

IGNITE 2023



WEEKLY NEWSLETTER

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CHENNAI, TAMIL NADU

in recognition of his/her role as mentor for the
NPTEL Online Certification course

INSPECTION AND QUALITY CONTROL IN MANUFACTURING

JAN - APR 2023



Mentees Enrolled	Mentees Present	Score (in %)					Toppers
		<40	40-59	60-74	75-89	>=90	
7	6	2	4	0	0	0	0



PROF. ANDREW THANGARAJ
NPTEL Coordinator
IIT Madras

Mr. S. Karthikeyan, Assistant Professor, Department of Mechatronics Engineering has been awarded with a **Certificate of Appreciation** in recognition of his role as a **mentor for the NPTEL Online Certification Course** Inspection and Quality Control in Manufacturing during Jan-Apr 2023.

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INTRODUCTION TO ABRASIVE MACHINING AND FINISHING PROCESSES

JAN - APR 2023

Mentees Enrolled	Mentees Present	Score (in %)					Toppers
		<40	40-59	60-74	75-89	>=90	
4	4	1	0	2	1	0	0





PROF. ANDREW THANGARAJ
NPTEL Coordinator
IIT Madras



Mr. T. Srinivasan, Assistant Professor, Department of Mechatronics Engineering has been awarded with a **Certificate of Appreciation** in recognition of his role as a **mentor for the NPTEL Online Certification Course** Introduction to Abrasive Machining and Finishing Process during Jan-Apr 2023.

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JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

APPLICATIONS OF MEDICAL IMAGES ALLIED WITH NEURAL NETWORKS AND BILATERAL FILTER IN CLOUD PROCESS AND CLASSIFICATION OF HUMAN BRAIN IMAGES

¹Dr. S. Harihararudhan, ²Sureka N
¹Associate Professor, ²Assistant Professor
¹Gujan School of Business and Technology, Chennai, India, ²Agri College of Technology, Chennai, India

Abstract — Image processing is extremely important in medicine. Image processing is an electronic platform in which an image is divided into tiny units known as pixels and various operations such as Image Acquisition, Image Enhancement, Image Restoration, Color Image Processing, Wavelets and Multi-resolution Processing, Image Compression, Morphological Processing, Segmentation, Image Representation, and object recognition have been granted for processing the chosen image. In the realm of image processing, image filtering has evolved into a vibrant study topic. Noise reduction in magnetic resonance imaging (MRI) is vital and required for a wide range of post-processing applications. Despite the fact that there are many good de-noising algorithms, the bilateral filter has been widely used in numerous picture preprocessing methods. In this paper, we offer a systematic noise removal strategy for various brain images based on the bilateral filter using Spike neural network and cloud computing. This research spotlights the cloud computing services to medical research analysis and especially for the investigation of brain tumor correlated to therapeutic approaches.

Keywords — Bilateral Filter, Cloud Computing, Image Processing, Spike Neural Networks, Tumor. Diagnosis approach

INTRODUCTION

The advanced generation of neural networks [1] is considered to be spiking neural network and intended to overpass the breach between neuroscience and deep machine learning. A spike neural network makes possible to identify therapeutic strategies by using datasets. The selected datasets will be having the stages of normal, initial level, transitional and final level based on the analyzed tumors size. An enhanced and structured design for the bilateral filter with Spike neural network [2] is used in the automatic noise reduction method linked with Cloud computing process. This process is considered for various brain images. The "Big Data platform" has gained traction in recent years as a result of ability to collect data from all possible sources and analyse it [3] to produce data-based insights to help with time and cost savings, new invention expansion, optimised assistance, and elegant decision making, among other things. Some effective uniqueness may play a significant role in these Big Data developments. Traditional algorithms are unable to handle information which are created at rapid rates, and changes in data circulation. The distribution may occur as a result of knowledge growth. [4]. A large number of these selected applications crop the obsolete statistical data by fetching pervasive, development and by breeding the information. They may change over time resulting in modelled alterations. This is due to the fact that analytical models have grown old and have not adapted appropriately to the newly generated circulation. The Machine Learning approach has spawned a slew of new algorithms. In the past, Artificial Neural Networks [5] were used to contend with these rapidly increasing information fluxes. They are in spirit that a biologically stimulated replica simulates the brain's acquisition and advancement of sensory sequence information [6]. A key component of the well-known Spiking Neural Network (SNN) is a model for its ability to constrain informational dynamics that are observed among real biological neurons as well as to represent and incorporate multiple information dimensions into a single representation. This is one of their most biologically plausible neuron representations. The hypothesis that SNNs are used to depict pragmatic brain-like sequence information.

