

IGNITE 2024



A DAILY NEWSLETTER

Editor in Chief

Dr. Srinivasan Alavandar
Principal, ACT

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Ms S Archana AP - EEE
Mr V Kothantapani - EEE II Year

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BEST TEACHER AWARD – 2024

DAY – 2 – 03.03.2024



The **Best Teacher Award -Student's Favorite Award Ceremony** took place on March 3, 2024. **Professor T. S. Natarajan** graced the event as the **chief guest**, adding prestige to the occasion. Dr. Srinivasan Alavandar, Principal, presided over the event. The Department of Science and Humanities organized the event, which was led by Dr. Arul Kulandaivel, Head of the Department of Science and Humanities. 128 teachers from various schools (90+) were recognized for their outstanding contributions, and the positive feedback received highlighted the lasting impact they've had on students at Agni College of Technology. One of the highlights of the feedback was that teachers showed their gratitude towards the institution, and the ceremony not only honoured teachers but also strengthened the bond between teachers and students, fostering mutual respect and admiration within the academic community. The event came to an end with Dr. KalaiMurugan, Hod/EEE, delivering a vote of thanks.

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BEST TEACHER AWARD – 2024

DAY – 3 – 04.03.2024



Over the three days event from March 2nd to March 4th, 2024, we had an amazing turnout. More than 900 teachers reached, with over 350 registering for the event. We honored 250 teachers from 150 different schools. Throughout the event, teachers cherished their moments in the ceremony, expressing gratitude towards the management for the recognition and appreciation. It was a time of celebration and acknowledgment, further strengthening the bond between teachers and the academic community.

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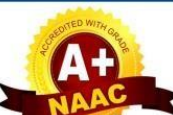
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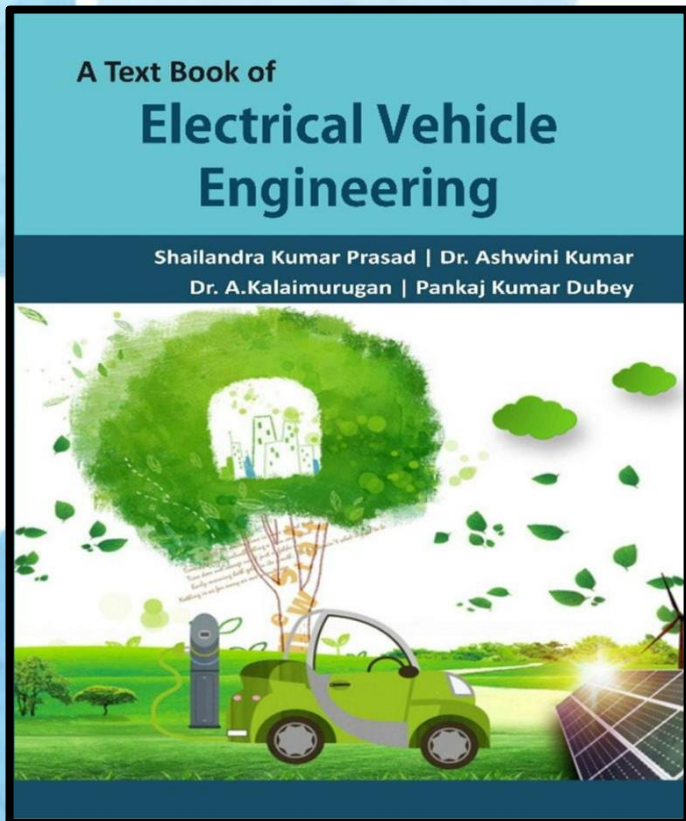
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FACULTY ACHIEVEMENT



Dr. A. Kalaimurugan., HOD, Department of Electrical and Electronics Engineering, has published a book in the emerging field titled “**Electric Vehicle Engineering**” under RK Publications with the ISBN number 978-81-970539-7-9.

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STUDENT PUBLICATION



e-ISSN: 2582-5208
 International Research Journal of Modernization in Engineering Technology and Science
 (Peer-Reviewed, Open Access, Fully Refereed International Journal)
 Volume:06/Issue:02/February-2024 Impact Factor- 7.368 www.irjmets.com

PRE-ANALYSIS OF BREAST CANCER BY THERMAL AND IR SENSORS WITH MACHINE LEARNING
Dr. J Binu Clara¹, Balaji V², P Sylvia Praisys³, Swetha E⁴, Lokesh K⁵
¹Assistant Professor, Biomedical Department, Agni College Of Technology, Chennai, Tamil Nadu, India.
^{2,3,4,5}Student, Biomedical Engineering, Agni College Of Technology, Chennai, Tamil Nadu, India.
 DOI : <https://www.doi.org/10.56726/IRJMETS49782>

