

IGNITE 2022



A DAILY NEWSLETTER

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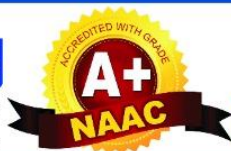
Ms. Mary Surya Kala, ASP - S&H
Ms. P. Nivedha, AP - S&H
Mokeshwar. P, Student - AI&DS

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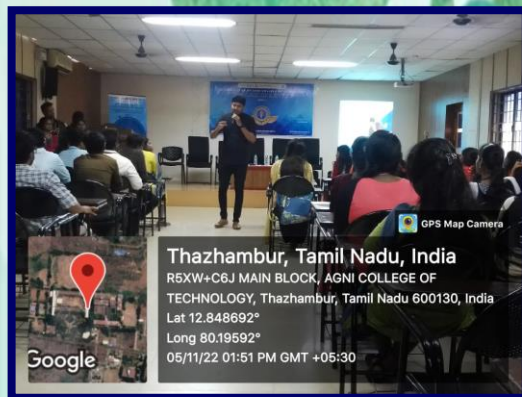


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ROTARACT CLUB



The Rotaract Club, Agni College of Technology has organized a **Rotaract Motivational Programme** on 5th November 2022 Rtr. Sheik Mohammed, Ambattur Rotaract club and Rtr. M. S. Sai, Honorary Council General, Republic of Seychelles, Chennai were the Guest Speakers.

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FACULTY PUBLICATION



Materials Today: Proceedings

journal homepage: www.elsevier.com/locate/matpr



Numerical performance analysis of a twin blade drone rotor propeller

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Numerical simulation

ABSTRACT

Twin-blade propellers are typically used in applications that require precision flight control and agility due to their high relative efficiency. The thrust produced by twin-blade propellers is low and hence is only used in lightweight drones focused on quick reflexes and speed rather than lifting capacity and stability. The present study focuses on developing a twin-blade propeller model with improved torque and coefficient of performance with reduced vibrations and drag by numerical simulation analysis. The proposed blade design was modeled with a blade angle of 30° to analyze its effects on the generation of propeller torque. The validity and accuracy of the developed numerical simulation model are influenced by the mesh and turbulence parameters of the developed model. In the present work, the turbulence factors were modeled by the shear stress transport model, and the meshing parameters were subjected to a grid convergence study. The peak coefficient of performance (0.5810) and torque (1.1007 Nm) for the proposed twin-blade propeller were observed for V = 15 m/s.

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1. Introduction

The use of drones has proliferated in various industries namely surveillance, bio-hazard monitoring, crops, and even damage control in recent years. The need for advancements in drone technology for military and civilian applications is high. Drones with different rotor designs are capable of varied functions specific to their desired applications [1]. Hassanalian et al [2] designed a

ponents and the performance metrics were benchmarked against available commercial unmanned drone systems. The tilted multi-rotor design exhibited improved rejection of airflow disturbance with enhanced payload performance below weights of 10 kg. Li et al [6] evaluated the performance of a newly developed rotor with biomimetic design features for optimized fluid flow performance. The interaction of aerodynamics between the rotor blades is essential in determining the drone's capability to produce lift

Dr. R. Pandiyarajan, Head, Department of Mechatronics Engineering has published the journal paper entitled **Numerical Performance Analysis of a Twin Blade Drone Rotor Propeller** in Materials Today : Proceedings.

FACULTY PARTICIPATION



Ms. Chithra P, Assistant Professor, Department of Electronics and Communication Engineering has attended the International online Webinar on **Upcoming Trends in Wearable Electronics and Internet of Things (IoT)** on 15th October 2022 organized by NITTTR, Chennai.