II. OVERVIEW OF COMPUTATIONS AND NETWORK STRUCTURE SURVEY

The development of Spike Neural Networks (SNNs) have the broad knowledge of Artificial Neural Network over the last span and has enabled a slew of important applications [7]. The neural network has progressed from a scientific interest to a reliable instrument for use in the existent world in medical



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Dr. (Mrs) N. Sureka, Assistant Professor, Head, Department of Biomedical Engineering has **published** a paper in the journal **"Journal of Emerging Technologies and Innovative Research" (JETIR)** on June 2023.

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Mr . Rajesh Kanna, Assistant Professor, Department of Computer Science and Engineering has successfully presented the paper entitled **High Performance Intelligent system for Real time Medical image using Deep learning and Augmented Reality** organized by School of Computer Science and Engineering, REVA university held on 21-22 June 2023.

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JAN - APR 2023






PROF. ANDREW THANGARAJ
NPTEL Coordinator
IIT Madras

Mentees Enrolled	Mentees Present	Score (in %)	Certified (Score in %)				
		<40	40-59	60-74	75-89	>=90	Toppers
23	19	6	5	8	0	0	0

Dr. R. Pandiyarajan, Head of the Department, Mechatronics Engineering has been awarded with a **Certificate of Appreciation** in recognition of his role as a **mentor for the NPTEL Online Certification Course** Inspection and Quality Control in Manufacturing during Jan-Apr 2023.

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FACULTY PARTICIPATION



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Karapakkam, Chennai-600 097

Dr.M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE
Maduravoyal, Chennai-600 095



FACULTY OF EDUCATION & ACADEMIC STAFF COLLEGE

CERTIFICATE OF PARTICIPATION

This is to certify that N. Arunodhaya, Assistant Professor of Agni College of Technology has participated in the Five Day International Online Faculty Development Programme on 'Outcome Based Education' from 05-06-2023 to 09-06-2023 jointly organized by Tamil Nadu Teachers Education University & Dr.M.G.R Educational Research Institute, Faculty of Education & Academic Staff College ,Chennai .

Dr.K.Geetha
Principal, Faculty of Education
Dr.M.G.R.ERI

Prof.P.C.Naga Subramani
Registrar i/c
TNTEU

Dr.C.B.Palanivelu
Registrar
Dr.M.G.R.ERI

N.Arunodhaya, Asst Professor, Department of Chemical Engineering has attended a five day international online faculty development programme on 'Outcome Based Education' organized by Tamil Nadu Teachers Education University and Dr. M.G.R. Educational Research Institute, Chennai.

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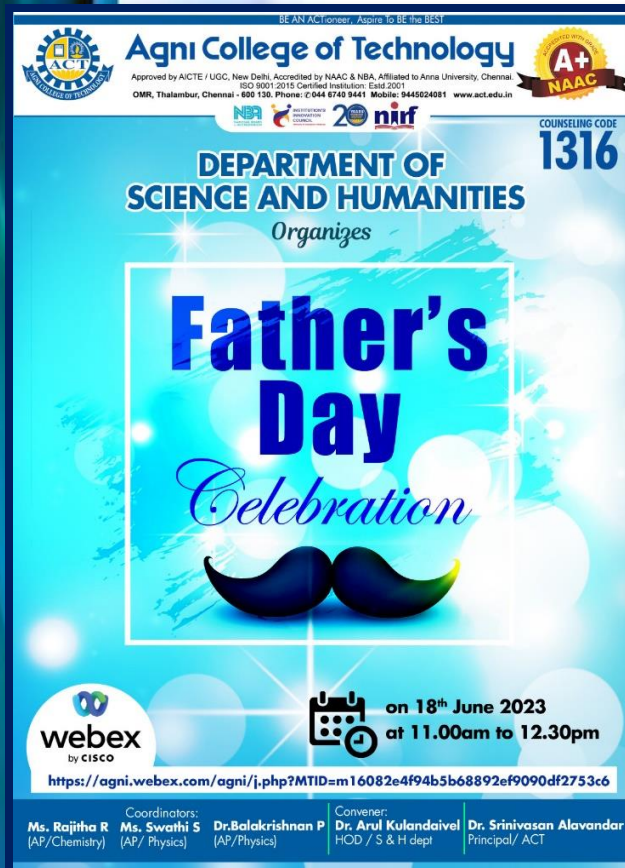