ABSTRACT

The innovative smart jacket for women integrates non-contact IR sensors and Thermal Sensors with Arduino IDE WIFI modules, Node MCU, to monitor breast temperature. By employing machine learning analysis, it distinguishes normal and abnormal temperature patterns, issuing alerts to users via mobile phones for potential early detection of breast cancer. This proactive approach not only empowers women with real-time health information but also increases survival chances through timely intervention. Unlike conventional breast cancer imaging techniques such as mammography and biopsies, this system offers a novel method for identifying lumps and cancerous tissue. The array of contactless IR sensors and Thermal Sensors, embedded in wearable material, facilitates precise tumor analysis. Through training samples with machine learning algorithms and setting threshold values, the system effectively delineates tumor areas. This groundbreaking fusion of technology and healthcare promises to revolutionize breast cancer detection, potentially saving countless lives by enabling proactive intervention and treatment.

Keywords: Non-Contact IR Sensor, Thermal Sensor, Pre-Clinical Analysis, Machine Learning.

I. INTRODUCTION

Breast cancer remains one of the most prevalent and life-threatening diseases affecting women globally. Despite significant advancements in medical science, early detection remains paramount for effective treatment and improved survival rates. Traditional methods like mammography and biopsies, while effective, are often limited by accessibility, cost, and discomfort. In response to these challenges, our paper emerges at the intersection of technology and healthcare: the Smart Jacket for Breast Cancer Detection.

The Smart Jacket represents a paradigm shift in breast cancer detection, harnessing the power of non-contact infrared (IR) sensors, thermal sensors, machine learning analysis, and mobile communication to provide real-time insights into breast health. Developed with a vision to empower women with proactive health monitoring and early intervention, this innovative solution offers a transformative approach to combating breast cancer. At the heart of the Smart Jacket lies its sophisticated sensor array, strategically embedded within the wearable fabric. These sensors, including non-contact IR sensors and thermal sensors, enable continuous monitoring of breast temperature variations. Unlike conventional techniques that rely on imaging modalities like mammography or ultrasound, the Smart Jacket offers a non-invasive and hassle-free alternative, making it accessible to a broader demographic.

The integration of machine learning algorithms further elevates the Smart Jacket's capabilities. By analyzing temperature patterns over time, the system can distinguish between normal variations and potentially cancerous abnormalities. Through iterative training with diverse datasets, the machine learning model becomes increasingly adept at recognizing subtle deviations indicative of early-stage breast cancer.

A key feature of the Smart Jacket is its seamless connectivity with mobile devices via Arduino IDE WIFI modules and Node MCU. Upon detecting anomalous temperature patterns, the system promptly sends alerts to the user's smartphone, ensuring timely intervention and medical consultation. This real-time feedback loop empowers women to take proactive steps towards their health, fostering a sense of agency and control over their well-being.

Compared to traditional breast cancer detection methods, the Smart Jacket offers several distinct advantages. Firstly, its non-invasive nature eliminates the discomfort and anxiety often associated with mammograms or biopsies, encouraging more frequent and consistent monitoring. Secondly, by enabling early detection through

www.irjmets.com @International Research Journal of Modernization in Engineering, Technology and Science [27/23]







Ms. Swetha E, Ms. Sylvia Praisys P, Mr. Balaji. V, and Mr. Lokesh K, IV year students in the Department of Biomedical Engineering, have published a paper on “Pre-Analysis of Breast Cancer by Thermal and IR Sensors with Machine Learning” in the journal “International Research Journal of Modernization in Engineering Technology and Science” under the guidance of Dr. Binu Clara J on 02nd February, 2024.

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OUTREACH PROGRAM



Dr. N.V.S. Sree Rathna Lakshmi, Profesor/Head, and Ms. D. Maheswari, Senior Assistant Professor, along with Vignesh S., Manoj M., Karunya R.K., and Subratha A., II Year students, Electronics and Communication Engineering, have visited the Chinmaya Vidyalaya Senior Secondary School, Virgambakkam, to teach basic electronics to kids as an outreach program.