STUDENT ACHIEVEMENT



Course Completion Certificate

Prithiksha K

has successfully completed **100%** of the self-paced training course

Machine Learning Onramp


DIRECTOR, TRAINING SERVICES

20 September 2022

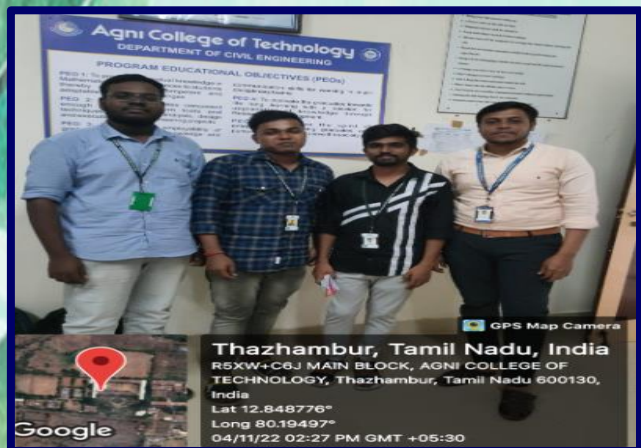
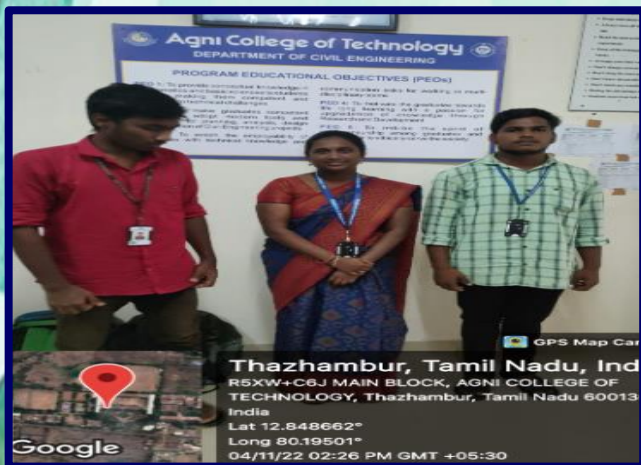
Prithiksha. K, II year student, Department of Computer Science and Engineering has completed the online course on **Machine Learning Onramp** offered by Mathworks on 20th September 2022.

STUDENT ACHIEVEMENT



Kishoth. S, II year student, Department of AI&DS has completed the online course on **Data Visualisation With Python** offered by Great Learning Academy on 20th October 2022.

NAAN - MUDHALVAN PROGRAMME



The III & IV year students, Department of Civil Engineering have completed a two week **Naan-Mudhalvan** Training Programme on various topics offered by L&T edutech.

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NAAN - MUDHALVAN PROGRAMME



The III year students of various Departments from Agni of College of Technology, Dhanalakshmi College of Engineering & Technology and Mohamed Sathak AJ College of Engineering have undergone offline training on **Powering IoT using Arduino / Raspberry Pi** at Agni College of Technology, Chennai from 31st October to 4th November 2022 under the guidance of Ms Sandhya, Trainer, Skillda in association with Naan Mudhalvan TNSDC.

