



**FEEDBACK  
ACTION TAKEN REPORT**

**ACADEMIC YEAR  
2022 – 2023**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-2023

**Department of Biotechnology**

**Date: 05.08.2023**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	6	IPR awareness programs may be arranged for applying patent	Conducted a two day state level technical workshop on " intellectual Property Rights"	A two day state level technical workshop on " intellectual Property Rights" dated 13 <sup>th</sup> and 14 <sup>th</sup> July 2023
Student	105	Prerequisite extra explanations for certain Problematic subjects and Mathematics	For easy understanding faculties are advised to put presentations slides to convey tough perceptions and workbook method is adopted for Mathematics	Work book method implemented for Mathematics subject
Alumni	18	Practical knowledge of the students must be improved	In plant training were arranged to acquire more knowledge.	Students were motivated to participate In plant training at industries on summer holidays
Employers	2	Students must be trained properly before attending interview.	Training and placement cell keep tracking of companies what the students going attend and mock interviews conducted on the basis of industry need.	TAP circular attached

Prepared By

HOD-BT

Principal



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-2023

### Department of Biotechnology

**ARUNAI ENGINEERING COLLEGE**  
Tiruvannamalai

In Collaboration with  
**PATENT INFORMATION CENTRE**  
**TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**  
Govt. of Tamil Nadu, Chennai

**TECHNOLOGY INFORMATION, FORECASTING AND ASSESMENT COUNCIL**  
Department of Science & Technology, Govt. of India

Invitation

We cordially invite you for the Inaugural function of IPR Cell & A TWO-DAY STATE LEVEL TECHNICAL WORKSHOP ON **“INTELLECTUAL PROPERTY RIGHTS”**

**Dr.R.Srinivasan**  
Member Secretary  
Tamil Nadu State Council for Science and Technology, Chennai.  
has kindly consented to be the Chief Guest

**Shri.S.Thangapandiyan**  
Deputy Controller of Patents & Designs  
Patent office, Chennai. Delivers Key-note Address  
Date : 13<sup>th</sup> & 14<sup>th</sup> July 2023  
Venue : A/C Auditorium, AEC.

**Er.E.V.Kumaran**  
Vice-Chairman

**Dr.R.Sathiyaseelan**  
Registrar

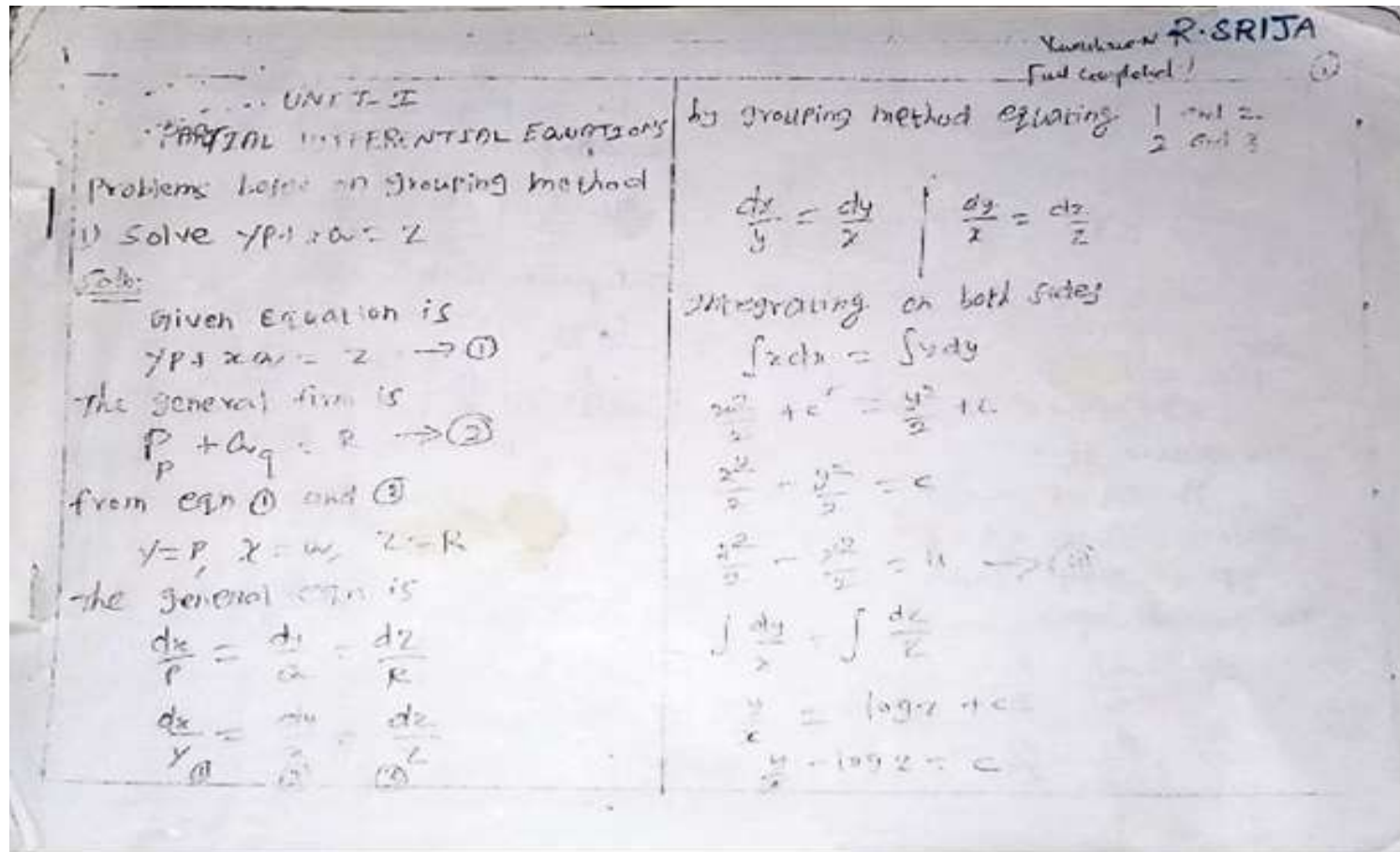
**Dr.R.Ravichandaran**  
Principal

A two day state level technical workshop on “ intellectual Property Rights” dated 13<sup>th</sup> and 14<sup>th</sup> July 2023



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-2023

**Department of Biotechnology**



Work book method implemented for Mathematics subject II year




Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-2023

Department of Biotechnology


**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI - 606 603.**  
**TRAINING AND PLACEMENT CELL**

FL/TAP/22-23

  
 24.03.2023

CIRCULAR

Training and Placement Cell of Arunai Engineering College is organizing a "Soft Skills Training Program" for B.E/B Tech & MBA Pre Final Year of all the departments between 29.03.2023 to 31.03.2023 (3 Days).

The training program is conducted by SMART Training Resources. The timing of this program is 9:20 am to 4:30 PM. This training program is compulsory for all the Pre-Final year students. Even if a student is not attending this program he/she must pay the training program fee. The training program fee is RS 1000/-. The students are asked to pay the fee to the respective department placement coordinator on or before 26.03.2023. The theory classes are suspended during the training for the Pre-Final years.


**Timing:**  
 Morning Session: 9:20 am to 1:00 pm  
 Tea Break: 11:00 am to 11:20 am  
 Lunch Break: 1:00 pm to 2:00 pm  
 Afternoon Session: 2:00 pm to 4:30 pm

HOD's are asked to make ensure all the students to attend the program and inform all the students about this program including absentees.

**Note:**  
 Department Placement Coordinator are instructed to submit the details of all the Pre-Final year students such as Sl.No, Register No, Name, Gender, Email id, Mobile no and Dept. in hard copy as well as soft copy (excel file) to placement cell on 27.03.2023.

Copy submitted to the Vice Chairman  
 Copy to:  
 Principal  
 Registrar  
 All HOD's  
 Sergeant  
 NB  
 TAP File

  
 Registrar

  
 2023

Training and placement cell keep tracking of companies what the students going attend and mock interviews conducted on the basis of industry need.



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-2023

**Department of Biotechnology**




**THE PONDICHERRY CO-OPERATIVE MILK PRODUCERS' UNION LTD., NO. P.1**  
Vazhudavoor Road, Kurumampet, Puducherry - 605 009.

Ref: Ponlait/Estt/STG/2016-17/PE

Date: 08.08.2023

**CERTIFICATE**

This is to certify that **Ms. Bakialakshmi. V.B (Reg. No. 510420214005)** studying Third Year B. Tech. (Biotechnology) in Arunai Engineering College, Tiruvannamalai has undergone Internship training at Dairy Plant of this Union from **17.07.2023 to 29.07.2023** and completed successfully.

  
**(M. JOTHIRAJU)**  
**MANAGING DIRECTOR**

To

**Ms. Bakialakshmi. V. B (Reg. No. 510420214005)**  
B. Tech. (Biotechnology) Third Year  
Velu Nagar, Mathur  
Arunai Engineering College, Tiruvannamalai

Students were participated In plant training



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

**Department of Chemical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	4	(a) Wi-Fi Facility is needed for smooth conduct of online classes more effectively. (b) Faculty members gain practical exposure through participation in FDP's	(a) Wi-Fi facility provided at Chemical Department. (b) Faculty members are motivated to participate in FDP's	Attached
Students	18	Students must be encouraged for industrial visit.	Students have been permitted for Industrial visit.	
Alumni	15	Placement training and preparation should be offered.	The Training and Placement Cell organizes extra coaching sessions and practices.	
Employers	3	Curriculum should focus on the improvement of employment opportunities.	Organized Value-Added Certificate course for the improvement of the employment opportunities.	

Prepared By

HOD/CHEMICAL

Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603

**Wi-Fi facility provided at Chemical Department.**





Faculty members are motivated to participate in FDP's



Students have been permitted for Industrial visit.



Place: Pasteur institute of India. Connor, Ooty



**Place:** New Neyveli thermal power station (NLC), Neyveli, Cuddalore

## The Training and Placement Cell organizes extra coaching sessions and practices.



FL/TAP/22-23

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603.**  
**TRAINING AND PLACEMENT CELL**

### CIRCULAR



27.03.2023

In continuation with the circular dated 24.03.2023 pertaining to **Soft Skills Training Program**, the following class rooms are allotted for the Pre Final Year students who are attending placement training classes from **29.03.2023 to 31.03.2023** (3 Days).

#### Seating Arrangement:

Sl.No	Hall No	Block	Year	Department	Students Strength
1	S3	HAS	Third Year	CSE 'A' Sec	56
2	S4	HAS	Third Year	CSE 'B' Sec	55
3	S5	HAS	Third Year	IT (47) + CIVIL (10)	57
4	S6	HAS	Third Year	ECE (47) + CIVIL (11)	58
5	S7	HAS	Third Year	EEE	52
6	S8	HAS	Third Year	MECH	56
7	S9	HAS	Third Year	Biotech (36) + CHEM (24)	60
8	S10	HAS	First Year	MBA	60

#### Note:

1. Department Placement Coordinator is instructed to take attendance both FN & AN Session.
2. Report the Attendance Details to Placement Cell and also give the mess strength to office.

*Circulate*  
*WJ*

*[Signature]*  
Registrar

Copy submitted to the Vice Chairman

Copy to:  
Principal  
Registrar  
All HOD's  
Sergeant  
TAP File



ARUNAI ENGINEERING COLLEGE, TIRUVANNAMALAI  
DEPARTMENT OF CHEMICAL ENGINEERING



Batch 2019-23

PLACEMENT CLASS - ATTENDANCE

Sl.No	Register No.	Student Name	27.04.2022		28.04.22		29.04.2022	
			FN	AN	FN	AN	FN	AN
1	510419203001	ADHITHYAN T	/	/	/	/	/	/
2	510419203002	AJAY C	/	/	/	/	/	/
3	510419203003	ANBARASAN K	-a-	-a-	-a-	-a-	-a-	-a-
4	510419203004	ARUNACHALAM S	/	/	/	/	/	/
5	510419203005	BARAKATH ALIH	/	/	/	/	-a-	-a-
6	510419203006	GUBENDIRAN S	/	/	/	/	/	/
7	510419203007	JAGADISHE	/	/	/	/	/	/
8	510419203008	JAYAKUMAR J	/	/	/	/	/	/
9	510419203009	KALAIYARASU B	/	/	/	/	/	/
10	510419203010	KOTTISWARAN L	/	/	/	/	/	/
11	510419203011	LOKESH V	/	/	/	/	/	/
12	510419203012	MATHU MIDHA S	/	/	/	/	/	/
13	510419203013	MEIYARASAN S	/	/	/	/	/	/
14	510419203014	METILDA PARIPOORANA MARY S	/	/	/	/	-a-	-a-
15	510419203015	MOHAMMED THARIK S	/	/	/	/	/	/
16	510419203016	MUJAMIL S	/	/	/	/	/	/
17	510419203017	PACHAIYAPPAN S	/	/	/	/	-a-	-a-
18	510419203018	PRAKASH R	/	/	/	/	/	/
19	510419203019	SAMPATH S	/	/	/	/	/	/
20	510419203020	SATHYA NARAYANAN S	/	/	/	/	/	/
21	510419203021	SETHU M	/	/	/	/	/	/
22	510419203022	SHERLY PRISILLA T	/	/	/	/	/	/
23	510419203023	SOWMIYA S	/	/	/	/	/	/
24	510419203024	SURIYA S	/	/	/	/	-a-	-a-
25	510419203025	VETRIVEL S	/	/	/	/	/	/
26	510419203026	VIGNESH M	-a-	-a-	/	/	/	/
27	510419203027	VISHWA K	/	/	/	/	/	/

*Joshy 29422*  
PLACEMENT COORDINATOR

*A. Mani*  
HOD-CHEMICAL ENGG.

Organized Value-Added Certificate course for the improvement of the employment opportunities.

Invitation



*The Management, Principal, Staff and Students of Aruna Engineering College cordially invites you to join Workshop on Organized by*

**Department of Chemical Engineering**

**Four Days  
Value added course on Disaster management**

**Date: 13.02.2023 @ 10.00 a.m**

**Chief Guest**

**Tmt.K.R.Divya Sri**

Asst. Commissioner  
Tamilnadu state disaster Management authority (TNSDMA)  
Chennai.

**In the Presence of**

**Er.E.V.Kumaran**

VICE CHAIRMAN

**Dr.R.Sathiyaseelan**  
REGISTRAR

**Dr.R.Ravichandran**  
PRINCIPAL

**Prof. Vimal Kumar**  
HOD

Prepared By

HOD/CHEMICAL



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

**Department of Civil Engineering**

Date:05.04.2023

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	More exposure to case studies and field visits related to curriculum.	Field visits are arranged for students and staff members to gain practical knowledge.	Field visits are arranged for the students to visit Sathanur dam on 26 <sup>th</sup> September 2022.
Students	35	Need practical sessions for learning new technologies used in recent trends.	Students are encouraged to attend workshop, conference and seminar.	Students are participated in the workshop on "Uses of Steel structures in construction" on 3 <sup>rd</sup> March 2023.
Alumni	12	Suggested to provide training related to core area.	The department signed a MoU between the institution and Ladder Survey Institute of Technology (LSIT) to provide practical training related to surveying.	MoU signed between institution and Ladder Survey Institute of Technology (LSIT) on 1 <sup>st</sup> July 2022.
Employers	4	Curriculum should focus on the improvement of employment opportunities.	Organized Value Added Certificate course for the improvement of the employment opportunities.	Value Added Course was conducted on Total station from 25/07/2022 to 29/07/2022.

P. Gayathri  
Prepared By





A. Kathiraman  
HEAD OF THE DEPARTMENT  
DEPT. OF CIVIL ENGINEERING  
ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI - 606 603

Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



**Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23**

1. Field visits are arranged for the students to visit Sathanur dam on 26.09.2022.

		
<b>DEPARTMENT OF CIVIL ENGINEERING</b>		
		Date: 08.09.2022
<b>From</b>	<b>Head of the Department,</b> Department of Civil Engineering Arunai Engineering College, Tiruvannamalai-03.	
<b>To</b>	<b>The Registrar,</b> Arunai Engineering College, Tiruvannamalai-03.	
	Through proper channel	
<b>Respected Sir,</b>	<b>Subject: Field Visit – Reg.</b>	
	We are planning to arrange one day Field visit for all the students to gain practical knowledge. The details of the visit are given below.	
Scheduled date of field visit	: 26.09.2022	
Place of Visit	: Sathanur dam	
Time of start from AEC, Tiruvannamalai	: 9.30 AM	
Reaching time at AEC, Tiruvannamalai	: 4.30 PM	
Total No. of Students	: 66	
Staff Accompanying	: 1. Mr M Balamurugan 2. Ms P Gayathri 3. Mrs M Sangavi	
	The visit may kindly be approved and on-duty for the above staff may also be sanctioned. This is for your kind information and further action.	
		<b>R. Kathiraman</b> HOD/CIVIL





2. Students are participated in the workshop on “Uses of Steel structures in construction” on 3<sup>rd</sup> March 2023.



3. MoU signed between institution and Ladder Survey Institute of Technology (LSIT) on 1<sup>st</sup> July 2022.



தமிழ்நாடு தமிழ்நாடு TAMIL NADU  
01/07/2022 ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI

16AC 170886  
நா.ருத்திரன்  
மு.தா.வி., உரிமம் எண்: 9/2008  
2நீர்.இ.சா.ப. அலுவலக வளாகம்,  
திருவண்ணாமலை.

### MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) entered on the 01<sup>st</sup> day of July 2022

By and Between

**Arunai Engineering College**, having its CAMPUS at (Velunagar, Tiruvannamalai - 606603) and represented by its **Principal** (which expression shall mean and include its successors in office and assigns).

And

**Ladder Survey Institute Of Technology** having its office at No 125, Vasantha Street, Golden George Nagar, Nerkundram, Chennai – 600107 (hereinafter referred as "LSIT" for the sake of brevity) and represented by its **Chief Executive Officer** (which expression shall mean and include its successors in office and assigns).

### **Objectives of the Collaboration:**

- To provide employable skills to the students of Arunai Engineering College.
- Make the student aware of the latest tools and techniques in order to keep them industry ready at the end of their course.
- Offer the course at an affordable price to the students of Arunai Engineering College.
- Increase the employability of the student and maximize on the placement opportunities available.
- To build and improve the confidence level of the student to face the challenges of real time.

This Memorandum of Understanding is to conduct a Unique, Step – By – Step, Systematic, and Employable Skills Development Program for the students of *Arunai Engineering College* towards achieving the objective of maximizing the employable opportunities for students of *Arunai Engineering College*.

This Memorandum of Understanding states the terms and conditions under which the Trainings shall be conducted by LSIT at the premises of *Arunai Engineering College* and lists herein the respective responsibilities of both parties.

### **PREAMBLE**

To get a student employable and placed in an organization; over and above the subject knowledge he / she is expected to have the following:

- Strong Fundamental Engineering Knowledge
- Engineering related Multiple Technical Skills - Develop skills that add value

While Subject Knowledge would be provided by *Arunai Engineering College*, LSIT will equip the students with required industry specific land surveying, levels, levels transfer, benchmark setting, setting out/stake out/ marking skills.

On one hand, thousands of unemployed Engineering graduates are not finding suitable jobs, while on the other hand, Industry requires millions of young minds at all levels but are unable to find the right candidate. This is because of the skill gap that exists between the student and industry requirements. This skill gap is sought to be minimized for the students of *Arunai Engineering College* by facilitating them to acquire the appropriate and relevant skills at *Arunai Engineering College* itself through this program.

### **LSIT Shall Provide:**

- Comprehensive LSIT reference and notes to all students for the course.
- Qualified trainers for the course.
- Periodical assessment of the progress of students for their further improvements.

- 'Certificate of Completion' to every student who successfully completes the training program.
- "Certificate of Association" to the college.
- A "link to *Arunai Engineering College* website" from LSIT website [www.landsurveytraining.com](http://www.landsurveytraining.com)

#### **Arunai Engineering College Shall Provide:**

The following facilities will be provided only within Arunai Engineering College, Tiruvannamalai.

- The required number of computer systems in the lab and other required infrastructure for the practice
- The Class rooms with LCD projector for the theory classes.
- The Schedule with the classes for this training.
- The supports to ensure all students who have signed up for the class to attend the training programs scheduled for them.
- The relevant CAD software should be available in the computer systems.
- Disciplinary support for the smooth conduct and timely completion of the entire course.
- Minimum 25 Hours of Training time.
- Provide all support to LSIT in the marketing initiatives undertaken by LSIT to enroll students in the courses offered by LSIT Centre. Arunai Engineering College will provide all infrastructural facilities for the marketing initiatives undertaken by LSIT.
- Boarding and Lodging facilities for the trainers.

#### **PARTICIPANTS**

The participants would be the Students of *Arunai Engineering College* from Civil Engineering Department and Other Departments from 5<sup>th</sup> & 7<sup>th</sup> Semesters mentioned in ANNEXURE .

#### **COURSE CONTENTS**

LSIT in consultation with *Arunai Engineering College* shall finalize the courses and fees for the skills development program. The same is provided in the Annexure. These will be reviewed every year and suitable changes, if required, will be incorporated. As the requirement of each course is different, courses and fees have been worked out separately.

#### **TIME SCHEDULE**

The programs will be conducted during the days and timings provided by *Arunai Engineering College*. The students will be divided into batches, depending on the total strength. The programs will be conducted according to the Time Table drawn up with the mutual consent of LSIT and *Arunai Engineering College*. Utmost care will be taken to frame the time table in

such a way that it does not coincide with college exams enabling the student to complete his training ahead of the exams. LSIT will not conduct any classes during the time of exams. In case of any change in training schedule the same will be intimated to the Program Coordinator of *Arunai Engineering College*. Similarly, if *Arunai Engineering College* wants a change in training schedule the same may be communicated to the Programme Coordinator of LSIT. In either of the case, a revised training schedule has to be made and the Programme Coordinators of both LSIT & *Arunai Engineering College* and the respective students must be informed about the change in training schedule by means of suitable media (emails/posters/circulars/notice board displays).

### **Programme Coordinator**

The Principal of *Arunai Engineering College* shall appoint a "Programme Coordinator" for the duration of the program, who shall liaise with LSIT and make the training process learner-friendly and effective. LSIT shall work in close relationship with the Programme Coordinators, who in-turn shall keep a close touch with the students. In the event of any difference of opinion between LSIT and the Programme Coordinator, the matter should be referred to the Chairman of *Arunai Engineering College*, whose decision thereon shall be final and binding on both the parties.

### **COMMENCEMENT OF COURSE**

*Arunai Engineering College* will ensure that the courses will start within 90 (Ninety) days from the date of signing of MOU. However exception can be made due to reasons mentioned in the Course Completion Clause or due to delay on *Arunai Engineering College's* side.

### **COURSE FEES & PAYMENT PATTERN**

The course fee per student for each course offered is decided and mutually agreed upon by both the parties. The course, course fee, course deliverables, number of students & batch timings are available in the Annexure. The student shall pay the course fee directly to *Arunai Engineering College* before the start of the course. The college shall provide 40% of the total cost before the commencement of the course. The remaining 60% shall be paid at the end.

### **COURSE COMPLETION:**

While LSIT will endeavor to complete the course as per the schedule mutually agreed upon and mentioned in Annexure, LSIT will not be responsible and accountable for delay in completing the course due to reasons which are beyond the control of LSIT. Reasons beyond the control of LSIT include – acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or interruption or failure of electricity or telephone service, failure and

non – availability of Computer Systems, non – availability of Classrooms), law and order problems, students unrest/strike/boycott, unscheduled changes in college curriculum and other unforeseen circumstances.

- Course will be completed as mentioned in ANNEXURE .

While it is mandatory for the student to have undergone the complete course as mentioned in ANNEXURE to be eligible for a Course Completion Certificate. In case he/she opts out due to any reason an appropriate certificate will be issued for only for that course completed by the student. Students will not be eligible for Certification for the courses that they have not completed.

LSIT will not issue "Certificate of Completion" to the successful student, if full payment is not made. LSIT will refund the fees once paid if the student opts out or discontinues the course at any stage due to any reason.

### **VALIDITY**

Both *Arunai Engineering College* and LSIT shall have the rights to terminate this MOU by providing **THREE** months notice in writing on their respective letter head only after a minimum period of 3 year. Termination of this MoU for whatever reason shall be without prejudice to the rights of either party and of the students and the ongoing academic programmes.

This Memorandum of Understanding will be valid for a period of **3** years.

This Memorandum of Understanding shall come into effect from 01<sup>st</sup> July 2022.


For: *Arunai Engineering College*

  
\_\_\_\_\_

Name : **Dr R Ravichandaran**  
Designation : **Principal**  
Date : **01.07.2022**



For: *Ladder Survey Institute of Technology*

  
\_\_\_\_\_

Name : **Mr M R Dinesh**  
Designation : **Chief Executive Officer**  
Date : **01.07.2022**



4. Value Added Course was conducted on Total station from 25/07/2022 to 29/07/2022.



Date: 22.07.2022

From

Head of the Department,  
Department of Civil Engineering,  
Arunai Engineering College,  
Tiruvannamalai.

To

The Registrar,  
Arunai Engineering College,  
Tiruvannamalai.

**Through Proper channel**

Respected sir,

Sub: Training Program on **Value Added Certificate Course on Land Survey** using  
Total Station- Reg.

I hereby inform you that, we are planning to conduct a Value Added certificate Course on Land Survey using Total Station from **25.07.2022 to 29.07.2022**. We have invited experts from **Ladder Survey Institute of Technology (LSIT)** to give training. In this regard we request you to permit **Ladder Survey Institute of Technology (LSIT), CEO** to accommodate in an Open Air Auditorium Guest Room.

Thanking you,

Yours faithfully,

*R. Kathiravan*  
(R.KATHIRAVAN)

*[Handwritten signature]*

INVITATION



Learners Intellectual Sanctuary  
**ARUNAI**  
ENGINEERING COLLEGE  
TIRUPUR, TAMIL NADU



DEPARTMENT OF CIVIL ENGINEERING

Coordially Invites you to the  
Inauguration of

**VALUE ADDED COURSE ON TOTAL STATION**

on 25th July 2022, 10:00am @ AC Auditorium

BY **LADDER SURVEY INSTITUTE OF TECHNOLOGY**

*In the august presence of:*

**Er.E.V.Kumaran**

VICE-CHAIRMAN

*Felicitation by:*

**Dr.R.Sathiyaseelan**

REGISTRAR

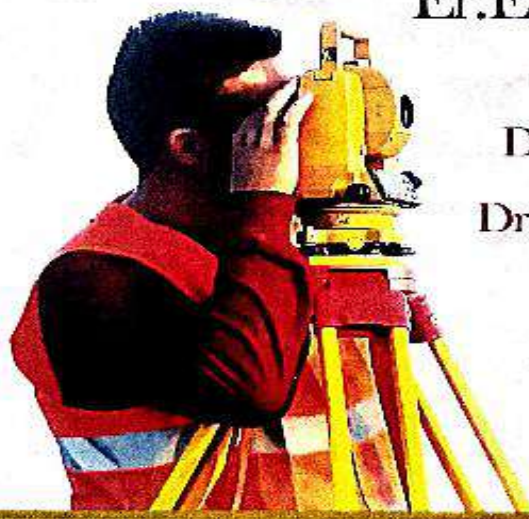
**Dr.R.Ravichandaran**

PRINCIPAL

*Welcome Address by:*

**Mr.R.Kathiravan**



HOD/CIVIL



[www.arunai.org](http://www.arunai.org)







	<b>ARUNAI ENGINEERING COLLEGE</b> <b>QUALITY PROCESS DESCRIPTION</b> <b>ACTION TAKEN ON FEEDBACK ANALYSIS</b> <b>Standard: ISO 9001:2015</b>		<b>Format : F-FDB-02</b> <b>Version : 01</b>
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Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022 – 23

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	10	Textbooks for new regulation to be included in the department library	Purchase of textbook for the new regulation R-2021	Books included in department library from various publishers for R 2021
Students	120	Programmes to improve the students technical skills must be increased	Workshops and seminars were conducted with more practical demonstration	Workshops were conducted on 14.7 to 16.7.22, Data science using R conducted on 10.3.2023
Alumni	10	Apart from subject knowledge provide them some additional inputs which were suitable to sustain in industry	Webinar arranged for students to become experts in industry related topics	Webinar on institute focus on industry interaction(Projects) conducted on 03.09.2022
Employers	1	Improve the domain knowledge and to put employability skills	Workshops, certificate courses, guest lectures and seminars were conducted	One day workshop on Numpy Essentials for Data Science conducted on 01.09.2022

  
Prepared By

  
  
**HOD-CSE**  
**Dr. R. Ravichandran M.E., Ph.D.,**  
**Principal**  
**Arunai Engineering College**  
**Tiruvannamalai**



ARUNAI ENGINEERING COLLEGE

TIRUVANNAMALAI

Department of Computer Science and Engineering



To,

The Librarian,

Arunai Engineering College.

Respected Sir/madam,

**Sub: Books for Academic year 2022-2023:-Reg.**

Our department has the following subjects in III,IV,V,VI ,VII and VIII. Hence we request you to make availability of those books in the central library for the student's beneficiary.

Date:15/12/2022

S.No	Title of the book	Author	Publisher	No.Of Copies
1.	Introducing Data Science	David Cielen,Aron D.B.Meysman and Mohamed Ali	Manning Publications, 2016	30
	Statistics	Robert S.Witte and John S.Witte	Wiely Publications, 2017(11 Edition)	15
	Python Data Science HandBook	Jake VanderPlas	O'Reilly,2016	30
2.	Data Structures and Algorithm Analysis in C	Mark Allen Weiss	Pearson Education ,2005(2 <sup>nd</sup> Edition)	30
	Introduction to Data Structures in C	Kamthane	Pearson Dducation ,2007(1st Edition)	30
3.	Java: The Complete Reference	Herbert Schildt	McGrawHill Education, 2019(11 <sup>th</sup> Edition)	15
	Introducing JavaFX 8 Programming	Herbert Schildt	McGrawHill Education, 2015(1st Edition)	15

	Core Java Fundamentals: Volume I	Cay S.Horstmann	Prentice Hall, 2018(11 <sup>th</sup> Edition)	30
4.	Introduction to Automata Theory, Languages and Computations	Hopcroft J.E., Motwani R. and Ullman J.D.	Pearson Education ,2008(3 <sup>rd</sup> Edition)	30
5.	Artificial Intelligence - A Modern Approach	Stuart Russell and Peter Norvig	Pearson Education ,2021(4 <sup>th</sup> Edition)	30
	Introduction to Machine Learning	Ethem Alpaydin	MIT press, 2020(4 <sup>th</sup> Edition)	15
	Prolog: Programming for Artificial Intelligence	I.Bratko	Addison-Wesley Educational Publishers Inc(2011)	15
6.	Data base System Concepts	Abraham Silberschatz, Henry F.Korth, S. Sudharshan	McGrawHill Education, 2020(7 <sup>th</sup> Edition)	30
	Fundamentals of Database Systems	Ramez Elmasri, Shamkant B. Navathe	Pearson Education, 2017(7 <sup>th</sup> Edition)	30
	An Introduction to Database Systems	C.J.Date, A.Kannan, S.Swamynathan	Pearson Education, 2006 (8 <sup>th</sup> Edition)	15
7.	Introduction to Algorithms	Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein,	Prentice Hall of India, 2009(3 <sup>rd</sup> Edition)	30
	Computer Algorithms/C++	Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran	Orient Blackswan, 2019(2 <sup>nd</sup> Edition)	20
8.	Operating System Concepts	Abraham Silberschatz, Peter Baer Galvin and Greg Gagne	John Wiley and Sons Inc., 2018.(10 <sup>th</sup> Edition)	30
	Modern Operating Systems	Andrew S Tanenbaum	Pearson Education 2022. ( 5 <sup>th</sup> Edition)	20
9.	Data Communications and Networking	Behrouz A. Forouzan	TMH 2003(5 <sup>th</sup> Edition)	25
10.	Applying UML and Patterns: An introduction to object oriented analysis & Design & Iterative Development	Craig Larman	Pearson, 2005(3 <sup>rd</sup> Edition)	20
	Object Oriented Systems & Development	Ali Bahrami	McGrawHill International Edition 1999.	20
11.	Internet and World Wide Web- How to Program	Deitel and Deitel and Nieto	Prentice Hall of India, 2011(5 <sup>th</sup> Edition)	30

12.	Mobile Communication	Jochen schiller	PHI 2003(2 <sup>nd</sup> Edition)	30	✓
	Fundamentals of mobile computing	Prasant kumar pattnaik, Rajib Mall	PHI 2012	15	
13.	Compilers :Principles and Technique and Tools	Alfred V.Aho Monica s.Lam , Ravi sethi, Jeffrey D. Ullman	Pearson, 2009(2 <sup>nd</sup> Edition)	30	✓
14.	Distributed Computing:Principles Algorithms and Systems	Kashemkalyani, Ajay D. Mukesh singhal	Cambridge University press(2011)	30	
	Distributed Systems Concepts and Design	George Coulouris, Jean Dollimore and Tim Kindberg	Pearson, 2012(5 <sup>th</sup> Edition)	10	
15.	Cryptography and Network Security: Principles and Practice	William Stallings	PHI 2006(3 <sup>rd</sup> Edition)	30	✓
16.	Distributed & Cloud Computing from Parallel Processing to the Internet of Things	Kai Hwang, Geoferry C. Fox, Jack G.	Morgan Kaufman Publishers 2012.	30	✓
	Cloud computing : Implementation ,Management and Security	Rittinghouse, John W. ,& James F. Ransome	CRC Press 2017	15	
17.	Software Testing_ Principles and Practices	Srinivasan Desikan & gopalasawmy Ramesh	Pearson Education, 2006.	30	✓
18.	Human Computer Interaction	Alan Dix, Janet Finlay, Gregory Abowd Russell Beale	Pearson, 2004(3rd Edition)	30	✓
	Mobile Design and Development	Brian Fling	O'Reilly media Inc,2009(1 <sup>st</sup> edition)	10	
	Designing Web Interfaces	Bill Scott and Theresa Neil	O'Reilly,2009(1 <sup>st</sup> Edition)	10	
19.	Modern Information retrieval; The concept and Technology behind search	Ricardo Baeza-Yates and Berthier Ribeiro-Neto	ACM Press Books 2011(2 <sup>nd</sup> Edition)	30	

HOD/CSE



# ARUNAI

## Engineering College

Tiruvannamalai, Tamil Nadu



Department of Computer Science and Engineering  
In association with CSI Mumbai Chapter

*Cordially invites you to join the*

**WEBINAR**

## Institute Idea Focus on Industry Interaction



**Dr. Suresh A Shan**

Chairman  
CSI Mumbai Chapter,  
Mumbai

 **03<sup>th</sup> SEPT**

 **03.00 pm to 04.30 pm** |  **vyj-yvap-brg**  
[www.arunai.org/coe](http://www.arunai.org/coe)

In the Presence of

**Er. E. V. Kumaran**

Vice Chairman

Felicitation by

**Dr. R. Sathiyaseelan**  
Registrar

**Dr. R. Ravichandaran**  
Principal

**Dr. M. Jothish Kumar**  
HOD-CSE



# ARUNAI

## Engineering College

Tiruvannamalai, Tamil Nadu

Department of Computer Science and Engineering

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# NumPy Essentials for Data Science



**Mr. Atanu Roy Chowdhury**  
Founder- Capsule Labs  
Kolkata



**Dr. Souvik Dutta Chowdhury**  
Subject Expert- Capsule Labs  
Kolkata



**01<sup>st</sup> SEPT**



**11.00 am to 04.30 pm**



**vyj-yvap-brg**

[www.arunai.org](http://www.arunai.org)

In the Presence of

**Er. E. V. Kumaran**

Vice Chairman

Felicitation by

**Dr. R. Sathiyaseelan**

Registrar

**Dr. R. Ravichandaran**

Principal

**Dr. M. Jothish Kumar**

HOD-CSE



**ARUNAI**  
**Engineering College**  
Tiruvannamalai, Tamil Nadu

**Department of Computer Science and Engineering**

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**SEMINAR**  
*On*

# Data Science using R



Guest Speaker

**Mr.M.Jeevanandham**  
Software Trainer  
FIIT Formacion (P) LTD  
Chennai



**10<sup>th</sup>**  
MARCH 2023



**02:00 pm to 4:00 pm**  
[www.arunai.org](http://www.arunai.org)

AC  
Auditorium

In the Presence of

**Er.E.V.Kumaran**  
Vice Chairman

Felicitation by

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Mrs.V.Uma Devi**  
HOD-CSE

# ARUNAI

## Engineering College

Tiruvannamalai, Tamil Nadu

Department of Computer Science and Engineering

*Cordially invites you to join the*  
**WORKSHOP**  
*On*



# NumPy Essentials for Data Science



**Mr. Atanu Roy Chowdhury**

Founder- Capsule Labs  
Kolkata



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Kolkata



**01<sup>st</sup> SEPT**



**11.00 am to 04.30 pm**

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**vyj-yvap-brg**

In the Presence of

**Er. E. V. Kumaran**

Vice Chairman

Felicitation by

**Dr. R. Sathivaseelan**

**Dr. R. Ravichandaran**

**Dr. M. Jothish Kumar**





ARUNAI ENGINEERING COLLEGE

TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

**Department of Electronics and Communication Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	1..The faculty members suggest that sufficient number of text/reference books is required for new regulation syllabus. 2.Financial support is required to the faculty members for attending workshops,conferences & FDP	1.Purchased sample number of text/ reference books.  2.Registration fees sponsored by the management for faculty members for attending workshop, conferences & FDP.	ATTACHED
Students	65	1. Teaching method enhancement from normal to effective using animation and videos.  2.Arrange value added course based on current trend domain.	1. Video lecture is given to enhance the teaching methodology.  2.Arranged value added course on recent trend.	
Alumni	2	Encourage the students to attend more internship.	Students are attended internships during vacation.	
Employers	1	Students must be trained properly before attending interview.	Training and placement cell keep tracking of companies what the students going attend and mock interviews conducted on the basis of industry need.	