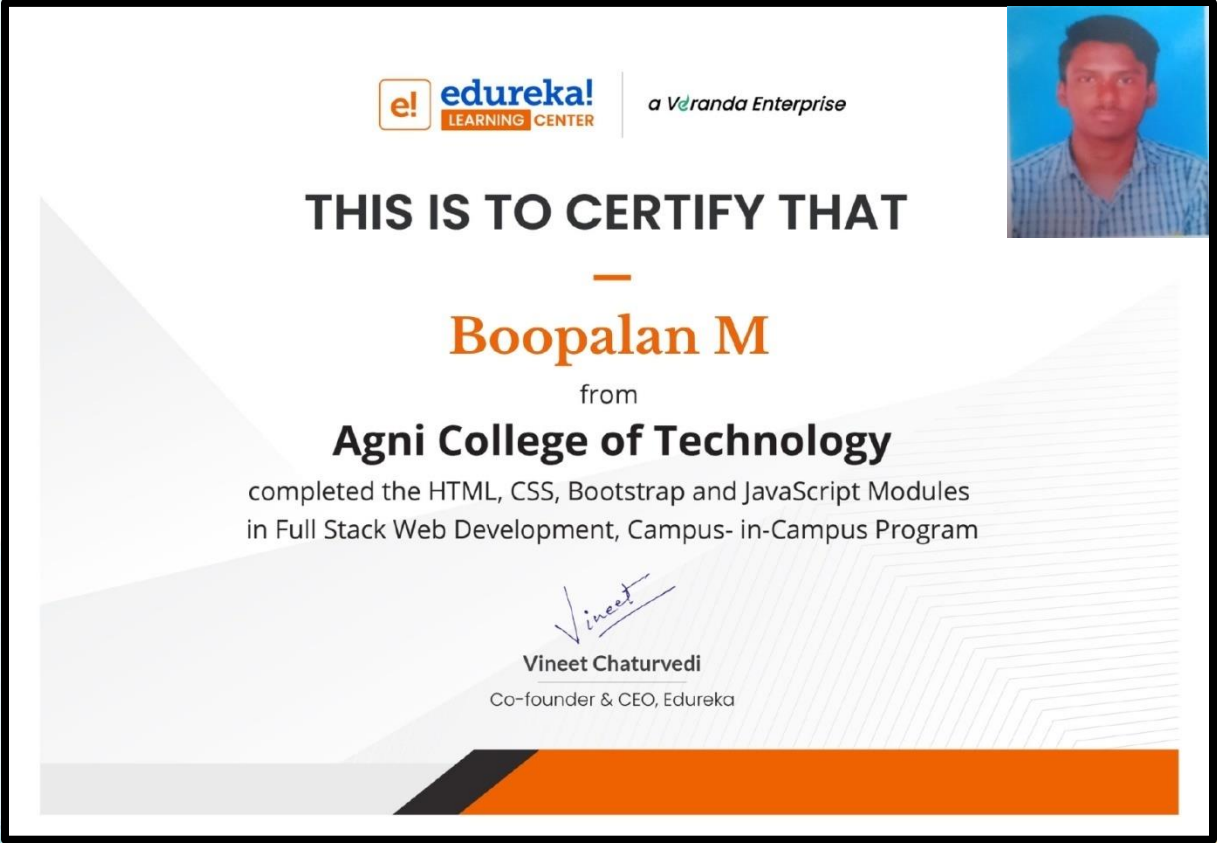
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STUDENT ACHIEVEMENT



Boopalan, Student, IV Year, Department of Electronics and Communication Engineering, has successfully completed the HTML, CSS, Bootstrap, and Javascript modules in full-stack web development from Agni College of Technology, organized by the Edureka Learning Centre.

STUDENT ACHIEVEMENT



Gokul, student, IV Year, Department of Electronics and Communication Engineering, has successfully completed the HTML, CSS, Bootstrap, and Javascript modules in full stack web development from Agni College of Technology, organized by the Edureka Learning Centre.

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STUDENT ACHIEVEMENT



a Veranda Enterprise



THIS IS TO CERTIFY THAT

Logeshwari V

Agni College of Technology

completed the HTML, CSS, Bootstrap and JavaScript Modules
in Full Stack Web Development, Campus- in-Campus Program


Vineet Chaturvedi
Co-founder & CEO, Edureka

Logeshwari, Student, IV Year, Department of Electronics and Communication Engineering, has successfully completed the HTML, CSS, Bootstrap, and Javascript modules in full stack web development from Agni College of Technology, organized by Edureka Learning Centre.