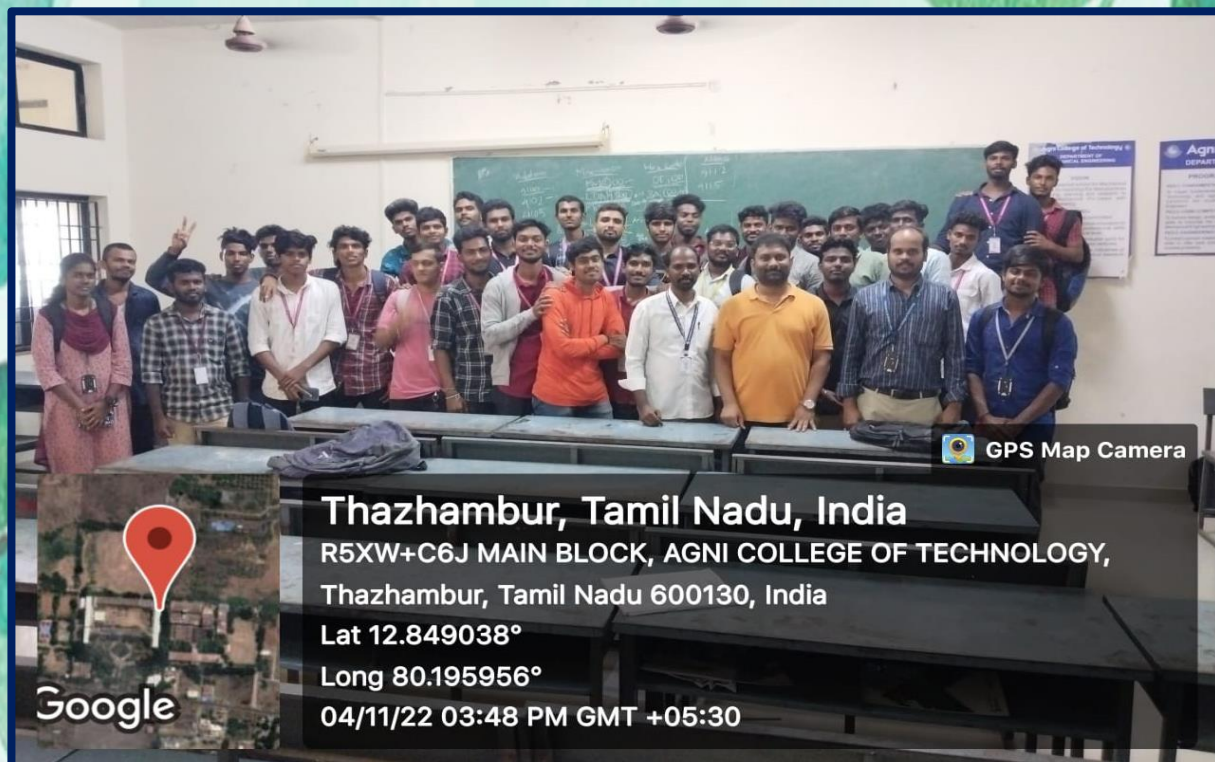
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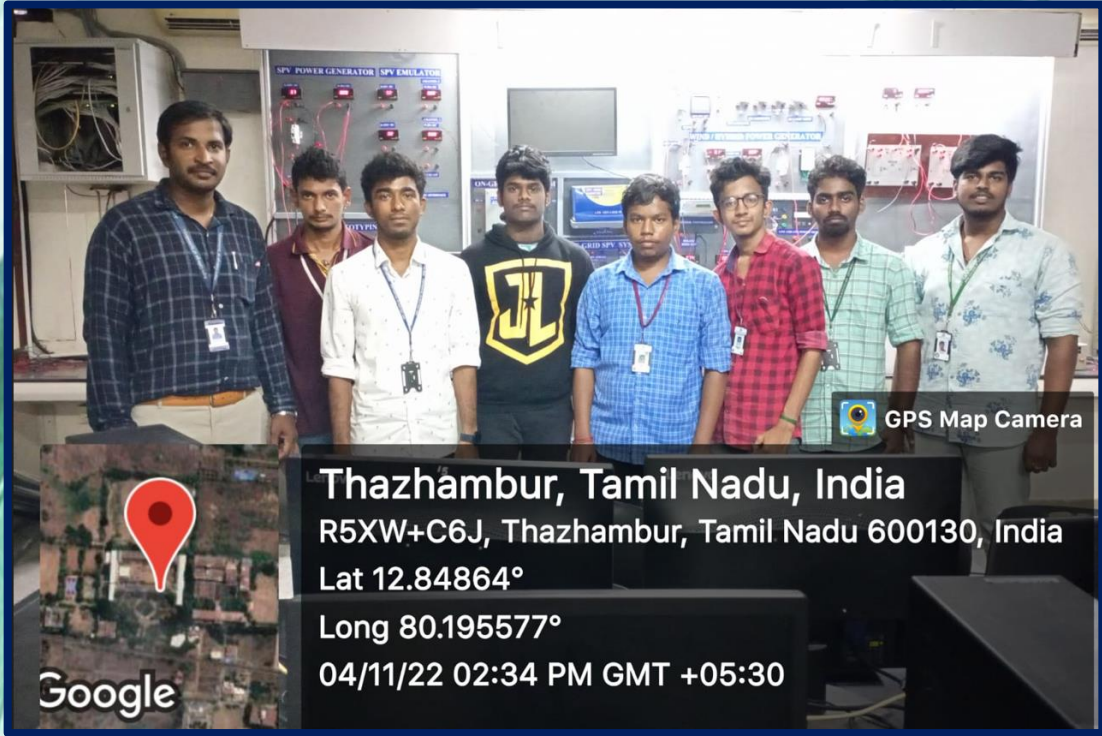
NAAN - MUDHALVAN PROGRAMME



