



# VSB College of Engineering Technical Campus

Approved by AICTE, New Delhi & Affiliated to Anna University  
Coimbatore to pollachi Road NH - 209, Ealur Privu, Kinathukadavu Taluk,  
Coimbatore - 642109, Tamilnadu, India. Email: office@vsbcetc.com Website : www.vsbcetc.com

## Criteria - 2 Teaching Learning and Evaluation

### 2.2.1. The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

S.No	Description	Page No/Link
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## Workshop



### Workshop on Current Trends in IT Industries

Resource Person: Sakthi Udhayakumari, CTS- Chennai.

Date : 11- 02-2023

Duration : 1 Day



  
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## Conference

International Conference on  
Recent Advancement in Science, Humanities and Engineering (ICRASHE- 2023)  
Sri Ramakrishna Institute of Technology, Coimbatore

ICRASHE23 E-003

Enhancing Military Training With Augmented Reality  
Subash Kumar.K<sup>1</sup>, Sivaraaj K<sup>2</sup>, Dr P Venkadesh<sup>3</sup>, Dr S V Divya<sup>4</sup>.

<sup>1,2</sup>Department of AI&DS, V.S.B College of Engineering Technical Campus, Coimbatore 642109  
<sup>3</sup>Department of CSE, V.S.B College of Engineering Technical Campus, Coimbatore 642109  
divyasvvsb@gmail.com, <sup>2</sup>pvenkadesh2002@gmail.com

**Abstract:**  
The integration of augmented reality (AR) into military training programs is a dynamic paradigm shift, leveraging technological advancements to enhance the effectiveness of training simulations. This research investigates the multifaceted application of AR in diverse military training scenarios, including tactical exercises, marksmanship training, and battlefield simulations. Our methodology involves an extensive review of existing AR-based military training programs, examining the intricacies of their design, implementation, and resultant outcomes. The study focuses on evaluating the impact of augmented reality on soldiers' situational awareness, decision-making skills, and overall performance during training exercises. Key findings underscore that AR not only provides a realistic and immersive training environment but also offers dynamic adaptability to different scenarios, fostering a more versatile and adaptive military force. The research highlights the positive impact of AR in reducing training costs, as it facilitates repetitive and customizable training without the need for extensive physical resources. Moreover, the study addresses challenges related to AR integration, such as technological limitations and user acceptance. Strategies for overcoming these challenges are discussed, including advancements in AR hardware, software refinement, and targeted training programs aimed at enhancing soldiers' comfort and proficiency with AR systems. In conclusion, this research emphasizes the potential of augmented reality as a revolutionary tool in military training, providing a cost-effective, versatile, and immersive approach to preparing soldiers for complex and dynamic operational environments. As AR technology evolves, its integration into military training programs holds promise for enhancing the readiness and capabilities of modern armed forces.

**Keywords:** Augmented Reality (AR), Military Training, Effectiveness, Immersiveness.



  
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## Paper Presentation



### DHANALAKSHMI SRINIVASAN COLLEGE OF ENGINEERING

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COIMBATORE-641105. [www.dsce.ac.in](http://www.dsce.ac.in)



### CERTIFICATE

This is to certify that Ms / Mr ...VINITH...KUMAR...A.S.....  
of ....VSB.....COLLEGE.....OF.....ENGINEERING.....TECHNICAL.....CAMPUS.....  
has won I/ II/ III Prize / Participated in the event ..PAPER...PRESENTATION.....  
..... in the National Level Tech Fest, **TECHNOVATION-2K23**,  
held on 28<sup>th</sup> April 2023.



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## Seminar

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**Accredited by NAAC with A+ Grade**  
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**DEPARTMENT OF CIVIL AND AGRICULTURAL ENGINEERING ORGANISES**

**WEBINAR ON**

**Innovation in E-Waste Management**




**BE RESPONSIBLE TODAY FOR A BETTER FUTURE TOMORROW**  
 Disposal of obsolete appliances in an environmentally friendly way to protect the Earth



**RESOURCE PERSON**  
**Dr. J. Senophiya Mary**  
**Environmental Technical Expert**  
**EXECUTIVE DIRECTOR**  
**Howest Global**

**Date and Time**  
**21/06/2023**  
**&**  
**11.00 am to 12.00 pm**



  
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## Paper Publications

Education and Society (शिक्षण आणि समाज)  
JGC Care Journal)

De

ISSN: 2278-6864

Vol-47, Issue-2, No.15, April-June : 2023

### AUDIO AMPLIFIER WITH AUTOMATIC COOLING SYSTEM

**Dr.G.Banu**, Professor, Department of Electrical and Electronics Engineering, VSB College of Engineering Technical Campus, Coimbatore, India. Email Id: g.banusridhar@gmail.com  
**Dr.M.Varatharaj**, Associate Professor, Department of Electrical and Electronics Engineering, VSB College of Engineering Technical Campus, Coimbatore, India.  
**S.Arun, N.Surya, C.Padma kumar**, UG students, Department Of Electrical And Electronics Engineering, VSB College Of Engineering Technical Campus, Coimbatore, India