48/11/22  
Prepared By

HOD-ECE  
M. S. ELANGO B.E., M.E., Ph.D.  
Professor & Head  
Dept. of Electronics and Communication Engg.  
Arunai Engineering College.

PRINCIPAL  
Arunai Engineering College  
Tiruvannamalai - 606 603



## Department of Electronics and Communication Engineering

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

### Library book purchase details:




ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI  
DEPARTMENT OF ECE

BOOK REQUIREMENT LIST  
ACADEMIC YEAR 2022-2023

S.No	Title	Author	Publication	Edition	Copies
1	Electromagnetic Fields	W.H. Hayt and J.A. Buck	Mcgraw-Hill	7 <sup>th</sup> Edition 2006	5
2	Network and Security	James.F.Kurose and Keith.W. Ross	Pearson	6 <sup>th</sup> Edition 2017	5
3	Linear Integrated Circuits	Ramakant A. Gayakwad	Pearson	4 <sup>th</sup> Edition 2015	5
4	Digital Signal Processing	Emmanuel C. Barrie. W. Jervis	Pearson	Second Edition 2002	5
5	Communication Systems	Wayner Tomasi	Pearson	5 <sup>th</sup> Edition 2008	5
6	Environmental Science and Engineering	R.K. Trivedi	Enviro Media	2010	5

*M. Rajesh*  
24/11/22  
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DATE : 27-2-2023

TO  
THE PRINCIPAL  
ARUNAI ENGINEERING COLLEGE  
VELU NAGAR TAMILNADU-606603

S.NO	TITLE	AUTHOR	PUBLISHER	PRICE	QTY	AMOUNT IN INR
1	COMPUTER NETWORKING 6TH ED	KUROSE	PEARSON	925.00	3	2775.00
2	OP AMPS AND LINEAR CIRCUITS 4TH ED	GAYAKWAD	PEARSON	579.00	3	1737.00
GROSS AMOUNT						4512.00
DISCOUNT-22.5%						-1015.20
ROUND OFF						-0.20
NET AMOUNT						3497.00

(RUPEES:THREE THOUSAND FOUR HUNDRED AND NINETY SEVEN ONLY)

*[Signature]*  
FOR JSP BOOKS



## Department of Electronics and Communication Engineering

**Registration fee contributed by the management to faculty for attending workshops & conferences:**

FINANCIAL ASSISTANCE – REQUEST FORM							
Faculty Name	ELANGO S						
Designation	HOD						
Department	ECE						
Academic Year	2022 - 2023						
Financial Request to Attend (Put a Tick Mark in the Relevant Field)	Seminar	Workshop	Conference <input checked="" type="checkbox"/>	FDP	Professional Membership	NPTEL	Others (Specify)
Name of the Event	International Conference						
Date/ Duration of the Event	23 - 24, June 2023						
Amount Spent	Registration Fees		2000				
	TA						
	Accommodation/Food						
	Others						
Total			2000				
Sanctioned Amount	2000						

Signature				
	Faculty	HOD	Principal	Registrar



ICDSAC 2023

DSA 3014  
Peer Reviewed

This certificate is presented to

**Dr.S.ELANGO, Prof & Head,  
Head of the Department/ECE**

Arunai Engineering College,  
Thiruvannamalai, Tamilnadu,  
India

for presenting the research paper entitled "Satellite Image Classification with Deep Learning" in the First International Conference on Data Science and Advanced Computing (ICDSAC 2023) held at KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India during 23 - 24, June 2023.

Technical Partners





## Department of Electronics and Communication Engineering

**Innovative Video Lecture:**

Mr.A.Arivumani Samson, AP/ECE created the following video using our ECE department students on the topic Microwave device working principle and Radiation so that the students can easily understand the concept easily.

<https://youtu.be/kIuZfFVRzOO?si=v1BdP2joEYuhKAwJ>

<https://youtu.be/lljRHQVO1yo?si=stkHv4vybjjNELwn>

<b>ARUNAI ENGINEERING COLLEGE</b> TIRUVANNAMALAI DEPARTMENT OF ECE INNOVATIVE TEACHING METHODOLOGY LIST OF ANIMATED VIDEOS			
Sl.No	Subject name	Video link	Video topic
1	Electronic Circuits-I	1. <a href="https://youtu.be/-VwPSDQmdjM">https://youtu.be/-VwPSDQmdjM</a> 2. <a href="https://youtu.be/Bfvyj88Hs_o">https://youtu.be/Bfvyj88Hs_o</a> 3. <a href="https://youtu.be/cP-1oTyS53M">https://youtu.be/cP-1oTyS53M</a> 4. <a href="https://youtu.be/VKr9SB3cULc">https://youtu.be/VKr9SB3cULc</a> 5. <a href="https://youtu.be/RiRyzLl4Y8U">https://youtu.be/RiRyzLl4Y8U</a>	BJT amplifier MOSFET working N channel MOSFET Voltage divider bias Full wave rectifier
2	Signals and Systems	1. <a href="https://youtu.be/t4hk6N5vC1Q">https://youtu.be/t4hk6N5vC1Q</a> 2. <a href="https://youtu.be/Gj9pDC_OBQU">https://youtu.be/Gj9pDC_OBQU</a> 3. <a href="https://youtu.be/tI7sErInYdE">https://youtu.be/tI7sErInYdE</a> 4. <a href="https://youtu.be/xJHJbo3VnmY">https://youtu.be/xJHJbo3VnmY</a>	Continuous and discrete time signal Periodic and non periodic signal Unit step signal Static and dynamic
3	Digital Electronics	1. <a href="https://youtu.be/oSrUsM0hoPs">https://youtu.be/oSrUsM0hoPs</a> 2. <a href="https://youtu.be/wbH2VxzmoZk">https://youtu.be/wbH2VxzmoZk</a> 3. <a href="https://youtu.be/H_aoaQYgKT8">https://youtu.be/H_aoaQYgKT8</a> 4. <a href="https://youtu.be/cNN_tXABUA">https://youtu.be/cNN_tXABUA</a>	Hamming Code Design of ALU How CPU Works Evolution of IC technology
4	Discrete Time Signal Processing	1. <a href="https://youtu.be/x21MBUtnZog">https://youtu.be/x21MBUtnZog</a> 2. <a href="https://youtu.be/JxOigvzULQA">https://youtu.be/JxOigvzULQA</a> 3. <a href="https://youtu.be/ymVvVT58Po5k">https://youtu.be/ymVvVT58Po5k</a>	Introduction to discrete time system Amplitude and frequency of limit cycle Energy and power of signal
5	Communication Networks	1. <a href="https://youtu.be/4_zSIXb7tLQ">https://youtu.be/4_zSIXb7tLQ</a> 2. <a href="https://youtu.be/-6Uoku-M6oY">https://youtu.be/-6Uoku-M6oY</a> 3. <a href="https://youtu.be/111vxu5qIUM">https://youtu.be/111vxu5qIUM</a> 4. <a href="https://youtu.be/mpQZVYPuDGU">https://youtu.be/mpQZVYPuDGU</a>	Types of network OSI model Working of Bluetooth DNS server working
6	Optical Communication And Networks	1. <a href="https://youtu.be/-BpXoCD0-Xc">https://youtu.be/-BpXoCD0-Xc</a> 2. <a href="https://youtu.be/U3KjtSvZyRk">https://youtu.be/U3KjtSvZyRk</a>	Introduction of optical communication Basic elements of fiber optic communication
7	Embedded and Real time systems	1. <a href="https://youtu.be/JuyWbRhhpdI">https://youtu.be/JuyWbRhhpdI</a> 2. <a href="https://youtu.be/QpcIM-BitaM">https://youtu.be/QpcIM-BitaM</a> 3. <a href="https://youtu.be/R8bHL_pary3Y">https://youtu.be/R8bHL_pary3Y</a>	ARM processor UART communication Embedded system

8	Digital Image Processing	<ol style="list-style-type: none"> <li><a href="https://youtu.be/XxW2cQticsw">https://youtu.be/XxW2cQticsw</a></li> <li><a href="https://youtu.be/xUCsfKA8bi0">https://youtu.be/xUCsfKA8bi0</a></li> <li><a href="https://youtu.be/CCN0U1u7hMQ">https://youtu.be/CCN0U1u7hMQ</a></li> <li><a href="https://youtu.be/HtmpxhyTxNo">https://youtu.be/HtmpxhyTxNo</a></li> </ol>	<p>Components of digital image processing</p> <p>Introduction to digital image processing</p> <p>Digital fundamentals</p> <p>Basic relation between pixels</p>
10	Antenna	<ol style="list-style-type: none"> <li><a href="https://youtu.be/7bDyA5t1ldU">https://youtu.be/7bDyA5t1ldU</a></li> <li><a href="https://youtu.be/md7GjQQ2YA0">https://youtu.be/md7GjQQ2YA0</a></li> <li><a href="https://youtu.be/9iV_YICgifA">https://youtu.be/9iV_YICgifA</a></li> <li><a href="https://youtu.be/-F7KYLO4Bkg">https://youtu.be/-F7KYLO4Bkg</a></li> <li><a href="https://youtu.be/gSSTgjXPD2M">https://youtu.be/gSSTgjXPD2M</a></li> <li><a href="https://youtu.be/yShlA12KMZw">https://youtu.be/yShlA12KMZw</a></li> <li><a href="https://youtu.be/ck51Fwpz2DQ">https://youtu.be/ck51Fwpz2DQ</a></li> </ol>	<p>Antenna fundamental</p> <p>Antenna fundamental directivity</p> <p>Antenna fundamental bandwidth</p> <p>Antenna theory of propagation</p> <p>Propagation of electromagnetic wave</p> <p>Radio propagation</p> <p>Radio wave and ionosphere</p>
11	Electronic Circuits II	<ol style="list-style-type: none"> <li><a href="https://youtu.be/Gvb4G1V5ig8">https://youtu.be/Gvb4G1V5ig8</a></li> <li><a href="https://youtu.be/gbUXbaxvX94">https://youtu.be/gbUXbaxvX94</a></li> <li><a href="https://youtu.be/W6NOV6b8kxs">https://youtu.be/W6NOV6b8kxs</a></li> <li><a href="https://youtu.be/cE2-g4QsKr0">https://youtu.be/cE2-g4QsKr0</a></li> </ol>	<p>RC phase shift oscillator</p> <p>Wien bridge oscillator</p> <p>Buck converter</p> <p>Boost converter</p>
12	Communication Theory	<ol style="list-style-type: none"> <li><a href="https://youtu.be/0U4VVTKnZAI">https://youtu.be/0U4VVTKnZAI</a></li> <li><a href="https://youtu.be/VyLU8hlh1-I">https://youtu.be/VyLU8hlh1-I</a></li> <li><a href="https://youtu.be/ljw3gW-nLOE">https://youtu.be/ljw3gW-nLOE</a></li> </ol>	<p>Introduction to communication theory</p> <p>Hilbert transform</p> <p>Band pass filtering and filter Hilbert transform</p>
13	Electromagnetic Fields	<ol style="list-style-type: none"> <li><a href="https://youtu.be/HvK35jjMb51">https://youtu.be/HvK35jjMb51</a></li> <li><a href="https://youtu.be/W1cTpqM9DaU">https://youtu.be/W1cTpqM9DaU</a></li> <li><a href="https://youtu.be/t-EhLjdAY0M">https://youtu.be/t-EhLjdAY0M</a></li> <li><a href="https://youtu.be/i5N36mWsdGo">https://youtu.be/i5N36mWsdGo</a></li> </ol>	<p>Maxwell equation</p> <p>Electromagnetic waves</p> <p>Faraday law of electromagnetic induction</p> <p>Gauss law and electric flux</p>
14	Linear Integrated Circuits	<ol style="list-style-type: none"> <li><a href="https://youtu.be/35jWSQXku74">https://youtu.be/35jWSQXku74</a></li> <li><a href="https://youtu.be/0PSa11UEptU">https://youtu.be/0PSa11UEptU</a></li> <li><a href="https://youtu.be/f6u4giJuAxE">https://youtu.be/f6u4giJuAxE</a></li> <li><a href="https://youtu.be/TqHme0lvvCU">https://youtu.be/TqHme0lvvCU</a></li> <li><a href="https://youtu.be/wgvo4aTATsU">https://youtu.be/wgvo4aTATsU</a></li> </ol>	<p>Fabrication of IC</p> <p>Application of OPAMP</p> <p>Steps of fabrication IC</p> <p>555 timer IC</p> <p>Time delay relay circuit using 555 timer IC</p>

15	Microprocessor and Microcontrollers	<ol style="list-style-type: none"> <li><a href="https://youtu.be/deNk0urQsQM">https://youtu.be/deNk0urQsQM</a></li> <li><a href="https://youtu.be/JwCTkm43CxQ">https://youtu.be/JwCTkm43CxQ</a></li> <li><a href="https://youtu.be/aroVqUfC168">https://youtu.be/aroVqUfC168</a></li> </ol>	<p>Difference between microprocessor and microcontroller</p> <p>Microcontroller</p> <p>8086 microprocessor</p>
16	VLSI-design	<ol style="list-style-type: none"> <li><a href="https://youtu.be/iHg0mm1g0UU">https://youtu.be/iHg0mm1g0UU</a></li> <li><a href="https://youtu.be/zpOioOiKYp4">https://youtu.be/zpOioOiKYp4</a></li> <li><a href="https://youtu.be/QWASzZmOhcQ">https://youtu.be/QWASzZmOhcQ</a></li> <li><a href="https://youtu.be/INeTYzqtjTo">https://youtu.be/INeTYzqtjTo</a></li> </ol>	<p>FPGA</p> <p>Introduction to VLSI</p> <p>Dynamic CMOS</p> <p>Understanding of logic gates</p>
17	Wireless Communication	<ol style="list-style-type: none"> <li><a href="https://youtu.be/u2W178ZJlk4">https://youtu.be/u2W178ZJlk4</a></li> <li><a href="https://youtu.be/-rLWjSD6VnU">https://youtu.be/-rLWjSD6VnU</a></li> <li><a href="https://youtu.be/MhV6uYIFR0w">https://youtu.be/MhV6uYIFR0w</a></li> <li><a href="https://youtu.be/Se400mE2e30">https://youtu.be/Se400mE2e30</a></li> </ol>	<p>Introduction wireless communication</p> <p>Cellular telephone system</p> <p>Handoff technique</p> <p>Interference in cellular system</p>
18	Digital Communication	<ol style="list-style-type: none"> <li><a href="https://youtu.be/ghjj6WG7Rgc">https://youtu.be/ghjj6WG7Rgc</a></li> <li><a href="https://youtu.be/mHvV_Tv8HDQ">https://youtu.be/mHvV_Tv8HDQ</a></li> <li><a href="https://youtu.be/E4E1GPRPD1M">https://youtu.be/E4E1GPRPD1M</a></li> <li><a href="https://youtu.be/4JrryefRNFk">https://youtu.be/4JrryefRNFk</a></li> <li><a href="https://youtu.be/UwWmDwbsBs">https://youtu.be/UwWmDwbsBs</a></li> </ol>	<p>Introduction Modulation</p> <p>Classification of signal</p> <p>AM demodulation</p> <p>FDMA</p>
19	Wireless Networks	<ol style="list-style-type: none"> <li><a href="https://youtu.be/l2PKJslPObM">https://youtu.be/l2PKJslPObM</a></li> <li><a href="https://youtu.be/5plZGFd-cWc">https://youtu.be/5plZGFd-cWc</a></li> <li><a href="https://youtu.be/x3c1ih2NJEg">https://youtu.be/x3c1ih2NJEg</a></li> <li><a href="https://youtu.be/zRnjzvkf5gA">https://youtu.be/zRnjzvkf5gA</a></li> </ol>	<p>Wireless technology</p> <p>CDMA</p> <p>Working of internet</p> <p>Mobile IP</p>

HOD/ECE



## Department of Electronics and Communication Engineering

Value added course organized:

**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

Department of  
**Electronics and Communication Engineering**

The Management, Principal, Staff & Students of  
e-SAT association cordially invite you all to join the  
Inauguration of  
**One Week Workshop(03.07.2023 - 07.07.2023) on**  
**“Data Science and Data Analysis using Python”**  
&  
**“Robotics”.**

In association with  
**Pantech e Learning**  
DIGITAL LEARNING SIMPLIFIED

DATE : 03.07.2023 - 10:00AM  
VENUE : ARUNAI GATEWAY

*Resource persons*  
**Nareshraja.N.K** Software Developer  
**Ramachandiran.R** Firmware Developer  
Pantech e Learning,  
Chennai.

*In the presence of*  
**Er.E.V.KUMARAN**  
VICE-CHAIRMAN

*Presided by*  
**Dr.R.SATHIYASEELAN**  
REGISTRAR

*Felicitatation by*  
**Dr.R.RAVICHANDARAN**  
PRINCIPAL

*Welcome address*  
**Dr.S.ELANGO**  
HOD/ECE

Organized by  
e-SAT Students Association



[www.arunai.org](http://www.arunai.org)

**Pantech e Learning**  
DIGITAL LEARNING SIMPLIFIED

IN ASSOCIATION WITH  
**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**CERTIFICATE**  
OF COMPLETION

This certificate is presented to:  
*VINUTH-S, IV YEAR, ECE*

OF "ARUNAI ENGINEERING COLLEGE" HAS ACTIVELY  
PARTICIPATED IN THE VALUE ADDED COURSE ON "DATA SCIENCE"  
ORGANIZED BY PANTECH E LEARNING FROM  
03.07.2023 TO 07.07.2023

*[Signature]*  
DIRECTOR  
PANTECH E-LEARNING

**Pantech e Learning**  
DIGITAL LEARNING SIMPLIFIED

IN ASSOCIATION WITH  
**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**CERTIFICATE**  
OF COMPLETION

This certificate is presented to:  
*THEJAS SHREE .K, II YEAR/ECE*

OF "ARUNAI ENGINEERING COLLEGE" HAS ACTIVELY  
PARTICIPATED IN THE VALUE ADDED COURSE ON "ROBOTICS"  
ORGANIZED BY PANTECH E LEARNING FROM  
03.07.2023 TO 07.07.2023

*[Signature]*  
DIRECTOR  
PANTECH E-LEARNING



Department of Electronics and Communication Engineering

Students attended internship:

 **CERTIFICATE**  
**OF INTERNSHIP**

This is to Certify that

DHARANI . M.

BE.ECE - ARUNAI ENGINEERING COLLEGE.

has Successfully Completed the Internship on

PYTHON.

at **Pantech e learning Pvt. Ltd.**

Duration: From 24-06-2023 to 30-06-2023.

PAN-DIT-40.  
CERTIFICATE NO

  
DIRECTOR, PANTECH E LEARNING  
WWW.PANTECHELEARNING.COM





## Department of Electronics and Communication Engineering

Additional Coaching class conducted for the final year students by training & placement cell:



FL/TAP/22-23

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603.  
TRAINING AND PLACEMENT CELL**



### CIRCULAR

16.08.2022

In continuation with the circular dated 11.08.2022 pertaining to **Placement Training Programme**, the following class rooms are allotted for the Final Year students who are attending placement training classes from **22.08.2022 to 26.08.2022** (5 Days).

#### **Seating Arrangement:**

Sl.No	Hall No	Block	Year	Department	Students Strength
1	S1	HAS	Final Year	EEE (41) + EIE (3) + CIVIL (16)	60
2	S2	HAS	Final Year	Mech (68)	68
3	S3	HAS	Final Year	CSE 'A' Sec (56)	56
4	S4	HAS	Final Year	CSE 'B' Sec (53) + Auto (6)	59
5	S5	HAS	Final Year	ECE (33) + CHEM (27)	60
6	S6	HAS	Final Year	IT (34) + BIOTECH (24)	58

#### **Note:**

1. Department Placement Coordinator is instructed to take attendance both FN & AN Session.
2. Report the Attendance Details to Placement Cell and also give the mess strength to office.

  
Registrar

Copy submitted to the Vice Chairman

Copy to:  
Principal  
Registrar  
Director  
All HOD's  
Sergeant  
TAP File





# ARUNAI ENGINEERING COLLEGE

Tiruvannamalai



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

### Department of Electrical and Electronics Engineering

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	10	Suggestion to encourage a collaborative work place	Faculty was instructed to make sure that team work was promoted in the work place. Every Tuesday research meeting was conducted.	Attached
Students	65	The existing water facility should be improved .	1. RO plant installed in the department premises.	
Alumni	10	Encourage the student to develop the industry interaction	Students are motivated to participate in internship training.	
Employers	2	Session for personality development and communication skills need to be prioritized	Soft skill programs are conducted periodically.	

  
Prepared By

  
HOD-EEE

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

Faculty was instructed to make sure that team work was promoted in the work place. Every Tuesday research meeting was conducted.



Dr.S.Sivakumar, HOD/EEE presented a seminar topic on cloud computing



Dr.S.Priyadharsini Associate Professor/EEE has presented a seminar topic on in Z Source inverter



# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

RO plant installed in the department of EEE premises.



Students are motivated to participate in internship training at reputed industry



स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4) / 036627/2495

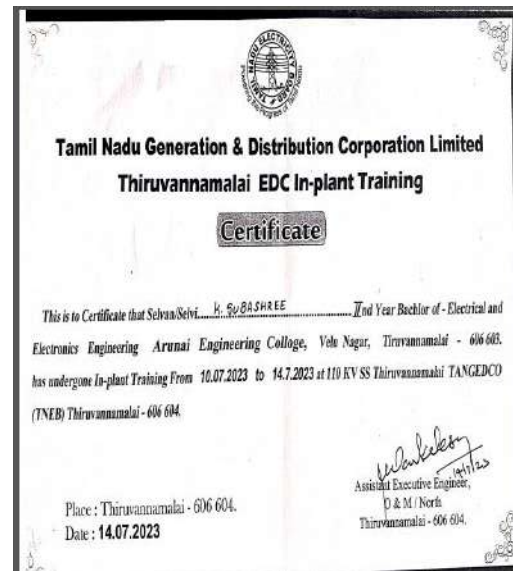
29/07/2023

### Certificate

Certified that **Shri P. MUHAMMED THASHIM, B.E(EEE)**, II year student of **ARUNAI ENGINEERING COLLEGE, TIRUVANNAMALAI-606603** has undergone Inplant Training in the area of **ELECTRICAL MAINTENANCE** at Salem Steel Plant during the period from **24/07/2023** to **29/07/2023**.



*Rajalekshmi R R*  
RAJALEKSHMI R R  
MANAGER(HRD,PR&GA)





# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Soft skill programs are conducted periodically.



FL/TAP/23-24

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603.**

**TRAINING AND PLACEMENT CELL**

### CIRCULAR



07.09.2023

Final year training program is scheduled on 09.09.2023 (Saturday). All the final year students of B.E/B.Tech must attend the training program without fail.

HoD's are informed to assign a faculty/placement coordinator from your department to take attendance/monitor your students.

#### **New Seating Arrangement:**

Sl.No	Hall No	Block	Year	Department	Students Strength
1	E2	ECE	Final Year	IT (47) + CIVIL (10)	57
2	E3	ECE	Final Year	ECE (46) + CIVIL (09)	55
3	E4	ECE	Final Year	MECH	58
4	E9	EEE	Final Year	EEE	51
5	E10	EEE	Final Year	Biotech (36) + CHEM (24)	60
6	E11	CSE	Final Year	CSE 'A' Sec	56
7	E12	CSE	Final Year	CSE 'B' Sec	55

#### **Note:**

1. Department Placement Coordinator is instructed to take attendance both FN & AN Session.
2. Report the Attendance Details to Placement Cell and also to office.
3. Faculty/Coordinator coming on Saturday can avail On-Duty later.

Copy submitted to the Vice Chairman

Copy to:

Principal

Registrar

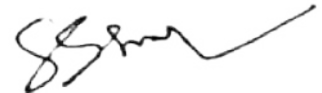
All HOD's

Sergeant

TAP File

  
Registrar






HOD/EEE




Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23


**Department of Humanities and Science**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	17	Need Faculty trip	Arranged one day picnic to Pondichery	Attached
Students	375	Need reference book in Department Library	Reference and text books arranged in department library	

Prepared By 



  
PRINCIPAL  
19.2.23.  
Principal  
Arunai Engineering College  
Tiruvannamalai - 605 005

  
HOD-HAS  
Department of HAS  
Arunai Engineering College,  
Thiruvannamalai - 3



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

Faculty trip

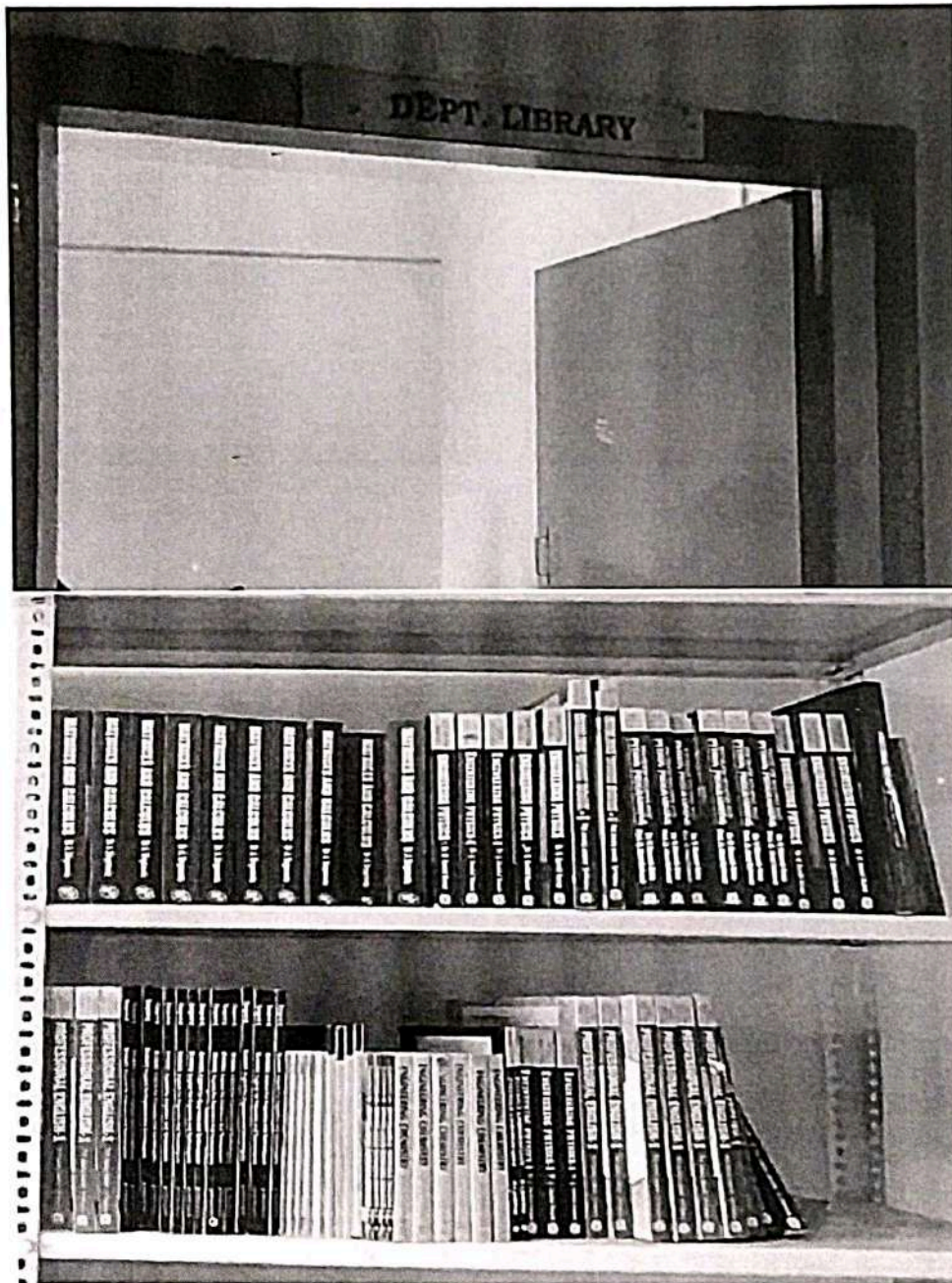




**Department of Humanities and Science**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

**Reference and text book arranged in Department Library**





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-23

**Department of Information Technology**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	13	1.To enhance the practical exposure of faculty members by undergoing workshop/ FDP	1.Faculty members motivate to participate various skill development programs in reputed institution	Attached
Students	140	1.Programmes to improve the student technical skill must to be increased 2. Need additional RO water facilities in IT block	1. Guest Lecture on Software Test Automation Conducted on 22.04.22. 2. New RO water purifier setup was installed in front of IT block	
Alumni	120	1.Placement training and practices should be provided	1.Enhancement employability of students placement Quantitative aptitude test on C-smart assessment were organized	
Employers	4	1.Enhance awareness about new technologies 2. Improve the domain knowledge and to put employability skills	1. Value Added Course on Full Stack Web Development arranged for IT students from 06.02.23 to 10.02.23 2. Value Added Course on Application of IOT with Tinkercad arranged for IT students from 12.09.22 to 16.09.22	

Prepared By

HOD-IT

19.2.24  
PRINCIPAL  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603





**INSTITUTION'S  
INNOVATION  
COUNCIL**  
(Ministry of Education Initiative)

## **DEPARTMENT OF INFORMATION TECHNOLOGY**



**...CHIEF GUEST...**

**M. Ashokkumar M.E**  
Founder  
Praya lab  
Tiruvannamalai

**Time :9:20 AM To 4:30PM**

**venue:Gateway lab**

**Course Duration**  
**06/02/23 To 10/02/23**

The Management,  
Principal, Staff's and  
Students of Arunai  
Engineering College  
cordially Invites you to  
join.

## **ADD ON COURSE ON "FULL STACK WEB DEVELOPMENT"**

In the presence of

**ER.E.V.KUMARAN**

VICE CHAIRMAN

Presides by

**DR.R.SATHIYASEELAN**

REGISTRAR

Felicitation by

**DR.R.RAVICHANDARAN**

PRINCIPAL

Welcome address by

**DR.K.ANITHA**

HOD-IT



**INSTITUTION'S  
INNOVATION  
COUNCIL**  
(Ministry of Education Initiative)

## **DEPARTMENT OF INFORMATION TECHNOLOGY**



**...CHIEF GUEST...**

**PREM KUMAR .K**

Founder  
Guptha Technologies,  
Villupuram.

**Time: 9.20AM To 4:30PM**

**Venue: Gateway Lab**

**Course Duration**

**12/9/2022 To 16/9/2022**

The Management,  
Principal, Staff's and  
Students of Arunai  
Engineering College  
cordially Invites you to  
join.

**Add on course**  
on  
**"Application of  
IOT with TINKERCAD"**

In the presence of

**ER.E.V.KUMARAN**

VICE CHAIRMAN

Presides by

**DR.R.SATHIYASEELAN**

REGISTRAR

Felicitation by

**DR.R.RAVICHANDARAN**

PRINCIPAL

Welcome address by

**DR.K.ANITHA**

HOD-IT

**STAND STEEL**  
**PREMIUM QUALITY**  
100% S.S.  
STYLISH CROWN DESIGN



Invitation

**ARUNAI**  
**Engineering College**  
Tiruvannamalai, Tamil Nadu

**Department of Information Technology**  
**& INSTITUTION INNOVATION COUNCIL OF AEC**



*The Management, Principal, Staff and Students of Arunai Engineering College*  
*Cordially invites you to join WEBINAR on*

**Software Test Automation**

**DATE: 22.04.22 @ 6.00 PM**



Chief Guest

**Mr. Vivek Kumar M**

Senior Test Automation Engineer  
Black Buck Insight  
Chennai



pka-qorm-2

www.aruna

In the Presence of

**Er.E.V.Kumaran**  
Vice Chairman

Felicitation by

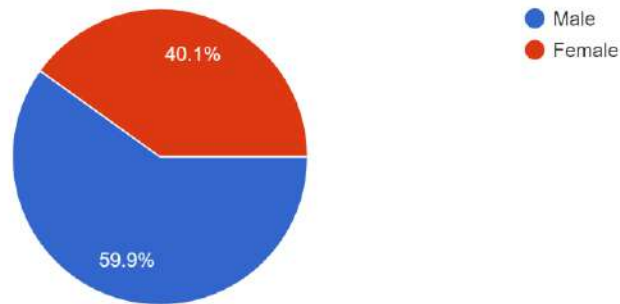
**Dr.R.Sathiyaseelan**

**Dr.Vijayan Gurumurthy Iyer**  
Principal

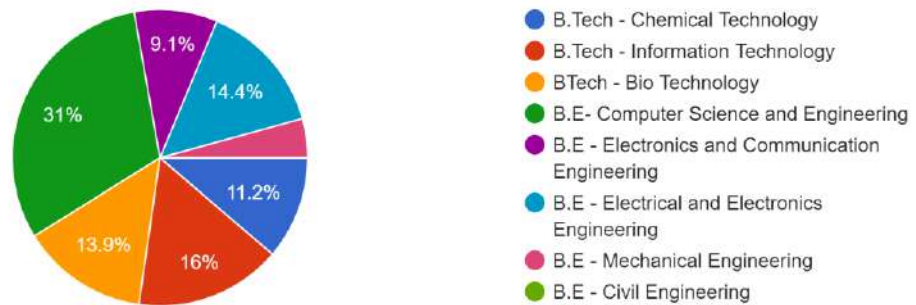
**Dr.K.Anitha**  
HOD-IT

**ARUNAI ENGINEERING COLLEGE**  
**TRAINING AND PLACEMENT CELL**  
**FEEDBACK ON SMART TRAINING PROGRAM – 07.09.2023**

Gender  
187 responses



Branch  
187 responses





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	1. Need Research paper writing relevant Program 2. Gap between industry and institution relevant program needed	Arrange Guest lecture for research article writing and industry institution relevant program.	Attached
Students	67	1. Need more coaching class for problem solving skills and Identifying problem and formals. 2. Need permission for Internship and In plant training program.	1. Prepared study material for problematic subjects. 2. Given bonafide certificate for willing students.	
Alumni	6	Need real time project exposure	Suggestion given to contact Alumni students , to know about real time project.	
Employers	5	Good communication skill, Leading from front, Problem solving ability needed	Given placement training and given seminar presentation to overcome from communication problem.	

Prepared By

HOD-MECH

Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603




# ARUNAI ENGINEERING COLLEGE

## TIRUVANNAMALAI DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2022-2023

Gust lecture for Research paper writing and Industry and institution.


Invitation



**ARUNAI**  
Engineering College  
Tiruvannamalai, TamilNadu

Department of Mechanical Engineering  
*Cordially invites you to join*  
**WORKSHOP On**

**The Craft of Scientific Paper Writing  
and Publication Process**



Chief Guest  
**Dr. R. Ravisankar**  
Assistant Professor  
Dept of Physics  
Govt. Arts College  
Tiruvannamalai

**21<sup>st</sup> July 2022 @ 11.00 am**  
**Stalin Auditorium**  
[www.arunai.org](http://www.arunai.org)

In the Presence of  
**Er. E. V. Kumaran**  
Vice Chairman

Felicitation by  
**Dr. R. Ravichandaran**  
Principal


**Dr. L. Jayakumar**  
HOD-MECH

**Dr. R. Sathiyaseelan**  
Registrar

30

YEARS  
IN EDUCATION  
1983-2023

Arunai SAEINDIA  
Collegiate Club



# ARUNAI

Engineering College

Tiruvannamalai, TamilNadu

The Management, Principal, Staff and Students of Arunai Engineering College  
cordially invite you to join

## INDUSTRY & INSTITUTION INTERACTION ON CURRENT AFFAIRS

Date: 30.09.2022, Friday @ 11.00 a.m - A/C Auditorium

Chief Guests

Dr.M.CHERALATHAN

Chairman - SAEISS MWC Division

Mr.P.BASKARA SETHUPATHI

Secretary - SAEISS MWC Division

Mr.N.VIJAYA KUMAR

Treasurer - SAEISS MWC Division

Mr.R.RAJA

Sr. Manager- Testing Labs, Mahindra Research Valley,  
Mahindra and Mahindra, MWC, Chennai

Mr.R.SILAMBARASAN

Project Manager - Hydraulic Brake System  
Continental Automotive Components (India) Pvt. Ltd.,

Mr.G.KARTHIK

Deputy Manager - Chassis Engineering  
Renault Nissan Technology & Business Centre India (P) Ltd.,

In the Presence of

Er. E.V. Kumaran

Vice Chairman

Felicitation by

Dr.R.Sathiyaseelan

Registrar

Dr.R.Ravichandaran

Principal

Prof.A.Eakambaram




HOD-Automobile Engg

www.arunai.org

INVITATION

SAEINDIA

Society of Automotive Engineers INDIA

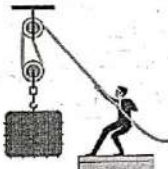
Work Book On Problematic Subject


## ME 3351 – ENGINEERING MECHANICS

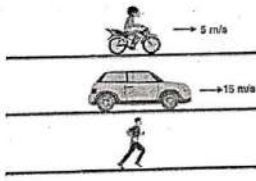
2023-2024 ( ODD SEM )

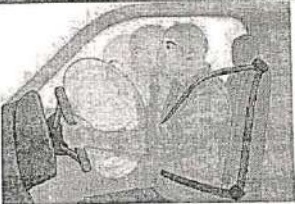
### Smart Material

{Syllabi, Class Practice, Relevant Practice Questions }









Name : Sivasangaxi S.M

Reg no : 51922023

Prepared By :

S.JAYAKUMAR

Faculty of Mechanical Engineering  
Arunai Engineering College

150

160

160

160

160

160



## COURSE OBJECTIVES

- To learn the use of scalar and vector analytical techniques for analyzing forces in statically determinate structures.
- To introduce the equilibrium of rigid bodies.
- To study and understand the distributed forces, surface, loading on beam and intensity.
- To learn the principles of friction, forces and to determine the application of the concepts of frictional forces at the contact surfaces of various engineering systems.
- To develop basic dynamics concepts – force, momentum, work and energy.