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FATHER'S DAY CELEBRATION - 2023



The Department of Science and Humanities has organized the **Father's Day Celebration** On 18th June 2023 as a online event through CISCO Webex. Dr. Arul Kulandaivel, HoD/ S&H has delivered the presidential address over the event and Ms. R. Rajitha AP Chemistry, Dr. P. Balakrishnan and Ms. S. Swathi, AP, Physics have coordinated the event. In this event, more than 300 students and their parents have participated. Parents felt delighted and appreciated the effort taken by S&H Department in organizing this event

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INTERNATIONAL YOGA DAY

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A+ NAAC

DEPARTMENT OF SCIENCE AND HUMANITIES

Organizes

International YOGA DAY 2023

Theme: One Earth, One Family, One Future

GUEST:
S R Priyavadhana BE., D.coun, D.yoga.
Chief counselor and chief advisor of yoga

on 21st June 2023
at 4.00pm to 5.00pm

Seminar Hall

Coordinators:
Dr. K. Vidhyalakshmi
Ap/Mathematics

Convener:
Dr. Arul Kulandaivel
HOD / S & H dept

Dr. Srinivasan Alavandar
Principal/ ACT



The Department of Science and Humanities has organized the **International yoga day 2023** on 21.06.2023. Dr. Arul Kulandaivel, HoD/S&H has preceded over the event & Dr. K. Vidhyalakshmi AP/Maths have coordinated. Our chief guest S. R. Priyavadana , Chief counselor and chief advisor of yoga, proud Alumni brought awareness & health benefits of yoga and made our students to practice asanas for controlling their mind, body and also to focus on their work.

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STUDENTS PARTICIPATION



12/01/2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Deepak Raj J** a student of Agni College of Technology has successfully completed his Internship program from 4th January 2023 to 12th January 2023.

During the internship, **Mr. Deepak Raj J** has closely worked as a part of the Biomedical team and spent time observing the functioning process of the duties at the department of our Hospital.

During the period, he was found punctual, dedicated and hardworking.

We wish him success in all his future endeavours.





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12/01/2023

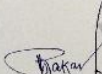
TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Swetha E** a student of Agni College of Technology has successfully completed her Internship program from 4th January 2023 to 12th January 2023.

During the internship, **Ms. Swetha E** has closely worked as a part of the Biomedical team and spent time observing the functioning process of the duties at the department of our Hospital.

During the period, she was found punctual, dedicated and hardworking.

We wish her success in all her future endeavours.





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 ☎ +91 44 25577777 ✉ info@prashanthhospitals.com @ www.prashanthhospitals.com

Deepak Raj J, and Swetha E, IV year Students, Biomedical Engineering Department, was successfully completed their **Internship program** from 4th January 2023 to 12th January 2023.