**ABSTRACT:** This project presents an audio amplifier with an automatic cooling system designed to ensure reliable and efficient performance. The system uses a power audio amplifier IC that is equipped with a preset temperature sensor. When the IC temperature reaches the preset value, the cooling system is activated, which consists of a fan and a water cooling system. The cooling system automatically switches on and continues until the temperature drops below the preset value. Once the temperature lowers than the preset value, the cooling system automatically turns off. This amplifier is a switching amplifier that consists of a pulse width modulator, a power stage, and an output filter. The paper provides a detailed description of the design and implementation of the audio amplifier with automatic cooling system. The system's components and the criteria for selecting them are explained, along with the testing and calibration procedures used to optimize its performance. The paper also presents the experimental results that demonstrate the efficiency and reliability of the system. The project contributes to the field of audio amplifier design by addressing the challenge of heat dissipation, which is crucial for the amplifier's performance and longevity. The proposed solution can be used in various audio applications where power amplifiers are utilized. The automatic cooling system ensures the safe and reliable operation of the audio amplifier, making it an essential element of any audio system.

**Key Words:** Fan Cooling, Water Cooling, Thermostat.

#### INTRODUCTION:

The stereo amplifier is a crucial component in high-quality audio systems, but with increasing power and compactness, heat dissipation becomes a significant issue, without proper cooling, amplifiers can overheat, resulting in damage and reduced performance. To address this issue, we have created a low-cost, fully automatic self-cooling system that uses both water and fan cooling to maintain high performance and efficiency. This application report outlines thermal considerations when designing Audio power amplifiers using surface mount devices [1]. In general, temperature increase leads to decreases device performance which represents a critical aspect in device design. The output of a Class-D amplifier is a PWM (pulsewidth-modulation) switched signal with duty cycle that is modulated with audio signal [2]. The water cooling system is automatic and adjusts cooling power based on amplifier temperature, while the fan cooling system is noise-minimizing and esthetically designed. Our self-cooling system is easy to install, fully automated, and accessible to a wide range of users, providing optimal operating temperatures and extending equipment lifespan. An audio amplifier increases the amplitude of a small signal to a useful level, all the while maintaining the smaller signal's detail. This is known as linearity. A detailed thermal analysis in terms of self-heating effects and an accurate study of the power dissipation are thus needed, as well as the optimization of the geometrical layout and of the substrate mounting technology [4]. The greater the amplifier linearity, the more the output signal is a true representation of the input. An amplifier is an electronic device that increases the voltage, current, or power of a signal. Amplifiers are used in wireless communications and broadcasting, and in audio equipment of all kinds. In the early 1960s, Jack Kilby developed a new member in audio technology, i.e. integrated circuits. Up to early 1970s, the integrated circuits became recognized by the audio industry for its cheap price, small size and more functions. So far, thick film audio integrated circuits, operational amplifier integrated circuits are widely used in audio circuits [5]. The primary function of an audio amplifier is to increase the amplitude of the audio signal while maintaining its fidelity and quality. Amplifiers can be classified based on their topology, which refers to the circuit configuration used to amplify the signal. Common amplifier topologies include Class A, Class B, Class AB, and Class D. Audio amplifiers are widely used in various applications, including home audio systems, professional audio equipment, musical instruments, and portable audio devices. The choice of amplifier type depends on the application, with different types offering different performance characteristics, such as power efficiency, distortion, and frequency response. In recent years, there has been an increasing demand for low-power and high-efficiency audio amplifiers due to the growing popularity of portable audio devices and the need for energy-efficient audio systems. GaN-based transistors and their related RF Power Amplifiers (PAs) have

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22-23



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## Internship

"INTERNET OF THINGS"

### CERTIFICATE OF INTERNSHIP COMPLETION


This internship program certificate is proudly awarded to  
**UMADEVI. K**  
DEPARTMENT OF EEE  
VSB COLLEGE OF ENGINEERING TECHNICAL CAMPUS - COIMBATORE

For her outstanding completion of a 7 Day internship program on  
"Digital Transformation using Industry 4.0 - Internet of Things (IoT)"  
at firm "Academic2IT" the role of "IoT INTERN" under the guidance of A2IT experts  
from date 23.01.2023 to 29.01.2023.

She is found to be hardworking, sincere and diligent.  
We wish her all the best for future.