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STUDENT ACHIEVEMENT



a Veranda Enterprise



THIS IS TO CERTIFY THAT

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Om Diwakar

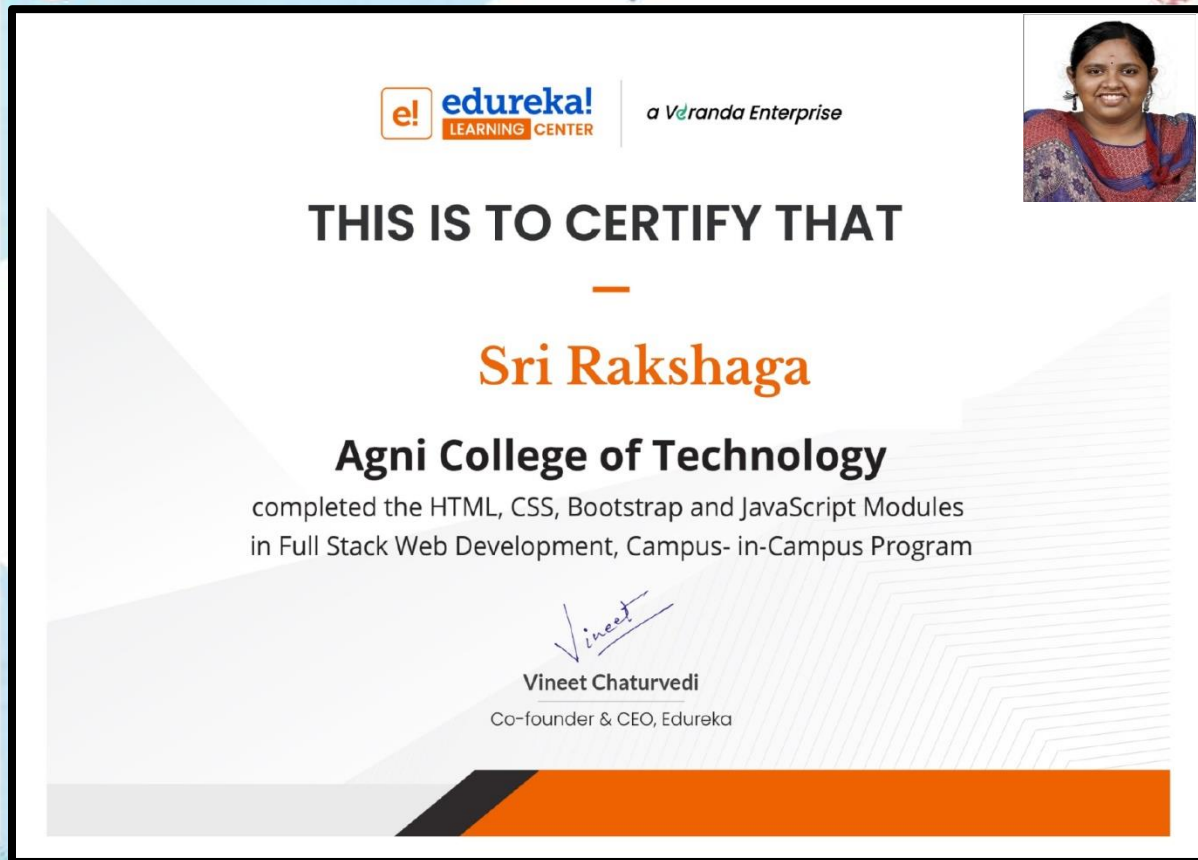
Agni College of Technology

completed the HTML, CSS, Bootstrap and JavaScript Modules
in Full Stack Web Development, Campus- in-Campus Program


Vineet Chaturvedi
Co-founder & CEO, Edureka

Om Diwakar, Student, IV Year, Department of Electronics and Communication Engineering, has successfully completed the HTML, CSS, Bootstrap, and Javascript modules in full stack web development from Agni College of Technology, organized by Edureka Learning Centre.

STUDENT ACHIEVEMENT



Sri Rakshaga, Student, IV Year, Department of Electronics and Communication Engineering, has successfully completed the HTML, CSS, Bootstrap, and Javascript modules in full stack web development from Agni College of Technology, organized by Edureka Learning Centre.

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Certificate OF APPRECIATION

This is to certify that Mr./Ms.K...SURYA.....
of I/II/III/IV year...AGNI.....COLLEGE OF TECHNOLOGY.....
has participated / won ¹/~~II~~/~~III~~ Prize in the event...PARACHUTE LANDING.....
at UDHAYAM'24 - An Intercollegiate Technical and Cultural Fest held on 01 March 2024.

Principal



CEO

Surya.K., III Year Student, Department of Aerospace Engineering, has participated in **Parachute Landing** at UDHAYAM'24, an Intercollegiate Technical and Cultural Fest held on March 1, 2024, in Kalaigar Karunanidhi Institute of Technology, Coimbatore. He has won I prize and a cash award of Rs. 2500.

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STUDENT ACHIEVEMENT



Surya.K., III Year Student, Department of Aerospace Engineering, has participated in **Water Rocketry** at **UDHAYAM'24**, an Intercollegiate Technical and Cultural Fest held on March 1, 2024, in Kalaingar Karunanidhi Institute of Technology, Coimbatore. He has won the III prize and a cash award of Rs. 1000.