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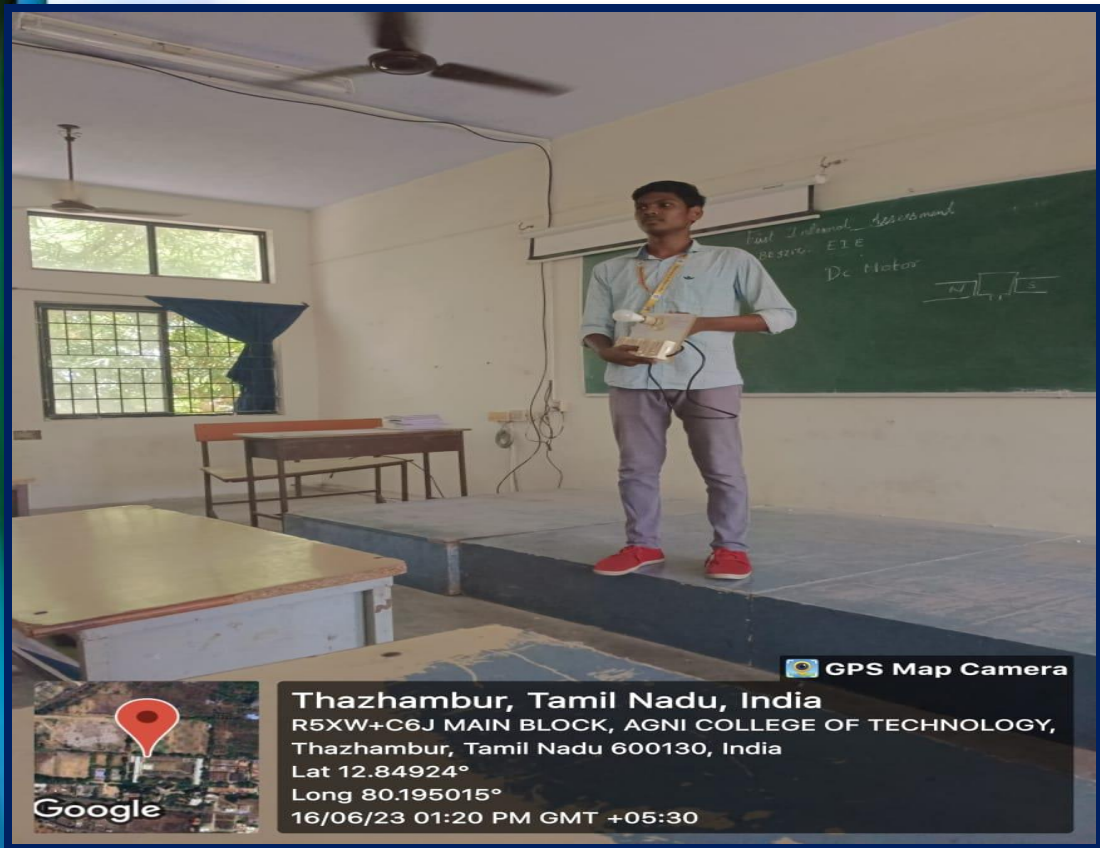
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STUDENT PARTICIPATION



S. Balu (ECE) first Year ,Department of Science and Humanities has presented a **seminar and mini project on 4way switch** regarding Internal assessment for the subject BE3254 - Electrical & Instrumentation Engineering on 16.06.2023 under the guidance subject incharge T. Feridinand, Assistant professor, Department of EEE.