## UNIT I STATICS OF PARTICLES

Fundamental Concepts and Principles, Systems of Units, Method of Problem Solutions, Statics of Particles - Forces in a Plane, Resultant of Forces, Resolution of a Force into Components, Rectangular Components of a Force, Unit Vectors, Equilibrium of a Particle- Newton's First Law of Motion, Space and Free-Body Diagrams, Forces in Space, Equilibrium of a Particle in Space.

## UNIT II EQUILIBRIUM OF RIGID BODIES

Principle of Transmissibility, Equivalent Forces, Vector Product of Two Vectors, Moment of a Force about a Point, Varignon's Theorem, Rectangular Components of the Moment of a Force, Scalar Product of Two Vectors, Mixed Triple Product of Three Vectors, Moment of a Force about an Axis, Couple - Moment of a Couple, Equivalent Couples, Addition of Couples, Resolution of a Given Force into a Force - Couple system, Further Reduction of a System of Forces, Equilibrium in Two and Three Dimensions - Reactions at Supports and Connections.

## UNIT III DISTRIBUTED FORCES

Centroids of lines and areas – symmetrical and unsymmetrical shapes, Determination of Centroids by Integration, Theorems of Pappus-Guldinus, Distributed Loads on Beams, Centre of Gravity of a Three-Dimensional Body, Centroid of a Volume, Composite Bodies, Determination of Centroids of Volumes by Integration, Moments of Inertia of Areas and Mass - Determination of the Moment of Inertia of an Area by Integration, Polar Moment of Inertia, Radius of Gyration of an Area, Parallel-Axis Theorem, Moments of Inertia of Composite Areas, Moments of Inertia of a Mass - Moments of Inertia of Thin Plates, Determination of the Moment of Inertia of a Three-Dimensional Body by Integration.

## UNIT IV FRICTION

The Laws of Dry Friction, Coefficients of Friction, Angles of Friction, Wedge friction, Wheel Friction, Rolling Resistance, Ladder friction.

## UNIT V DYNAMICS OF PARTICLES

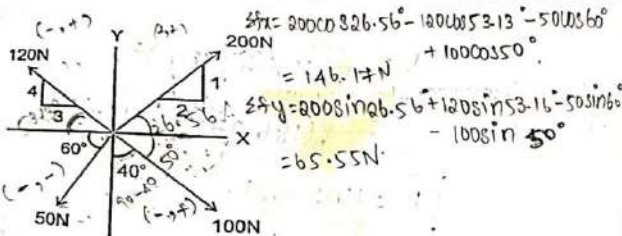
Kinematics - Rectilinear Motion and Curvilinear Motion of Particles, Kinetics- Newton's Second Law of Motion - Equations of Motion, Dynamic Equilibrium, Energy and Momentum Methods - Work of a Force, Kinetic Energy of a Particle, Principle of Work and Energy, Principle of Impulse and Momentum, Impact of bodies.

TOTAL: 45 PERIODS

OUTCOMES: At the end of the course the students would be able to

- Illustrate the vectorial and scalar representation of forces and moments
- Analyze the rigid body in equilibrium
- Evaluate the properties of distributed forces
- Determine the friction and the effects by the laws of friction
- Calculate dynamic forces exerted in rigid body

4. Determine the resultant both in magnitude and direction of the four forces acting on the body as shown in fig. (R.F.B)



Solution.

$$\theta = \tan^{-1}\left(\frac{1}{2}\right) = 26.56^\circ$$

$$\theta = \tan^{-1}\left(\frac{4}{3}\right) = 53.13^\circ$$

$$\sum F_x = 0$$

$$\sum F_x = 200 \cos 26.56^\circ - 120 \cos 53.13^\circ - 50 \cos 60^\circ + 100 \sin 40^\circ$$

$$\boxed{\sum F_x = 146.17 \text{ N}}$$

$$\sum F_y = 0$$

$$\sum F_y = 200 \sin 26.56^\circ + 120 \cos 53.13^\circ - 50 \sin 60^\circ - 100 \cos 40^\circ$$

$$\boxed{\sum F_y = 65.52 \text{ N}}$$

$$R = \sqrt{(\sum F_x)^2 + (\sum F_y)^2}$$

$$= \sqrt{(146.17)^2 + (65.52)^2}$$

$$\boxed{R = 160.18 \text{ N}}$$

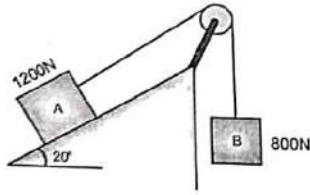
$$\tan \alpha = \frac{\sum F_y}{\sum F_x}$$

$$\alpha = \tan^{-1}\left(\frac{65.52}{146.17}\right)$$

$$\boxed{\alpha = 24.14^\circ}$$

3. A body weighing 1200N is resting on a rough plane inclined at  $20^\circ$  to the horizontal as shown in fig. It is pulled up the plane from rest by means of a light flexible rope running parallel to the plane and passing over a light frictionless pulley at the top of the plane. The portion of rope beyond the pulley hangs vertically and carries weight 800N at the end. If the coefficient of friction for the plane and body is 0.2, find a) tension in rope b) acceleration of the body and c) distance moved by the body in 3 seconds, starting from rest.

(D.P.B)TB.P.NO.392



307

### CENTRE OF GRAVITY OF SOLID

Table 4.2 Centre of gravity of simple solid figures

Sl. No	Name	Figure	$\bar{x}$	$\bar{y}$	Volume
1	Cone		$\frac{d}{2}$	$\frac{h}{4}$	$\frac{1}{3}\pi r^2 h$
2	Cylinder		$\frac{d}{2}$	$\frac{h}{2}$	$\pi r^2 h$
3	Sphere		$\frac{d}{2}$	$\frac{d}{2}$	$\frac{4}{3}\pi r^3$
4	Hemi-Sphere		$\frac{d}{2}$	$\frac{3r}{8}$	$\frac{2}{3}\pi r^3$

$$\bar{y} = \frac{3r}{8}$$

Case (i): If the composite solid is made of same material (i.e., density values are same)

$$\bar{x} = \frac{V_1 x_1 + V_2 x_2 + \dots + V_n x_n}{V_1 + V_2 + \dots + V_n}$$

$$\text{and } \bar{y} = \frac{V_1 y_1 + V_2 y_2 + \dots + V_n y_n}{V_1 + V_2 + \dots + V_n}$$

where  $V_1, V_2, \dots, V_n$  are the volume of the different components.

$x_1, x_2, \dots, x_n$  are the centroidal distance of  $V_1, V_2, \dots, V_n$  from OY axis.

$y_1, y_2, \dots, y_n$  are the centroidal distance of  $V_1, V_2, \dots, V_n$  from OX axis.

Case (ii): If the composite solid is made of different materials (i.e. density values are different), then

$$\bar{x} = \frac{(\rho_1 V_1)x_1 + (\rho_2 V_2)x_2 + \dots + (\rho_n V_n)x_n}{(\rho_1 V_1) + (\rho_2 V_2) + \dots + (\rho_n V_n)}$$

$$\text{and } \bar{y} = \frac{(\rho_1 V_1)y_1 + (\rho_2 V_2)y_2 + \dots + (\rho_n V_n)y_n}{(\rho_1 V_1) + (\rho_2 V_2) + \dots + (\rho_n V_n)}$$

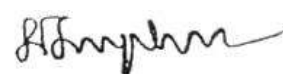
where  $\rho_1, \rho_2, \dots, \rho_n$  are the density of  $V_1, V_2, \dots, V_n$ .

100

5

Intern Ship Details

S.No	Programme name	Program Code	List of students undertaking project work/field work/internship
1	Internship		M.ARAVIND
2	Internship		AZARUDEEN A
3	Internship		N.BALASUBRAMANIAN
4	Internship		GOKULRAJ
5	Internship		JALIL S
6	Internship		M.JANARTHANAN
7	Internship		K.KANAGARAJAN
8	Internship		MAGESH.P.H.
9	Internship		MANOJ KUMAR. J
10	Internship		MUNIYAPPAN S
11	Internship		NAVEEN KUMAR N
12	Internship		PONNARASAN V
13	Internship		POOJESHWAR KARTHICK S A
14	Internship		D SARAN
15	Internship		SRIDHAR R
16	Internship		SUSEENDRAN.P
17	Internship		M.VIGNESH
18	Internship		S.VIJI
19	Internship		VISHVANATHAN D
20	Internship		FIRUS BASHA.M
21	Internship		A.V. HERVIND
22	Internship		JAGAN. S
23	Internship		S MOHAMMED SHABEER
24	Internship		PAVITHRAN S
25	Internship		RADHAKRISHNAN
26	Internship		SARAN RAJ K
27	Internship		SURESH P
28	Internship		TAMIL SELVAN S
29	Internship		R. VISHNU



HOD/MECH



Date: 06-07-2023

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. **JANARTHANAN .M, REG.No - 510421114014**, Department of Mechanical Engineering, Arunai Engineering College, Tiruvannamalai has successfully completed **14 Days** of an internship program from **22-06-2023** to **06-07-2023** in the **SERVICE** department of our organization.

He was highly motivated and hardworking. He worked sincerely at his tasks and did a very good job.

We wish him/her great success in his/her future endeavours.

Sincerely,  
Name - Mr. **MUZAMMIL**  
Designation - Manager



Akan Agency.

Address: No.20 Kanji Main Road,  
Opp Govt Bus Depot.

Telephone: (04175)233377  
Mobile: +91 9843022891



**NLC INDIA LIMITED**

**("NAVRATNA - A GOVERNMENT OF INDIA ENTERPRISE")**

**CERTIFICATE**

This is to certify that

**P.H.MAGESH**

Studying **BACHELOR OF ENGINEERING** in

**MECHANICAL ENGINEERING** at

**ARUNAI ENGINEERING COLLEGE, THIRUVANNAMALAI**

has undergoes internship training on

**"RECONDITIONING OF SME'S GEARBOX AND ITS FAILURE ANALYSIS"**

during the period from **23/06/2023** to **06/07/2023** at

**MINE -I NLC INDIA LIMITED, NEYVELI**

*[Signature]*  
for **CHIEF MANAGER**

**NEYVELI**

**06/07/2023**

**LEARNING AND DEVELOPMENT CENTRE**

**NLC INDIA LIMITED, NEYVELI**

**Chief Manager**  
**Learning & Development Centre**  
**NLC India Limited, Neyveli-3.**

*Training adding value to life*



# **FEEDBACK ACTION TAKEN REPORT**

**ACADEMIC YEAR  
2021 – 2022**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

**Department of Biotechnology**

**Date:4/4/2022**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	6	Enhance the practical exposure of faculty members by undergoing workshop/ FDP	Faculty members motivate to participate various skill development programs in reputed institution	Faculties were attended skill development and FDP programs
Student	87	Bridge the gap between students training and industrial requirements.	Various Plenary lectures arranged for students to meet up industrial requirements	Plenary lectures were arranged through National conference Hapten 2022
Alumni	24	Interaction with alumni is required to stay current trends and method of recruitment	Alumni lecture series conducted with current students	Alumni lecture series were arranged 17 to 22 January, 2022
Employers	3	Students should gain adequate knowledge in recent techniques used in industries	Management discussed with training and placement cell, decided to collaborate with more industry for more campus placement initiative.	MoU signed with Genprotic PVT Ltd for providing knowledge about industries

Prepared By

HOD-BT

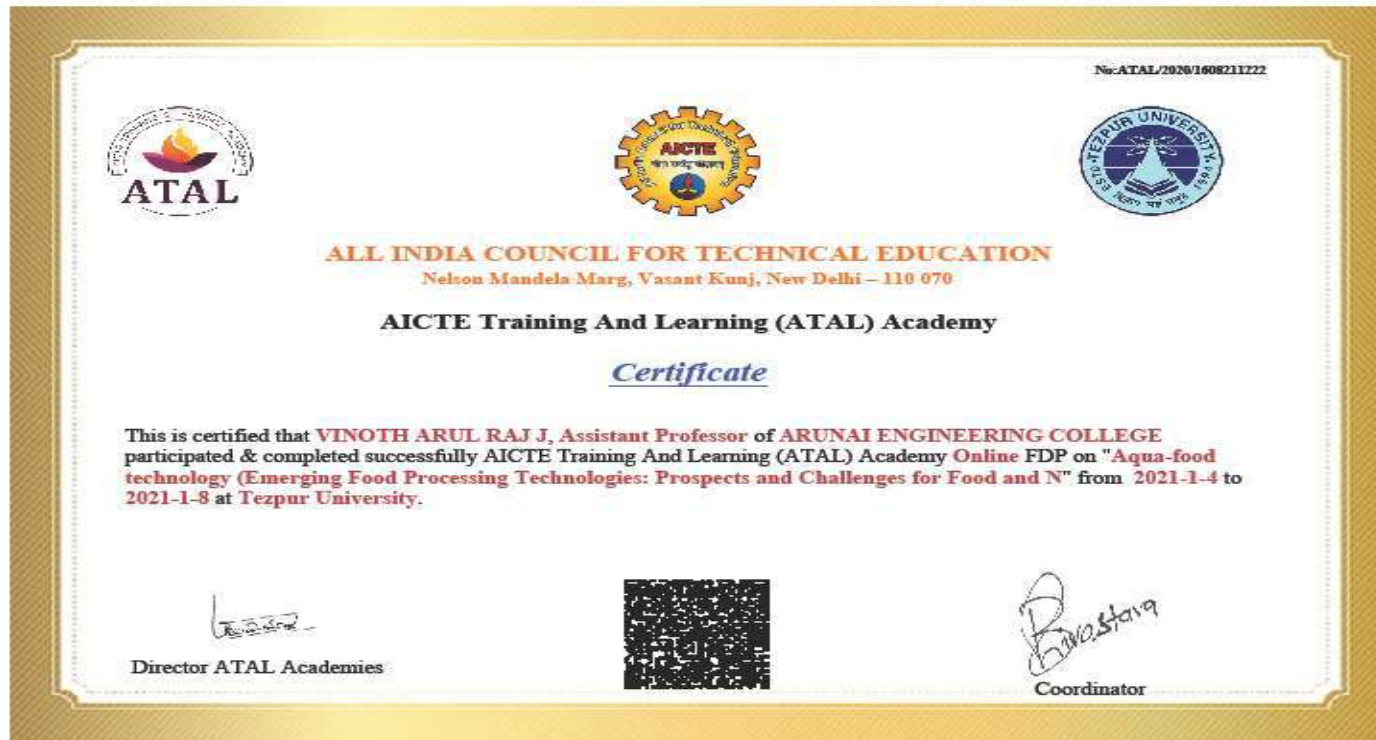
Principal  
Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

**Department of Biotechnology**



Faculties were attended skill development and FDP program





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

### Department of Biotechnology

Alumni lecture series were arranged 17 to 22 January, 2022

**ARUNAI**  
Engineering College  
TIRUVANNAMALAI

DEPARTMENT OF BIOTECHNOLOGY

The Management, Principal, Staff and Students of Department of Biotechnology cordially invite you for the

## ALUMNI LECTURE SERIES 1

17 - 22 JANUARY 2022

**Lecture 1 17.01.2022**

**10:30AM - 11:00AM Inaugural Address**  
Dr. R. Ravichandaran  
Principal, Arunai Engineering College

**11:00AM - 12:00PM How do bacteria resist antibiotics?**  
Dr. Siddharth Jaggavarapu (2006 Batch)  
Post-doctoral fellow, Infectious Diseases,  
Emory University, Atlanta, USA

Session Moderator : Prof. R. Praveen Kumar, [praveen@anna.edu.in](mailto:praveen@anna.edu.in)

Er. E.V. Kumaran [evkumar@anna.edu.in](mailto:evkumar@anna.edu.in)      Dr. R. Sathiyaseelan [rsathiyaseelan@anna.edu.in](mailto:rsathiyaseelan@anna.edu.in)      Dr. R. Ravichandaran [rravichandaran@anna.edu.in](mailto:rravichandaran@anna.edu.in)

<https://meet.google.com/yeh-eejv-stb>



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

**Department of Biotechnology**

MoU signed with Genprotic PVT ltd for providing knowledge about industries



**MEMORANDUM OF UNDERSTANDING**

This non-binding Memorandum of Understanding (MOU) is entered into Tiruvannamalai 12<sup>th</sup> day of March 2021

**BETWEEN**

M/s. ARUNAI ENGINEERING COLLEGE, DEPARTMENT OF BIOTECHNOLOGY, hereafter "AEC", with a registered address at Vedu Nagar, Mathur, Tiruvannamalai-606 603, Tamilnadu, INDIA

**AND**

M/s. GENPROTIC BIOPHARMA PVT LTD, with a registered address at 6&7, VGP Layout Part II, Gandhi Street, Uthandi, Chennai – 600 119, Tamilnadu, India.

AEC and GENPROTIC BIOPHARMA PVT LTD are referred to collectively, as "Parties" or individually as "Party."

MOU Between Arunai Engineering College and Genprotic Biopharma Pvt Ltd



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

### Department of Biotechnology

Plenary lectures were arranged through National conference Hapten 2022

The poster is for a national conference held at ARUNAI Engineering College, Tiruvannamalai. It features the college's logo and a '30th Year in Education' badge. The conference is organized by the Department of Biotechnology and is in a hybrid mode on June 03 & 04, 2022. It includes thematic areas like Bioprocess Engineering and Bioinformatics, and offers registration fees for onsite and online attendees. It also lists important dates for abstract submission and contact information for the ELIXIR Biotech Students Association.

**Stepping into 30th YEAR IN EDUCATION 1993 - 2022**

**ARUNAI Engineering College TIRUVANNAMALAI**

**DEPARTMENT OF BIOTECHNOLOGY**

**National Conference on Bioprospecting & Biotechnology**

**Hybrid Mode** **03 & 04 June 2022**

**THEMATIC AREAS**

- Bioprocess & Bioseparation Engineering
- Bioenergy & Environmental Biotechnology
- Plant & Animal Biotechnology
- Stem Cell Technology
- Bioinformatics
- Protein Engineering
- Nanotechnology
- Natural products & Drug Discovery
- Biochemical Engineering
- Bio Entrepreneurship

**PUBLICATIONS**

- All abstracts will be included in conference proceedings with ISBN number
- Selected full papers will be published as book chapters after peer review in special edition of book entitled "Bioprospecting and Biotechnology" with ISBN number

**Abstract Submission and Registration link**  
<http://tiny.cc/hapten>

**Plenary Lectures**  
**Spot Events (Technical & Non Technical)**  
**Best Paper & Poster Awards**

**REGISTRATION FEE**

- Onsite attendees- Rs. 600 per participant
- Online attendees- Rs. 400 per participant
- 10% waiver for group registration.
- 20% waiver for members of BRSI.

**IMPORTANT DATES**  
Last date for abstract submission : 27.05.2022

**CONTACT**

ELIXIR Biotech Students Association  
Email: [hapten2022@gmail.com](mailto:hapten2022@gmail.com)  
Ph: 8883119801, 7904132316

**For more details visit**  
[www.arunai.org/hapten](http://www.arunai.org/hapten)




Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

### Department of Chemical Engineering

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	4	The practical exposure to the faculty members by undergoing conferences	Faculty members are motivated to participate in conferences	Attached
Students	18	Students should receive practical, hands-on training to acquire in-depth knowledge related to their subjects	Students were permitted to participate in practical sessions related to mass transfer operations.	
Alumni	15	Placement training and preparation should be offered.	The Training and Placement Cell organizes extra coaching sessions and practices.	
Employers	3	(a) Allow students to visit industries for interactive sessions and learning opportunities. (b) Enhance awareness about new technologies	(a) Permitted students for internship in pharma industry. (b) Several technical programs organized to improve technical skills	

  
Prepared By

  
HOD/CHEMICAL

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603

Faculty members are motivated to participate FDP's and international conferences.



## National Virtual Conference on Sustainable Chemistry and Renewable Energy (SCRE - 2022)

Organised by UNIVERSAL INTELLECTUALS TRUST

Non-Governmental Organization, Reg. No: 19/2020

Villupuram - 605 602, Tamil Nadu, India. Web.: [www.uittrust.in](http://www.uittrust.in)



### CERTIFICATE OF PRESENTATION

We hereby confirm that **Ms/Mrs. R. Mary Nancy Flora**, Faculty, Arunai Engineering College, Tiruvannamalai, gave the following oral presentation entitled **“Bionanocomposite For Antimicrobial Activity – A Novel And Green Synthesis Approach”**

at the **SCRE-2022**

Organized by **UIT, Villupuram**

held on 26<sup>th</sup> and 27<sup>th</sup> February 2022.

**Dr. K. Rajkumar**  
Convener - SCRE  
Secretary, UIT

**Dr. A. S. Ganeshraja**  
Co-convener - SCRE  
Chairman, UIT

**Dr. S. Chandrasekar**  
Co-convener - SCRE  
Treasurer, UIT



NAAC Sponsored Two days National Level Workshop on  
"NAAC Accreditation System with Effective DVV Process"



Internal Quality Assurance Cell  
G H Raisoni College of Engineering, Nagpur



Certificate

This is to certify that  
**Dr.S.SIVARATHNAKUMAR**

From **ARUNAI ENGINEERING COLLEGE**

has attended Two days National Level Workshop on "NAAC Accreditation System with Effective DVV Process" organized by Internal Quality Assurance Cell, G H Raisoni College of Engineering, Nagpur sponsored by National Assessment & Accreditation Council (NAAC) on 13<sup>th</sup> & 14<sup>th</sup> May 2022.

  
Dr. Pramod Walke  
Convener

  
Dr. Santosh Jaju  
Co-Convener

  
Dr. Sachin Untawale  
Director, GHRCE, Nagpur

Date of Issue : 17 / 05 / 2022



**Students were permitted to participate in practical sessions related to mass transfer operations.**

Hands-on training on Leaching (Solid-Liquid mass transfer operations) was provided to IV-year students.



**The Training and Placement Cell organizes extra coaching sessions and practices.**



FL/TAP/21-22

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603.**

**TRAINING AND PLACEMENT CELL**

**CIRCULAR**



23.04.2022

In continuation with the circular dated 18.04.2022 pertaining to Placement training program, the following class rooms are allotted for the Third Year students who are attending placement training classes from 27.04.2022 to 29.04.2022 (3 Days).

**Seating Arrangement:**

Sl.No	Hall No	Block	Year	Department	Students Strength
1	ECE 1	ECE	Third Year	CSE 'A' Sec (56)	56
2	ECE 2	ECE	Third Year	CSE 'B' Sec (53) + Auto (6)	59
3	ECE 3	ECE	Third Year	ECE (33) + CHEM (27)	60
4	ECE 4	ECE	Third Year	IT (34) + BIOTECH (24)	58
5	ECE 5	ECE	Third Year	EEE (41) + EIE (3) + CIVIL (16)	60
6	ECE 6	ECE	Third Year	Mech (68)	68

**Due to above Training Program**

The following classes are rearranged in ECE & CSE Block consecutively.(27.04.2022 to 29.04.2022)

**Class Room Allotment**

1. ECE Second Year – E7 (CSE Block)
2. ECE Final Year – E8 (CSE Block)
3. MECH Second Year – EC7 (ECE Block)
4. MECH Final Year 'A' Sec – EC8 (ECE Block)
5. MECH Final Year 'B' Sec – EC9 (ECE Block)

**Note:**

1. Department Placement Coordinator are instructed to take attendance both FN & AN Session
2. Report the Attendance Details to Placement Cell and also give the mess strength to office.

  
Registrar

Copy submitted to the Vice Chairman

Copy to:  
Principal  
Registrar  
Director  
All HOD's  
Sergeant  
TAP File



## Permitted students for internship in pharma industry.



### Kawman Pharma

A Division of **K.P. MANISH GLOBAL INGREDIENTS PVT.LTD**  
Plot No. B-2, SPCOT Indl. Complex, Kudikadu,  
Coimbatore-607005, T. 08162 239239/656  
CIN No. U24997TN2007PLC065205.

Date: 08.1 .2022

#### To Whom So Ever it May Concern

This is to certify that the student **SATHYA NARAYANAN. S (510419203020)** is studying **B.Tech Chemical Engineering., in Arunai Engineering College - Thiruvannamalai.** He has done his **INTERNSHIP** successfully in **Production** in our Organization **from 06.1 .2022 to 20.1 .2022.**

During the period of his **INTERNSHIP** with us, He was found **punctual and inquisitive.**

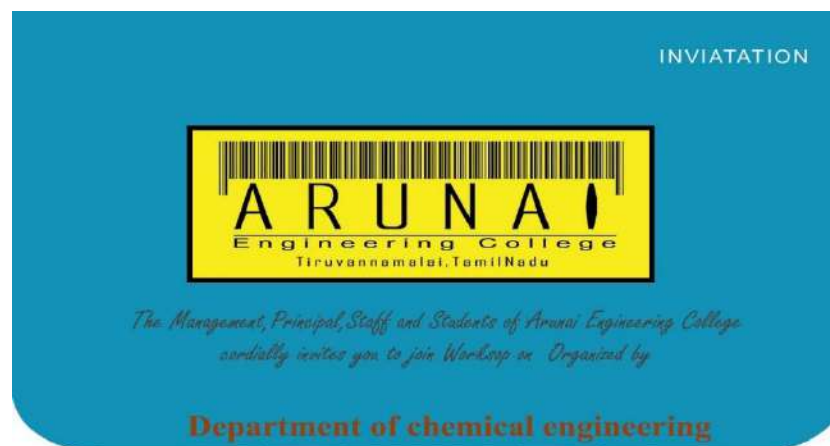
We wish him all the best in his future endeavors.

Yours Sincerely

For **KAWMAN PHARMA**  
(A Division of **K.P. Manish Global Ingredients Pvt. Ltd**)

Authorized Signatory

**Value - added programs organized to improve technical skills**



**Five Days Value added course on  
Fine and speciality chemicals**

**Date: 25th Feb 2022 @ 10.00 a.m**

**Chief Guest**

**Dr.G. Vijayaraghavan**

ASP ,Department of chemical engineering  
Rajalakshmi engineering college-Chennai.

**In the Presence of**

**Er.E.V.Kumaran**

VICE CHAIRMAN

**Dr.R.Sathiyaseelan**  
REGISTRAR

**Dr.R.Ravichandran**  
PRINCIPAL

**Prof. Vimal Kumar**  
HOD

  
**Prepared By**

  
**HOD/CHEMICAL**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

**Department of Civil Engineering**

Date:03.06.2022

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	6	Suggested to provide training related to software used in Civil Engineering field.	The department signed a MoU between the institution and Vector Solutions to provide practical training related to ANSYS.	MoU signed between institution and Vector Solutions on 25 <sup>th</sup> August 2021.
Students	27	Students are suggested to provide extra hours for reading journals and books in library.	Library hour is allocated in timetable to enable students to read journals and books in the library.	Library hour is allocated in timetable and it is implemented from 07/02/2022.
Alumni	18	Arrange field visit for students to get practical knowledge.	Field visits are arranged for the students to gain field knowledge.	Field visits are arranged to students to visit Thannal Mud Homes on 17/12/2021.
Employers	2	Suggested on addition of new courses on the skill development.	Conducted new courses focusing on the skill development which will help students in their employability and professional practice.	Conducted Two days National Level workshop on ANSYS on 10.03.2022 to 11.03.2022.

*P. Jayaram*  
Prepared By

*R. Kathiraman*  
HEAD OF DEPARTMENT  
DEPT. OF CIVIL ENGINEERING  
ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI - 606 603

*[Signature]*  
PRINCIPAL  
Arunai Engineering College  
Tiruvannamalai - 606 603



**Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22**

1. MoU signed between institution and Vector Solutions on 25<sup>th</sup> August 2021.



தமிழ்நாடு தமிழ்நாடு TAMIL NADU

06/08/2021

Arunai Engineering College  
Tiruvannamalai

21AC 154505

நா.ருத்திரன்.

மு.தா.வி.. உரிமம் எண்: 9/2008,  
2<sup>ம்</sup> இடைநிலை சார்பதிக வளாகம்  
திருவண்ணாமலை, தமிழ்நாடு

**MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding (MOU) entered on the 25<sup>th</sup> day of August 2021

By and Between

**Arunai Engineering College**, having its CAMPUS at (Velunagar, Tiruvannamalai - 606603) and represented by its **Principal** (which expression shall mean and include its successors in office and assigns).

And

**Vector Solutions** having its office at Chacko Towers, Anna Nagar Main Road, Anna Nagar, Puducherry - 605005 and represented by its **Chief Executive Officer** (which expression shall mean and include its successors in office and assigns).

### **Objectives of the Collaboration:**

- To provide employable skills to the students of Arunai Engineering College.
- Make the student aware of the latest tools and techniques in order to keep them industry ready at the end of their course.
- Offer the course at an affordable price to the students of Arunai Engineering College.
- Increase the employability of the student and maximize on the placement opportunities available.
- To build and improve the confidence level of the student to face the challenges of real time.

This Memorandum of Understanding is to conduct a Unique, Step – By – Step, Systematic, and Employable Skills Development Program for the students of *Arunai Engineering College* towards achieving the objective of maximizing the employable opportunities for students of *Arunai Engineering College*.

This Memorandum of Understanding states the terms and conditions under which the Trainings shall be conducted by **Vector Solutions** at the premises of *Arunai Engineering College* and lists herein the respective responsibilities of both parties.

### **PREAMBLE**

To get a student employable and placed in an organization; over and above the subject knowledge he / she is expected to have the following:

- Strong Fundamental Engineering Knowledge
- Engineering related Multiple Technical Skills - Develop skills that add value

While Subject Knowledge would be provided by *Arunai Engineering College*, Vector Solutions will equip the students with required industry specific software skills, modelling, analysis, 3D rendering, 3D printing.

On one hand, thousands of unemployed Engineering graduates are not finding suitable jobs, while on the other hand, Industry requires millions of young minds at all levels but are unable to find the right candidate. This is because of the skill gap that exists between the student and industry requirements. This skill gap is sought to be minimized for the students of *Arunai Engineering College* by facilitating them to acquire the appropriate and relevant skills at *Arunai Engineering College* itself through this program.

### **Vector Solutions Shall Provide:**

- Comprehensive Vector Solutions reference and notes to all students for the course.
- Qualified trainers for the course.
- Periodical assessment of the progress of students for their further improvements.

- 'Certificate of Completion' to every student who successfully completes the training program.
- "Certificate of Association" to the college.

#### **Arunai Engineering College Shall Provide:**

The following facilities will be provided only within Arunai Engineering College, Tiruvannamalai.

- The required number of computer systems in the lab and other required infrastructure for the practice
- The Class rooms with LCD projector for the theory classes.
- The Schedule with the classes for this training.
- The supports to ensure all students who have signed up for the class to attend the training programs scheduled for them.
- The relevant CAD software should be available in the computer systems.
- Disciplinary support for the smooth conduct and timely completion of the entire course.
- Minimum 25 Hours of Training time.
- Provide all support to Vector Solutions in the marketing initiatives undertaken by Vector Solutions to enroll students in the courses offered by Vector Solutions Centre. Arunai Engineering College will provide all infrastructural facilities for the marketing initiatives undertaken by Vector Solutions.
- Boarding and Lodging facilities for the trainers.

#### **PARTICIPANTS**

The participants would be the Students of *Arunai Engineering College* from Civil Engineering Department and Other Departments from Third & Final Years mentioned in ANNEXURE .

#### **COURSE CONTENTS**

Vector Solutions in consultation with *Arunai Engineering College* shall finalize the courses and fees for the skills development program. The same is provided in the Annexure. These will be reviewed every year and suitable changes, if required, will be incorporated. As the requirement of each course is different, courses and fees have been worked out separately.

#### **TIME SCHEDULE**

The programs will be conducted during the days and timings provided by *Arunai Engineering College*. The students will be divided into batches, depending on the total strength. The programs will be conducted according to the Time Table drawn up with the mutual consent of Vector Solutions and *Arunai Engineering College*. Utmost care will be taken to frame the time table in such a way that it does not coincide with college exams enabling the student to complete

his training ahead of the exams. Vector Solutions will not conduct any classes during the time of exams. In case of any change in training schedule the same will be intimated to the Program Coordinator of *Arunai Engineering College*. Similarly, if *Arunai Engineering College* wants a change in training schedule the same may be communicated to the Programme Coordinator of Vector Solutions. In either of the case, a revised training schedule has to be made and the Programme Coordinators of both Vector Solutions & *Arunai Engineering College* and the respective students must be informed about the change in training schedule by means of suitable media (emails/posters/circulars/notice board displays).

### **Programme Coordinator**

The Principal of *Arunai Engineering College* shall appoint a “Programme Coordinator” for the duration of the program, who shall liaise with Vector Solutions and make the training process learner-friendly and effective. Vector Solutions shall work in close relationship with the Programme Coordinators, who in-turn shall keep a close touch with the students. In the event of any difference of opinion between Vector Solutions and the Programme Coordinator, the matter should be referred to the Chairman of *Arunai Engineering College*, whose decision thereon shall be final and binding on both the parties.

### **COMMENCEMENT OF COURSE**

*Arunai Engineering College* will ensure that the courses will start within 90 (Ninety) days from the date of signing of MOU. However exception can be made due to reasons mentioned in the Course Completion Clause or due to delay on *Arunai Engineering College*'s side.

### **COURSE FEES & PAYMENT PATTERN**

The course fee per student for each course offered is decided and mutually agreed upon by both the parties. The course, course fee, course deliverables, number of students & batch timings are available in the Annexure . The student shall pay the course fee directly to *Arunai Engineering College* before the start of the course. The college shall provide 40% of the total cost before the commencement of the course. The remaining 60% shall be paid at the end.

### **COURSE COMPLETION:**

While Vector Solutions will endeavor to complete the course as per the schedule mutually agreed upon and mentioned in Annexure, Vector Solutions will not be responsible and accountable for delay in completing the course due to reasons which are beyond the control of Vector Solutions. Reasons beyond the control of Vector Solutions include – acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or

interruption or failure of electricity or telephone service, failure and non – availability of Computer Systems, non – availability of Classrooms), law and order problems, students unrest/strike/boycott, unscheduled changes in college curriculum and other unforeseen circumstances.

- Course will be completed as mentioned in ANNEXURE .

While it is mandatory for the student to have undergone the complete course as mentioned in ANNEXURE to be eligible for a Course Completion Certificate. In case he/she opts out due to any reason an appropriate certificate will be issued for only for that course completed by the student. Students will not be eligible for Certification for the courses that they have not completed.

Vector Solutions will not issue “Certificate of Completion” to the successful student, if full payment is not made. Vector Solutions will refund the fees once paid if the student opts out or discontinues the course at any stage due to any reason.


#### VALIDITY

Both *Arunai Engineering College* and Vector Solutions shall have the rights to terminate this MOU by providing **THREE** months notice in writing on their respective letter head only after a minimum period of 3 year. Termination of this MoU for whatever reason shall be without prejudice to the rights of either party and of the students and the ongoing academic programmes.


This Memorandum of Understanding will be valid for a period of **3** years.

This Memorandum of Understanding shall come into effect from 25<sup>th</sup> August 2021.

For: *Arunai Engineering College*

  
Name : **Dr R Ravichandaran**  
Designation : **Principal**  
Date : **25.08.2021**

For: *Vector Solutions*

  
Name : **Mr J Jagan**  
Designation : **Chief Executive Officer**  
Date : **25.08.2021**






**Dr. R.Ravichandaran M.E., Ph.D.**  
**Principal**  
**Arunai Engineering College**  
**Tiruvannamalai 606 603**





2. Library hour is allocated in timetable and it is implemented from 07/02/2022.

**ARUNAI**  
ENGINEERING COLLEGE  
TIRUVANNAMALAI

**DEPARTMENT OF CIVIL ENGINEERING**

*PG Class Schedule for Academic Year 2021-2022*

Year & Sem: I & I      Rev: 00      Effective from: 07/02/2022

Day/Time	09:20AM - 10:10AM	10:10AM - 11:00AM	11:00AM - 11:20 AM	11:20AM - 12:10PM	12:10PM - 01:00PM	01:00PM - 02:00PM	02:00PM - 02:50PM	02:50PM - 03:40PM	03:40PM - 04:30PM	
Monday	ST 4102	RM 4151	TEA BREAK	ST 4111	LUNCH BREAK		ST 4101	ST 4004	Library	
Tuesday	ST 4104	AX 4092		ST 4004		RM 4151		ST 4161		
Wednesday	MA 4153	MA 4153		ST 4101		ST 4102		RM 4151	ST 4111	
Thursday	RM 4151	ST 4101		AX 4092		ST 4004		ST 4102	Library	Counselling
Friday	MA 4153	MA 4153		ST 4102		ST 4004		Library		


  

S.No	Sub Code	Sub Name	No of Hours per Week	Staff Name
1	ST 4101	Theory of Elasticity and Plasticity	4	Mrs M Dhivya
2	ST 4102	Structural Dynamics and Earthquake Engineering	4	Mr V Sivakumar
3	RM 4151	Research Methodology and IPR	4	Mr R Kathiravan
4	ST 4004	Prefabricated Structure	4	Mr V Vijayakumar
5	MA 4153	Advanced Mathematical Methods	4	Mr.D.Murali
6	ST 4161	Advanced Construction Engineering & Experimental Techniques Laboratory	3	Mr.M.Balamurugan
7	ST 4111	Seminar	4	Mrs M Sangavi
8		Library	5	Mr V Sivakumar
9		Counselling	1	Mr V Sivakumar

<b>Counselor's Name:</b>	<b>Mr V Sivakumar</b>
--------------------------	-----------------------

  
 R. Kathiravan  
HOD/CIVIL

  
 PRINCIPAL

3. Field visits are arranged to students to visit Thannal Mud Homes on 17/12/2021.



4. Conducted Two days National Level workshop on ANSYS on 10.03.2022 to 11.03.2022.

INVITATION



Learners Intellectual Sanctuary  
**ARUNAI**  
Engineering College  
TIRUVANNAMALAI



**DEPARTMENT OF CIVIL ENGINEERING**  
*Cordially invites you to the  
Inauguration of*  
**TWO DAYS NATIONAL LEVEL WORKSHOP ON ANSYS FOR  
STRUCTURAL ENGINEERS**  
on 10/03/2022 to 11/03/2022

*In the august presence of:*  
**Er.E.V.Kumaran**  
VICE-CHAIRMAN

*Chief Guest:*  
**Jagan J**  
Chief Executive Officer,  
Vector Solutions-Puducherry.