 Dr. R. Partheepan CEO Academic2IT & KXC	A2ITIOT006 CERTIFICATE ID	29.01.2023 DATE	 Mr. M. Kishore Abishek Technical Director & Mentor KXC & Academic2IT
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## Motivational talk



*Thiruvengadam*  
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*Thiruvananthapuram*  
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## Online Courses



# NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to  
**VISHNURAM R**  
for successfully completing the course

## Solar Energy Engineering and Technology

with a consolidated score of **55** %

Online Assignments	23.69/25	Proctored Exam	31.58/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: 582

Jul-Oct 2022  
(12 week course)

*T.V. Bharat*  
Prof. T. V. Bharat  
Head, Centre for Educational Technology  
NPTEL Coordinator, IIT Guwahati

Indian Institute of Technology Guwahati

swamam

Roll No: NPTEL22GE28534480268

To validate the certificate:

No. of credits recommended: 3 of 4



*Vishnuram R.*  
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## Slow Learners list with necessary action Coaching class Time table

### DEPARTMENT OF AGRICULTURAL ENGINEERING

ACADEMIC YEAR: 2022 - 2023 (EVEN SEMESTER)

### CONSOLIDATED INTERNAL ASSESSMENT

### CLASSIFICATION OF STUDENTS (A/B/C CATEGORIES)

#### Second year AGRI

SL. NO.	REG. NO.	NAME OF THE STUDENT	AVG. MARK IN INTERNALS	CATEGORY
1.	723721225001	Ananya. S	89	A
2.	723721225002	Arunachalam. M	47	C
3.	723721225003	Balaji. V	64	A
4.	723721225005	Gokula Priya.K B B	80	A
5.	723721225006	Gowtham. M	55	B
6.	723721225007	Gunasekaran. M	24	C
7.	723721225008	Janani. I	64	A
8.	723721225009	Karthikeyan. K	39	C
9.	723721225010	Kavikumar. M	62	A
10.	723721225011	Kavin. K	38	C
11.	723721225012	Kaviya. T	84	A
12.	723721225013	Lakshmi Priya. B	83	A
13.	723721225014	Lohaesh. S	50	C
14.	723721225015	Lydia. V	58	B
15.	723721225016	Mathavan. M	71	A
16.	723721225017	Meithun Madeshwaran. P	48	C
17.	723721225018	Mohanraj. P	72	A



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18.	723721225020	Navinkumar. S	43	C
19.	723721225021	Prabha. G	86	A
20.	723721225022	Praveena. S	71	A
21.	723721225023	Priyadarshini. V	77	A
22.	723721225024	Ramya. G	77	A
23.	723721225025	Rathish. S T	83	A
24.	723721225026	Ribsen. N	50	B
25.	723721225027	Ruba. S	74	A
26.	723721225028	Sangeetha. M	82	A
27.	723721225029	Sanjana. S	90	A
28.	723721225030	Santhoshkumar. K	41	C
29.	723721225031	Sivasankar. R	58	B
30.	723721225032	Sudhesh. V	71	A
31.	723721225033	Suvathi. M	70	A
32.	723721225034	Tharanidharan. M	61	A
33.	723721225035	Tharuneesh. P	57	B
34.	723721225036	Thazeebafriz. P.A	38	C
35.	723721225037	Vairamuthu. K	57	B
36.	723721225038	Vigneshkumar. K	8	C
37.	723721225039	Viji. M	82	A
38.	723721225041	Visalini. S	62	A





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Category	Marks	No. of the STDT
A	Above 60	22
B	51 – 60	06
C	Below 50	10

Note : Mark statement purely based on the internal I and II



  
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## Coaching class Time table

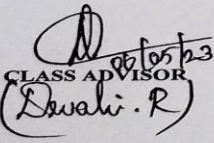

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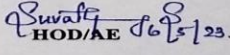
**DEPARTMENT OF AGRICULTURAL ENGINEERING**

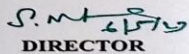
**ACADEMIC YEAR: 2022 - 2023 (EVEN SEMESTER)**

**FAST TRACK SCHEDULE**

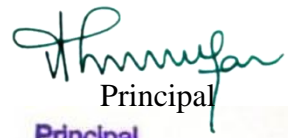
PERIOD/ DATE	01	02	03	04	05	06	07	08	09	
06/05/23	TRACTOR LAB					SOM LAB				
08/05/23	ESS COACHING					SOM LAB				
09/05/23	H&WRE COACHING					SOM LAB				
10/05/23	S&WCE COACHING					TRACTOR LAB	SOM LAB			
11/05/23	SOM COACHING	SOM LAB			TRACTOR LAB	TRACTOR LAB	TRACTOR LAB			
12/05/23	EDT COACHING					SOM LAB				
13/05/23	TRACTOR COACHING					TRACTOR LAB				
15/05/23	SOM COACHING					SOM LAB				
16/05/23	TRACTOR MODEL PRACTICAL					SOM LAB/MODEL PRACTICAL				
17/05/23	TRACTOR	ESS	EDT	SOM		H&WCE		S&WCE		
18/05/23	TRACTOR COACHING					MODEL EXAM (Respective)				
19/05/23	S&WCE COACHING									
20/05/23	SOM COACHING									
22/05/23	H&WRE COACHING									
23/05/23	ESS COACHING									
24/05/23	EDT COACHING									

  
 CLASS ADVISOR  
 (Sewali . R)

  
 HOD/AE 16/5/23.

  
 DIRECTOR



  
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