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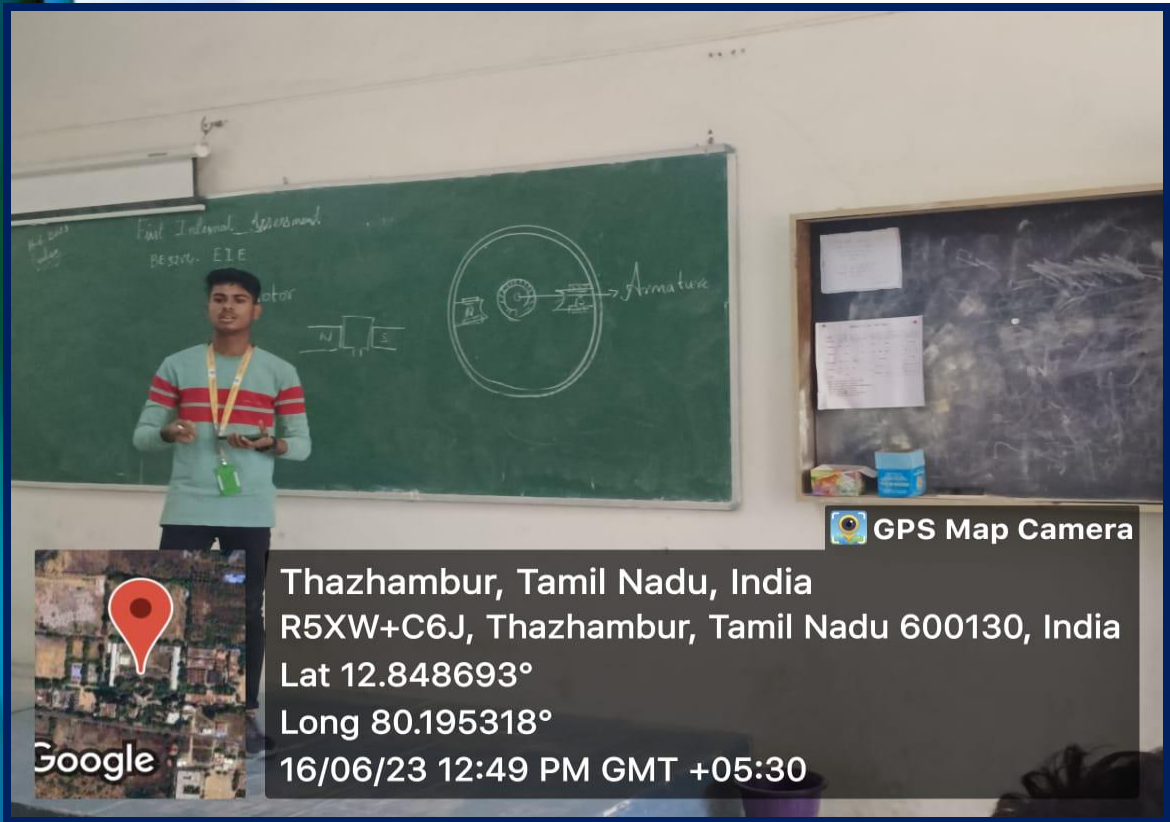


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STUDENT PARTICIPATION



Ashwin. A (ECE) first Year, Department of Science and Humanities has presented a **seminar on Dc motor** regarding Internal assessment for the subject BE3254 - Electrical & Instrumentation Engineering on 16.06.2023 under the guidance subject incharge T. Feridinand, Assistant professor ,Department of EEE

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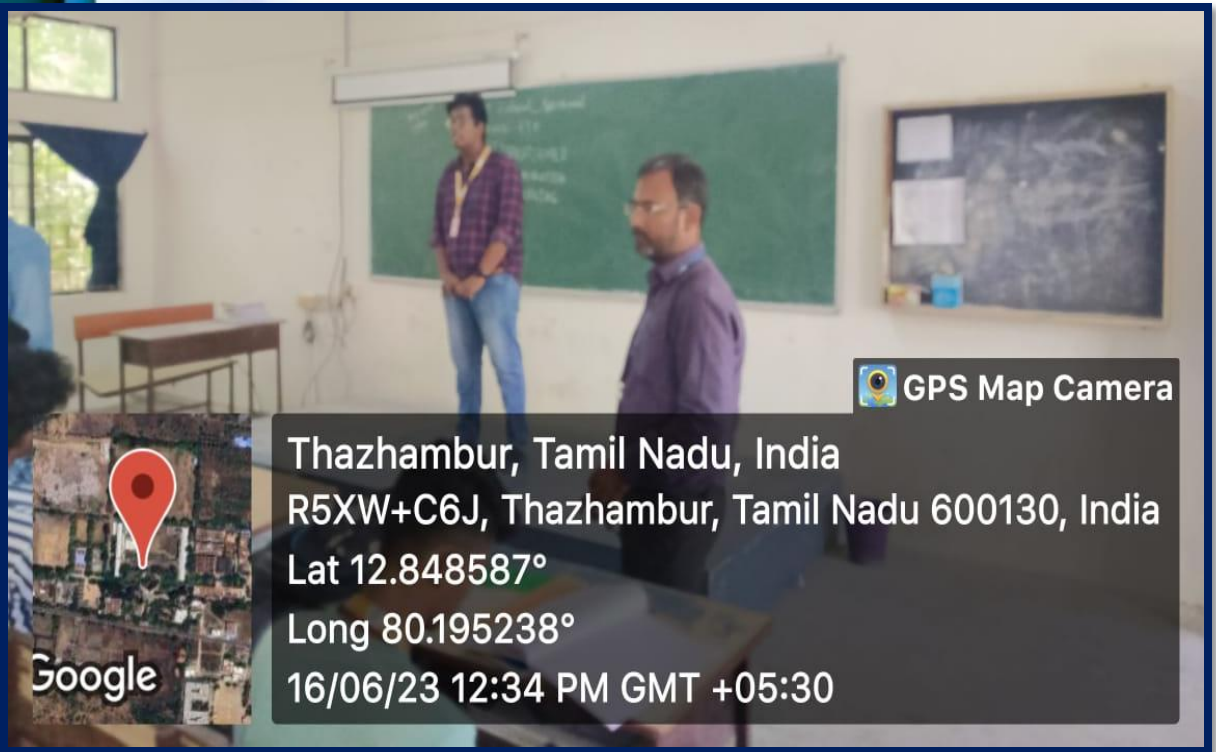