Dr.R.Sathiyaseelan REGISTRAR    Dr.R.Ravichandaran PRINCIPAL    Mr.R.Kathiravan HOD / CIVIL

[www.arunai.org](http://www.arunai.org)

	<b>ARUNAI ENGINEERING COLLEGE</b> <b>QUALITY PROCESS DESCRIPTION</b> <b>ACTION TAKEN ON FEEDBACK ANALYSIS</b> <b>Standard: ISO 9001:2015</b>		<b>Format : F-FDB-02</b> <b>Version : 01</b>
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Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021 – 22

**Department of Computer Science and Engineering**

11.05.2022

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	10	FDP is required to develop teaching practices	Faculties are encouraged to attend FDP, which provides an insight about the upcoming technical areas	Recent Advancements in Artificial Intelligence and Machine Learning conducted on 10.06 to 11.06.2021
Students	120	Arrange additional course to enable them learn current technologies	Value Added Course on current technology were planned to be arranged	Webinar Series “Right Pitch To The Right Audience” were conducted on 19.07.21 to 28.07.21 and “Introduction to Data Science” on 12.08.21
Alumni	10	More training on group discussion and aptitude may be arranged	Extra coaching on aptitude and group discussion were arranged	“Talks On Placement Preparation” conducted on 26.11.21 to 27.11.21
Employers	1	Enhance awareness about new technologies	Courses on current technologies were conducted	Data Science using python conducted from 20.12 to 24.12.21, IoT using arduino 3.1.22 to 7.1.22

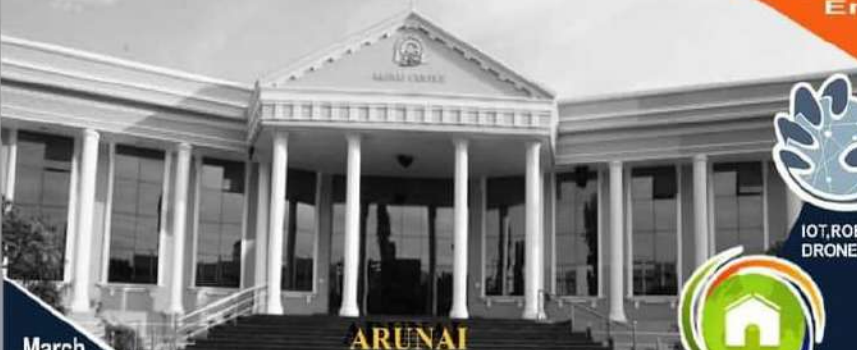
  
 Prepared By

  
**PRINCIPAL**  
 Arunai Engineering College  
 Tiruvannamalai.

  
**HOD-CSE**



**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu



March  
**18 & 19**  
2021

**ARUNAI**  
**IDEATHON 2K21**



IOT, ROBOTICS,  
DRONES



RENEWABLE  
ENERGY, WASTE  
MANAGEMENT



SMART  
VEHICLES

National Innovation Contest

**IDEATHON 2k21**  
(ACTIVATING CREATIVITY)

**HAVE AN  
INNOVATIVE  
IDEA ?**

Choose your own Team,  
Dream & Build

For Registration



www.arunai.org/ideathon

- 100+** Innovators
- 25+** Ideas
- 10+** Streams Involved

We will spark new ideas together!..

**BENEFITS**

1. Top 5 teams will be given opportunity to visit near by incubation centre.
2. Opportunity to network with professional in the corporate sector
3. Platform to showcase ideas and talents in front of a panel of professionals
4. Valuable Certificate

**RULES AND REGULATIONS**

1. Only Ideas & Products that help in implementation of Sustainable Development Goals accepted
2. A Team may consist of Maximum of 4 students from the same stream or from other stream
3. A Team name should be unique
4. Shortlisted Teams shall present their ideas in PPT format (PPT Template will be emailed to shortlisted Teams)
5. Certificate will be provided for all candidates

**IMPORTANT DATES**

Registration Opening :15.02.2021      Last Date for the submission of Idea:15.03.2021  
Pre Final Presentation:17.03.2021      Final Presentation & Result:18.03.21 & 19.03.2021

For any queries Contact: 9787074363, 9994699124, 9787648816



**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu



**Department of Computer Science and Engineering**

*Cordially invites you to join the National Level Two Day*  
**VIRTUAL FACULTY DEVELOPMENT PROGRAMME**

On

**Recent Advancements in  
Artificial Intelligence and Machine Learning**

**Date: 10<sup>th</sup>, 11<sup>th</sup> JUNE 2021 @ 11.00 am**



**vyj-yvap-brg**

**Instructions to Participants**

- E-certificate will be issued for all active Participants
- For Registration <https://arunai.org/iic> for more details mail us [cse@arunai.org](mailto:cse@arunai.org)



**Contact Details**

**9787074357, 7708414682**



**IIC Arunai  
Engineering College**

In the Presence of  
**Er.E.V.Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Dr.M.Jothish Kumar**  
HOD/CSE

Guest of Honour  
**Dr.Suresh A Shan**  
Chairman  
CSI Mumbai Chapter, Mumbai



Guest Speaker  
**Mr.Utpal Chakraborty**  
Head of Artificial Intelligence  
YES Bank



Guest Speaker  
**Mr.Vivek Tiwari**  
CEO of Audix Technologies  
Consulting on Enterprise Cyber  
Security and IT Quality Assurance Solutions





**Department of  
Computer Science & Engineering**

In association with CSI Mumbai Chapter

Centre of  
Skill Development

Talk on  
**Placement**  
Preparation

*Are you Preparing for  
Placements & Internships?*

Want to Crack interviews of  
Big Companies?

Join us Let's have a Talk with  
our panel

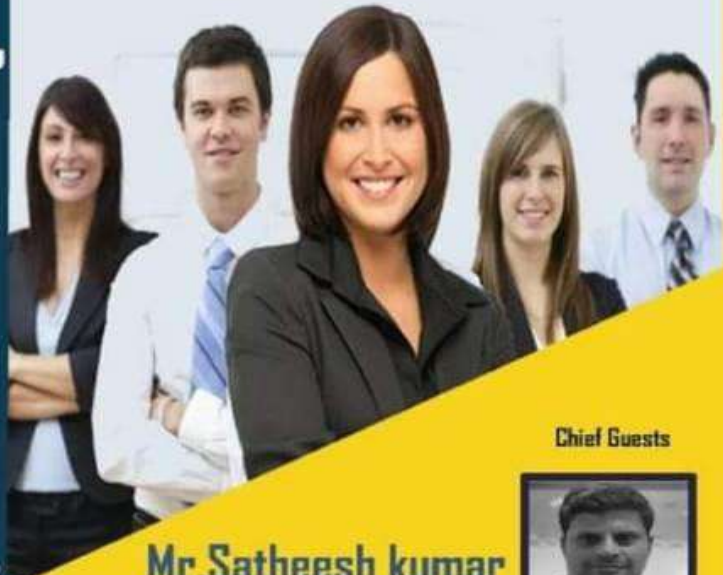
Date: 26.11.2021 & 27.11.2021



vyj-yvap-brg

*Success By Hardwork*

[www.arunai.org](http://www.arunai.org)



Chief Guests

**Mr. Satheesh kumar**  
IT System Admin  
Bahrain



**Mr. Venkataraman**  
Certified SAP Consultant  
TCS



**Mr. Shahul Hameed**  
Block chain engineer  
Origin Protocol



**Mr. Vijay Selvaraj**  
Odoo Developer  
Tefugen Technologies



**Ms. J. Abirami**  
Software Developer  
Roadmap IT Solutions



**Er.E.V.Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Dr.M.Jothish Kumar**  
HOD-CSE

Invitation



Centre of Skill Development  
Department of Computer Science  
and Engineering

# RIGHT PITCH TO THE RIGHT AUDIENCE

Timing: 06.00 pm to 07.00 pm



Join our  
WEBINAR SERIES on

- #1** Prologue on Theory of Computation  
(DATE: 19.07.2021)
- #2** Cloud Journey  
(DATE: 21.07.2021)
- #3** The Future of Networking  
(DATE: 23.07.2021)
- #4** Trends in Network Management  
(DATE: 27.07.2021)
- #5** Evolution of Cryptanalysis   
(DATE: 28.07.2021)

In the Presence of

**Er.E.V.Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Dr.M.Jothish Kumar**  
HOD-CSE

[vyj-yvap-brg](https://www.zoom.us/j/9123456789)



[www.arunai.org](http://www.arunai.org)



Department of Computer Science &  
Engineering

Cordially invites you to join the  
Value Added Course on

# Data Science Using Python

From 20.12.2021 to  
24.12.2021

Resource Person  
**Mr. Venkatesan. G**  
ID NET TECHNOLOGIES  
Cuddalore

In the presence of  
Er. E. V. Kumaran  
Vice Chairman

Dr. R. Sathiyaseelan  
Registrar

Felicitation by  
Dr.R.Ravichandaran  
Principal

Dr. M. Jothishkumar  
HOD CSE





Department of Computer Science &  
Engineering

Cordially invites you to join the  
Value Added Course on

# IoT Using Arduino

From 03.01.2022 to  
07.01.2022

Resource Person  
**Mr. Velmurugan. K**  
ID NET TECHNOLOGIES  
Cuddalore

In the presence of  
**Er. E. V. Kumaran**  
Vice Chairman

**Dr. R. Sathiyaseelan**  
Registrar

Felicitation by  
**Dr. R. Ravichandaran**  
Principal

**Dr. M. Jothish Kumar**  
HOD/CSI



ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	To enhance the practical exposure of faculty members by undergoing industrial training/ workshops/ FDPs	Faculty members are undergoing various skill enhancement programme in regular basis.	ATTACHED
Students	55	1.Requested to arrange workshop to improve practical exposure. 2.Requested to arrange an IV visit on core domain.	1.Arranged workshop on MATLAB simulink. 2. Arranged IV visit for student.	
Alumni	5	Special training programs to be organized on current trends.	Organized Workshop for student on current trends.	
Employers	2	Suggested to enhance the ICT based teaching pedagogy.	Wi-Fi connections were enhanced to take classes from the respective building.	

  
Prepared By

  
HOD-ECE  
**Dr. S. ELANGO** B.E., M.E., Ph.D.  
Professor & Head  
Dept. of Electronics and Communication Engg.  
Arunai Engineering College,  
Tiruvannamalai-606 603.

  
PRINCIPAL  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Workshops attended by faculty:



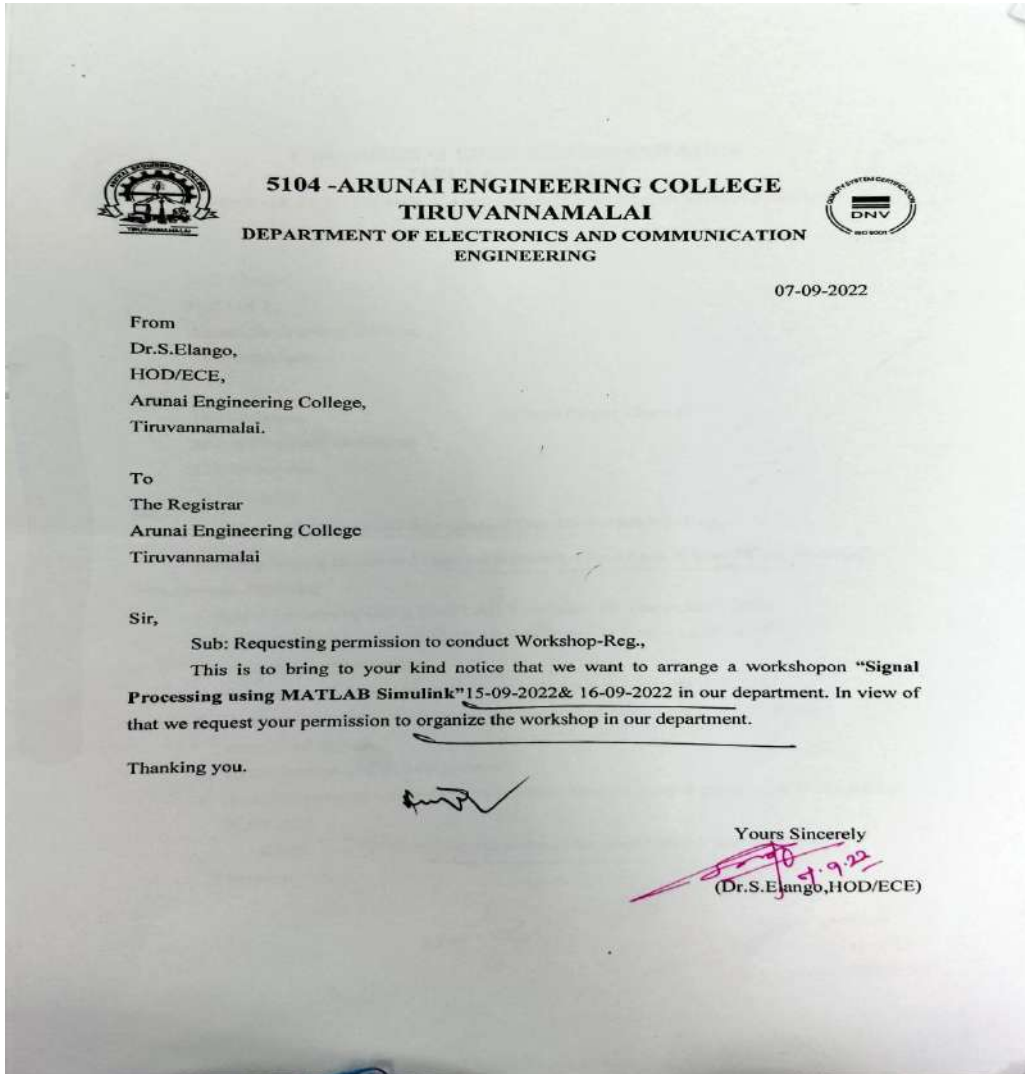


ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Workshop organized to improve practical exposure:





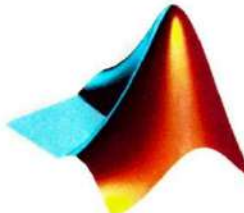
Invitation


**ARUNAI**  
Engineering College  
TIRUVANNAMALAI

Department of Electronics and Communication  
Engineering  
*Cordially invites you to join*

**WORKSHOP on**  
**SIGNAL PROCESSING USING MATLAB SIMULINK**

In Association with  
 Pantech e Learning 

  
**MATLAB  
SIMULINK**  
www.arunai.org

  
**Mr.VIGNESH KUMARAN**  
R&D Engineer  
Pantech E Learning pvt Ltd  
Chennai

Date: 15.09.2022 & 16.09.2022  
@ 10.00 a.m .Venue- ECE Lab

In the Presence of  
Er.E.V.Kumaran  
Vice Chairman

Presided by  
Dr.R.Sathiyaseelan  
Registrar

Education by  
Dr.R.Ravichandaran  
Principal

Welcome address by  
Dr.S.Elango  
HOD-ECE



**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI – 606 603**



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**Arranged Industrial visit for the students:**

**Permission Letter**

24.03.2022

From  
Dr.S.Elango,  
Head of the Department  
Department of ECE  
Arunai Engineering College,  
Tiruvannamalai.


To  
The Registrar,  
Arunai Engineering College,  
Tiruvannamalai.

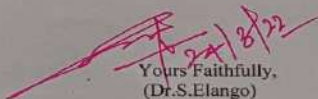
Respected Sir,  
Sub: Requesting permission- Educational tour for II year ECE students – Reg

To enhance Industry exposure the department of ECE has arranged an educational tour for II year students (60 students) on 31.03.2022 one day. The staff Members Dr.K.Yogitha, AP/ECE and Dr.K.Rajmohan, AP/ECE may be assigned to accompany them. I kindly request you to grant permission for the visit.

The plan of visit is as follows,

JDNET TECHNOLOGIES	31.03.2022	II year (60 students )
--------------------	------------	------------------------

Thanking you. 

  
Yours Faithfully,  
(Dr.S.Elango)  
HOD/ECE

**Industrial visit confirmation letter:**



# **JDNET TECHNOLOGIES**

**PROJECT DEVELOPMENT ORGANIZATION  
(An ISO 9001 : 2015 Certified Institution)**

## **Industrial Visit Confirmation Letter**

DATE: 25.03.2022

TO


Dr.S.Elango,  
Head of the Department,  
Dept of Electronics and communication engg,  
Aranai Engineering College,  
Tiruvannamalai.

Respected Sir

With reference to your letter we are happy to offer you an Educational tour for II year students of ECE (60 students) on 31.03.2022 one day at JDNET TECHNOLOGIES, Cuddalore. We look forward to your active participation in the Educational Tour and building your foundations for your future career.

Thanking you.



For and behalf of  
JD NET TECHNOLOGIES PVT LTD  
  
Signature of Company Executive  
(K. VELMURUGAN, Managing Director)

**# 31, Subburaya Chetty Street, Thirupapuliur, Cuddalore - 2.  
Mail to : [jdnetprojects@gmail.com](mailto:jdnetprojects@gmail.com)  
Contact : 04142 - 236080**



ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Workshop Organized to the students on current trends:

**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

Organized by  
e-SAT Students Association

**Department of  
Electronics and Communication Engineering**

The Management, Principal, Staff & Students of  
e-SAT association cordially invite you all to join the  
Inauguration of  
**Online Workshop on AR/VR**

**DATE : 04.02.2022**

*Resource person*  
**Mr. M. Ashok Kumar,**  
Developer Trainer,  
Praya labs,  
Tiruvannamalai

*In the presence of*  
**Er. E. V. KUMARAN**  
VICE-CHAIRMAN

*Presided by*  
**Dr. R. SATHIYASEELAN**  
REGISTRAR

*Felicitation by*  
**Dr. R. RAVICHANDARAN**  
PRINCIPAL

*Welcome address*  
**Dr. S. ELANGO**  
MOD/ECE

[www.arunai.org](http://www.arunai.org)



**Department of  
Electronics and Communication Engineering**

The Management, Principal, Staff & Students of  
e-SAT association cordially invite you all to join the  
**Inauguration of Online Workshop on IOT Using  
Arduio**



**DATE : 21.09.2021**

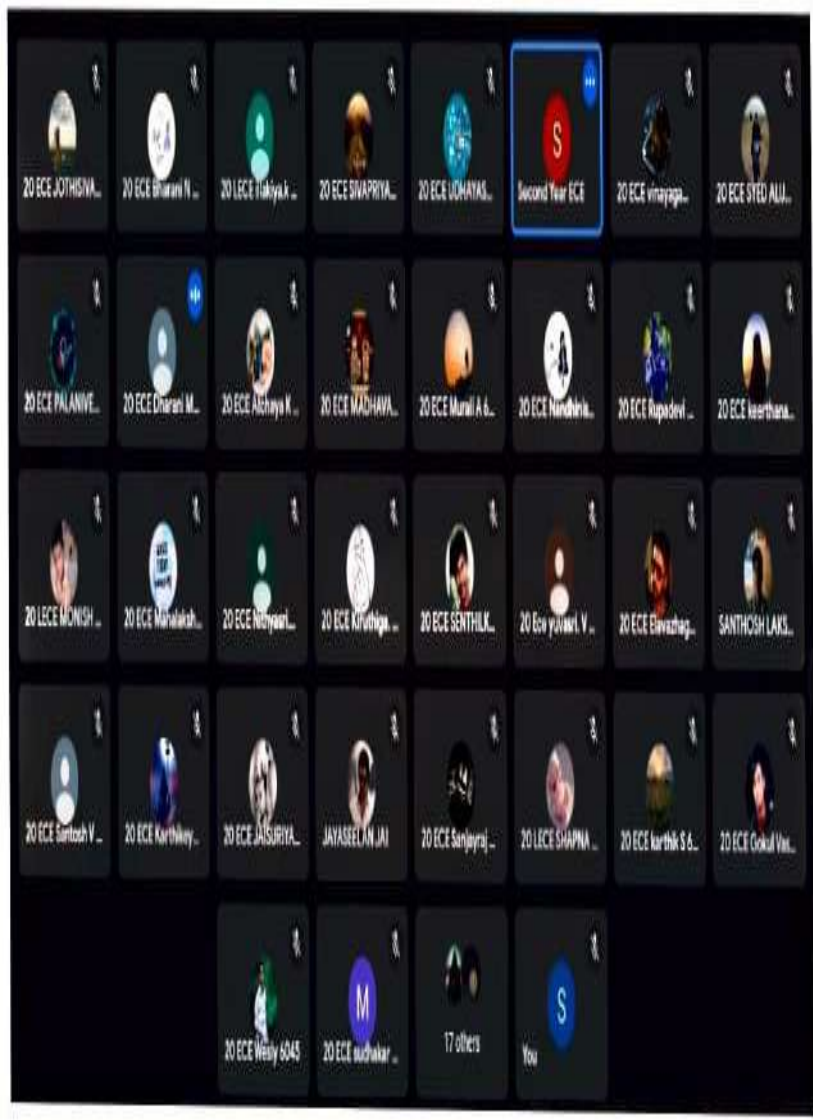
*Resource person*  
**Mr.S.Viswanthan,**  
Li-Fi Technologies,  
Erode.

*In the presence of*  
**Er.E.V.KUMARAN**  
VICE-CHAIRMAN

*Presided by*  
**Dr.R.SATHIYASEELAN**  
REGISTRAR

*Felicitation by*  
**Dr.R.RAVICHANDARAN**  
PRINCIPAL

*Welcome address*  
**Dr.S.ELANGO**  
HOD/ECE







**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI – 606 603**



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**Wi-Fi facility in the ECE department:**



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# ARUNAI ENGINEERING COLLEGE

Tiruvannamalai



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

### Department of Electrical and Electronics Engineering

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	1.Wi-Fi facility is required at department block 2. The financial support to the faculty members by attending conferences.	1.Wi-Fi facility provided at EEE department block 2. Registration fees will be sponsored by the management for faculty members who are attending conferences.	Attached
Students	58	1. Need more coaching class for problematic subjects. 2.Requested to arrange industrial visit 3.Requested to arrange value added course for currents trends	1. Special classes conducted for problematic subjects. 2. Department arranged industrial visit to TNEB at tiruvannamalai 2. Value added course are arranged.	
Alumni	8	Placement training and practices should be provided	Additional coaching class and practices conducted by Training and placement cell	
Employers	-	Nil	Nil	

  
Prepared By

  
HOD-EEE

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

### Wi-Fi facility provided at EEE department block



**Registration fees will be sponsored by the management for faculty members who are attending conferences.**

SPRINGER LINK Log in

Menu Search Cart

**Proceedings of 2nd International Conference on Artificial Intelligence: Advances and Applications** (pp 477-482)

Home > Proceedings of 2nd International Conference on Artificial Intelligence: Advances and Applications > Conference paper

**Multi-objectives for TCSC Placement Using Self-adaptive Firefly Algorithm**

Sevanesu Rajasekaran, Bhavani Venkatesh & C. Sarma

Conference paper | First Online: 14 February 2022

473 Accesses | 1 Citations

Part of the *Algorithms for Intelligent Systems* book series (AIS)

**Abstract**

This paper examines multi-objectives for power system performance improvement through the placement of Thyristor Controlled Series Compensator (TCSC) with the application of Self-Adaptive Firefly Algorithm (SAFA). The SAFA selects the best positions and parameters for TCSC placement. Three single objectives of real power loss

18

07:22, 9/24 AM Multi-objectives for TCSC Placement Using Self-adaptive Firefly Algorithm | SpringerLink

SPRINGER LINK Log in

Menu Search Cart

**Proceedings of 2nd International Conference on Artificial Intelligence: Advances and Applications** (pp 477-489)

Home > Proceedings of 2nd International Conference on Artificial Intelligence: Advances and Applications > Conference paper

**An energy efficient solar and wind hybrid power generation for micro grid applications using FPGA**

T. S. Balaji, Prasadhar, P. Thamaraiselvi, S. Priyashrini & C. Sarma

Conference paper | First Online: 14 February 2022

473 Accesses | 1 Citations

Part of the *Algorithms for Intelligent Systems* book series (AIS)

**Abstract**

This paper propose the design of hybrid power generation with solar and micro wind renewable energy source in FPGA digital platform. The hybrid power harvested with solar system and wind system has been stored with battery energy system. Power to the distributed system through the three phase inverter is obtained by proper

19



# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Special classes conducted for problematic subjects.

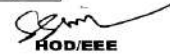


**Arunai Engineering College**  
Tiruvannamalai.  
Department of Electrical & Electronics Engineering  
**Name list for Special Class Attendance**



**EE8351-Digital Logic Circuits**  
4.30 pm - 5.30 pm

S.NO	REGISTER NUMBER	NAME	8/11	9/11	10/11	11/11	12/11	13/11	15/11	16/11
1	510420105001	ABDUL KADHAR A	/	/	/	/	/	/	/	/
2	510420105006	ARUN PRASANTH G	/	/	/	/	/	/	/	/
3	510420105007	BALACHANDAR B	/	/	/	a	/	/	/	/
4	510420105008	BALAJI M	/	/	/	/	/	/	/	/
5	510420105011	GOKULAN G	/	/	/	/	/	/	/	/
6	510420105016	MANJULA K	/	/	/	/	/	/	/	/
7	510420105024	PURUSHOTHAMAN B	/	/	/	/	/	/	/	/
8	510420105025	RANJITH KUMAR M	/	/	/	/	/	/	/	/
9	510420105306	RAMANA K	/	/	/	/	/	/	/	/
10	510420105308	SANTHIYA S	/	/	/	/	/	/	/	/
11	510420105311	SIVANESAN S	a	/	/	/	/	/	/	/
12	510420105316	VIJAYARAGHAVAN R	/	/	/	/	/	/	/	/
13	510420105317	YESHWANTHU D	/	/	/	/	/	/	/	/
14	510420105318	AKSHAY VARMAN N	/	/	/	/	/	/	a	/
15	510420105018	MUNISHA M	/	/	/	/	/	/	/	/

  
HOD/EEE

Department of EEE arranged industrial visit to TNEB at Thiruvannamalai





# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



Value added courses are arranged on the topic Power converters design and development and solar installation and maintenance

**Invitation**



**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

Department of Electrical & Electronics Engg  
&  
Department of Electronics & Instrumentation Engg

*The Management, Principal, Staff and Students of  
Arunai Engineering College cordially  
invite you to join*

**Value Added Program on**

**POWER CONVERTER DESIGN  
AND  
DEVELOPMENT**

**Guest**  
Dr.S.Thamizharasan  
Managing Director  
SK Powercon Fabricators  
Pondicherry

Date: 03-10-2022 to 10-10-2022

In association with,  
 INSTITUTION'S  
INNOVATION  
COUNCIL  
(Safety of Education Initiative)

www.arunai.org

In the Presence of  
**Er.E.V.Kumaran** Vice Chairman  
**Dr.R.Sathyaseelan** Registrar

Welcome Address  
**Dr.S.Sivakumar**  
HOD-EEE & EIE

Vote of Thanks  
**Dr.C.Kannan**  
Programme Co-ordinator

**Invitation**



**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

Department of Electrical & Electronics Engg  
&  
Department of Electronics & Instrumentation Engg

*The Management, Principal, Staff and Students of  
Arunai Engineering College cordially  
invite you to join*

**Value Added Courses on**

**SOLAR INSTALLATION  
& MAINTENANCE**

**Expert**  
Mr. G.Balasubramaniam,  
Proprietor,  
Sri Rector Power Equipments,  
Tiruvannamalai

Date: 16-06-2022 to 17-06-2022

In association with,  
 SOCIETY FOR TECHNICAL  
EDUCATION  
(ISTE)  
KOLKATA

www.arunai.org

In the Presence of  
**Er.E.V.Kumaran** Vice Chairman  
**Dr.R.Sathyaseelan** Registrar

Welcome Address  
**Dr.S.Sivakumar**  
HOD-EEE & EIE

Vote of Thanks  
**Dr.C.Kannan**  
Programme Co-ordinator



# ARUNAI ENGINEERING COLLEGE

Thiruvannamalai

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Additional coaching class and practices conducted by Training and placement cell



FL/TAP/22-23

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603.**

**TRAINING AND PLACEMENT CELL**

### CIRCULAR



16.08.2022

In continuation with the circular dated 11.08.2022 pertaining to **Placement Training Programme**, the following class rooms are allotted for the Final Year students who are attending placement training classes from **22.08.2022 to 26.08.2022** (5 Days).

#### Seating Arrangement:

Sl.No	Hall No	Block	Year	Department	Students Strength
1	S1	HAS	Final Year	EEE (41) + EIE (3) + CIVIL (16)	60
2	S2	HAS	Final Year	Mech (68)	68
3	S3	HAS	Final Year	CSE 'A' Sec (56)	56
4	S4	HAS	Final Year	CSE 'B' Sec (53) + Auto (6)	59
5	S5	HAS	Final Year	ECE (33) + CHEM (27)	60
6	S6	HAS	Final Year	IT (34) + BIOTECH (24)	58

#### Note:

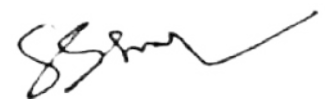
1. Department Placement Coordinator is instructed to take attendance both FN & AN Session.
2. Report the Attendance Details to Placement Cell and also give the mess strength to office.

  
Registrar

Copy submitted to the Vice Chairman

Copy to:  
Principal  
Registrar  
Director  
All HOD's  
Sergeant  
TAP File





HOD/EEE



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

Department of Humanities and Science

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	20	Need extra Staff room	Arranged extra staff room at HAS Block	Attached
Students	380	Need workshop for IOT application	Arranged webinar on IOT applications	

Prepared By

PRINCIPAL  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



HOD-HAS  
Department of HAS  
Arunai Engineering College  
Tiruvannamalai - 3



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

Staff room








Department of Humanities and Science

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22


Arranged webinar on IOT applications



**The Management, Principal, Staff and Students of AEC cordially invite you to join**

**Invitation**

Counselling Code  
1504



*Leading the way to Next Generation Learning*

**INTERNATIONAL WEBINAR ON**  
**"INTERNET OF THINGS APPLICATIONS"**  
 May 07, 2022 11.00 AM



Chief Guest  
**Thiru Shabarath Premal**  
 Founder CEO  
 Respro Labs Pvt Ltd.,  
 Chennai

Er.E.V.Kumaran M.E    Dr.R.Sathiyaseelan    Dr.R.Ravichandaran    Dr.M.Ravichandran  
 Vice Chairman           Registrar                    Principal                    Head/HAS

**Organised by Department of HAS**    [www.arunai.org](http://www.arunai.org)  
*Success by Hardwork*



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-22

**Department of Information Technology**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	13	1.Textbooks for new regulation to be included in the department Library	1.Purchase of textbook for the new regulation R-2021 from various publishers	Attached
Students	101	1.Webinar and guest lecture were conduct with more practical demonstration	Webinar on Lean Start-Up & Minimum Viable Product conducted on 03.07.2021 Webinar on Start up for IT- Skill Gap conducted on 02.12.2021	
Alumni	83	1.Placement training and practices should be provided	1.Enhancement employability of students placement training program were organized by Training and Placement Cell	
Employers	3	1.Enhance awareness about new technologies 2. Improve the domain knowledge and to put employability skills	1. Workshop on Machine Learning & Deep Learning arranged for students from 25.05.2022- 27.05.2022 2. Value Added Course on Programming in Python arranged for student 31.10.21 to 04.11.21	

Prepared By

HOD-IT

PRINCIPAL  
Principal  
Arunai Engineering College  
Tiruvannamalai - 601

# INSTITUTION INNOVATION COUNCIL OF AEC

& Department of Information Technology

*Presents*  
**workshop**

*On*

## “Lean Start-up & Minimum Viable Product”



Chief Guest

**Mr. I.S. AJITH RAJADURAI**

ASSISTANT BRANCH MANAGER

LIC OF INDIA

TIRUVANNAMALAI BRANCH OFFICE



vyj-yvap-brg



In the Presence of

**Er.E.V.Kumaran**

Vice Chairman



licarunai



licarunai



Arunaiiic



IIC Arunai  
Engineering College

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Dr.K.Anitha**  
Head-IT



INSTITUTION'S  
INNOVATION  
COUNCIL  
(Ministry of HRD Initiative)



ARUNAI

Engineering College  
TIRUVANNAMALAI

Department of Information Technology  
& INSTITUTION'S INNOVATION COUNCIL OF AEC

*Presents*  
**webinar**

*On*  
"Start-up for IT skills-gap"

Date

02 DECEMBER

Time: 07.00 pm 2021

**Er.E.V.Kumaran**

Vice Chairman

**Dr.R.Sathiyaseelan**

Registrar

**Dr.R.Ravichandaran**

Principal

**Dr.K.Anitha**

HOD-IT



Chief Guest

**Mr.Aasif Iqbal J**

(Founder member of iamneo.ai)

Director - University Product Sales  
iamneo.ai



Register Now

<https://bit.ly/3I6YQwL>

IIC Arunai  
Engineering College

iicarunai

[www.arunai.org](http://www.arunai.org)



## DEPARTMENT OF INFORMATION TECHNOLOGY

*The Management, Principal, Staff and Students of  
Arunai Engineering College Cordially invites you to join the  
Webinar On.*

# MACHINE LEARNING

DATE: 26:05:2021 Wednesday @ 11:00 AM

Google Meet ID: pka-qorm-zbu

In the Presence of

**Er.E.V.Kumaran**

Vice Chairman

**Dr.R.Sathiyascelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Dr.K.Anitha**  
HOD- IT

Invitation



Resource Person

**Ms.NITHYAMANGAI KRISHNARAJ**

Team Lead

Intellect Design Arena Limited

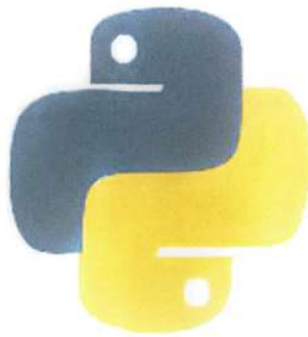
Chennai





Department of Information Technology

Organising



PROGRAMMING IN  
**PYTHON**

COURSE DURATION

**OCTOBER 2021- NOVEMBER 2021**

Resource Person

**Mr. Uvan L**

CEO-Projects,  
STU Innovations Pvt Ltd

[www.arunai.org](http://www.arunai.org)



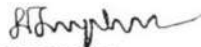
Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	1. Need to learn modeling and analyzing	Arranged webinar on modeling relevant industrial program.	Attached
Students	70	1. Need more coaching class for Engineering Graphics Subject. 2. Need modeling course's	1. Prepared Smart material for Engineering Graphics subjects. 2. Arranged Value Added courses	
Alumni	6	Need Platform to learn new things	Given internet facility and library facility to learn future technology and higher studies related information's.	
Employers	4	Interdisciplinary skilled students needed.	Students learning programming and coding through Naan Mudhalvan program	



Prepared By



HOD-MECH



Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



# ARUNAI ENGINEERING COLLEGE

TIRUVANNAMALAI  
DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2021-2022

Webinar organised

**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**DEPARTMENT OF MECHANICAL ENGINEERING**

In association with  
**MECHANICAL ENGINEERING STUDENTS ASSOCIATION (MESA)**  
&  
**CENTRE FOR PRODUCT DESIGN & DEVELOPMENT**

**WEBINAR on**  
**NEW PRODUCT DESIGN IN ADDITIVE MANUFACTURING**

Resource Person  
**Mr. PRADEEP MATHIVANAN**  
Product Development Engineer  
Quest Global  
Bangalore, India.

shy-ohga-kaj

**09 OCT 2021**  
**07:00 PM**

**Er.E.V.Kumaran** VICE CHAIRMAN  
**Dr.R.Sathiyaseelan** REGISTRAR  
**Dr.R.Ravichandaran** PRINCIPAL  
**Dr.L.Jayakumar** HOD

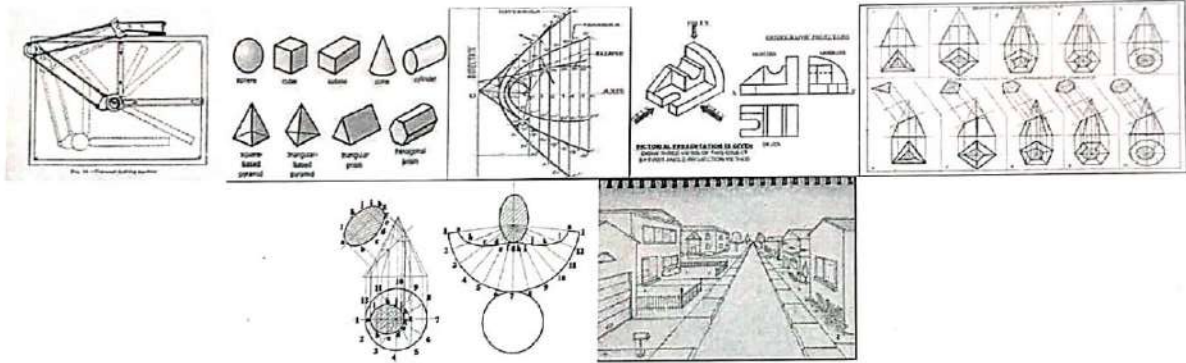


# GE3251 – ENGINEERING GRAPHICS

(The Engineers Language)

2022-2023 (EVEN SEM)

## Workbook Material { Daily Practice Questions }



Prepared by

Name : VETRIVEL M.....

