and headphones are collected in separate bins and disposed to Sri Bala Computers, Panruti, to provide e-waste management service.
- The waste papers, plastic, metal waste such as metal scrap, metal cuttings waste, bars, rods, sheets, damaged steel chairs and vehicle waste tyres are collected and properly disposed to Kavinila Waste Paper Mart, Panruti, to provide waste management service.
- The mass collection of the biodegradable organic waste is dumped into the compost pit (250 ft²) and it is used as manure to the plants on the campus.
- The inorganic waste is safely disposed into the earthen pits with safety precautions.
- Bio-medical waste is dumped into separate bins and disposed off frequently.

c) Water Conservation

- Rainwater harvesting is available at Annai Annammal block in order to make the Institution self-sufficient in water resources and used for domestic purposes. It improves the green belt, particularly the lawn and Herbal garden and Archard.
- The rooftop rain water from all other blocks are directed to reach our gardens.
- The bore well near the Library premises is used to replenish rain water. Bore well recharge technique makes sure the storage naturally filtered rainwater. The ground water level rises when the bore well is recharged.
- The bunds are used to retaining moisture/water on sloped ground, providing access to fields. It recharges the groundwater and increases soil moisture.
- The waste water from the RO plant and the water cooler in Administrative Block is used for watering the butterfly garden.

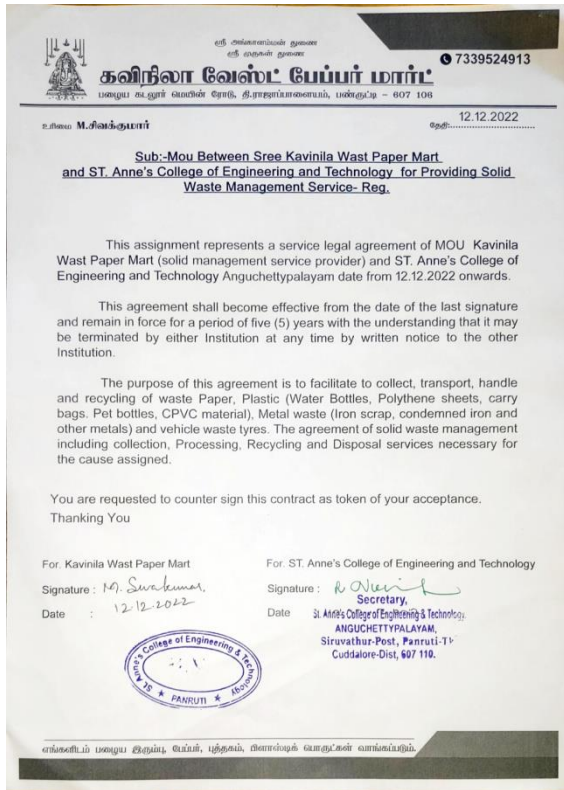
d) Green Campus Initiatives

- Security personnel at the main gate restrict public vehicle entry into the campus. Only staff members, students and guest vehicles are allowed inside the campus.
- All roads on the campus are pedestrian-friendly as vehicle movement is limited on the campus.
- The campus is made plastic-free. Awareness on the reduction of plastic usages has been created to both students and staff members through the sign boards in various places.
- The Eco club has organized quizzes, poster making, painting competitions and making paper bags to discourage use of plastic bags that focus on the environment.
- All the buildings on the College campus are surrounded by 88 varieties of trees, flowering and non-flowering plants. Plants are grown on both the sides of the roads to make the entire campus an environment-friendly place.
- Plantation is a continuous process and dead plants are replaced by new plants. A chief guest invited for any event/function planted saplings in our campus.

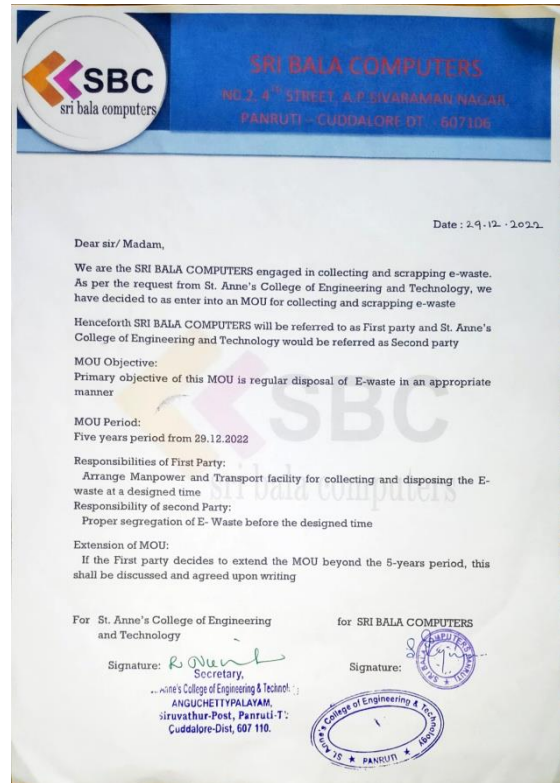
5. Evidence of Success

- The Institution has signed an MOU with Kavinila Waste Paper Mart, Panruti and Sri Bala Computers, Panruti to provide paper waste & metal waste management service and e-waste management service respectively.
- The campus has a green cover of about 65-70% (Green Audit Report, 2022). Great care is taken for the systematic maintenance and robust growth of trees and plants.
- Green Audit and Energy Audit was done and honoured with Best Green Campus Award by Nature Science Foundation, Coimbatore on 21.12.2022.
- Through periodical tree plantations, flora, avian fauna and chordates on the campus have been enriched, resulting in the transformation of the campus into an eco-friendly one.
- Concentration of CO₂ in the atmosphere is found to be low which did not exceed the critical limit of CO₂. All the locations in the campus are having pure air with good air exchange which are free from pollutants and CO₂ level is within permissible limits (CO₂ level: 425 to 503 ppm, Refer Energy Audit Report 2022)
- The campus has a maximum number of more oxygen releasing and carbon dioxide assimilating plants such as Areca Palm, Banana tree, Money plant, Neem tree, Tamarind tree, Arali, Pongam trees including some of the shrub and herbal plants.
- There is a proper waste management system for all types of waste produced in the campus. Disposal of non-degradable and degradable wastes into separate dust bins facilitated the waste management more effortlessly.
- Green power generation by using solar panel compact the use of conventional electricity ingestion.

- The concept of green initiatives and environmental friendly practices in the campus resulted in growing a clean and green campus.



MoU with Kavinila Waste Paper Mart



MoU with Sri Bala Computers



Certificate of Green Campus Audit



Certificate of Energy Audit



Best Green Campus Award



Tree Planting Programme on the 17.08.2023



Students Planting Trees on 08.08.2023



Pedestrian Pathways



Solar Panel and Street Lights

6. Problems and Resources

- Sufficient manpower and money is needed to maintain green practices.
- To strengthen the Eco Club to create awareness to implement more programmes about nature conservation and environmental protection among the students.

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