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STUDENT ACHIEVEMENT



Surya.K., III Year Student, Department of Aerospace Engineering, has participated in **H2O Rocketry** at Takshashila'24, organized by Chennai Institute of Technology Kudrathur, held from 29th February to 1st March, 2024. He has won a prize and a cash award of Rs. 1500.

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STUDENT ACHIEVEMENT



Surya.K., III Year Student, Department of Aerospace Engineering, has participated in **PPT** at UDHAYAM'24, an Intercollegiate Technical and Cultural Fest held on March 1, 2024, in Kalaikar Karunanidhi Institute of Technology, Coimbatore. He has won a prize and a cash award of Rs. 2500.

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STUDENT ACHIEVEMENT

CERTIFICATE
OF ACHIEVEMENT



This certificate is presented to

Nanthini Priya.R

for successfully completing a Course about

Hands On Machine Learning

Course Start Date: 2024-03-02

Certified No.
16708181927



2024-03-02
Date

www.mindluster.com

Nanthini Priya R, III Year Student, Department of Information Technology, has completed a course on “Hands on Machine Learning” organized by Mind Luster on March 02, 2024.

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WEBINAR SERIES

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
Organizes A
WEBINAR SERIES
on
"MOCK PLACEMENT CODING SKILLS"

📅 02.03.2024 ⌚ 7.15pm-8.15pm 🌐 Google Meet

		
SAI MANOGNA P R 3 rd Year AIDS	SIVARANJINI M 3 rd Year AIDS	MOHAMED HALITH S 3 rd Year AIDS