Reg no : .....

Section : .....

Faculty of Mechanical Engineering

Arunai Engineering College

GE3251

ENGINEERING GRAPHICS

L T P C  
2 0 4 4

**COURSE OBJECTIVES:**

The main learning objective of this course is to prepare the students for:

1. Drawing engineering curves.
2. Drawing freehand sketch of simple objects.
3. Drawing orthographic projection of solids and section of solids.
4. Drawing development of solids.
5. Drawing isometric and perspective projections of simple solids.

**CONCEPTS AND CONVENTIONS (Not for Examination)**

Importance of graphics in engineering applications - Use of drafting instruments - BIS conventions and specifications — Size, layout and folding of drawing sheets — Lettering and dimensioning.

**UNIT I PLANE CURVES 6+12**

Basic Geometrical constructions. Curves used in engineering practices: Conics — Construction of ellipse, parabola and hyperbola by eccentricity method — Construction of cycloid — construction of involutes of square and circle — Drawing of tangents and normal to the above curves.

**UNIT II PROJECTION OF POINTS, LINES AND PLANE SURFACE 6+12**

Orthographic projection- principles-Principal planes-First angle projection-projection of points. Projection of straight lines (only First angle projections) inclined to both the principal planes. Determination of true lengths and true inclinations by rotating line method and traces. Projection of planes (polygonal and circular surfaces) inclined to both the principal planes by rotating object method.

**UNIT III PROJECTION OF SOLIDS AND FREEHAND SKETCHING 6+12**

Projection of simple solids like prisms, pyramids, cylinder, cone and truncated solids when the axis is inclined to one of the principal planes and parallel to the other by rotating object method. Visualization concepts and Free Hand sketching. Visualization principles —Representation of Three Dimensional objects — Layout of views- Freehand sketching of multiple views from pictorial views of objects. Practicing three dimensional modeling of simple objects by CAD Software (Not for examination)

**UNIT IV PROJECTION OF SECTIONED SOLIDS AND DEVELOPMENT OF SURFACES 6+12**

Sectioning of above solids in simple vertical position when the cutting plane is inclined to the one of the principal planes and perpendicular to the other — obtaining true shape of section. Development of lateral surfaces of simple and sectioned solids — Prisms, pyramids, cylinders and cones. Practicing three dimensional modeling of simple objects by CAD Software (Not for examination)

**UNIT V ISOMETRIC AND PERSPECTIVE PROJECTIONS 6+12**

Principles of isometric projection — isometric scale - Isometric projections of simple solids and truncated solids - Prisms, pyramids, cylinders, cones- combination of two solid objects in simple vertical positions - Perspective projection of simple solids-Prisms, pyramids and cylinders by visual ray method. Practicing three dimensional modeling of isometric projection of simple objects by CAD Software (Not for examination)

TOTAL: (L=30; P=60) 90 PERIODS

**OUTCOMES:**

- On successful completion of this course, the student will be able to
- Use BIS conventions and specifications for engineering drawing.
  - Construct the conic curves, involutes and cycloid.
  - Solve practical problems involving projection of lines.
  - Draw the orthographic, isometric and perspective projections of simple solids.
  - Draw the development of simple solids.

**TEXT BOOK:**

1. Bhatt N.D. and Panchal V.M., "Engineering Drawing", Charotar Publishing House, 53<sup>rd</sup> Edition, 2019.
2. Natarajan K.V., "A Text Book of Engineering Graphics", Dhaniakshams Publishers, Chennai, 2018.
3. Parthasarathy N. S. and Vela Murali, "Engineering Drawing", Oxford University Press, 2015.

**REFERENCES:**

1. Basant Agrawal and Agarwal C.M., "Engineering Drawing", McGraw-Hill, 2<sup>nd</sup> Edition, 2019.
2. Gopalakrishna K.R., "Engineering Drawing" (Vol. I&II combined), Subhas Publications, Bangalore, 27<sup>th</sup> Edition, 2017.
3. Luzzader, Warren J. and Duff, John M., "Fundamentals of Engineering Drawing with an introduction to Interactive Computer Graphics for Design and Production, Eastern Economy Edition, Prentice Hall of India Pvt. Ltd, New Delhi, 2005.
4. Parthasarathy N. S. and Vela Murali, "Engineering Graphics", Oxford University, Press, New Delhi, 2015.
5. Shah M.B. and Rana B.C., "Engineering Drawing", Pearson Education India, 2<sup>nd</sup> Edition, 2009.
6. Venugopal K. and Prabhu Raja V., "Engineering Graphics", New Age International (P) Limited, 2008.

**Publication of Bureau of Indian Standards:**

1. IS 10711 — 2001: Technical products Documentation — Size and layout of drawing sheets
2. IS 9609 (Parts 0 & 1) — 2001: Technical products Documentation — Lettering
3. IS 10714 (Part 20) — 2001 & SP 46 — 2003: Lines for technical drawings
4. IS 11569 — 1986 & SP 46 — 2003: Dimensioning of Technical Drawings
5. IS 15021 (Parts 1 to 4) — 2001: Technical drawings — Projection Methods.

**Special points applicable to University Examinations on Engineering Graphics:**

1. There will be five questions, each of either or type covering all units of the syllabus.
2. All questions will carry equal marks of 20 each, making a total of 100.
3. The answer paper shall consist of drawing sheets of A3 size only. The students will be permitted to use appropriate scale to fit solution within A3 size.
4. The examination will be conducted in appropriate sessions on the same day.

CO	K R V P O												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12		
1	3	1	2		2							2	2	2
2	3	1	2	2						3		2	2	2
3	3	1	2	2						5		2	2	2
4	3	1	2	2						5		2	2	2
5	3	1	2	2						3		2	2	2
6	3	1	2	2						3		2	2	2
7	3	1	2	2						3		2	2	2
8	3	1	2	2						3		2	2	2

Low (1), Medium (2), High (2)

## SYLLABUS AND PREFACE

### UNIT - I

#### [PLANE CURVES]

- ❖ PLANE CURVES
  - CONICS | CON |
    - ELLIPSE
    - PARABOLA
    - HYPERBOLA
  - SPECIAL CURVES | SPC |
    - CYCLOID
    - EPICYCLOID
    - HYPOCYCLOID
    - INVOLUTE
- ❖ FREE HAND SKETCH

### UNIT - II

#### [PROJECTION OF POINTS, LINES AND PLANES]

- PROJECTION OF POINTS [PPT]
- PROJECTION OF LINES [PLN]
- PROJECTION OF PLANES [PPN]

### UNIT - III

#### [PROJECTION OF SOLIDS] FREE HAND SKETCH

- PROJECTION OF SOLIDS [PSL]

### UNIT - IV

#### [PROJECTION OF SECTION OF SOLIDS AND DEVELOPMENT OF SURFACES]

- SECTION OF SOLIDS [SSL]
- DEVELOPMENT OF SURFACES [DOS]

### UNIT - V

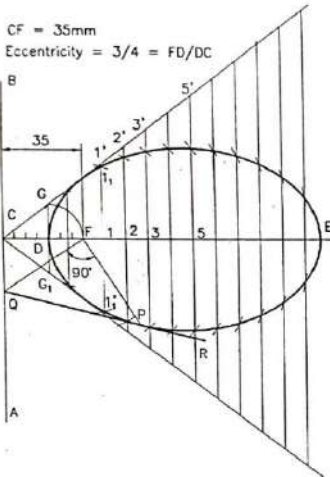
#### [ISOMETRIC PROJECTION AND PERSPECTIVE PROJECTION]

- ISOMETRIC PROJECTION [ISP]
- PERSPECTIVE PROJECTION [PSP]

1. Draw an ellipse when the distance of focus from the directrix is equal to 35mm and eccentricity is  $\frac{3}{4}$ . Also draw a tangent to a point on the ellipse. SCA

CF = 35mm

Eccentricity =  $\frac{3}{4}$  = FD/DC

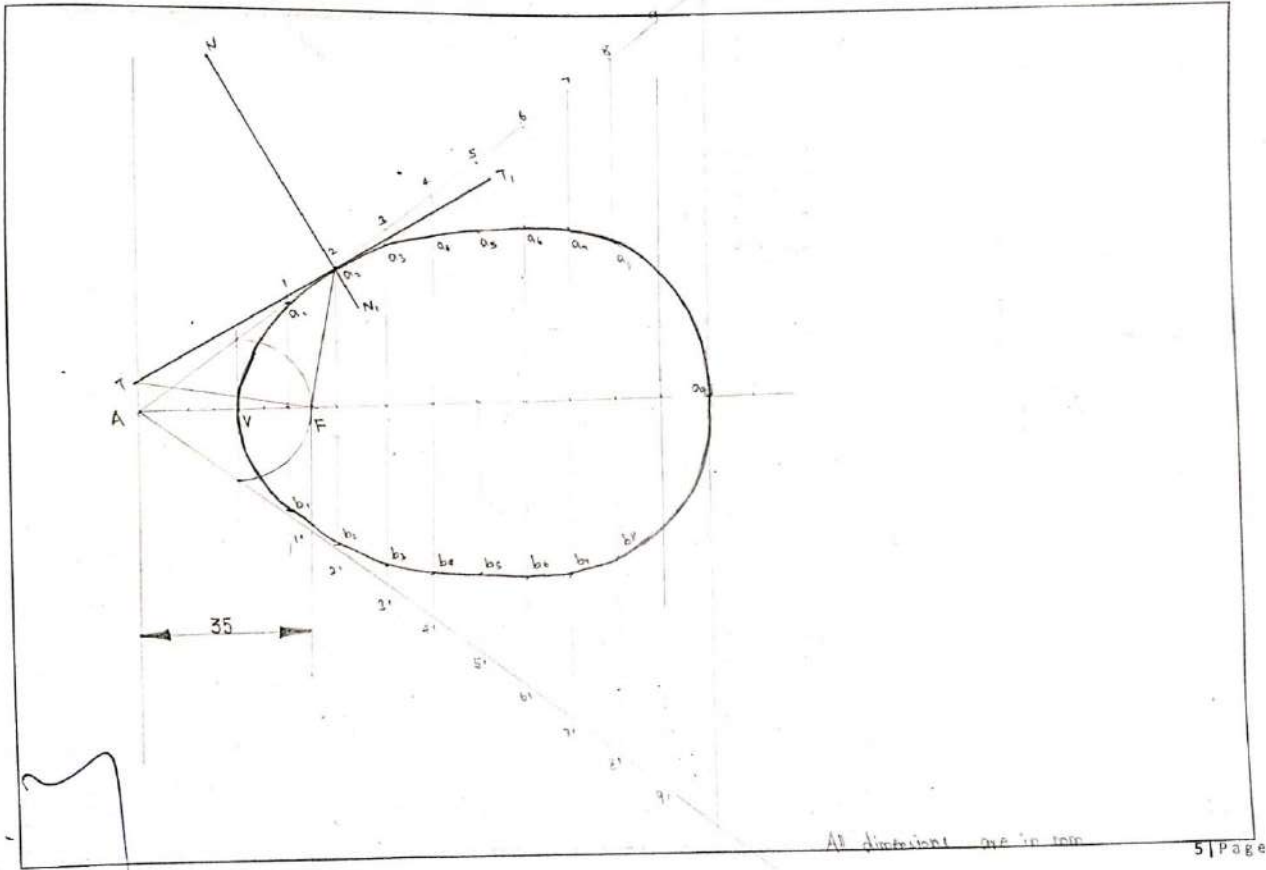


1. Draw a line AB as directrix.
2. From point C on AB draw a line CE perpendicular to AB. Mark the focus point F such that CF = 35mm.
3. Divide the line CF into 7 equal parts.
4. Mark the vertex D such that CD =  $47^{\text{th}}$  of CF.
5. Draw a line DG = DF perpendicular to DF (also draw  $DG_1$ ).
6. Draw the line joining C & G and extend it (also  $CG_1$ ).
7. Mark a point 1 on the line CE.
8. Draw a line through 1 perpendicular to CE to intersect at 1' on CG, if produced.
9. With F as centre 11' as radius draw an arc, cutting the line 11' at 1<sub>1</sub> (also 1<sub>1</sub>).

10. Similarly mark points 2, 3, 4, ... on the line CE and get the points 2<sub>1</sub>, 3<sub>1</sub>, 4<sub>1</sub>, ... and 2', 3', 4', ...
11. Join all the points by free hand. The curve obtained is an ELLIPSE.

To draw a tangent to a point on the curve:

1. Mark the point P on the ellipse.
2. Draw the line joining P & F.
3. Draw a line perpendicular to FP till it meets the line AB at Q.
4. Draw the line joining Q & P. Now the line PQ is the required tangent.



**DAILY PRACTICE PROBLEMS**  
**UNIT - 1 [ PLANE CURVES ]**

Ref.no.	CON - QUESTIONS	Sign
CON A1	Construct the conic section when the distance of its focus from directrix is equal to 50 mm and the eccentricity is 2/3.	✓ Sheet 1/16
CON B1	Construct the conic section when the distance of its focus from directrix is equal to 50 mm and the eccentricity is 3/2.	✓ Sheet 1/16
CON C1	Construct the conic section when the distance of its focus from directrix is equal to 50 mm and the eccentricity a unit.	✓ Sheet 1/16
<b>SPC-CON - QUESTIONS</b>		
SPC A1	A coin of 40 mm diameter rolls over a horizontal table without slipping. Draw the curve path traced by the coin.	✓ Sheet 1/16
SPC B1	A coin of 40 mm diameter rolls on a curved surface of radius 100 mm. without slipping. Draw the curve path traced by the coin.	✓ Sheet 1/16
SPC C1	An inelastic string 155mm long has one end attached to the circumference of a circular of 40mm diameter. Draw the curve traced out by the other string, when it is completely wound around the disc keeping it always tight. (2016-2017 Jan)	✓ Sheet 2/16
<b>SPC-INV - QUESTIONS</b>		
SPC A1	A cable is unwound from a 50 mm drum. Find out its final length for one revolution.	✓ Sheet 2/16
SPC B1	Draw the involute of a pentagon of 30 mm side.	✓ Sheet 2/16

Value Added Course Conducted



**Alpha CADD Solutions**  
Unlimited Solutions..

NO.103 / 16 A, 1st FLOOR, OPP to PACHAIYAPPAS SILKS, TIRUVANNAMALAI - 606601.  
Contact No : 701 030 4677 , 989 470 6097

To

Date: 11.08.2021

The HOD

Department of Mechanical Engineering

Arunai Engineering College

Tiruvannamalai.

Respected sir

Sub: Resource Person-Course conduction- reg.

We are happy for your request to conduct **CATIA, 3D PRINTER, 3D SCANNER** and **Reverse Engineering** Course in your institute. In the connection **Mr.K. Srivatsan** and **S. Ashik** will be the Resource Persons for conducting the course. We will be meeting you in time for further details.

Thanking you

With regards

Alpha CADD Solutions

**Authorized Signatory for Alpha CADD Solutions**

**(T. SURESH)**

CORPORATE ADDRESS: NO.103 / 16 A, 1st FLOOR, OPP to PACHAIYAPPAS SILKS  
TIRUVANNAMALAI - 606601.  
Contact No : 701 030 4677 , 989 470 6097

# ARUNAI ENGINEERING COLLEGE

DEPARTMENT OF MECHANICAL ENGINEERING

*The Management, Principal, Staff and Students of Arunai Engineering College Cordially invite you  
to join*

## **VAUE ADDED PROGRAM ON 3D DESIGN & MODELLING**



GUESTS

**Mr. K.Srivatsan**, DESIGN HEAD, ALPHA CADD

**Mr. S.Ashik**, TRAINING SENIOR, ALPHA CADD

Date: 4.9.21 @ 9.30am

Venue : CAD Lab

In the Presence of

**Er.E.V.KUMARAN**, Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Dr.L.Jayakumar**  
HOD-MECH



**FEEDBACK  
ACTION TAKEN REPORT**

**ACADEMIC YEAR  
2020 – 2021**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-2021

**Department of Biotechnology**

**Date:12/4/2021**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	6	Be encouraged to offer multi-disciplinary courses	Open elective course subject was adopted for trans-disciplinary approach (OML552- Microscopy)	Student Mark sheet attached.
Student	97	Offline sessions must be planned	Based on the guidelines for Covid 19, it is not feasible.	-
Alumni	32	Arrange some course or lectures about recent trends in biotechnology for improving knowledge	Value added course arranged for students	Value Added Program on the title "Bioinformatics: approach to drug design" on 15 .03 .2021 to 19.03 .2021
Employers	-	-	-	-

Prepared By  


  
HOD-BT

  
Principal  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-2021

### Department of Biotechnology

**ANNA UNIVERSITY, CHENNAI - 25**  
B.Tech. DEGREE EXAMINATIONS  
GRADE SHEET

SI No. MA 4215881      Folio No. AUN1327805

NAME OF THE CANDIDATE		AJAY M		REGISTER NO.		510418214002		
DATE OF BIRTH		06-FEB-2001	GENDER	MALE	DATE OF PUBLICATION		26-AUG-2021	
COLLEGE OF STUDY		ARUNAI ENGINEERING COLLEGE				REGULATIONS		2017 (CBOS)
PROGRAMME & BRANCH		B.Tech. Biotechnology						

SEM. NO.	COURSE CODE	COURSE TITLE	CREDITS	LETTER GRADE	GRADE POINT	RESULT
01	MA8151	Engineering Mathematics - I	4	B	6	PASS
02	MA8251	Engineering Mathematics - II	4	A+	9	PASS
03	BT8301	Stoichiometry	3	A+	9	PASS
03	BT8304	Biorganic Chemistry	4	B+	7	PASS
03	MA8353	Transforms and Partial Differential Equations	3	A	6	PASS
04	BT8003	Principles of Food Processing	3	A	6	PASS
05	BT8501	Mass Transfer Operations	3	B	6	PASS
05	BT8502	Analytical Methods and Instrumentation	3	B+	7	PASS
05	BT8503	Protein Engineering	3	B+	7	PASS
05	OML552	Microscopy	3	A+	9	PASS

\*\*\* End of Statement \*\*\*

Note : Due to COVID - 19 Pandemic, the Examinations of the Session November / December, 2020 were conducted in February 2021 / July 2021 (Re-Exams).

Semester	I	II	III	IV	V	VI	VII	VIII	IX	X
Credits Registered	4	4	11		10					
Credits Earned	4	4	11		10					
Grade Points Earned	6	6	25		45					
Grade Point Average (GPA)	6.000	6.000	5.273		7.500					
Cumulative Credits Earned	116		Cumulative Grade Point Average (CGPA)			7.03				

RA - Resappearance is Required      W - Withdrawal      SE - Sports Exemption      \* Absent for University Examination

11-10-2021      SIGNATURE OF THE CONTROLLER OF EXAMINATIONS

Open elective course subject was adopted for trans- disciplinary approach (OML552- Microscopy)






Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-2021

### Department of Biotechnology

INVITATION



**A R U N A I**  
Engineering College  
Tiruvannamalai, TamilNadu

**DEPARTMENT OF BIOTECHNOLOGY**  
*The Management, Principle, Staff & Students of  
Biotechnology Heartly invite you for the*


**INAUGURATION** "of BIOINFORMATICS: BASICS AND  
APPROACH TO DRUG DESIGN"

On Mar 15 to 19 2021  
At 10.00 AM  
In Arunai Engineering College

**COURSE INSTRUCTOR**  
Dr. E. RAJA SATHENDRA  
Associate Professor,  
Biotechnology,  
Arunai Engineering College

Course Module on  
↳ Bioinformatic : approach to drug design

<u>In Presence of</u>	<u>Presides by</u>
Er.E.V.Kumaran <i>Vice Chairman</i>	Dr.R.Sathiyaseelan <i>Registrar</i>
<u>Felicitation</u>	<u>Welcome Address</u>
Dr.R.Ravichandaran <i>Principal</i>	Prof. R. Praveen Kumar <i>Head-Biotechnology</i>



Value Added Program on the title "Bioinformatics: approach to drug design" on 15 .03 .2021 to 19.03 .2021



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

### Department of Chemical Engineering

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	4	The practical exposure to the faculty members by undergoing. workshop/ FDP	Faculty members are motivated to participate FDP	Attached
Students	18	Offline sessions must be planned.	Given the covid-19 condition, this is not conceivable. It will be completed once the constraints are relaxed.	
Alumni	15	Placement training and preparation should be provided.	The Training and Placement Cell arranges additional coaching sessions and practice opportunities.	
Employers	7	Allow students to visit industries for interactive sessions and learning opportunities.	Permitted students for in-plant training in petrochemical industry	

Prepared By

HOD/CHEMICAL

Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603

Faculty members are motivated to participate FDP/STTP





# PAAVAI ENGINEERING COLLEGE

(An Autonomous Institution affiliated to Anna University, Chennai)

NH — 44, Pachal, Namakkal — 637018, Tamilnadu, India



## Department of Chemical Engineering

### CERTIFICATE OF PARTICIPATION



**Mrs. R MARY NANCY FLORA , Assistant Professor**


This is to certify that .....  
of **Arunai Engineering College** ..... has participated  
and completed successfully AICTE sponsored Six days online Short Term Training Program (STTP) on  
"An Awareness Programme - Green Engineering Concepts and Treatment Methods for Farmers  
in Rural Area" Series— IV from 14.12.2020 to 19.12.2020 at Paavai Engineering College, Namakkal.


**Mr. D. DHANARAJA**  
Coordinator

**Dr. G. SRINIVASAN**  
Convener / HOD

**Dr. M. PREMKUMAR**  
Principal / PEC

The Training and Placement Cell arranges additional coaching sessions and practice opportunities.

 **ARUNAI ENGINEERING COLLEGE**  
TIRUVANNAMALAI – 606 603.

 **TRAINING AND PLACEMENT CELL**

PL/TAP/37/02/20-21/15/19

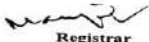
**CIRCULAR** 12.03.2021

In continuation with the circular dated 08.03.2021 pertaining to Placement Training Program, The following class rooms are allotted for the students who are attending placement training classes from 16.03.2021 to 18.03.2021 @ 9.20 AM to 4.30 PM

Morning Session: 9.20 am to 1.00 pm  
(Tea Break 11.00 am to 11.20 am)  
(Lunch Break 1.00 pm to 1.40 pm)

Afternoon Session: 1.40 pm to 4.40 pm

SL.NO	HALL NO.	BLOCK	DEPARTMENT
1	S3	HAS	CSE 'A' & ECE
2	S4	HAS	CSE 'B' & EEE
3	S5	HAS	IT, BIOTECH & EIE
4	S6	HAS	MECHANICAL, AUTOMOBILE & CIVIL

  
Registrar

Copy submitted to the Vice Chairman  
Copy to:  
Principal  
Registrar  
All HODs  
ALL NB  
TAP FILE

Permitted students for in-plant training in petrochemical industry.



Date: 19 June 2021

**CERTIFICATE**

This is to certify that **Mr. Manojkumar G**, Final Year, **B.Tech – Chemical Engineering** student of **Arunai Engineering College, Tiruvannamalai** has undergone Internship Training in **M/s. Southern Petrochemical Industries Corporation Ltd., SPIC Nagar, Tuticorin.**

Internship Training details are as furnished below:


- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| 1) Type of Training Imparted        | : <b>INTERNSHIP TRAINING</b>         |
| 2) Period of Institutional Training | : <b>27 May 2021 to 19 June 2021</b> |
| 3) Allotment of Department          | : <b>DAP - PLANT</b>                 |
| 4) Conduct & Character              | : <b>GOOD</b>                        |
| 5) Performance during Training      | : <b>GOOD</b>                        |
| 6) Attendance during Training       | : <b>REGULAR</b>                     |

  
**R. Ramkumar**  
Joint Manager – Training & Development



**Southern Petrochemical Industries Corporation Limited**  
(CIN: L11101TN1969PLC005778)  
Factory: SPIC Nagar, Muthiahpuram Post, Tuticorin 628 005 Tamilnadu, India  
Phone : +91 (0461) 2355401 | Fax : +91 (0461) 2355588 | Email : spiccorp@spic.co.in | www.spic.in

  
**Prepared By**

  
**HOD/CHEMICAL**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

**Department of Civil Engineering**

Date:21.04.2021

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	Wi-Fi Facility is needed for smooth conduct of online classes more effectively.	Wi-Fi facility provided at Civil Department.	Wi-Fi facility provided at Civil Department on 03/11/2020.
Students	35	Offline sessions must be planned.	Given the covid-19 condition, this is not conceivable. It will be completed once the constraints are relaxed.	Offline sessions started after the relaxation of constraints.
Alumni	15	Webinar to be organized to familiarize the students with the career opportunity in Civil Engineering field.	Webinar were organized to know about the career opportunity available in Civil engineering field.	Webinar were conducted on "Entrepreneurship and innovation as career opportunity" on 23/03/2021.
Employers	3	Introduce some skill development sessions.	Skill development sessions are provided to the students as a part of placement.	Skill development sessions were conducted by M/s Smart Training Resources from 16/03/2021 to 18/03/2021.

*P. Jayapriya*  
Prepared By

*R. Kathiresan*  
HOD/CIVIL  
HEAD OF THE DEPARTMENT  
DEPT.OF CIVIL ENGINEERING  
ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI - 606 603

*[Signature]*  
PRINCIPAL  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



**Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21**

1. Wi-Fi facility provided at Civil Department on 03/11/2020.



2. Offline sessions started after the relaxation of constraints.





3. Webinar were conducted on “Entrepreneurship and innovation as career opportunity” on 23/03/2021.



**INSTITUTION'S INNOVATION COUNCIL**  
(Ministry of HRD Initiative)



**ARUNAI**  
Engineering College  
TIRUVANNAMALAI

**INSTITUTION INNOVATION COUNCIL OF AEC**  
& Department of Civil Engineering

*Presents*

**Webinar on**

*On*

**"Entrepreneurship and Innovation as career opportunity"**



**23 March 2021**  
**11.00 am**



**vyj-yvap-brg**



Chief Guest  
**Er.S Aswin**  
Arunachala Builders, Tiruvannamalai.



In the Presence of  
**Er.E.V.Kumaran**  
Vice Chairman



iicarunai



iicarunai



Arunaliic




IIC Arunai  
Engineering College

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.R.Ravichandaran**  
Principal

**Prof R.Kathiravan**  
Head-CIVIL


4. Skill development sessions were conducted by M/s Smart Training Resources from 16/03/2021 to 18/03/2021.



**ARUNAI ENGINEERING COLLEGE**  
TIRUVANNAMALAI – 606 603.

**TRAINING AND PLACEMENT CELL**

**CIRCULAR**




08.03.2021

It is planned to organize a Placement Training Program in our college for the Final year students of all the departments between 16.03.2021 and 18.03.2021 (3 days program). The program fee is Rs. 900. The Training components are Aptitude and Soft Skills.

The training programme is conducted by M/s Smart Training Resources, Chennai. The Timing of this program is 9.20 am to 4.30pm.



The students are asked to pay the fee to the respective department placement coordinator on or before 12.03.2021. This programme is compulsory for the students with nil arrear, 1 arrear and 2 arrears. The Department Placement Coordinators are informed to submit their eligible students name list for the training programme to the placement-cell (hard and soft copy) on or before 12.03.2021 at 3.00pm. The theory classes are suspended during the training for the final years who are attending the programme. HoDs are requested to make necessary arrangements for the remaining students.

Copy submitted to the Vice Chairman  
Copy to:  
Principal  
Registrar  
All HODs  
ALL NB  
TAP FILE



Registrar



	<b>ARUNAI ENGINEERING COLLEGE</b> <b>QUALITY PROCESS DESCRIPTION</b> <b>ACTION TAKEN ON FEEDBACK ANALYSIS</b> Standard: ISO 9001:2015		<b>Format : F-FDB-02</b> <b>Version : 01</b>
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Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020 – 21

Department of Computer Science and Engineering

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	10	Internet Facility is required in the department staff room, Value Added Courses for students may be conducted to bridge the gap in curriculum	Facility provided in staff room, Value Added Courses were planned	Photos attached
Students	—	—	—	—
Alumni	—	—	—	—
Employers	—	—	—	—

  
Prepared By

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603

  
HOD-CSE





# ARUNAI ENGINEERING COLLEGE

Tiruvannamalai



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

### Department of Electrical and Electronics Engineering

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	5	Curriculum gap identification and recommendation in the syllabus Power electronics laboratory, Control and instrumentation laboratory	Through proper channel a suggestion letter forwarded to the Director, Centre of Academic Courses, Anna University Chennai.	Attached
Students	48	-	-	
Alumni	2	-	-	
Employers	1	-	-	

  
Prepared By

  
HOD-EEE

  
Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

Department of Humanities and Science

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	18	Computer facilities required for staff at staff room Need faculty development program	1. Computer facility provided at HAS Block staff room 2. arranged faculty development program on participatory Teaching method	Attached
Students	370	Need special coaching for autonomous mobile robot	Arrange webinar on autonomous mobile robot	

Prepared By



PRINCIPAL  
Principal

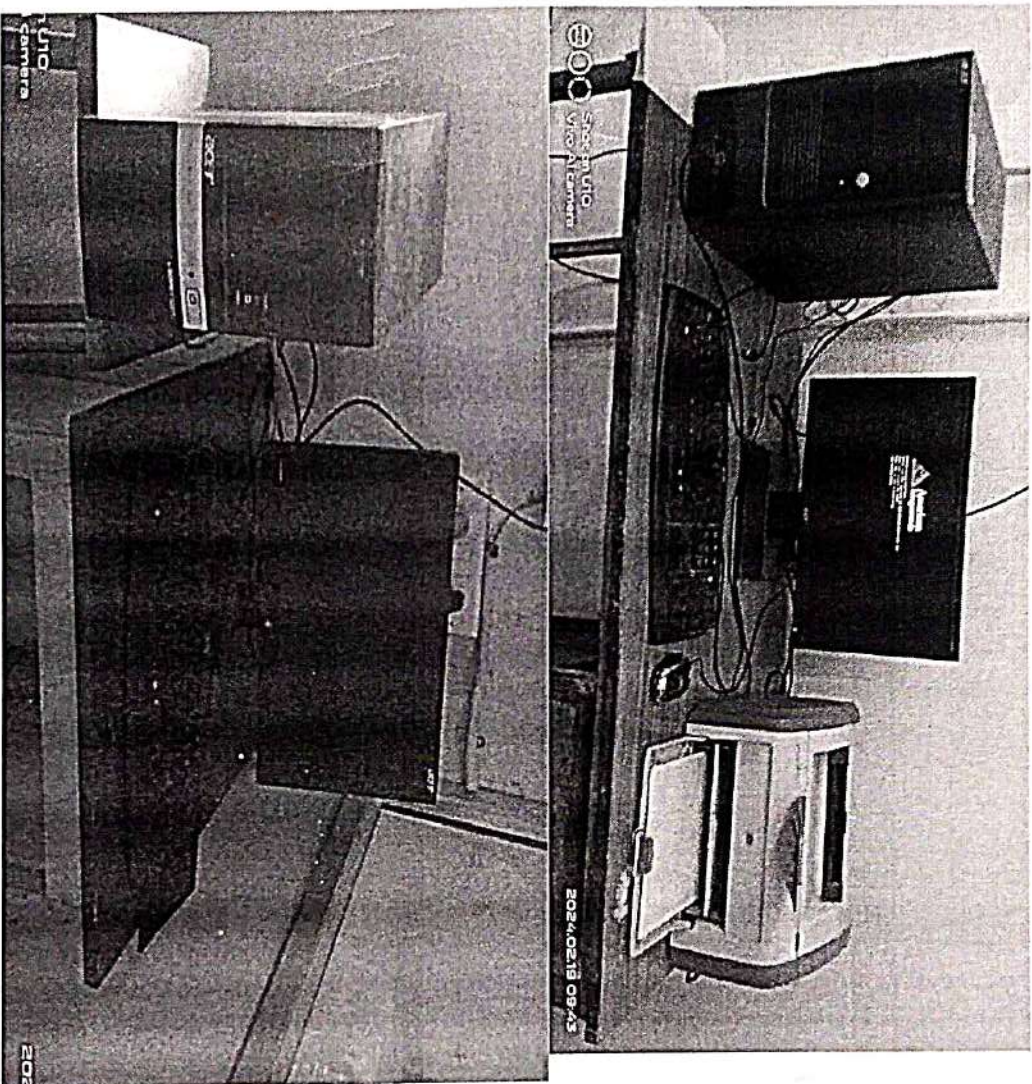
Arunai Engineering College  
Tiruvannamalai - 606 503

HOD-HAS  
Department of HAS  
Arunai Engineering College  
Thiruvannamalai - 3.



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

Computer set up at Staff room





Anna University  
**ARUNAI**  
 TIRUVANNAMALAI



Department of Humanities and Science

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

Arrange webinar on autonomous mobile robot.

Invitation

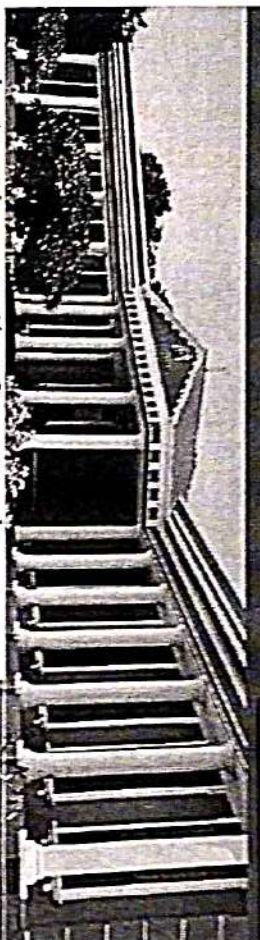


**ARUNAI**  
 ENGINEERING COLLEGE  
 TIRUVANNAMALAI, TAMILNADU

Counselling Code

**1504**

The Management, Principal, Staff and Students of AEC cordially invite you to join



*Leading the way to Next Generation Learning*

INTERNATIONAL WEBINAR ON

**“AUTONOMOUS MOBILE ROBOT”**

APRIL 30, 2021 11.00 AM



Chief Guest

**Thiru Jayabalaji S**

(Proud Arunai Alumni)

Software Security Architect

Autonomous Transportation and

Infrastructure -IoT Group

Intel Inc

Germany

Dr.E.V.Kumaran ME  
 Vice Chairman

Dr.R.Sathyaseelan  
 Registrar

Dr.R.Ravichandaran  
 Principal

Dr.M.Ravichandran  
 Head/HAS

[www.arunai.org](http://www.arunai.org)

*Organised by Department of HAS  
 Success by Hardwork*



Learner's Intellectual Sanctuary  
**ARUNAI**  
ENGINEERING COLLEGE  
TIRUVANMALAI, TAMILNADU

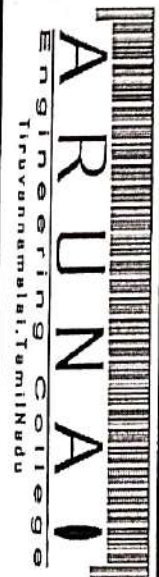


## Department of Humanities and Science

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

Arranged faculty development program on participatory Teaching method

Invitation

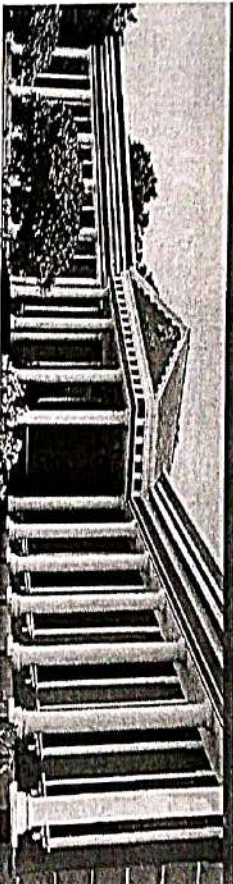


**ARUNAI**  
ENGINEERING COLLEGE  
TIRUVANMALAI, TAMILNADU

Counseling Code

**1504**

The Management, Principal, Staff and Students of AEC cordially invite you to join



*Leading the way to Next Generation Learning*

WEBINAR ON

**“Faculty Development Program on Participatory Teaching Methods”**

APRIL 17, 2021, 10:00 AM



Chief Guest

**T. Dr. S. Ramakantavi**

Professor and Head Department of Engineering Education  
Nodal Officer - Public Grievance Portal  
NITTTR, Chennai

E.E.V.Kumaran M.E  
Vice Chairman

Dr.R.Sathiyaseelan  
Registrar

Dr.R.Ravichandran  
Principal

Dr.M.Ravichandran  
Coordinator

[www.arunai.org](http://www.arunai.org)

*Success by Hardwork*





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-21

**Department of Information Technology**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	12	1.Wi-Fi facility is required at staff room	1.Wi-Fi facility provided at IT Block	Attached
Students	64	1.Soft skill program were conduct with more practical demonstration	1.Soft skill development Program on 14-08-2019	
Alumni	83	1.Placement carrier guidance program were conduct that help to students in IT industry	Path To IT Job arranged for students on 21.03.2021	
Employers	3	1.Enhance awareness about new technologies 2. Improve the domain knowledge and to put employability skills	1. Webinar on Cyber Security issues and Challenges from Hackers arranged for students on 24.02.2020 2. Employability Skill Program on MSME Schemes For Self Employment on MSME Schemes on 13.04.2021	



Prepared By

  
HOD-IT



PRINCIPAL

Principal

Arunai Engineering College

Tiruvannamalai - 606 603

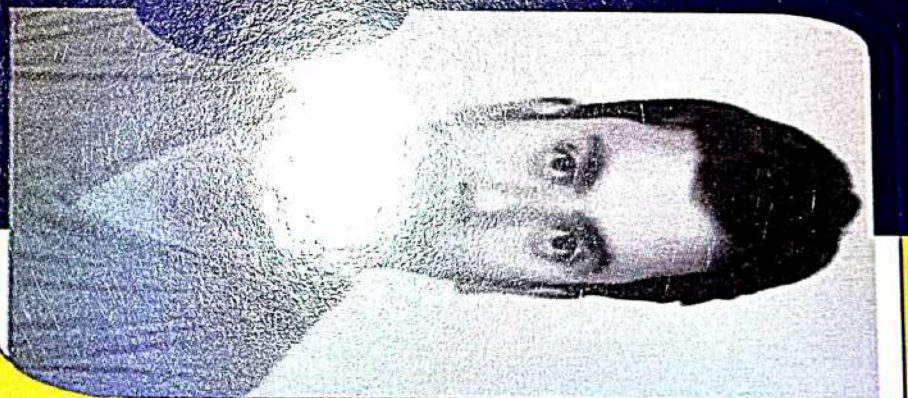


# ARUNAI

Engineering College  
Tiruvannamalai, TamilNadu

## DEPARTMENT OF INFORMATION TECHNOLOGY

*The Management, Principal, Staff and Students of  
Arunai Engineering College Cordially invites you to join the  
Workshop On.*



**Chief Guest**

**Mr. Karthikeyan Vadivel**

**Bigdata Engineer**

**Standard Chartered Bank**

**Chennai**

# PATH TO IT JOB

Date: 21:03:2021 @ 10.00 am



wh-mfyg-obk

In the Presence of

**Dr.E.VKumar**

Vice Chairman

Dr.R.Sathiyaseelan

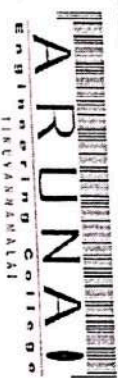
Registrar

**Dr.R.Ravichandran**

Principal

**Dr.K.Anila**

HOD-IT



## INSTITUTION INNOVATION COUNCIL OF AEC

& Department of Information Technology

*Presented*

*On*  
Webinar on

*Chief Guest*

**Shri.R.Senthil Kumar IEDS.,**

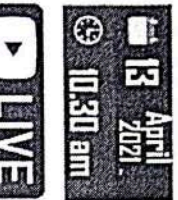
Depty Director

MSM Development Institute  
Ministry of MSM, Govt of India  
Chennai

## "MSME Schemes for Self Employment"



vji-yvap-brg



icetvunai



icetvunai



Arunaiic



IC Arunai  
Engineering College

In the Presence of

**Dr.E.V.Kumar**

Vice Chairman

**Dr.R.Sahiyaseelan**

Registrar

**Dr.R.Ravichandaran**

Principal

**Dr.K.Anitha**

Head-IT

**Dr.M.Jothish Kumar**

HC Co-convener,AEC

## MSME SCHEMES FOR SELF EMPLOYMENT

**INTRODUCTION:** This webinar was conducted by dept of IT in association with the ISTE to encourage and expertise the view of the students in the field of MSME SCHEMES FOR SELF EMPLOYMENT.