The IV year students of various Departments from Agni of College of Technology, Dhanalakshmi College of Engineering & Technology, Mohamed Sathak AJ College of Engineering and SMK FOMRA Institute of Technology have undergone offline training on **Industry 4.0** at Agni College of Technology, Chennai from 31st October to 4th November 2022 under the guidance of Mr. Lokesh Babu, Trainer, Skill Lync in association with Naan Mudhalvan TNSDC..

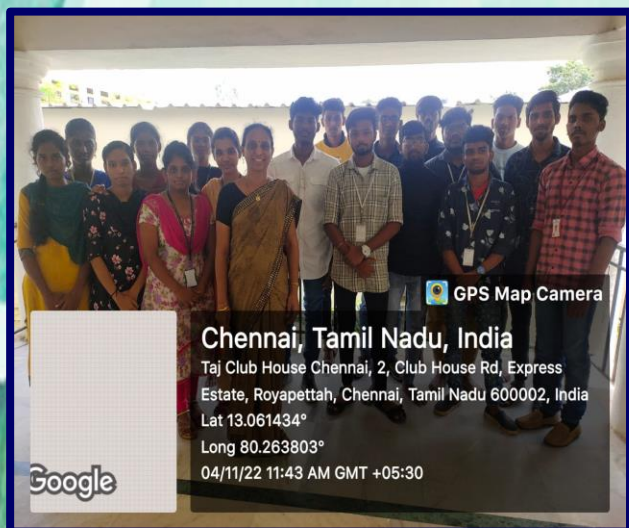
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NAAN - MUDHALVAN
PROGRAMME



The III & IV year students, Department of Electrical and Electronics Engineering undergone online training on **Smart Grid** offered by Coursera in association with Naan Mudhalvan TNSDC under the guidance of Mr. Ajay Kumar, Assistant Professor, Department of Electrical and Electronics Engineering from 17th October to 21st October 2022 and 31st October to 4th November 2022.

NAAN - MUDHALVAN PROGRAMME



The **Cyber Security Course** which is one of the training capsules initiated under the **Nan-Mudhalvan** Skill Development Scheme was concluded on 4th November 2022. **Dr N V S Sree Rathna Lakshmi**, Professor and Head, Department of Electronics and Communication Engineering mentored the batch of students with great eminence.

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NAAN - MUDHALVAN PROGRAMME



The **Machine Learning Course**, which is one of the training capsules provided under the **Nan-Mudhalvan** Skill Development Scheme was concluded on 4th November 2022. Dr Muthalagu R, Professor, Department of Electronics and Communication Engineering trained the batch of students efficiently.

NAAN - MUDHALVAN PROGRAMME



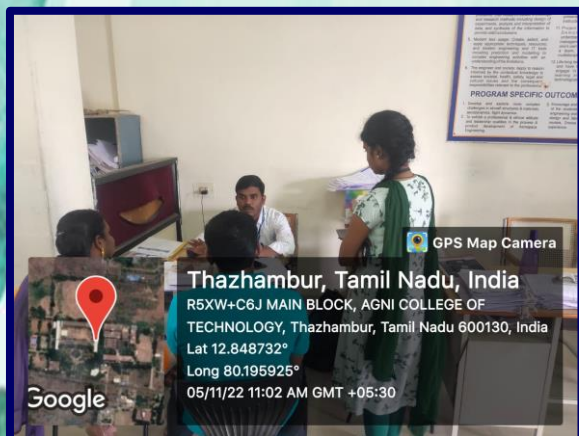
The **Machine Learning Course** which is one of the training capsules provided under the **Nan-Mudhalvan** Skill Development Scheme was concluded on 4th November 2022. Ms Chithra P, Assistant Professor, Department of Electronics and Communication Engineering trained the batch of students efficiently.