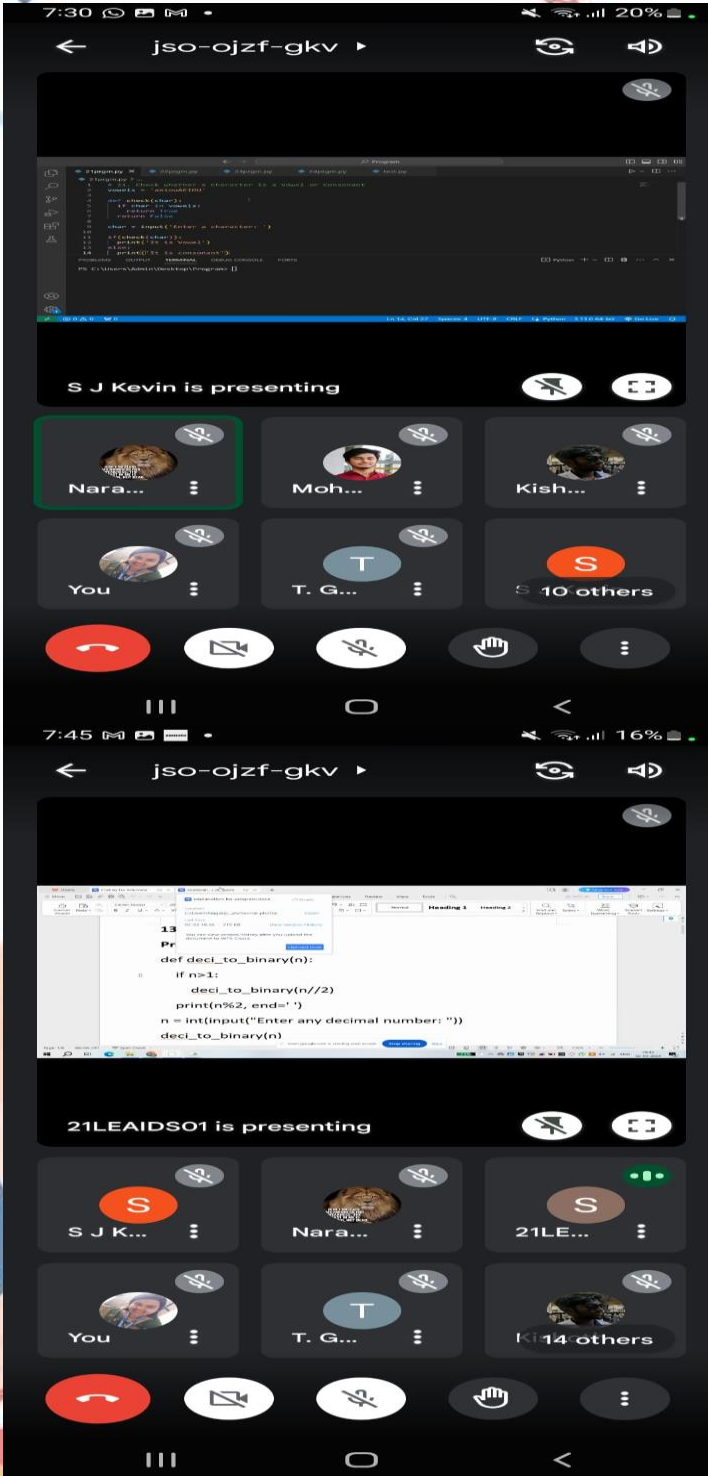
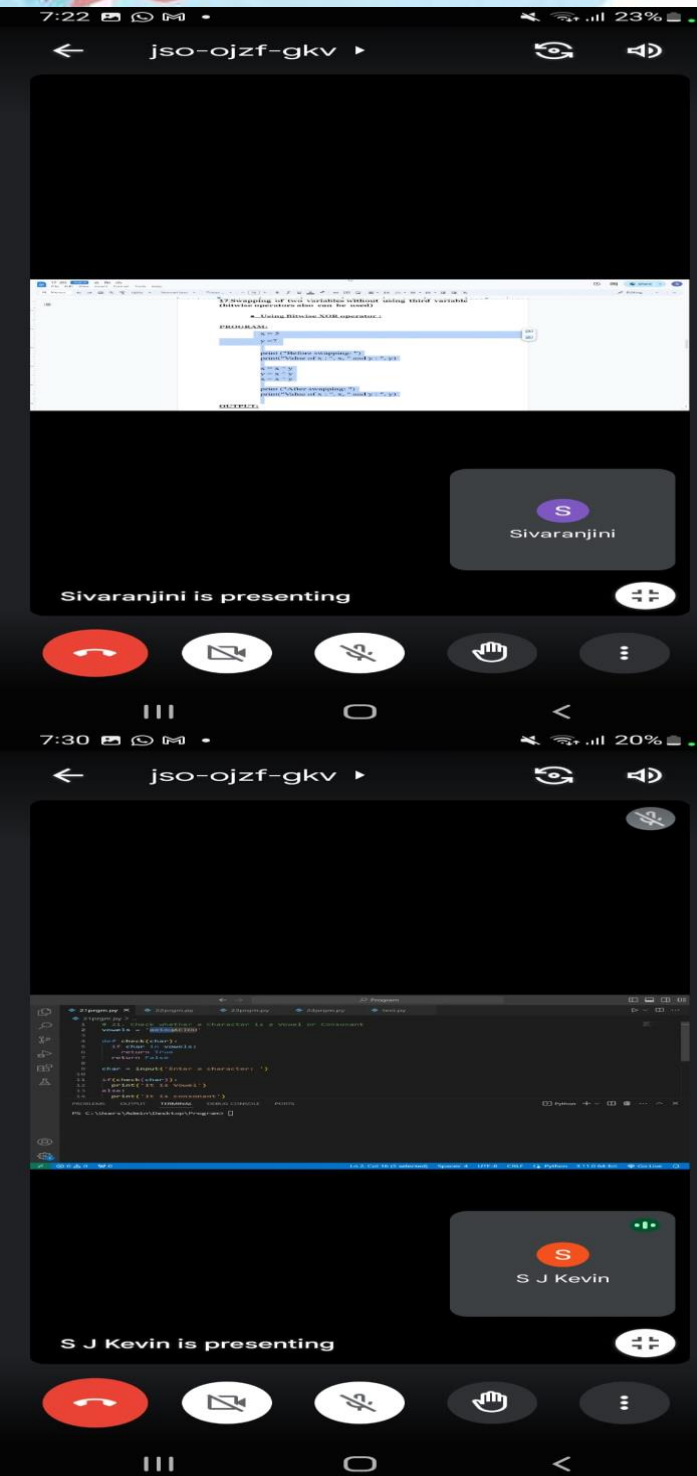
<https://meet.google.com/jso-ojzf-gkv>

Coordinator Mrs. T.Geetha Asst.Prof/Placement Coordinator AIDS Department	Co Coordinator Dr. M.V.Ishwarya HOD/AIDS	Dr. Srinivasan Alavandar Principal
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The Department of Artificial Intelligence and Data Science has arranged the **WEBINAR SERIES** on **MOC PLACEMENT CODING SKILLS** from **1.3.2024** to **5.3.2024**. The webinar on **"CODING SKILLS"** was efficaciously conducted by Speakers **Sai Manogna P R**, **Sivaranjini M**, and **Mohamed Halith S**, III year AI&DS, from **7.00 p.m. to 8.00 p.m.** through Google Meet. 12 programs were discussed through online compilers, and many positive feedbacks were given by 3rd AI&DS students regarding the same.