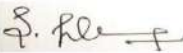
**GUEST:** Shri.R.Senthil Kumar IEDS., Depty Director, MSME Development Institute, Ministry of MSME, Govt of India, Chennai



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-2021

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	1. Online Webinar needed to update current trends in curriculum and industry	1. Arranged webinar to learn new technique	Attached
Students	85	1. Need Smart material that includes all type of question from university perspective. 2. Need Industrial experts program	1. Prepared study material for problematic subjects. 2. arranged online webinar	
Alumni	-	-	-	
Employers	-	-	-	

  
Prepared By

  
HOD-MECH

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



# ARUNAI ENGINEERING COLLEGE

## TIRUVANNAMALAI

### DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-2021

Prepared Work Book Materials for Students include two marks, sixteen marks and university questions.

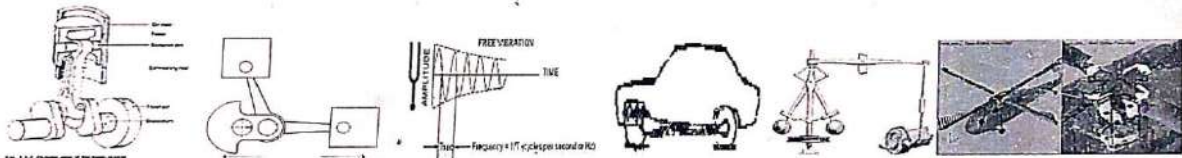
## ME6505 – DYNAMICS OF MACHINES

( The Machines Language )

2016-2017 ( ODD SEM )

**Smart Material**

{Syllabi, notes, Class Practice, Daily Practice Questions & Test }



Name : SPECIMEN COPY      S.J

Reg no :                              Section :

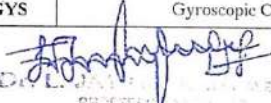
**Prepared By**

T.S.Sivakumar, P.Ragunath, S.Jayakumar  
Faculty of Mechanical Engineering  
Arunai Engineering College

<p style="text-align: center;"><b>ME6505 – DYNAMICS OF MACHINES</b></p> <p style="text-align: center;">SYLLABUS &amp; PREFACE</p> <p style="text-align: center;"><b>UNIT – I</b></p> <p style="text-align: center;">FORCE ANALYSIS</p> <ul style="list-style-type: none"> <li>✦ Analysis of Reciprocating Parts of Engine [ARE]</li> <li>✦ Analysis of Rotating Parts of Engine [ARO]</li> </ul> <p style="text-align: center;"><b>UNIT – II</b></p> <p style="text-align: center;">BALANCING</p> <ul style="list-style-type: none"> <li>✦ Balancing of Rotating Masses [BRO]</li> <li>✦ Balancing of Reciprocating Masses [BRE]</li> </ul>	<p style="text-align: center;"><b>UNIT – III</b></p> <p style="text-align: center;">SINGLE DEGREE FREE VIBRATION</p> <ul style="list-style-type: none"> <li>✦ Free Longitudinal Vibration. [FRL]</li> <li>✦ Free Transverse Vibration. [FRT]</li> <li>✦ Free Torsional Vibration [FTO]</li> </ul> <p style="text-align: center;"><b>UNIT – IV</b></p> <p style="text-align: center;">FORCED VIBRATION</p> <ul style="list-style-type: none"> <li>✦ Forced Vibration. [FOR]</li> </ul> <p style="text-align: center;"><b>UNIT – V</b></p> <p style="text-align: center;">MECHANISM FOR CONTROL</p> <ul style="list-style-type: none"> <li>✦ Governors [GOV]</li> <li>✦ Gyroscopic Couple [GYS]</li> </ul>
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# Lesson Plan

UNIT	REF	TITLE	Hr		Date of Closure		Material Verification	Remarks
			Planned	Actual	Planned	Actual		
I	ARE	Analysis of Reciprocating parts of Engine						
	ARO	Analysis of Rotating parts of Engine						
II	BRO	Balancing of Rotating Masses						
	BRE	Balancing of Reciprocating Masses						
III	FRL	Free Longitudinal Vibration						
	FRT	Free Transverse Vibration						
	FTO	Free Torsional Vibration						
IV	FOR	Forced Vibration						
V	GOV	Governors						
	GYS	Gyroscopic Couple						

  
 DR. S. R. PRASAD  
 PROFESSOR  
 DEPARTMENT OF MECHANICAL ENGINEERING  
 ARUNAI ENGINEERING COLLEGE  
 THIRUVANNAMALAI-600 803

S.R. Prasad

$$T_{mean} = \frac{W/c}{\pi f c}$$

$$= \frac{1000 \pi}{\pi}$$

$$T_{mean} = 1000 \text{ N-m}$$

$$T = T_{mean}$$

$$1000 \pi \cdot 300 \sin 2\theta - 500 \cos 2\theta = 1000$$

$$300 \sin 2\theta = 500 \cos 2\theta$$

$$\frac{\sin 2\theta}{\cos 2\theta} = \frac{5}{3}$$

$$\tan 2\theta = \frac{5}{3}$$

$$\theta = 29.05^\circ$$

$$\Delta m_{sm} = 0$$

$$\Delta m_{max} = \frac{\text{co-efficient of } \Delta f c \times \Delta m_{sm}}{1 - \Delta f c}$$

$$\Delta m_{max} = 119.50$$

ARO E1:  $m = 7 \text{ tonnes} = 7000 \text{ kg}$ ,  $R = 2 \text{ m}$ ,  $\Delta E = 90\%$ ,  $\Delta E = 90 \text{ kN-m}$   
 $N = 120 \text{ rpm}$ ,  $\omega = \frac{2\pi N}{60} = 12.57 \text{ rad/s}$ ,  $C = 2.03\%$ ,  $N_1 = 121$ ,  $N_2 = 118$

ARO E: A horizontal cross compound steam engine develops 300 kW at 90 rpm. The co-efficient of fluctuation of energy as found from the turning moment diagram is to be 0.1 and speed is to be kept within  $\pm 0.5\%$  of the mean speed. Find the mass of the flywheel required, if the radius of gyration is 2 metres.

ARO F1:  $P = 75 \text{ kW}$ ,  $N = 250 \text{ rpm}$ ,  $\Delta E = 30\%$  of  $W$ ,  $c_s = \pm 1\%$   
 $C = 0.02$ ;  $k = p \cdot \delta$ ,  $\omega = 26.18 \text{ rad/s}$ ,  $W = \frac{P \times 60}{N} = 18000 \text{ N-m}$   
 $\Delta E = 30\% \cdot W = 5400 \text{ N-m}$ ,  $m = 1094.26 \text{ kg}$

ARO G1: The turning moment diagram for a multicylinder engine has been drawn to a scale  $1 \text{ mm} = 600 \text{ N-m}$  vertically and  $1 \text{ mm} = 3^\circ$  horizontally. The intercepted areas between the output torque curve and the mean resistance line, taken in order from one end, are as follows:  $+52$ ,  $-124$ ,  $+92$ ,  $-140$ ,  $+85$ ,  $-72$  and  $+107 \text{ mm}^2$ , when the engine is running at a speed of 600 rpm. If the total fluctuation of speed is not to exceed  $\pm 1.5\%$  of the mean, find the necessary mass of the flywheel of radius 0.5 m.

$$10000 = 3 \cdot W$$

**F10E:** A steel shaft 1.5m long is 95mm in dia for the first 0.6m of its length, 60mm in diameter for the next 0.5m of the length and 50mm in dia for the remaining 0.4m of its length. The shaft carries two flywheels at two ends, the first having a mass of 700kg and 0.55m radius of gyration located at the other end. Determine the location of the node and the natural frequency of free torsional vibration of the system. The modulus of rigidity of shaft material may be taken as 80GN/m<sup>2</sup>.

**F10F:** The flywheel of an engine driving a dynamo has mass of 200 kg and has a radius of gyration of 30cm. The shaft at the flywheel end has an effective length of 25cm and is 5cm diameter. The armature mass is 225 kg and has a radius of gyration of 25.5cm. The dynamo shaft has a diameter of 4.375cm and an equivalent length of 20cm. Neglecting the inertia of the shaft and coupling, calculate the frequency of the torsional vibrations and position of node. The modulus of rigidity for the shaft material is 80GN/m<sup>2</sup>.

$$F10G1: l_e = l_1 + \left(\frac{d_1}{d_2}\right)^4 l_2 + l_3 \left(\frac{d_1}{d_3}\right)^4 = 0.44 + \frac{0.95 \times 10^{-6}}{0.04}$$

$$\therefore I_A = 7.14 \text{ kg m}^2 = 18014 \text{ cm}^2, I_D = 567 \text{ kg m}^2$$

$$l_D = 0.3714 \text{ m}, l_A = 0.52 \text{ m}, l_e = l_A + l_D, d = 95.6 \text{ mm}$$

$$J = 0.614 \times 10^{-6} \text{ m}^4, f_n = f_{nD} = f_{nA} = 3.646 \text{ Hz}$$

## UNIT - II BALANCING


### BALANCING OF ROTATING MASSES [ BRO ]

BRO G1	A rotating shaft carries four unbalanced mass 18 kg, 14 kg, 16 kg, and 12 kg at radii 5 cm, 6 cm, 7 cm, and 6 cm respectively. The 2 <sup>nd</sup> , 3 <sup>rd</sup> , and 4 <sup>th</sup> masses revolve in planes 8 cm, 16 cm, and 28 cm respectively measured from the first mass and are angularly located at 60°, 135°, and 270° respectively measured C.W from the first mass. The shaft is dynamically balanced by two masses, both located at 5 cm radii and revolving in planes midway between those of 1 <sup>st</sup> and 2 <sup>nd</sup> mass and midway between those of 3 <sup>rd</sup> and 4 <sup>th</sup> masses. Determine graphically or otherwise the magnitudes of masses and their respective angular position.		
BRO H1	A shaft carries four masses in parallel planes A, B, C and D in this order along its length. The masses at B and C are 20 kg and 15 kg respectively, and each has eccentricity of 60 mm. The masses at A and D have an eccentricity of 80 mm. The angle between the masses at B and C is 100° and that between the masses at B and A is 190°, both being measured in same direction. The axial distance between the planes in A and B is 100 mm and that between B and C is 200 mm. If the shaft is in complete dynamic balance, determine: 1. the magnitude of the masses A and B, 2. The distance between the planes A and D, and 3. The angular positions of the mass D.		
BRO H2	A rotating shaft carries four masses A, B, C, and D which are radially attached to it. The mass centers are 30 mm, 38 mm, 40 mm, and 35 mm respectively from the axis of rotation. The mass A, C, and D are 7.5 kg, 5 kg, and 4 kg respectively the axial distance between the planes of rotation of A and B is 400 mm and between B and C is 500 mm. The masses A and C are at right angles to each other find for a complete balance; 1. Angle between the masses B and D from mass A, 2. Axial distance between the planes of rotation of C and D, and 3. The magnitude of mass B		
BRO I1	A shaft carries four rotating masses A, B, C, and D which are completely balanced. The masses B, C and D are 50 kg, 80 kg, and 70 kg respectively. The masses C and D make angles of 90° and 195° respectively with mass B in the same sense. The masses A, B, C, and D are concentrated at radius 75 mm, 100 mm, 50 mm, and 90 mm respectively. The plane of rotation of masses B and C are 250 mm apart, determine: 1. The magnitude of mass A and its angular position, 2. The position of A and D		
BRO J1	Four masses A, B, C, and D revolve at equal radii and equally spaced along a shaft. The mass B is 7 kg, and radii of C and D make angles of 90° and 240° respectively with the radius of B. Find the magnitude of masses A, C and D and angular position of A so that they system may be completely balanced. [A.U., Nov/Dec 2005, 2006]		
BRO J2	A, B, C, and D are four masses carried by a rotating shaft at radii 100, 125, 200, and 150 mm respectively. The planes in which the masses revolve spaced 600 mm apart and the mass of B, C, and D are 10 kg, 5 kg, and 4 kg respectively. Find the required mass A, and the relative angular setting of four masses so that the shaft shall be in complete balance. [A.U., Apr/May 2006]		
BRO R	Optimize the application of formulae with necessary conditions in balancing of rotary parts of engine		
<b>BALANCING OF RECIPROCATING MASSES [ BRE ]</b>			
BRE A1	A single cylinder reciprocating engine has speed 240 rpm, stroke 300 mm, mass of reciprocating parts 50 kg, mass of revolving parts at 150 mm radius 37 kg. If two-third of the reciprocating parts and all the revolving parts are to be balanced, find 1. The balance mass required at a radius of 400 mm, 2. The residual unbalanced force when crank has rotated 60° from TDC.		



BRE B1	A two-cylinder un coupled locomotive has inside cylinders 0.6 m apart. The radius of each crank is 300 mm and is at right angles. The revolving mass per cylinder is 250 kg and reciprocating mass per cylinder is 300 kg, the whole of the revolving two-third of the reciprocating masses are to be balanced and the balanced masses are to be placed, in the planes of rotation of the driving wheels a radius of 0.8 m. The driving wheels are in 2 m dia and 1.5 m apart. If the speed of the engine is 80 km/hr, determine: (a) hammer blow, (b) maximum variation in tractive force, (c) maximum swaying couple. [A.U., Nov/Dec 03]		
BRE C1	The crank of a two-cylinder un coupled inside cylinder locomotive is at right angles and is 300 mm long. The distance between center lines is 650 mm. The wheel center lines are 1.6 m apart. The reciprocating mass per cylinder is 300 kg. The driving wheel dia is 1.8 meters. If the hammer blow is not to exceed 45 kN at 100 km/hr, determine: 1. The fraction of the reciprocating masses to be balanced, 2. The variation in tractive effort, 3. Maximum swaying couple. [A.U., Nov/Dec 2005]		
BRE D1	The following data refer to a two-cylinder locomotive: rotating mass per cylinder = 300 kg, reciprocating mass per cylinder = 330 kg, distance between the wheels = 1500 mm, distance between the cylinder center = 600 mm, diameter of driving wheels = 1800 mm, crank radius = 325 mm, radius of center of balance of mass = 650 mm, locomotive speed = 60 km/hr, angle between the cylinder cranks = $90^\circ$ , dead load on each wheel = 40 kN. Determine: 1. Balancing mass required in the planes of driving wheels if whole of the revolving and two-third of the reciprocating mass are to be balanced, 2. The swaying couple, 3. Variation in tractive force, 4. The maximum and minimum pressure on the rails, 5. The maximum speed of locomotive without lifting the wheels from the rails.		
BRE D2	The following particulars relate to an un coupled locomotive: revolving mass per cylinder = 300 kg, reciprocating mass per cylinder = 450 kg, length of each crank = 350 mm, distance between wheels = 1.6 m, and distance between cylinder center = 1.9 m, diameter of driving wheels = 2 m, radius of balancing mass = 0.8 m, angle between the cranks = $90^\circ$ . If whole of the revolving and two-third of reciprocating masses are to be balanced determine: 1. Magnitude and angular positions of the balancing masses, 2. Speed at which the wheel will lift off the rails when the load on each driving wheel is 35 kN, and 3. The swaying couple.		
BRE R	Optimize the application of formulae with necessary conditions in balancing of reciprocating of engine		
UNI - II IMPORTANT TWO MARK QUESTIONS [ ANNA UNIVERSITY ]			
BL T	<ol style="list-style-type: none"> <li>1. What is mean by balancing of rotating masses.</li> <li>2. Why rotating masses are to be dynamically balanced</li> <li>3. State the conditions for static and dynamic balancing</li> <li>4. Why complete balancing is not possible in reciprocating engine.</li> <li>5. Can a single cylinder engine be fully balanced? why?</li> <li>6. Differentiate between unbalanced force caused by rotating and reciprocating masses.</li> <li>7. Why are the cranks of a locomotive, with two cylinders placed at <math>90^\circ</math> to each other?</li> <li>8. List the effect of partial balancing of locomotive?</li> <li>9. Define tractive force swaying couple, hammer blow.</li> <li>10. Why balancing machine are used and what are all the balancing machines</li> </ol>	<p>[ AU - 2 TIMES ]</p> <p>[ AU - 2 TIMES ]</p> <p>[ AU - 3 TIMES ]</p> <p>[ AU - 2 TIMES ]</p> <p>[ AU - 1 TIMES ]</p> <p>[ AU - 4 TIMES ]</p> <p>[ AU - 5 TIMES ]</p> <p>[ AU - 3 TIMES ]</p> <p>[ AU - 2 TIMES ]</p> <p>[ AU - 2 TIMES ]</p>	

Webinar Arranged



# ARUNAI


Engineering College  
TRUVANMALAI

INVITATION

COUNSELLING CODE

## 1504

The Management, Principal, Staff and Students of AEC  
cordially invite you to join



Leading the way to next generation learning


WEBINAR ON

## "ELECTRICAL AND HYBRID VEHICLE TECHNOLOGY"

**21ST APRIL**

**2021**

**11:00 AM**



**THIRU VIJAYAKUMAR VELUSAMY**

Deputy Manager - Hardware VSeA

Valeo India Private Limited

Chennai

vhu-qthn-knu

Dr. E.V Kumaran

Vice Chairman

Dr. R. Sathiyaseelan

Registrar

Dr. R. Ravichandaran

Principal

Dr. L. Jayakumar

Head / Mech

Organised by  
DEPARTMENT OF MECHANICAL ENGINEERING

**COUNSELLING CODE**  
**1504**

The Management, Principal, Staff and Students of AEC  
cordially invite you to join

*Leading the way to next generation learning*

08<sup>th</sup>  
MAY  
2021  
11.00 am

**WEBINAR ON**

**PROCESS DESIGN FOR CONVERSION  
OF FOG TO RENEWABLE FUEL  
(WASTE TO ENERGY TECHNOLOGY)**



**RESOURCE PERSON**

**Dr. KARTHICKEYAN VISWANATHAN**

**Associate Research Professor**

**National Cheng Kung University (NCKU)**

**Tainan City, TAIWAN**



**oib-qjzk-stf**

*Er. E.V Kumaran*  
Vice Chairman

*Dr. R. Sathiyaseelan*  
Registrar

*Dr. R. Ravichandaran*  
Principal

*Dr. L. Jayakumar*  
HOD / Mech

*Organised by*

**DEPARTMENT OF MECHANICAL ENGG.**



**FEEDBACK  
ACTION TAKEN REPORT**

**ACADEMIC YEAR  
2019 – 2020**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-2020

**Department of Biotechnology**

**Date:4/2/2020**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	6	Encourage to attend the FDP in esteemed institution	Based on the excellence of program. Management encouraged faculty members to participate in FDP programs	Faculties were attended skill development and FDP programs
Student	91	Encourage students to conduct new research	Mentor should encourage their mentees to submit TNSCST student project scheme proposal	Students received TNSCST SPS scheme grant
Alumni	23	1.Placement training and practices should be provided 2. Arrange some recent trends in biotechnology for improving knowledge	1.Additional coaching class and practices conducted by Training and placement cell 2. Lecture series arranged for students	1.TAP circular attached 2. Popular lecture series was arranged on 6 <sup>th</sup> and 7 <sup>th</sup> feb 2020 funded by DBT, India
Employers	-	-	-	-

Prepared By

HOD-BT

Principal  
Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-2020

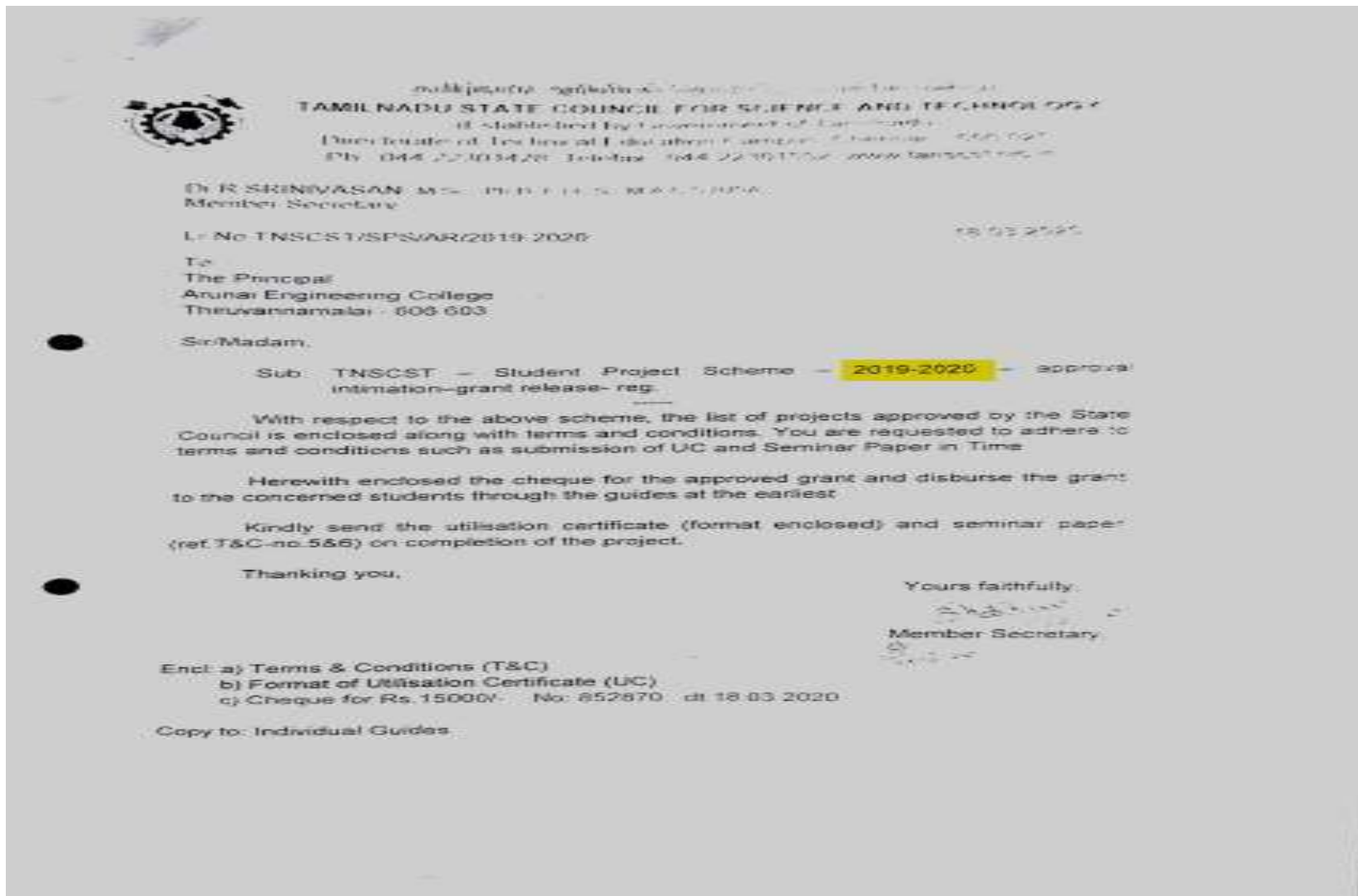
### Department of Biotechnology





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-2020

### Department of Biotechnology



40. Arunai Engineering College (2) – 15,000/-

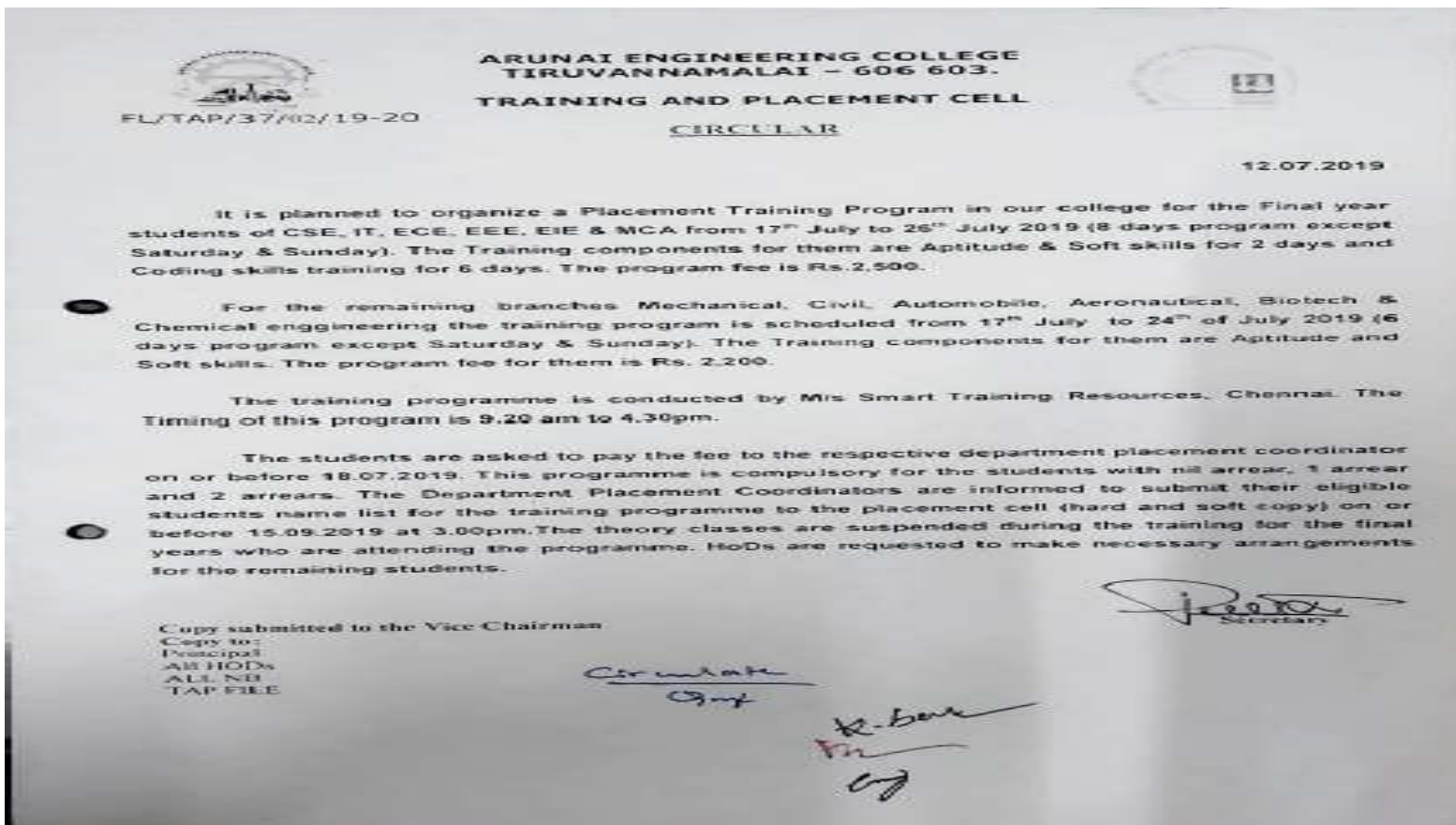
✓	Dr. V. Saravanan Associate Professor Dept. of EEE, Arunai Engineering College Thiruvannamalai - 606 603	Smart Farming	M.Sabalin	EEE-109	The Principal Arunai Engineering College Thiruvannamalai - 606 603	110/100
	Dr. S. Pothan Professor Dept. of Biotechnology Arunai Engineering College Thiruvannamalai - 606 603	Isolates evaluation of anticancer drug from natural products	R.C. Pavithra A. Priyadarshini	MS-024	The Principal Arunai Engineering College Thiruvannamalai - 606 603	110/100

Students received TNSCST SPS scheme grant



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-2020

### Department of Biotechnology



Additional coaching class and practices conducted by Training and placement cell





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2020-2021

### Department of Biotechnology

National Conference on Bioprospecting and Biotechnology, 6 -7, February 2020

**HAPTEN 2020**  
6 & 7 February 2020

Learners Intellectual sanctuary  
**ARUNAI**  
Engineering College  
TIRUVANNAMALAI  
DEPARTMENT OF BIOTECHNOLOGY

**INVITATION**

POPULAR LECTURES IN BIOTECHNOLOGY, Sponsored by DBT, Government of India  
&  
NATIONAL CONFERENCE ON BIOPROSPECTING AND BIOTECHNOLOGY - HAPTEN2020

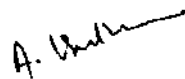


Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

**Department of Chemical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	4	The practical exposure to the faculty members by undergoing conferences	Faculty members are motivated to participate in conferences	Evidence attached
Students	16	Extra coaching classes are necessary for difficult subjects.	Additional sessions are conducted for challenging subjects.	Test conducted during coaching class on 12/11/2019
Alumni	15	Placement training and preparation should be provided.	The Training and Placement Cell arranges additional coaching sessions and practice opportunities.	Evidence attached
Employers	7	Industrial academia gap must be bridged	Experts from industries were invited for seminars to interact with students to bridge the industry academia gap.	Evidence attached

  
Prepared By

  
HOD/CHEMICAL

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603

Faculty members are motivated to participate in conferences.

*You Choose. We Do it*


**ST. JOSEPH'S COLLEGE OF ENGINEERING**  
(St. Joseph's Group of Institutions)  
OMR, Chennai - 119.


**DEPARTMENT OF BIOTECHNOLOGY**


**CERTIFICATE OF EXCELLENCE**


This is to certify that  
**Mrs. Mary Nancy Flora R**  
of  
**Arunai Engineering College**

has participated and won I place in Poster Presentation in "Virtual International Conference on Global Research Trends in Biotechnology - 2020 (VICGRTB-2020)" from 15<sup>th</sup> to 18<sup>th</sup> June 2020

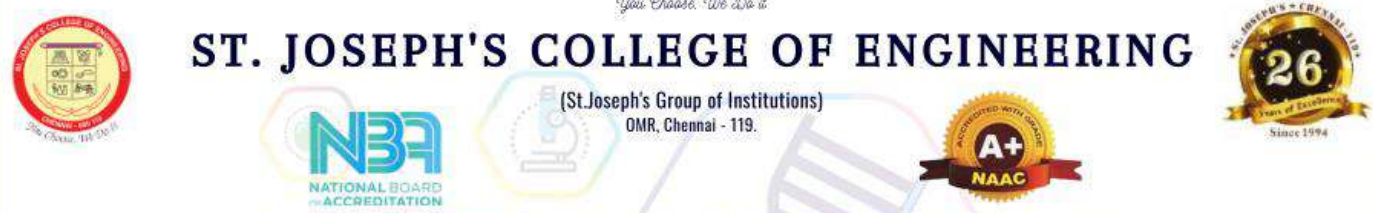
  
**Dr. M. Chamundeeswari**  
Convenor

  
**Ms. K. R. Preethy**  
Co-convenor

  
**Dr. G. Sree Kumar**  
Head of the Dept

  
**Dr. Vaddi Seshagiri Rao**  
Principal

E Certificate

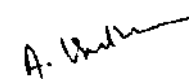


Test conducted during coaching class on 12/11/2019

ARUNAI ENGINEERING COLLEGE, TIRUVANNAMALAI 606603								
DEPARTMENT OF CHEMICAL ENGINEERING								
ACADEMIC YEAR 2019-20 ODD SEMESTER								
Coaching Class test								
Year/ Sem : IV/ VII							Date : 12/11/2019	
Register No.	Sub code	CH6701	CH6702	CH6703	CH6704	CH6705	CH6009	No. of Sub. Failed
<b>510416203001</b>	<b>Ajith kumar K</b>	66	92	82	54	78	80	0
510416203002	Aravind M	56	60	50	52	ab	52	0
510416203003	Arunkumar A	66	80	80	50	51	64	0
<b>510416203004</b>	<b>Ashok A</b>	76	98	96	62	80	94	0
510416203005	Bharathraj R	62	88	88	50	50	82	0
510416203006	Ezhil V	50	74	52	ab	34	58	1
510416203007	Harishwaran R	62	72	ab	50	ab	14	1
<b>510416203009</b>	<b>Muralidharan G</b>	56	56	62	50	52	58	0
510416203010	Naveenkumar B	56	50	50	50	ab	40	1
<b>510416203011</b>	<b>Rajaganapathy V</b>	68	70	78	56	74	80	0
510416203012	Ramanathan T	76	62	ab	50	32	60	1
<b>510416203013</b>	<b>Sangeethakumari G</b>	62	94	92	58	92	92	0
510416203014	Sathish C	56	64	50	50	22	50	1
<b>510416203015</b>	<b>Shaaziya Nazneen</b>	58	84	84	52	82	80	0
510416203016	Tamilselvan S	62	76	78	52	51	64	0
510416203017	Thameemul Ansari	58	70	62	54	ab	62	0




Prepared By



HOD/CHEMICAL

The Training and Placement Cell arranges additional coaching sessions and practice opportunities.

  
FL/TAP/37/ 19-20

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI - 606 603.**

**TRAINING AND PLACEMENT CELL**

CIRCULAR


**08.03.2019**

It is planned to organize a Placement Training Program in our college for the Final year students of all the departments between 16.03.2019 and 18.03.2019 (3 days program). The program fee is Rs. 900. The Training components are Aptitude and Soft Skills.

The training programme is conducted by M/s Smart Training Resources, Chennai. The Timing of this program is 9.20 am to 4.30pm.

The students are asked to pay the fee to the respective department placement coordinator on or before 12.03.2019. This programme is compulsory for the students with nil arrear, 1 arrear and 2 arrears. The Department Placement Coordinators are informed to submit their eligible students name list for the training programme to the placement cell (hard and soft copy) on or before 12.03.2019 at 3.00pm. The theory classes are suspended during the training for the final years who are attending the programme. HoDs are requested to make necessary arrangements for the remaining students.

Copy submitted to the Vice Chairman  
Copy to:  
Principal  
Registrar  
All HODs  
ALL NB  
TAP FILE

  
Registrar

**19-20**

Experts from industries were invited for seminars to interact with students to bridge the industry academia gap.



*M. S.*

Prepared By

*A. S.*

HOD/CHEMICAL



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

**Department of Civil Engineering**

Date: 05.02.2020

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	Need practical sessions for learning new technologies used in construction field.	Institution offered to attend International, National and State level conferences, and seminar and workshop which made to learn new technologies.	Faculty undergone faculty development Programme on 9/12/2019 to 13/12/2019 and workshop on 17/09/2019.
Students	50	Frequent workshop must be organized.	Workshops were conducted to learn about Design of Tall Building Structures.	Two Days National Level Workshop on Tall Building Design were conducted on 11 <sup>th</sup> & 12 <sup>th</sup> September 2019.
Alumni	24	Emphasis can be given on industry related curriculum	Students are encouraged to go for in-plant trainings during the summer and winter vacations.	Students undergone In-Plant training during the summer vacations from 30/07/2019 to 09/08/2019
Employers	7	Suggested to provide Hands on Training on latest technologies used in construction field.	Hands on training were arranged by the departments in collaboration with reputed organization to improve the skills of the students. So that can get better placement offers based on their skills.	Hands On Training on Total Station & GPS were organized on 8/07/2019 to 12/07/2019.