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STUDENT PARTICIPATION



S. ANAND (ECE) first Year, Department of Science and Humanities has presented a paper on **transformer working and construction** regarding Internal assessment for the subject BE3254 - Electrical & Instrumentation Engineering on 16.06.2023 under the guidance subject incharge T. Feridinand, Assistant professor ,Department of EEE

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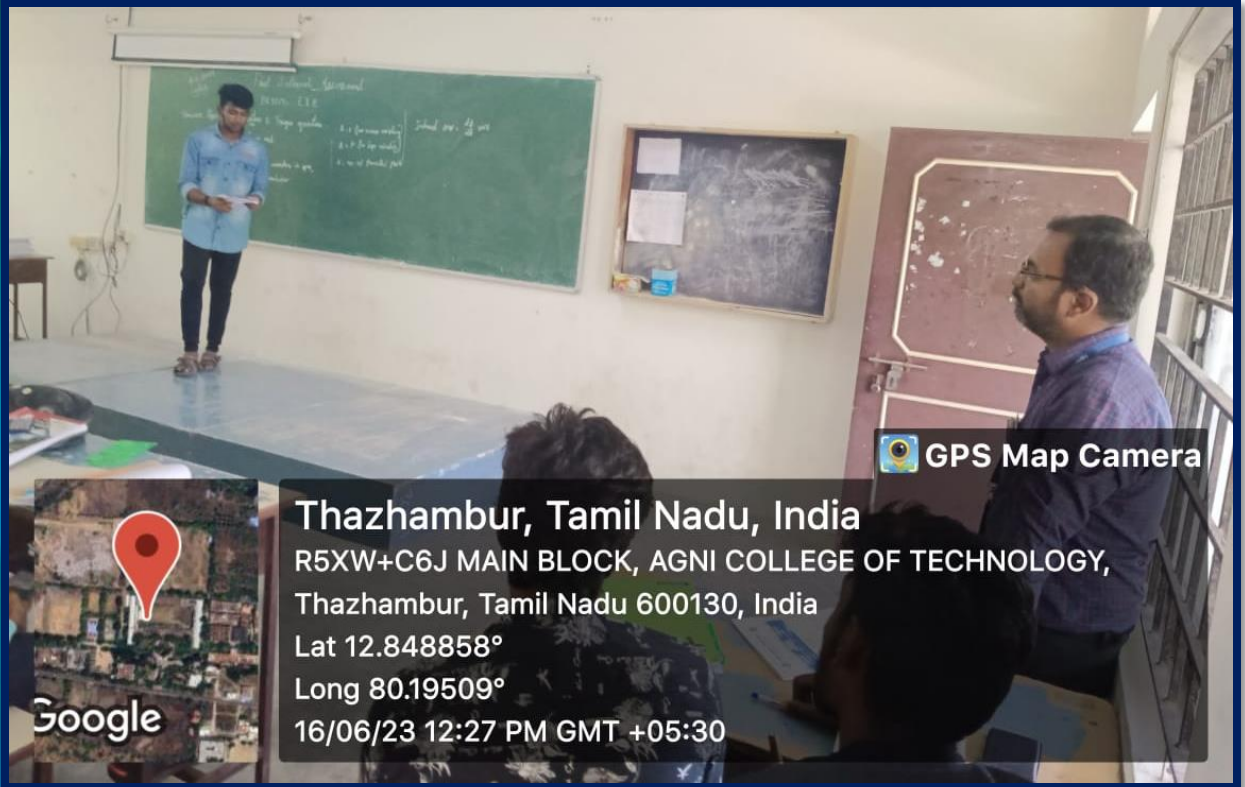