NAAN - MUDHALVAN
PROGRAMME

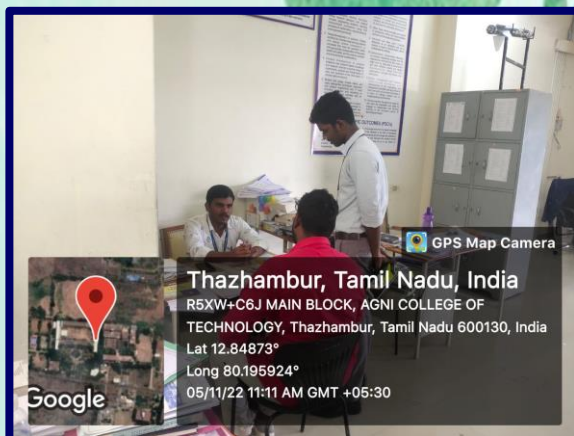


The III year students, Department of IT, CSE, ECE and BME attended **Naan Mudhalvan** Training Programme on **Cloud Essentials** under the guidance of Ms. Madhumathi. M and Ms. Suganthi. P, Assistant Professors, Department of Information Technology from 31st October to 4th November 2022.

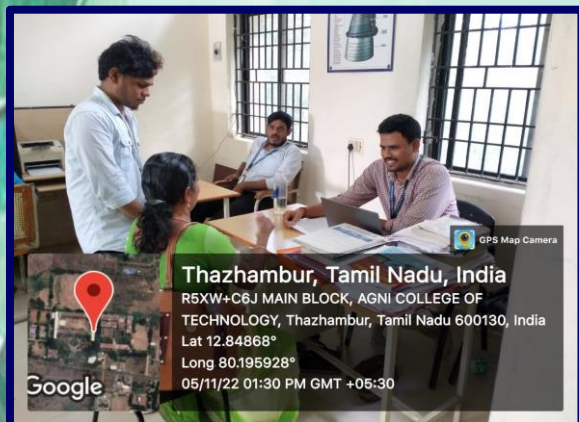
PARENTS - TEACHERS MEET



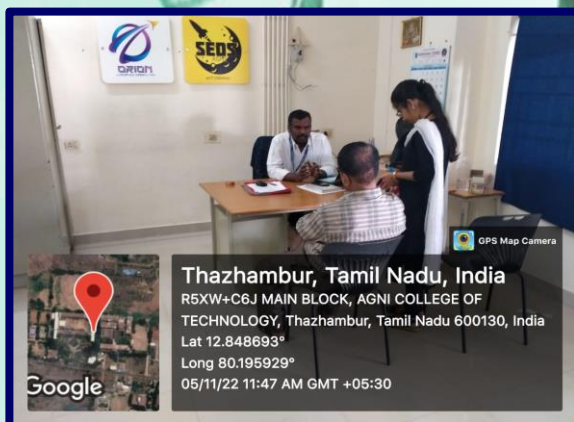
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The Department of Aerospace Engineering has conducted Parents Teachers meeting for the II and III year students. The Head of the Department, Class In-charges and the subject handling faculty members have discussed with the parents about the wards' academic progress.

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**CLASS COMMITTEE
MEETING**



The Department of Electrical and Electronics Engineering conducted the Second Class Committee meeting for the II year students on 3rd November 2022. IAT I performance, syllabus coverage and subject wise students feedback were discussed.

MENTORING THE STUDENT



Mr. K. Mahesh Kumar, Assistant Professor, Department of Mechanical and Automation Engineering has conducted mentor meeting and reviewed IAT2 performance and gave valuable inputs for the holistic development of mentee students on 4th November 2022.

STUDENT REPOSITORY

வயதில் முதிர்ந்துவிட்டால் என்ன.....
கையில் கிடைக்காத முடியில்
கொண்டையிட்டு...
நெற்றிகள் இரண்டையும்
முட்டிக்கொண்டு....
கண்ணம் கிள்ளி நான் விளையாடும்
சிறுபிள்ளை தான் என் அப்பா ❤️

Deepa. M, II year student, Department of Computer Science and Engineering wrote the wonderful poetic lines about **Father** on 5th November 2022.