*P. Jayaram*  
Prepared By

*Shathraaj*  
HOD/CIVIL

*[Signature]*  
PRINCIPAL

Arunai Engineering College  
Tiruvannamalai - 606 603



**Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20**

1. Faculty undergone faculty development Programme on 9/12/2019 to 13/12/2019 and workshop on 17/09/2019.

**Five Day Short Term Programme On EN8592- WASTEWATER ENGINEERING**



**One Day Pre-Conference Workshop On CHARACTERISATION & MICROSTRUCTURE ANALYSIS OF CONCRETE**





2. Two Days National Level Workshop on Tall Building Design were conducted on 11<sup>th</sup> & 12<sup>th</sup> September 2019.



*Department of*  
**CIVIL ENGINEERING**  
cordially invites you to the

TWO DAYS  
NATIONAL LEVEL WORKSHOP ON  
**TALL BUILDING DESIGN**

in association with ISTE Chapter of Our Institution on  
11<sup>th</sup> & 12<sup>th</sup> September 2019.

Time : 10:00 AM

Venue : A/C Auditorium

*In the august presence of...*

**Er.E.V.Kumaran**  
Vice Chairman

*Felicitation by...*

**Mr.M.Prukinthraj**  
Secretary


*Special Address by...*

**Dr.L.Jayakumar**  
Principal

*Welcome Address by...*

**Mrs.R.Lathamaheswari**  
HOD / CIVIL

3. Students undergone In-Plant training during the summer vacations from 30/07/2021 to 09/08/2021.



**NAMMA FAMILY BUILDER & DEVELOPER  
PRIVATE LIMITED**

PVT.NO.: U70109TN2020PTC139285 | ISO 9001 : 2015  
GST NO.: 33AAHCN2707P1Z8

Head Office: No.11, Valli Nagar 1st Street, Govindarajapuram, Guduvanchery - 603 202  
Branch Offices: No.88, Rajaji Nagar, Thangappapuram, Guduvanchery - 603 202  
No.1/35, OMR Road, Kelambakkam, Thiruporur - 603 103

Date: 10.08.2019

This is to certify that **KRISHNAN K (510418103006)**, student of Arunai Engineering College, Thiruvannamalai has successfully completed a summer internship in the field of construction site from 30.07.2019 to 09.08.2019 under our guidance. During the period of his internship program with us, he had been exposed to different process and was found diligent, hardworking and inquisitive.

We wish him every success in his life and career.



For **NAMMA FAMILY BUILDER  
& DEVELOPER PVT. LTD.**

**PONNUSAMY KARTHIK  
FOUNDER & CHAIRMAN**

**PONNUSAMY KARTHIK  
FOUNDER & CHAIRMAN  
NFBD GROUP PVT.LTD.**

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[welcometonfbd@nfbgroup.com](mailto:welcometonfbd@nfbgroup.com)



4. Hands on Training on Total Station & GPS were organized on 8/07/2019 to 12/07/2019.



## DEPARTMENT OF CIVIL ENGINEERING

*cordially invites you to the  
Inauguration of*



### CIVIL ENGINEERING STUDENTS ASSOCIATION

on 8<sup>th</sup> July 2019, 10:00AM @ AC Auditorium

## Hands on Training on Total Station & GPS

by

**LADDER SURVEY INSTITUTE OF TECHNOLOGY**

IN THE PRESENCE OF  
**Er.E.V.KUMARAN M.E.,**  
VICE CHAIRMAN

FELICITATION BY  
**Mr.M.PRUKINTHAJ**  
SECRETARY

**Dr.L.JAYAKUMAR**  
PRINCIPAL

WELCOME ADDRESS BY  
**Mrs.R.LATHAMAHESWARI**  
HOD/CIVIL





**ARUNAI ENGINEERING COLLEGE**  
**QUALITY PROCESS DESCRIPTION**  
**ACTION TAKEN ON FEEDBACK ANALYSIS**  
**Standard: ISO 9001:2015**



**Format : F-FDB-02**  
**Version : 01**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019 – 20

**Department of Computer Science and Engineering**

4-3-20

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	10	Internet Facility required in the staffroom system	Facility to connect to internet through mobile hotspot is enabled	System that can connect through mobile hotspot provided in the staffroom
Students	120	Programmes to improve the students technical skills must be increased	Symposium and seminars were conducted with more practical demonstration	National level technical symposium "POINTERS 2K19" and Expo "INNOVISTA" conducted on 26.09.2019
Alumni	10	Enhance more technical training programmes	Department conducted various training programmes for the students	Technical Fest conducted on various topics "Smart Mapping" and "Ethical Hacking" on 26.1.2020
Employers	-	-	-	-

Prepared By

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 602

  
HOD-CSE

National Level  
Technical Symposium & Expo

## POINTERS 2K19

Technical Symposium

## INNOVISTA

Project Expo

**Techno  
Fest**

Date  
27  
Sep



### SURVIVAL WITH SMART INNOVISTA-EXPO

26 September 2019 @ Arunai Campus

### POINTERS 2K19

27 September 2019 @ A/C Auditorium

Date  
26  
Sep

E  
X  
P  
O

### THEME OF THE SYMPOSIUM

- Smart Transportation System
  - AI, Machine Learning, NLP
  - Networks and Security
  - Grid and cloud/ Mobile Computing
    - SOA, Data Analytics
    - IoT Perspectives of Smart Grid
    - IoT Communication
    - IoT for Smart Healthcare
    - IoT and Big Data Analytics

\*Any other relevant topics

### Contact:

THE CONVENOR  
Pointers2K19, Innovista  
Dept of CSE & IT  
Arunai Engineering College  
Tiruvannamalai  
606603

### Phone:

9442390300  
7708414682  
9790101451

E-mail: [pointers2k19@gmail.com](mailto:pointers2k19@gmail.com)

### EVENTS

Paper Presentation  
Technical Expo  
Web Design  
Fun with Math

### IMPORTANT DATES

Submit Paper on or before 20.09.2019

[www.arunai.org](http://www.arunai.org)

ARUNAI  
Engineering College  
TIRUVANNAMALAI

Department  
of  
CSE & IT



## TECHNICAL FEST 4.0

### STEM EVENTS

## Smart Mapping | Ethical Hacking

DATE: 26th NOV 2020 @ 10.00 am  
Google Meet ID- vyj-yvap-brg

In the Presence of

**Er.E.V.Kumaran**

Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

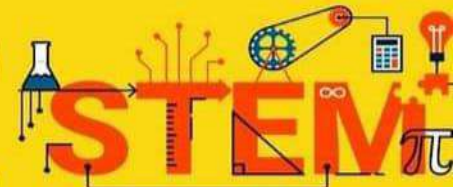
**Dr.L.Jayakumar**  
Principal

**Dr.M.Jothish Kumar**  
HOD-IT

INVITATION

Department of Information Technology

*Cordially invites you  
to join the*



**UNLEASH THE SPARK WITHIN YOU**

[www.arunai.org/ste](http://www.arunai.org/ste)



ARUNAI ENGINEERING COLLEGE

TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	In prestigious institutions, staff employees may be permitted to participate in extra workshop/FDP courses during the semester.	Based on the excellence of the program, management encouraged staff employees to participate in FDP programs during the semester.	ATTACHED
Students	50	Special classes are required for slow learners.	Arranged special class for the problematic subjects.	
Alumni	4	It is important to promote student in higher studies to learn new technologies.	Students joined higher studies.	
Employers	2	Suggestion given to encourage the students to become entrepreneur.	Arranged workshop through Entrepreneurship Development Cell to motivate the students to become entrepreneur.	

Prepared By

HOD-ECE  
**Dr. S. ELANGO** B.E., M.E., Ph.D.,  
Professor & Head  
Dept. of Electronics and Communication Engg.  
Arunai Engineering College,  
Tiruvannamalai-606 603.

PRINCIPAL

Arunai Engineering College  
Tiruvannamalai - 606 603



ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Workshops/FDP course attended by faculty:



**CHASE TECHNOLOGIES**

Prof. Dr. N. R. Shanker., Ph.D.,  
R&D-Manager  
Chase Technologies

**TO WHOM IT MAY CONCERN**

This is to certify that A Elangovan  
of ARUNAI ENGINEERING COLLEGE  
has attended "PROGRAMMING FOR DEEP LEARNING AND MACHINE  
LEARNING ALGORITHMS" live online course conducted by Chase Research  
and Development Department, Chennai from 2<sup>nd</sup> April to 7<sup>th</sup> April 2020.

  
Prof. Dr. N. R. Shanker., Ph.D.,  
Manager-R&D Wing



**CHASE TECHNOLOGIES**

Phone: 9444200777 / 9444497912  
nr\_phd@yahoo.co.in  
www.chasetechnologies.org





## Vimala College (Autonomous), Thrissur CERTIFICATE

*This is to certify that*

**Mrs.K.G.Sathiya**

*has successfully completed One Week Online Faculty Enrichment Workshop on,  
“**TECHNOLOGY ASSISTED TEACHING LEARNING**” with (e-certification)  
from 18th May 2020 to 24th May 2020 organized by IQAC, Vimala College  
(Autonomous), Thrissur.*

**Ms Smitha P.S**  
Course Coordinator

**Dr Minimol K Jose**  
IQAC Coordinator

**Dr Sr Beena Jose**  
Principal



**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI – 606 603**

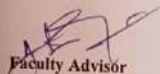



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**Special class has been arranged for the slow learners:**

**SPECIAL CLASS SCHEDULE FOR SLOW LEARNERS**  
Academic Year 2019 – 2020 (ODD Semester)

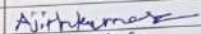
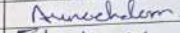
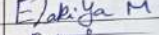

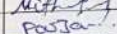
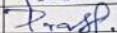
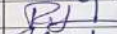
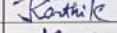
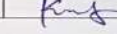
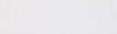
DATE & DAY	II YEAR		III YEAR		IV YEAR	
	FN	AN	FN	AN	FN	AN
23.11.19 Friday	EC-I	LPDE	DSP	CN	EMIC	ERTS
26.11.19 Saturday	SS	C	DC	BBI	OC	RF&ME
27.11.19 Monday	DE	CS	CN	CAO	ERTS	CR
28.11.19 Tuesday	LPDE	EC-I	BBI	ME	DIP	EMIC
29.11.19 Wednesday	C	SS	CAO	DSP	CR	OC
30.11.19 Thursday	CS	DE	ME	DC	RF&ME	DIP



Faculty Advisor:   
HOD/ECE: 

**SPECIAL CLASS ATTENDANCE**  
Academic Year 2019 – 2020 (ODD Semester)

Year / Sem: II / III  
Unit: II/III

SUBJECT NAME: EC-I  
STAFF NAME: Mr.L.GURURAJAN  
DATE & TIME: 23.11.19 & FN

S. NO	REG NO	NAME	SIGN
1	510418106001	AJITHKUMAR S	
2	510418106006	ARUNACHALAM K	
3	510418106010	ELAKIYA M	
4	510418106021	MAHAVISHNU M	
5	510418106025	NITHESHKUMAR R	
6	510418106029	POOJA	
7	510418106032	PRASATH S	
8	510418106033	PRIYADHARSHINI C	
9	510418106702	KARTHIK	
10	510418106703	KABILESHWARAN	

Faculty Incharge:   
HOD/ECE: 



**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI – 606 603**



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Students joined higher studies:

9. SURIYA.D (2016-2020) - 510416106065  
MBA-MAILAM ENGINEERING COLLEGE

**MAILAM ENGINEERING COLLEGE**  
Approved by AICTE, New Delhi,  
Affiliated to ANNA University, Chennai &  
Accredited by National Board of Accreditation (NSA) and Accredited by TCS

**IDENTITY CARD**

**SURIYA.D**  
NBA  
ROLL NO : 210522  
DURATION : 2021-2023

Principal

D.O.B : 15.07.1999  
BLOOD GROUP : O+VE  
ADDRESS  
13, Vanniyar st,  
Rettnai,  
Tindivanam (TK),  
Villupuram-604 306.

CELL : 7397025722

If lost or found please return to  
**MAILAM ENGINEERING COLLEGE**  
Mailam, Tindivanam Tk  
Villupuram Dt, Pin-604 304  
Ph-04347-241915, 241951, Fax-04347-241952

210522

8. AKSHAYA B (2016-2020) - 510416106007  
M.E (VLSI DESIGN)-MAHA BHARATHI ENGINEERING COLLEGE

**MAHA BHARATHI ENGINEERING COLLEGE**  
A. VASUDEVANUR, CHINNASALEM, KALLAKURICHI (TK),  
KALLAKURICHI (DT) - 606201. PH : 04151 - 256333 / 257333

Name : **B . AKSHAYA**  
Branch : M.E - VLSI DESIGN Roll No :  
D.O.B : 03.11.1998  
B.Group : A1- VE 21VL001

Address : D/o Balaji, 48, Kavarai St,  
Kallakurichi - 606202

2021 - 2023

Mobile : 8681979580

Principal



ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Workshop Organized to motivate the students to become an entrepreneur:

In Association With

ARUNAI connect

INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)

ARUNAI Engineering College  
TIRUVANNAMALAI

ENTREPRENEURSHIP DEVELOPMENT CELL

How to become an  
**Successful Entrepreneur**

Visit [www.arunai.org/technotalk](http://www.arunai.org/technotalk)

27<sup>th</sup> May 2020 | Wednesday @ 10.00 am

**Dr.Suresh A. Shan**

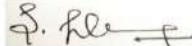
Head – Digital Innovation & Future Technology  
Business Information & Technology Solutions (BITS)  
Mumbai, Maharashtra.



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	14	1. Need reference book in department library	1. Reference and text book arranged in Department Library	Attached
Students	90	1. Need Industrial visit 2. Hands on raining and work shop program needed	1. Arranged Industrial Visit for the students. 2. Deptrament work shop was arranged	
Alumni	12	Invite to gust Talk to explore real time work experience with Future alumni's.	1. Arranged gust lecture.	
Employers	4	Adoptable and new learners needed.	1. Advised to students to learn recent trends and current trends of industry	

  
Prepared By

  
HOD-MECH

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



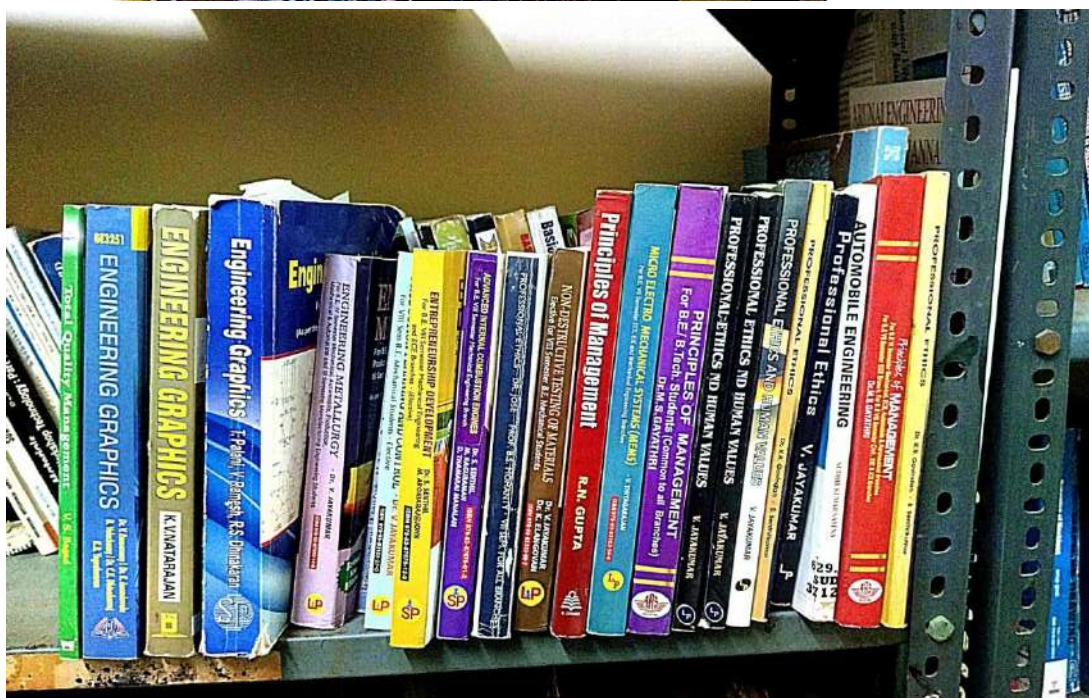
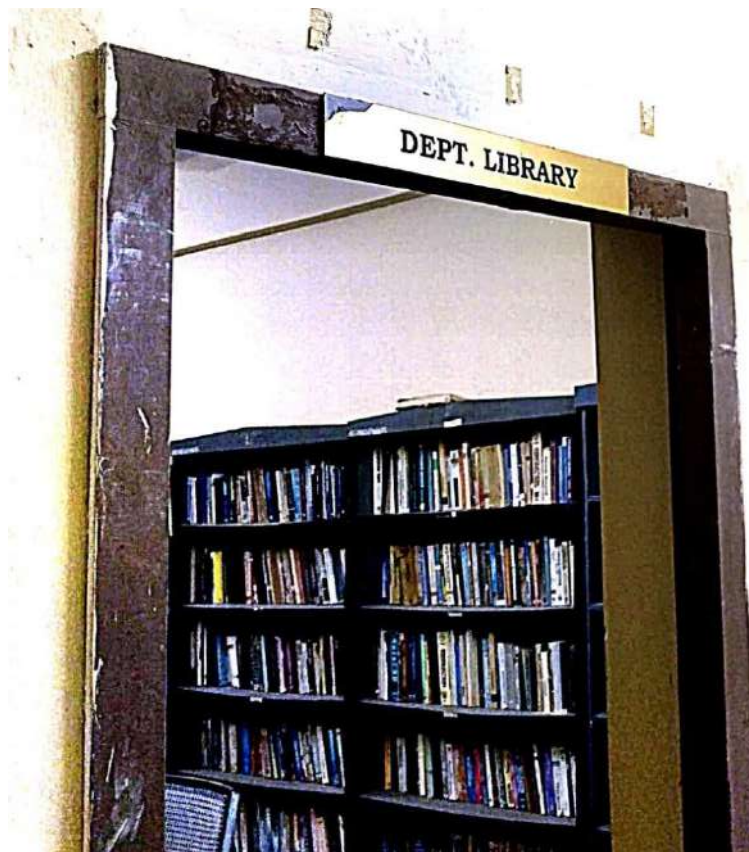
# ARUNAI ENGINEERING COLLEGE

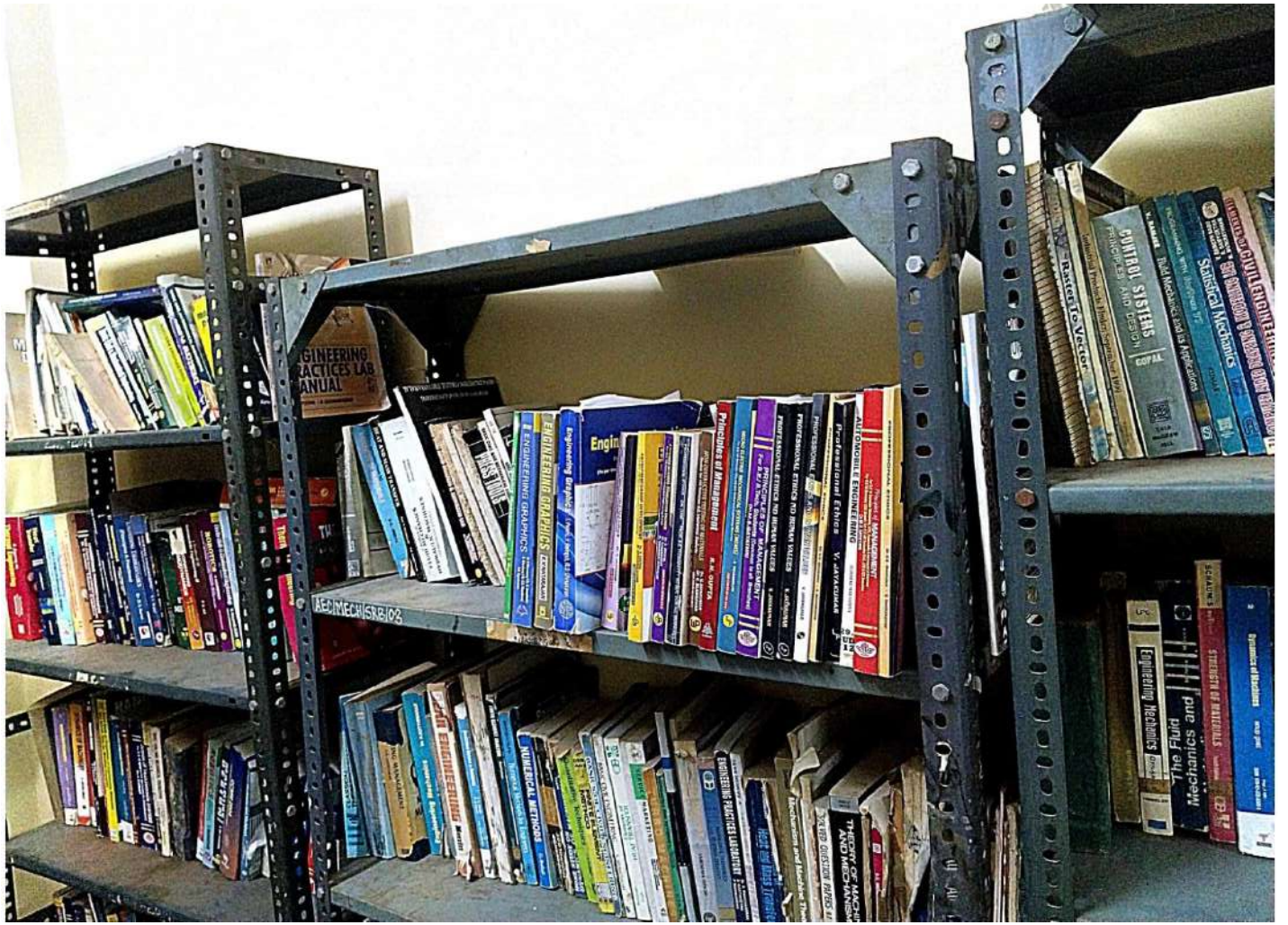
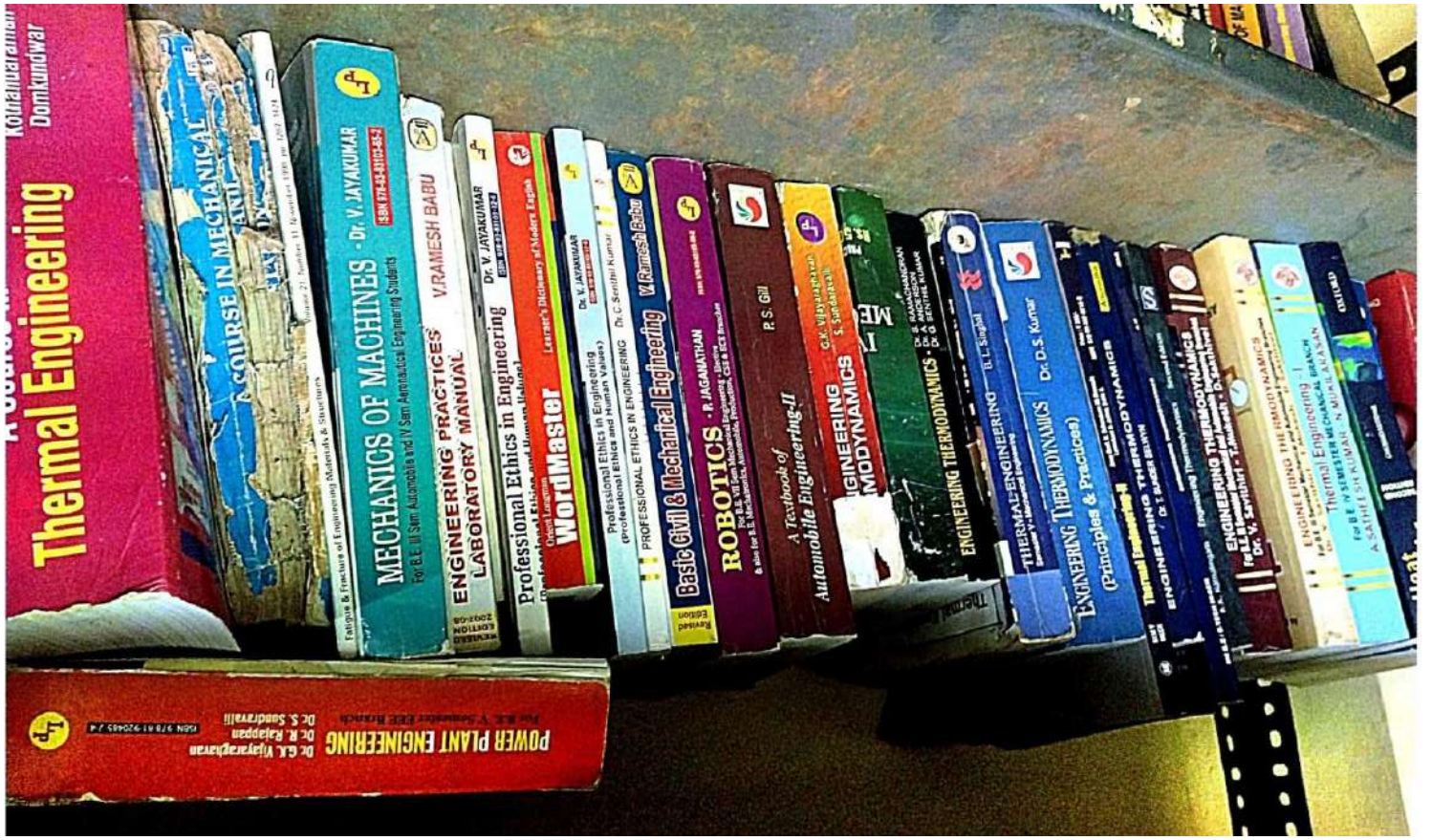
## TIRUVANNAMALAI

### DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

Reference and text book arranged in Department Library





Arranged Industrial Visit for the students.



ARUNAI ENGINEERING COLLEGE  
DEPARTMENT OF MECHANICAL ENGINEERING



From  
The Head of the department  
Department of Mech. Engg.  
Arunai Engineering College,  
Tiruvannamalai – 606 603

Date: 05.03.2020

To  
The Registrar,  
Arunai Engineering College,  
Tiruvannamalai – 606 603

Respected Sir,

Sub: Department of Mech. Engg – Industrial Visit / Tour– reg.

We have arranged an industrial visit /Educational Tour (Ooty) for B.E III year Mechanical Engineering students on 06.03.20 to 07.03.20(2days). The following Faculty members will be accompanying them. In this regard we kindly request your permission to proceed further processes.  
Amount to be collected per student is 2200. (Approximately 45 students)

1. Mr.S.Subahskaran
2. Mr.S.Jayakumar

Thanking you,

HOD (Mechanical Engg)



# Doddabetta Tea Factory And the Tea Museum



## INDUSTRIAL VISIT CERTIFICATE

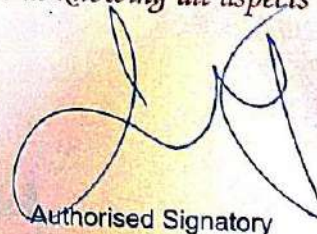
This certify that students of Arumai Engineering College,  
Tirumangaluru - Tamil Nadu

visited The Doddabetta Tea Factory and the Tea Museum on 12/03/2020.  
They were given first hand information of the entire tea history and processing.  
They participated in a guided factory tour in which the history of tea and the  
different stages of tea processing like withering, crushing, cutting / tearing /  
curling (CTC), shaping, fermentation, drying, cleaning and grading was  
explained to them. The students evinced keen interest in knowing all aspects  
about tea manufacture.

Place : Udhamandalam

Date : 12/03/2020



  
Authorised Signatory

Adm. Office : 16-B, Nankem Hospital Premises, Coonoor - 643 101, The Nilgiris. Phone : (0423) 2231679  
Mobile : 94430 30520 / 94434 18000 www.teamuseum-india.com e-mail : tmuseumdtf@rediffmail.com



Work Shop Conducted

**ARUNAI**  
Engineering College  
TIRUVANNAMALAI

DEPARTMENT OF MECHANICAL ENGINEERING  
IN COLLABORATION WITH  
**SRI SAI NDT INSTITUTE, PONDICHERRY**  
ORGANIZES ONE DAY WORKSHOP ON 27-02-2020  
"Conceptual Discussions and  
Practical Exposure on NDT Testing  
and Metal Inspection"

**RESOURCE PERSONS**  
EXPERTS FROM SRI SAI NDT  
INSTITUTE, PONDICHERRY

**WORKSHOP HIGHLIGHTS**

- **NON DESTRUCTIVE TESTING –AN INDUSTRIAL PERSPECTIVE .**
- **CONCEPT EXPLANATION, PRACTICAL AND DEMO SESSIONS ON LIQUID PENETRANT TESTING (LPT), MAGNETIC PARTICLE TESTING (MPT), ULTRASONIC TESTING (UT), RADIOGRAPHIC TESTING**

**In the Presence of**  
**Er. E. V. Kumaran**  
**Vice Chairman**

**FELICITATION BY**  
Dr. R. SATHIYASEELAN REGISTRAR      Er. M. PRUKINTHRAJ SECRETARY


**WELCOME ADDRESS**  
Dr. L. JAYAKUMAR MOD / MECH

Arranged guest lecture.

**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**INVITATION**

**“Motivational Talk On Present Scenario”**



**ALUMINI GUEST LECTURE**  
**R.Balu (2012-2016)**  
**Manager,**  
**JKV.Studios,**  
**Chennai**

**On**  
**09-09-2020**

**Organised By**  
**DEPARTMENT OF MECHANICAL ENGG.**

<b>Er.EV. Kumaran</b> Vice Chairman	<b>Dr.R.Sathiyaseelan</b> Registrar	<b>Dr.L.Jayakumar</b> Principal	<b>Dr.L.Jayakumar</b> HOD / Mech
--	--	------------------------------------	-------------------------------------





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

Department of Humanities and Science

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	15	Internet facility is required at staff room	Internet facility is provided at staff room	Attached
Students	350	Computer facilities required for students	Computer facilities were provided for the usage of students	

Prepared By 

  
PRINCIPAL  
Principal  
Arunai Engineering College  
Tiruvannamalai - 600 040



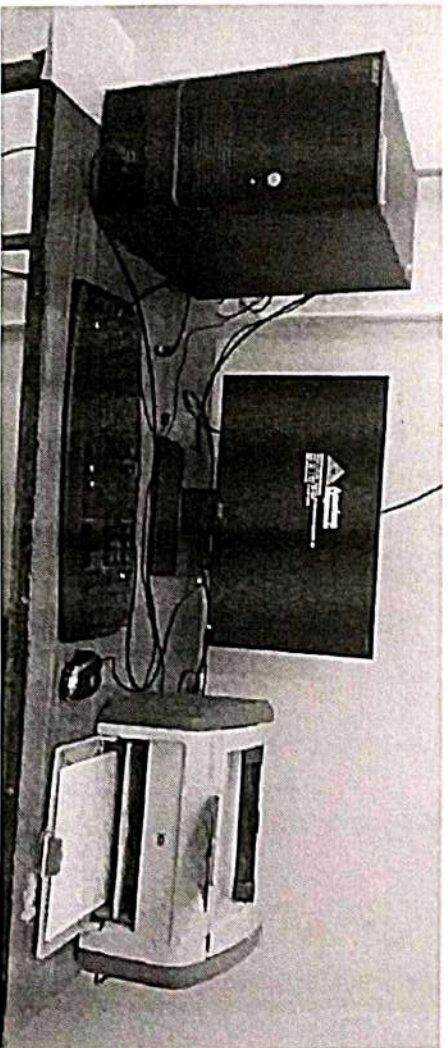
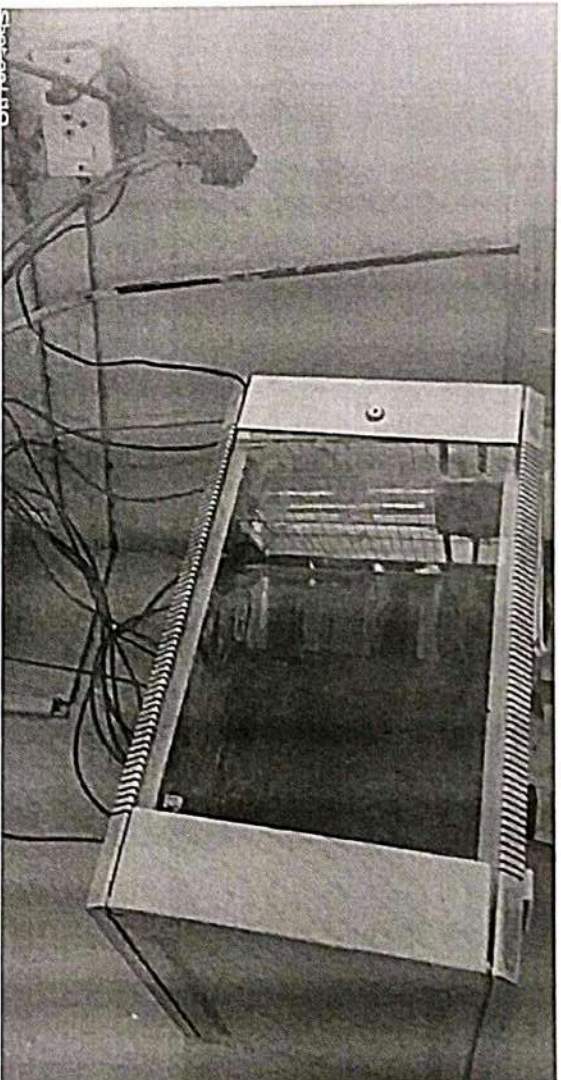
  
HOD-HAS

**Department of HAS**  
Arunai Engineering College,  
Thiruvannamalai - 3.



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

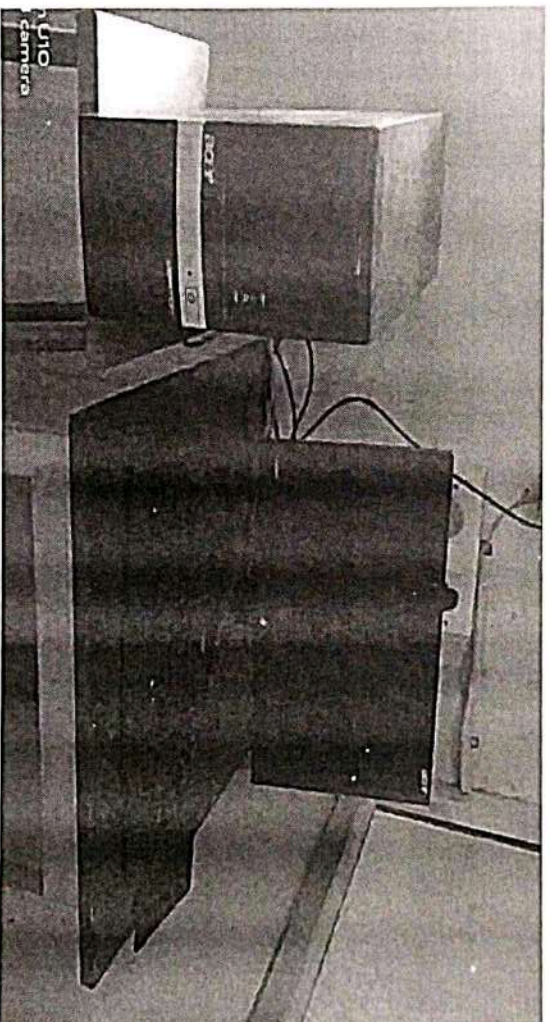
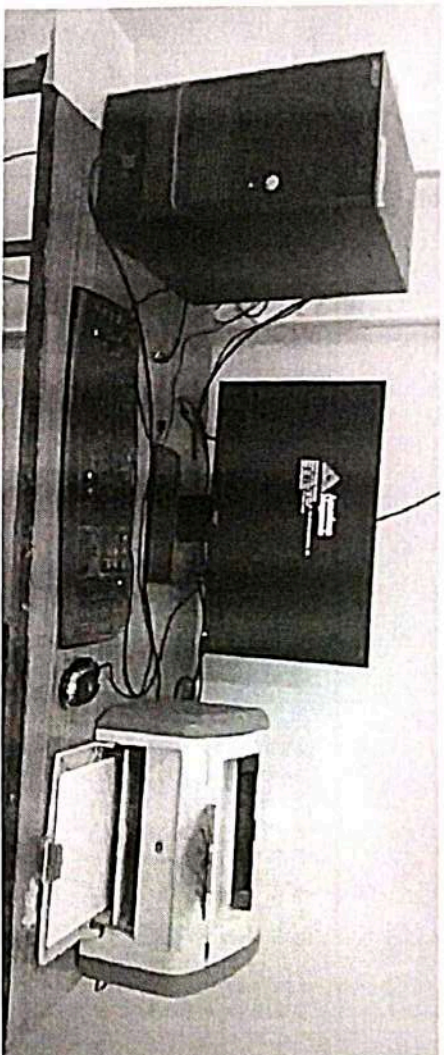
Internet facility at HAS block Staff room





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

Computer set up at HAS block for student usage





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

Department of Information Technology

Date:

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	1. Internet facility is required at staff room. 2. The practical exposure to the faculty members by undergoing Workshop/FDP	1. Internet facility provided at staff room 2. Faculty members motivate to participate various skill development programs in reputed institution	Attached
Students	13	1. Soft skill program were conduct with more practical demonstration	1. Soft skill development Program on 14-08-2019	
Alumni	75	Placement training and practices should be provided	Additional coaching class and practices conducted by Training and placement cell	
Employers	2	1. Enhance awareness about new technologies	1. Workshops on IOT machine Learning were conducted on 29-01-2020 arranged for students to become more subject matter experts.	