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STUDENT PARTICIPATION



Neha V, III Year, Department of Computer Science and Engineering, has participated in **"TECHINOKYRIOS & AMETROS-2K24,"** organized by **Anand Institute of Higher Technology**, Chennai, held on 2nd March 2024.

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STUDENT PARTICIPATION



Archana.G.V., III Year, Department of Computer Science and Engineering, has participated in the event **“BUG OFF”** and won **2nd place** at **“TECHINOKYRIOS & AMETROS-2K24,”** organized by **Anand Institute of Higher Technology, Chennai,** held on 2nd March 2024.

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STUDENT PARTICIPAION



Vignesh, II Year Student, Electronics and Communication Engineering, has participated in “Quiz on Quality Standards 2.0,” organized by the Bureau of Indian Standards.

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PLACEMENT TRAINING



Final year students, Department of Biomedical Engineering had their placement training in **“Medical Coding”** on the topic **“Paraphrasing using Medical Terminologies”** through Google Forms, which was conducted by Ms. Aishwarya Raj, Assistant Professor, on 04th February, 2024.

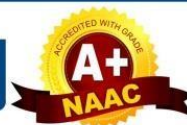
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MINI PROJECT FIRST REVIEW



GPS Map Camera

Thazhambur, Tamil Nadu, India
RSXW+CBJ MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India
Lat 12.848655°
Long 80.195281°



GPS Map Camera

Thazhambur, Tamil Nadu, India
RSXW+CBJ MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India
Lat 12.84861°
Long 80.195367°



GPS Map Camera

Thazhambur, Tamil Nadu, India
RSXW+CBJ MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India
Lat 12.848771°
Long 80.194926°



GPS Map Camera

Thazhambur, Tamil Nadu, India
RSXW+CBJ MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India
Lat 12.849091°
Long 80.194619°



GPS Map Camera

Thazhambur, Tamil Nadu, India
RSXW+CBJ MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India
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Long 80.194458°



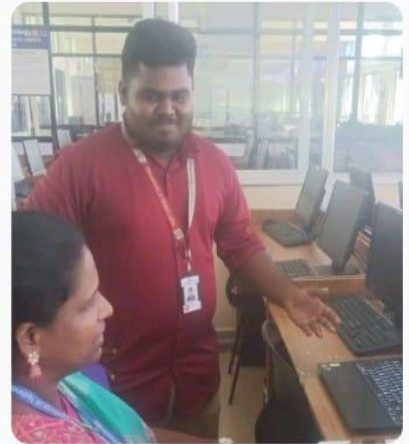
GPS Map Camera

Thazhambur, Tamil Nadu, India
RSXW+CBJ MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India
Lat 12.849035°
Long 80.194783°

Third-year Artificial Intelligence and Data Science students completed their "MINI PROJECT FIRST REVIEW" titled "STUDY MATERIAL APP FOR AIDS DEPARTMENT" on March 2, 2024. All the faculty members were presented in the review. Suggestions and improvements were given to the students. This Mini Project was conducted outside of the curriculum for the students.

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NAAN MUDHALVAN PROGRAM



GPS Map Camera

Thazhambur, Tamil Nadu, India

R5XW+C6J MAIN BLOCK, AGNI COLLEGE OF TECHNOLOGY, Thazhambur, Tamil Nadu
600130, India

Lat 12.848911°

Long 80.194835°

04/03/24 09:43 AM GMT +05:30

The third-year students of Artificial Intelligence and Data Science attending “NAAN MUDHALVAN-PROMPT ENGINEERING” on 4th March ,2024 from 9.00 a.m. to 4.00 p.m. Mentored by **M. Rahul J.**, Assistant Professor, Department of Artificial Intelligence and Data Science.