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STUDENT PARTICIPATION



S.YOGESHWARAN (ECE) first Year - Department of Science and Humanities as presented a **seminar on Dc motor** regarding Internal assessment for the subject BE3254 - Electrical & Instrumentation Engineering on 16.06.2023 under the guidance subject incharge T. Feridinand, Assistant professor ,Department of EEE

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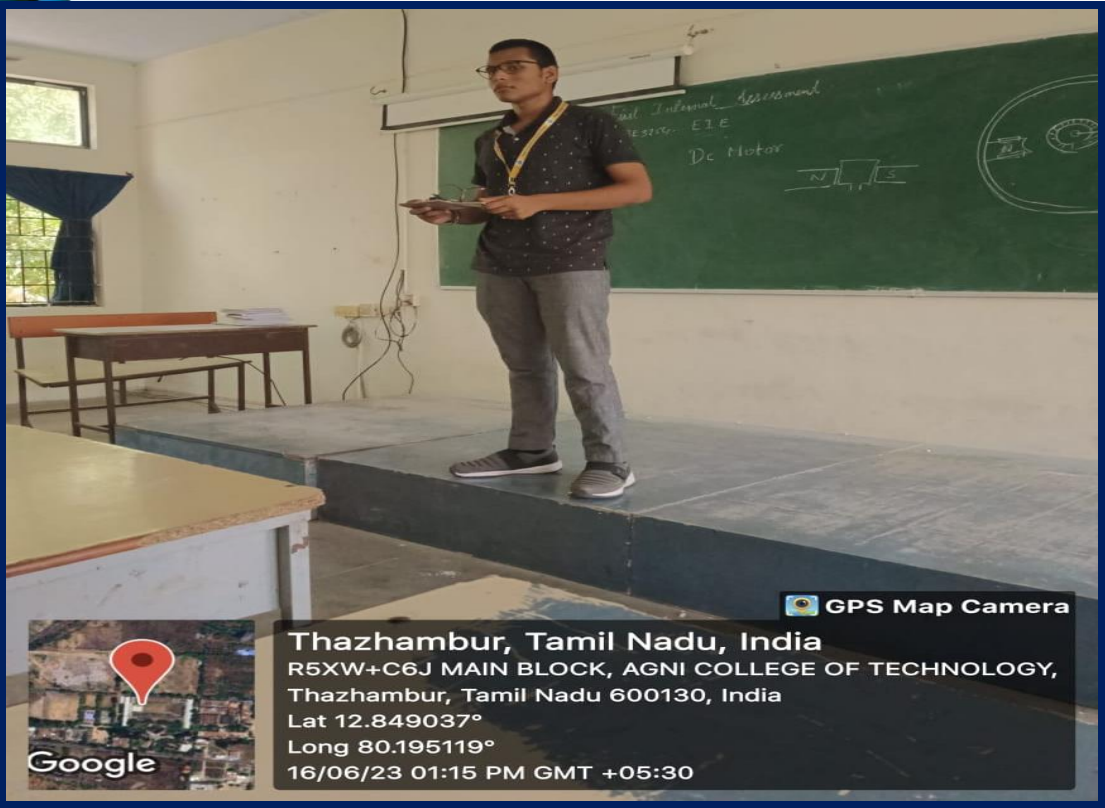
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STUDENT PARTICIPATION