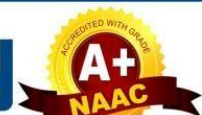
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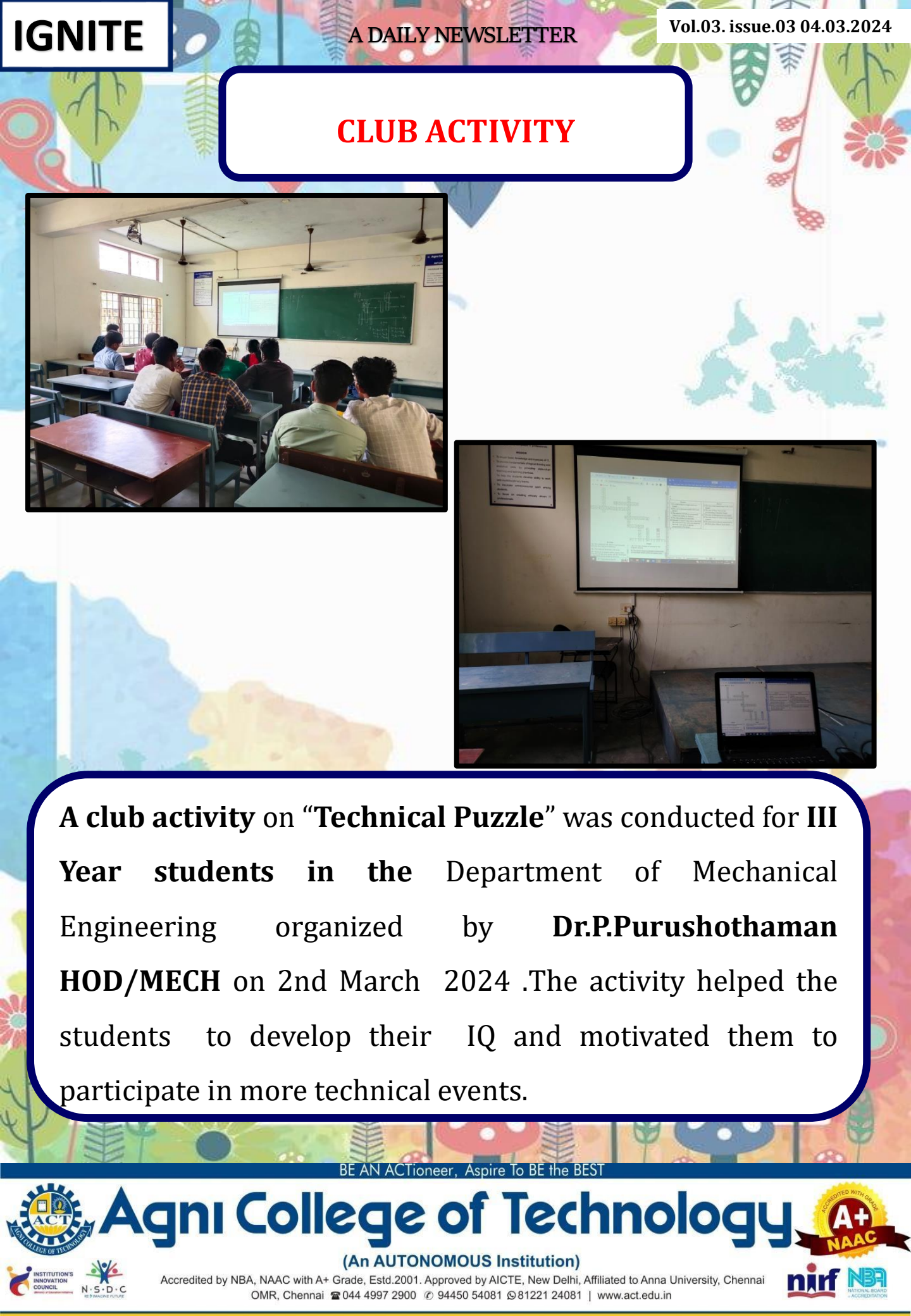


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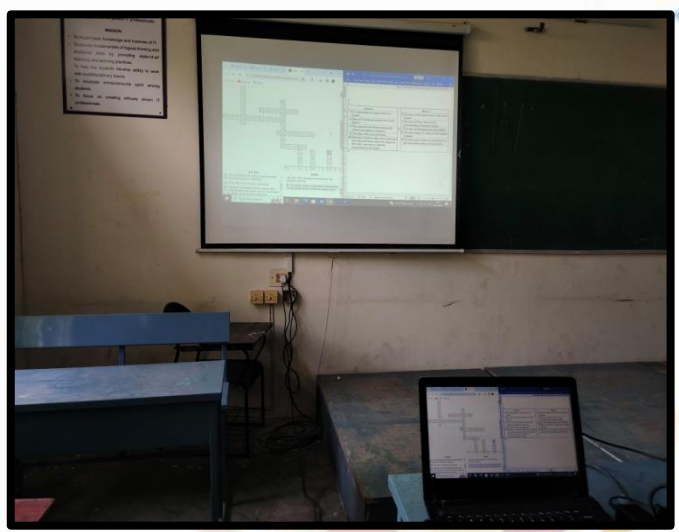
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CLUB ACTIVITY



A club activity on “Technical Puzzle” was conducted for III Year students in the Department of Mechanical Engineering organized by **Dr.P.Purushothaman HOD/MECH** on 2nd March 2024 .The activity helped the students to develop their IQ and motivated them to participate in more technical events.

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