D. SAI ROSHAN (ECE) first Year , Department of Science and Humanities as presented a **seminar & Mini project on transformer** regarding Internal assessment for the subject BE3254 - Electrical & Instrumentation Engineering on 16.06.2023 under the guidance subject incharge T. Feridinand, Assistant professor ,Department of EEE

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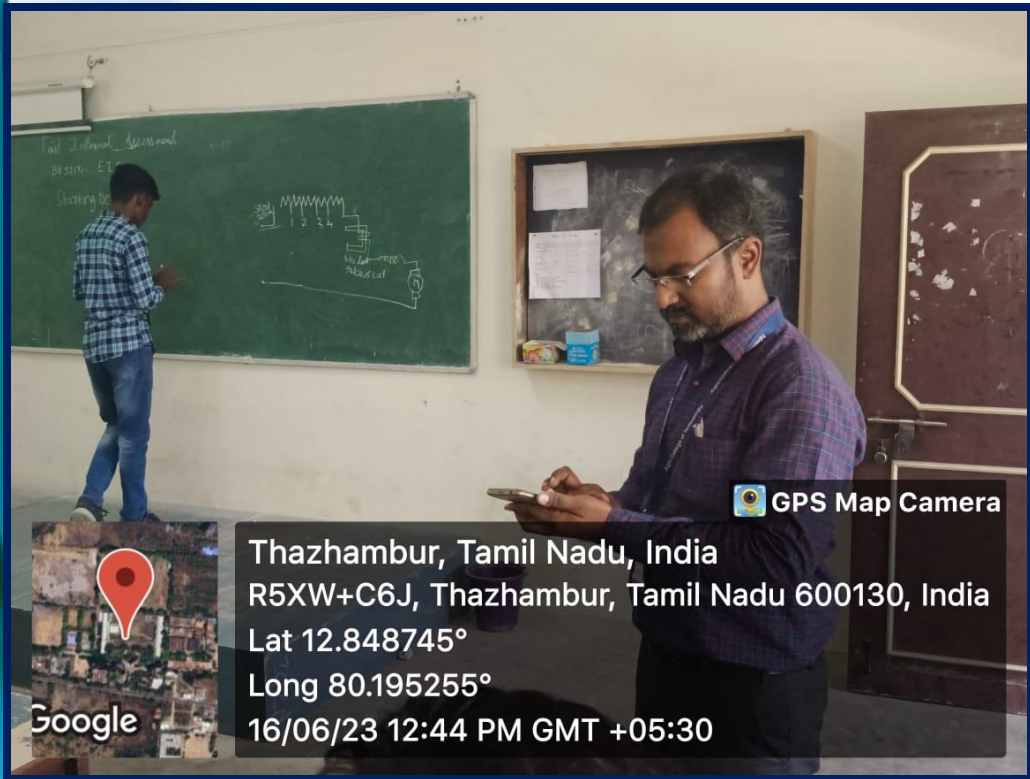


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STUDENT PARTICIPATION



DHANUSHPANDI J (ECE) first Year , Department of Science and Humanities as presented a **seminar on Starting Dc motor** regarding Internal assessment for the subject BE3254 - Electrical & Instrumentation Engineering on 16.06.2023 under the guidance subject incharge T. Feridinand, Assistant professor, Department of EEE

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VIRTUAL MEETING



Dr. Sureka , Head, Department of Biomedical Engineering organized a **pre placement motivational session** for the upcoming final years on 16th June 2023. Dr. Srinivasan Alavandar, Principal addressed and motivated the students. Mrs. C. Bilna, Assistant Professor, Department Placement Coordinator addressed the students on the process of ZIFO interview.

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DEPARTMENT MEETING



Dr. N. Sureka , Head, Department of Biomedical Engineering conducted a meeting with the faculty members addressing about **placement drive** on 16th June 2023.

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