  
Prepared By

  
HOD-IT

  
PRINCIPAL  
Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



This BIOS is exclusively for Acer only  
Copyright: 2002-2011 by Acer, Inc. E7500, v 2.300Hz  
CPU : Intel(R) Core(TM)2 Duo CPU  
PnP: OK  
BIOS CPU : 75 GHz  
Stepping: 00 CPUID: 00010070  
Cache L1: 128KB Cache L2: 3072KB  
Press F12 for BIOS boot with boot 1067  
Memory Single Channel  
Initializing USB Controllers... Done.  
2046961 OK  
USB detect OK: 1 device  
Spc. Slave : SPC 0032000000-221C00 15.01MIS  
Auto-detecting USB Mass Storage...  
Ultra DMA Mode-5, S.M.A.R.T. Capable and Status OK  
on USB mass storage device found and configured.  
CMOS Settings Wrong  
CMOS checksum error. BIOS Setup  
Press Del to Continue



**INVITATION**

  
**ARUNAI**  
Engineering College  
TIRUVANNAMALAI

**Department of Computer Science and Engineering &  
Information Technology**

*The Management, Principal, Staff and Students of Arunai Engineering College  
cordially invites you to join for the Inaugural function of iGrow and Matrix Association*

**on 14.08.2019 @10.00 am in A/C Auditorium**



**Mr.Neelakanda sivam**

CHIEF GUEST  
Director & Group Coo,  
Thrupat Consulting Heritor Limited

GUEST LECTURE:

**Mrs.Mercy Diana**

Communication Panelist  
Mindtree

In the presence of

**Er.E.V.Kumaran**

Vice Chairman

Felicitation by

**Er.M.Prukinthraj**

**Dr.L.Jayakumar**

**Dr.K.Anitha**

ARUNAI

Engineering College

Tiruvannamalai, TamilNadu

*The Management, Principal, Staff and Students of Arunai Engineering College  
Cordially invites you to join the one day Workshop organised by*

**IoT with Machine Learning**

venue: Arunai A/C Auditorium @ 10.00 am

**Er.E.V.Kumaran**

Vice Chairman



**Chief Guest**

**Dr.Suresh A Shanmugan**

Head – Digital Innovation & Future Technology  
Business Information & Technology Solution  
Mahindra & Mahindra Financial Services Sec  
Mumbai, Maharashtra.

January  
29  
2020

# Implementation of Node Reservation Algorithm for Safe Trajectory Vehicle Crossing an Intersection

Ms.G.Saranya,

Mrs.B.Moohambigai ,Asst.Prof

*Information Technology*

*Arumai Engineering College, Tiruvanamalai.*

[moohambigai@arumai.org](mailto:moohambigai@arumai.org) [itzsaranya92@gmail.com](mailto:itzsaranya92@gmail.com)

**Abstract\_:**The intelligent road transport system for automatic vehicle are integrate with wireless sensor network. The main objective of this work are vehicle crossing an intersection for safe driving without occur an accident ,no congestion ,to avoid collision and waiting time to be reduce at an intersection. The infrastructure to infrastructure are communication is implement to exchange the information between a mobile phone and intersection manager. The intelligent road transport system are used to implement Doppler estimation or Doppler frequency is change of frequency and wavelength of a wave for an observer moving relative to its source. Doppler effect are measure speed, distance, sound to calculate and it take decision automatically and it send information to intersection manager and GPS to find geographical location. The different platform or os are connect through an heterogeneous network by using mobile phone

**Keywords :** Autonomous vehicle; Self-driving car;

Intelligent transportation system (ITS); Vehicle-to-  
infrastructure communication (V2I); Autonomous  
intersection management (AIM);Node reservation  
algorithm

## INTRODUCTION

Wireless sensor networks (WSN), sometimes called wireless sensor and actuator networks (WSAN), are spatially distributed autonomous sensors to monitor physical or environmental conditions, such as temperature, sound, pressure, etc. and to cooperatively pass their data through the network to a main location. The more modern networks are bi-directional, also enabling control of sensor activity. The development of wireless sensor networks was motivated by military applications such as battlefield surveillance; today such networks are used in many industrial and consumer applications, such as industrial process monitoring and control, machine health monitoring, and so on

The vehicle technology has grown rapidly in the past decade. Several systems have been installed into commercial vehicles to assist the driver to provide a more comfortable drive, including improving of the safety of the driver, passenger, and the pedestrian or cyclist. Re-

cently, there has been a highly increased activity in the development of the autonomous vehicle research, which was initiated in 2005 by the first competition of autonomous vehicles. The Defense Advanced Research Projects Agency (DARPA) Grand Challenge was organized. In

2007, the DARPA Urban Challenge showed the progression of the autonomous vehicle. Several teams successfully developed a vehicle that has the ability to drive itself and achieve the assigned task. As a result, the self-driving car or autonomous vehicle is now successfully developed by many research groups either in universities or more recently by private companies [1-3]. They proved the performance of driving in a real-traffic environment, autonomously with the capability of safety

## Autonomous Intersection management

Technically, autonomous intersection management relies on the communication between vehicles and intersection manager to intersection manager. The responsibility of the intersection manager is that it will prioritize the timing index, corresponding to the occupied space and tell a vehicle when it can pass through the intersection, based on the incoming, requested message from vehicles. In the same way, an autonomous vehicle will follow the policy from the intersection manager strictly and accurately. Every vehicle will get the personal timing index from the intersection manager and drive according to the received policy. The V2I communication is the tool in which the requested message from vehicle to the intersection manager is delivered and vice versa.

## Crossing intersection problem

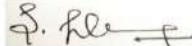
That is, the method to manage several vehicles to use the intersection area at different points of time. For the sample scenario, there are two vehicles on the different streets. The red vehicle (no. 1.) drives on the West Street and plans to go to the North Street. On the other side, the green vehicle (no. 2.) drives on the East street



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	14	1. Need reference book in department library	1. Reference and text book arranged in Department Library	Attached
Students	90	1. Need Industrial visit 2. Hands on raining and work shop program needed	1. Arranged Industrial Visit for the students. 2. Deptrament work shop was arranged	
Alumni	12	Invite to gust Talk to explore real time work experience with Future alumni's.	1. Arranged gust lecture.	
Employers	4	Adoptable and new learners needed.	1. Advised to students to learn recent trends and current trends of industry	

  
Prepared By

  
HOD-MECH

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



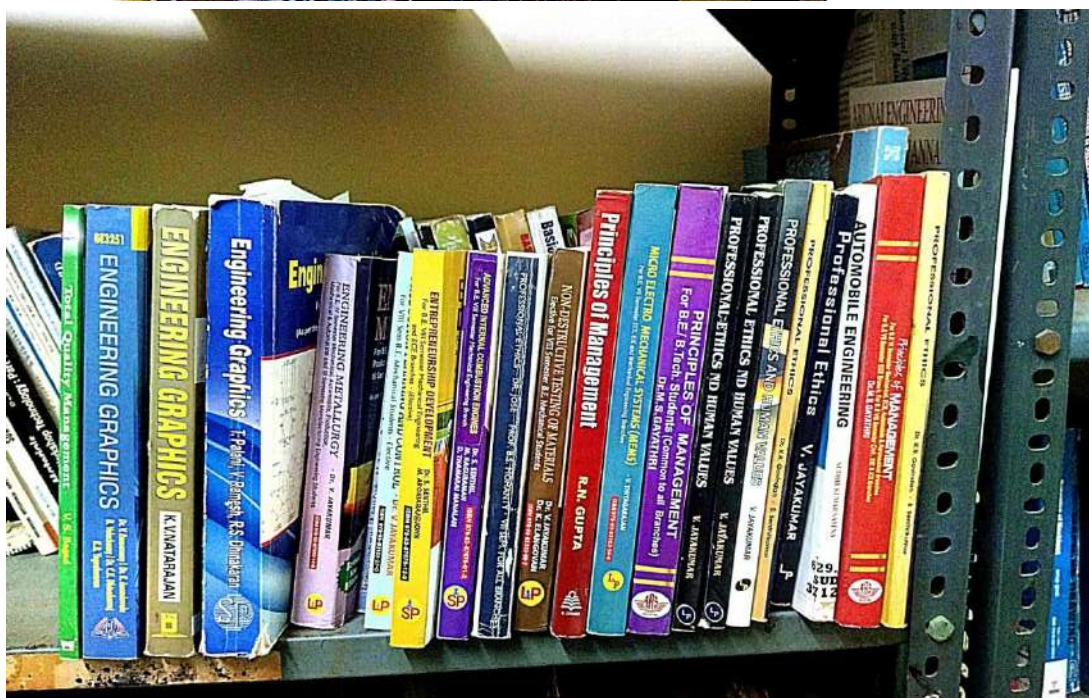
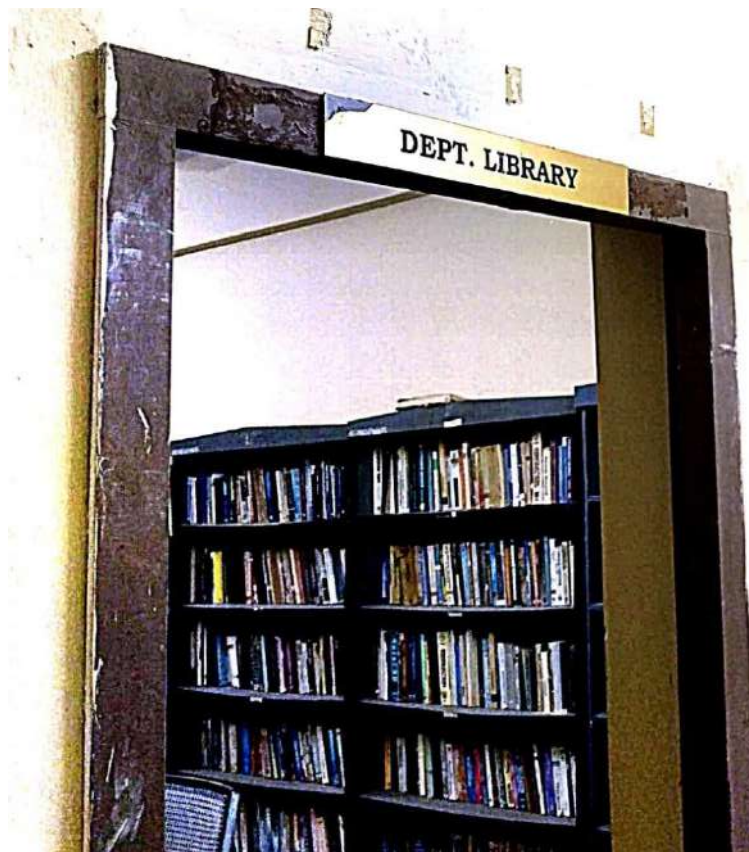
# ARUNAI ENGINEERING COLLEGE

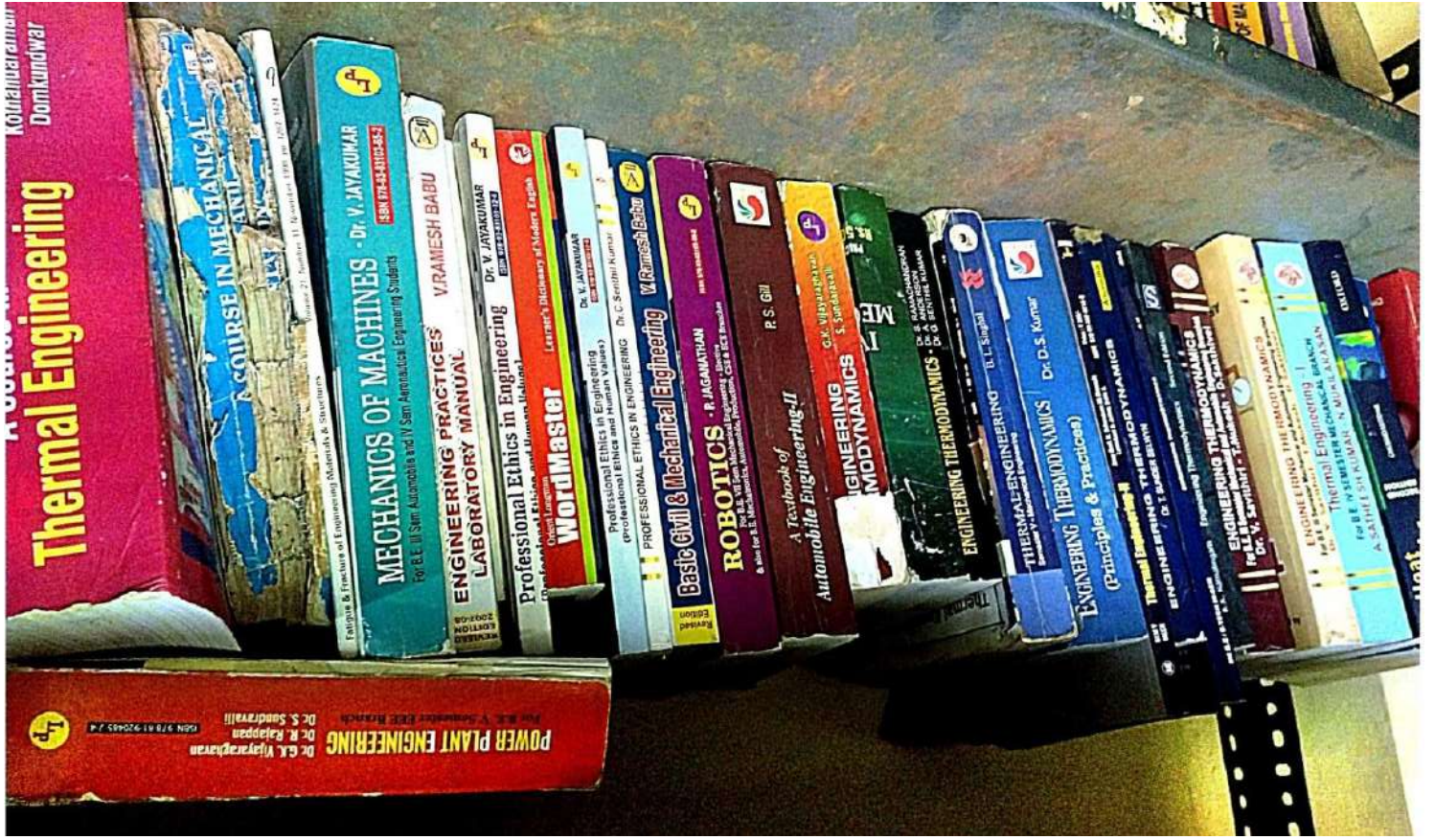
## TIRUVANNAMALAI

### DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2019-20

Reference and text book arranged in Department Library





Arranged Industrial Visit for the students.



ARUNAI ENGINEERING COLLEGE  
DEPARTMENT OF MECHANICAL ENGINEERING



From  
The Head of the department  
Department of Mech. Engg.  
Arunai Engineering College,  
Tiruvannamalai – 606 603

Date: 05.03.2020

To  
The Registrar,  
Arunai Engineering College,  
Tiruvannamalai – 606 603

Respected Sir,

Sub: Department of Mech. Engg – Industrial Visit / Tour– reg.

We have arranged an industrial visit /Educational Tour (Ooty) for B.E III year Mechanical Engineering students on 06.03.20 to 07.03.20(2days). The following Faculty members will be accompanying them. In this regard we kindly request your permission to proceed further processes.  
Amount to be collected per student is 2200. (Approximately 45 students)

1. Mr.S.Subahskaran
2. Mr.S.Jayakumar

Thanking you,

HOD (Mechanical Engg)



# Doddabetta Tea Factory And the Tea Museum



## INDUSTRIAL VISIT CERTIFICATE

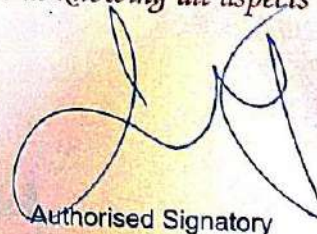
This certify that students of Arumai Engineering College,  
Tirumangaluru - Tamilnadu

visited The Doddabetta Tea Factory and the Tea Museum on 12/03/2020.  
They were given first hand information of the entire tea history and processing.  
They participated in a guided factory tour in which the history of tea and the  
different stages of tea processing like withering, crushing, cutting / tearing /  
curling (CTC), shaping, fermentation, drying, cleaning and grading was  
explained to them. The students evinced keen interest in knowing all aspects  
about tea manufacture.

Place : Udhamandalam

Date : 12/03/2020



  
Authorised Signatory

Adm. Office : 16-B, Nankem Hospital Premises, Coonoor - 643 101, The Nilgiris. Phone : (0423) 2231679  
Mobile : 94430 30520 / 94434 18000 www.teamuseum-india.com e-mail : tmuseumdtf@rediffmail.com



Work Shop Conducted

  
**ARUNAI**  
 Engineering College  
 TIRUVANNAMALAI

**DEPARTMENT OF MECHANICAL ENGINEERING**  
 IN COLLABORATION WITH  
**SRI SAI NDT INSTITUTE, PONDICHERRY**  
 ORGANIZES ONE DAY WORKSHOP ON 27-02-2020  
 "Conceptual Discussions and  
 Practical Exposure on NDT Testing  
 and Metal Inspection"

<p><b>RESOURCE PERSONS</b> EXPERTS FROM SRI SAI NDT INSTITUTE, PONDICHERRY</p>	<p><b>WORKSHOP HIGHLIGHTS</b></p> <ul style="list-style-type: none"> <li>• <b>NON DESTRUCTIVE TESTING –AN INDUSTRIAL PERSPECTIVE .</b></li> <li>• <b>CONCEPT EXPLANATION, PRACTICAL AND DEMO SESSIONS ON LIQUID PENETRANT TESTING (LPT), MAGNETIC PARTICLE TESTING (MPT), ULTRASONIC TESTING (UT), RADIOGRAPHIC TESTING</b></li> </ul>
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**In the Presence of**  
**Er. E. V. Kumaran**  
**Vice Chairman**


<b>FELICITATION BY</b> <b>Dr. R. SATHIYASEELAN</b> REGISTRAR	<b>WELCOME ADDRESS</b> <b>Dr. L. JAYAKUMAR</b> MOD / MECH
<b>Er. M. PRUKINTHRAJ</b> SECRETARY	

Arranged guest lecture.

**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**INVITATION**

**“Motivational Talk On Present Scenario”**



**ALUMINI GUEST LECTURE**  
**R.Balu (2012-2016)**  
**Manager,**  
**JKV.Studios,**  
**Chennai**

**On**  
**09-09-2020**

**Organised By**  
**DEPARTMENT OF MECHANICAL ENGG.**

<b>Er.EV. Kumaran</b> Vice Chairman	<b>Dr.R.Sathiyaseelan</b> Registrar	<b>Dr.L.Jayakumar</b> Principal	<b>Dr.L.Jayakumar</b> HOD / Mech
--	--	------------------------------------	-------------------------------------





**FEEDBACK  
ACTION TAKEN REPORT**

**ACADEMIC YEAR  
2022 – 2023**



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-2019

**Department of Biotechnology**

**Date: 05.08.2019**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	Wi-Fi facility is required at staff room	Wi-Fi facility provided at Biotechnology Block	Wi-Fi Device installed at biotechnology block
Students	92	Need more coaching class for problem solving skills	Special classes conducted for problematic subjects.	Special classes conducted for slow learners
Alumni	27	More core company placement should be arranged for students	Training and placement cell already focused to arrange core companies for placement	Zifo R&D core company placement for department of biotechnology students was arranged by TAP Cell Arunai Engineering College
Employers	2	-	-	-

Prepared By

HOD-BT

Principal

Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-2019

**Department of Biotechnology**



Wi-Fi Device installed at biotechnology block



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-2019

**Department of Biotechnology**



Special classes conducted for slow learners





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-2019

**Department of Biotechnology**

**ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603.  
TRAINING AND PLACEMENT CELL**

FL/TAP/37/02/18-19

**CIRCULAR**

**10.09.2018**

S.No	Date	Company	Eligibility	Department	Venue
1.	12.09.2018 9.30am	Zifo R&D Solutions, Chennai Website: www.ziford.com	70% and above in 10 <sup>th</sup> , 12 <sup>th</sup> and 65% in Degree (No standing arrears)	B.TECH – BioTech.	AEC A/C Auditorium

**Sub: Zifo R&D Solutions Campus Drive for 2019 Batch – Reg.**

**About Zifo R&D Solutions:** Zifo has been recognized as one of the Top 50 Fastest Growing companies in India and one of the Top 500 Fastest Growing companies in Asia Pacific. Specialized Services in the Drug Design and Development Industry. Focussed provider and Core Company in the Bio-Pharma / Biotechnology / Life Sciences space. Headquartered in Chennai | Global Offices in US, UK, Europe and Japan.

**Designation:** "Analyst"

**Salary:** Annual CTC Rs.3,70,750/-

**Role & Responsibilities:**  
**Clinical Data Solutions & Research Data Management**  
 • Design Clinical Study Data collection forms (CRFs) based on Clinical Protocol or Lab Workflows drafted by BioPharmas.  
 • Create programs to configure and test systems like EDC, ELN, CDMS, CTMS, IVRS, ePRO, CDR, SAS, etc.  
 • Create templates for preclinical experiments and assays in the Lab Automation environment  
 • Helpdesk support process to assist the use of EDC / ELN and respond to customer queries from sites performing Clinical trials.

**Solutions for Regulated Environment**  
 • Perform independent reviews of components developed for Computer systems used in Life Sciences industry  
 • Perform required technical, process and validation support for Clinical & Research Data Management

**Interview Process:**  
 1. Written Test (Arunai Engineering College)  
 2. Technical & HR interview (Zifo Office, Chennai)

**Note: Students must carry the following for the interview process**  
 1. College ID card 2. Resume 3. Certificate original & Xerox Copies 4. Pass port size photo 2nos.  
 5. Writing Pad 6. Pencil, Eraser, Sharpener

Copy submitted to the Vice Chairman  
 Copy to:  
 The Principal  
 Secretary  
 HOD – Bio Tech  
 ALL NB  
 TAP FILE

Dr. Subramanian, Secretary, Zifo R&D Solutions  
 Date: 10.09.2018

Zifo R&D core company placemnt for department of biotechnology students was arranged by TAP Cell Arunai Engineering College




Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

**Department of Chemical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	3	Faculty should be allowed to use new teaching methods like classrooms equipped with advanced technology and interactive teaching tools, including ICT.	Faculty members were provided with the opportunity to utilize additional innovative teaching methods and practices.	Faculty members have been introduced to innovative teaching techniques since 7/8/2018.
Students	15	Additional coaching classes are required for challenging subjects.	Extra classes are held for difficult subjects.	Test conducted during coaching class on 25/11/2018
Alumni	17	Placement training and preparation should be offered.	The Training and Placement Cell organizes extra coaching sessions and practices.	Evidence attached
Employers	3	Industrial academia gap must be bridged	(a) Experts from industries were invited for seminars to interact with students to bridge the industry academia gap. (b) Students we permitted for internship in industries	Evidence attached

  
Prepared By

  
HOD/CHEMICAL

  
Principal  
Arunai Engineering College  
Tiruvannamalai - 606 603



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

### **Department of Chemical Engineering**

Faculty members were provided with the opportunity to utilize additional innovative teaching methods and practices.



Extra classes are held for difficult subjects.

ARUNAI ENGINEERING COLLEGE, TIRUVANNAMALAI 606603								
DEPARTMENT OF CHEMICAL ENGINEERING								
ACADEMIC YEAR 2018-19 ODD SEMESTER								
Coaching Class test								
Year/ Sem : II/ III								Date : 25/11/2018
	Sub code	EE8352	CY8291	CH8302	CH8351	CH8301	MA8391	No. of Sub. Failed
Register No.	Name							
510418203001	AKILAN. N.	70	80	50	50	44	54	1
510418203002	AKILAN. S.	66	84	68	86	64	86	0
510418203003	ARAVIND KUMAR. A.	55	70	76	38	54	60	1
510418203004	BRINDHA. B.	75	62	56	80	66	76	0
510418203005	DEVASHANKAR. C. P.	58	72	50	60	44	80	1
510418203006	DHAARUN. D.L.	50	50	26	56	52	75	1
510418203007	JAYAHARAN. E. S.	75	26	16	50	44	80	3
510418203008	KAVIN. S.	75	58	30	66	50	75	1
510418203009	MANIKANDAN. P.	54	78	50	66	84	80	0
510418203010	MANOJKUMAR. G.	72	94	80	76	88	80	0
510418203011	MUSHRAF. K.	75	70	50	54	50	52	0
510418203012	PRAGADEESHWARAN.H.	50	75	50	36	56	26	2
510418203013	PUVANESHWAR SAMIKANNU. V.	62	85	94	40	92	90	1
510418203014	SOWMIYA. I	54	98	76	82	92	80	0
510418203015	SRIKANTH. R.	92	64	50	24	50	56	1
510418203016	SUDHARSAN. R.	50	92	50	72	70	62	0
510418203017	VIVEK RAJ	50	6	8	20	44	14	5
510418203301	VIJAY.S	12	10	8	40	36	24	6



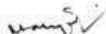


Prepared By



HOD/CHEMICAL

**The Training and Placement Cell organizes extra coaching sessions and practices.**

	<b>ARUNAI ENGINEERING COLLEGE</b> <b>TIRUVANNAMALAI - 606 603.</b> <b>TRAINING AND PLACEMENT CELL</b>	
PL/TAP/37/02	18-19	
<u>CIRCULAR</u>		
<b>12.03.2018</b>		
<p>It is planned to organize a Placement Training Program in our college for the Final year students of all the departments between <b>16.03.2018 to 18.03.2018</b>. The program fee is Rs. 900. The Training components are Aptitude and Soft Skills.</p>		
<p>The training programme is conducted by M/s Smart Training Resources, Chennai. The Timing of this program is 9.20 am to 4.30pm.</p>		
Copy submitted to the Vice Chairman Copy to: Principal Registrar All HODs All NB TAP FILE	 Registrar	

*A. Madhavan*  
**HOD/CHEMICAL**

Experts from industries were invited for seminars to interact with students to bridge the industry academia gap.

### Guest Lecture On Innovations In Chemical Engineering And Acta Students Association Inauguration



## Students we permitted for internship in industries



Date: 13<sup>th</sup> Dec 2019

### CERTIFICATE

This is to certify that Mr. Allimuthu A Third Year, B.Tech - Chemical Engineering student of Arunai Engineering College at Tiruvannamalai has undergone In - plant Training in M/s. - Southern Petrochemical Industries Corporation Limited, Chennai.

Internship Training details are as furnished below:

- |                                     |  |
|-------------------------------------|--|
| 1) Type of Training Imparted        | : IN - PLANT TRAINING                                    |
| 2) Period of Institutional Training | : 02 <sup>nd</sup> Dec 2019 to 13 <sup>th</sup> Dec 2019 |
| 3) Allotment of Department          | : DAP  |
| 4) Conduct & Character              | : GOOD   |
| 5) Performance during Training      | : GOOD   |
| 6) Attendance during Training       | : REGULAR  |

*T. Saravanan*  
12/12/2019



T. Saravanan  
Sr. Manager - Training & Development

Southern Petrochemical Industries Corporation Limited  
(CIN: L11101TN1969PL0005778)  
Factory: SPIC Nagar, Muthalapuram Post, Tuvicorni 628 005 Tamilnadu, India  
Phone: +91 (0461) 2355401 | Fax: +91 (461) 2355588 | Email: spiccorp@spic.co.in | www.spic.in



**Place: SPIC-Chennai**

*A. V. Srinivasan*

**HOD/CHEMICAL**





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

**Department of Civil Engineering**

**Date:13.03.2019**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	9	Faculty should be permitted to use new teaching techniques and strategies such as using ICT and so on.	Faculties were offered to use more innovative teaching techniques and practices.	Faculties are initiated to use new innovative teaching techniques from 05/09/2018.
Students	85	Recent trends in research and industries must be shared among students and staff members.	National conference were planned to conduct related to Civil Engineering.	National Conference were conducted on Recent trends in Civil Engineering NCRTCE 2K19 on 05/02/2019.
Alumni	38	To create awareness about environment for the sustainable growth by using non-degradable waste as infill material in the structure.	Awareness program were organized related to Environmental Science & sustainability.	Awareness program initiatives based on Environmental Science & sustainability as World's Environmental day on 05/06/2018.
Employers	4	To fill up the curriculum gap between Institution and industry.	Students are encouraged to go for more industrial visits.	Arranged Industrial Visit to Ramco Cement Factory for the welfare of students to gain field knowledge on 07/09/2018.

P. Gayathri  
Prepared By

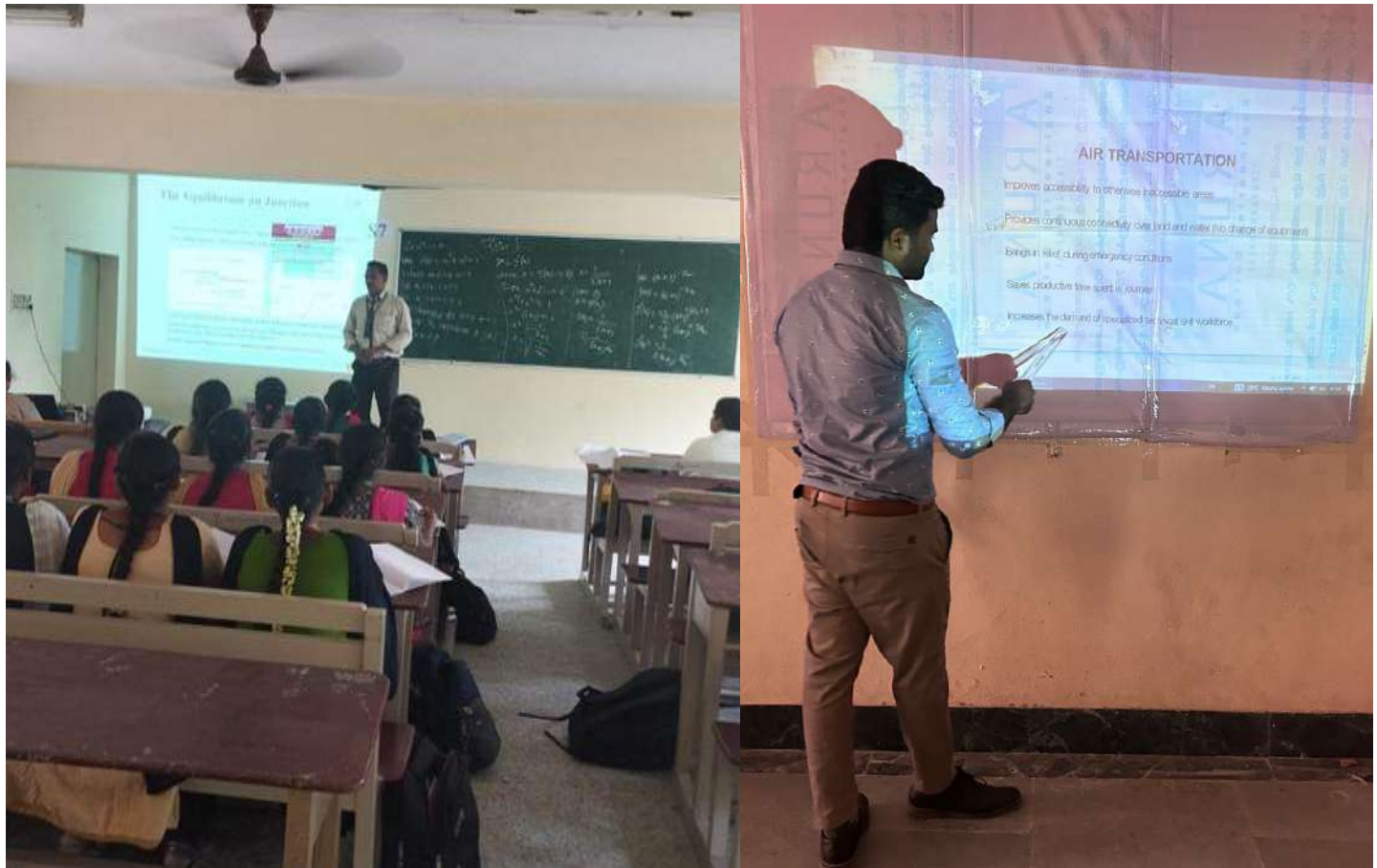
Hatharaj  
HOD/CIVIL

  
PRINCIPAL  
Arunai Engineering College  
Tiruvannamalai - 606 603



**Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19**

**1. Faculties are initiated on new innovative teaching techniques from 05/09/2018.**



**2. National Conference were conducted on Recent trends in Civil Engineering NCRTCE 2K19 on 05/02/2019.**

**ARUNAI ENGINEERING COLLEGE**  
 (Approved by AICTE & Affiliated to Anna University)  
 Velu Nagar, Thiruvannamalai,  
 Tamil Nadu - 606 603.

**25 YEARS IN EDUCATION**

**QUALITY SYSTEM CERTIFICATION DNV-GL ISO 9001:2015**

**DEPARTMENT OF CIVIL ENGINEERING**  
*cordially invites you to the*  
**National Conference on Recent Trends in Civil Engineering NCRTCE 2K19**  
 in association with ISTE Chapter of Our Institution on  
 05<sup>th</sup> February 2019 10:00am @ A/C Auditorium

*...in the august presence of...*  
**Er.E.V.KUMARAN**  
 Vice-Chairman

*...Chief guest...*  
**Dr.S.SHANTHA KUMAR** M. ASCE, MIE  
 Professor & Dean,  
 School of Civil Engineering,  
 Vellore Institute of Technology(VIT),  
 Vellore.

**Dr.B.VIDIVELLI**  
 Professor,  
 Department of Structural Engineering,  
 Anna Maria University,  
 Chidambaram.

**Mr.K.KARAVINDH**  
 Manager Technical Services,  
 Hitech Concrete Solutions Chennai Pvt. Ltd.,  
 Chennai.

**Mr.M.Prukinthraj**  
 SECRETARY

**Dr.M.Arumugam**  
 ADVISOR

**Mrs.R.Lathamaheswari**  
 HOD

3. Awareness program initiatives based on Environmental Science & sustainability as World's Environmental day on 05/06/2018.



This dustbin is made by using waste plastic bottles to create the pollution free environment.

4. Arranged Industrial Visit to Ramco Cement Factory for the welfare of students to gain field knowledge on 07/09/2018.



DATE: 03/09/2018

From

Head of the Department,  
Department of Civil Engineering,  
Arunai Engineering College,  
Tiruvannamalai.

To

The Registrar,  
Arunai Engineering College,  
Tiruvannamalai.

Respected Sir,

Sub: Permission for Industrial Visit- Reg.

We have planned to take II year & III year Civil Engineering students (strength 58) for the Industrial Visit to Ramco Cement Factory located at Ariyalur on 07<sup>th</sup> September 2018. This visit will have a value addition for the students in gaining field knowledge and the benefit of understanding the subject in depth. (Anna University Syllabus-CE 8404 & CE 6002- Concrete Technology) In this regard, we request your permission for Industrial Visit. Waiting for a positive reply from your side and hope you grant us permission soon.

Thanking you in anticipation,



Yours faithfully,



(Mrs R LATHAMAHESWARI)



**ARUNAI ENGINEERING COLLEGE**  
**QUALITY PROCESS DESCRIPTION**  
**ACTION TAKEN ON FEEDBACK ANALYSIS**  
**Standard: ISO 9001:2015**



**Format : F-FDB-02**  
**Version : 01**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018 – 19

**Department of Computer Science and Engineering**

18.05.19

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	10	Faculty must have practical exposure by attending FDP	Faculty members were encouraged to attend FDP	Certificates attached
Students	120	Conduct co-curricular activities for the students from the department	In this academic year more events were organized like symposium and Ideathon	National level technical symposium "POINTERS 2K18" conducted on 07.09.2018
Alumni	10	Give the aware on importance of soft skills for the students	We are organized various training programmes to create awareness and industry readiness to our students	Two Days Hands-on Workshop "First step to PYTHON" conducted on 18.11 to 19.11.2019
Employers	-	-	-	-

  
Prepared By

  
**Principal**  
Arunai Engineering College  
Tiruvannamalai - 606 603

  
13/5/19  
**HOD-CSE**



Department of Information Technology

Organising



For Registration



## Two Days Hands-on Workshop

18,19 NOVEMBER 2019 @ 10.00 am to 4.00 pm Arunai Gateway

In the Presence of

**Er.E.V. Kumaran**

Vice Chairman

**Er.M. Prukinthraj**  
Secretary

**Dr.L. Jaya Kumar**  
Principal

**Dr.M. Jothish Kumar**  
HOD-IT

[www.arunai.org](http://www.arunai.org)



# Dept .of CSE



National Level Technical Symposium

## POINTERS 2K18

September 7<sup>th</sup>, 2018

SURVIVAL WITH SMART



### THEME OF THE SYMPOSIUM

- IoT Perspectives of Smart Grid
- IoT Communication
- IoT for Smart Healthcare
- IoT and Big Data Analytics
- IoT Security and Computing
- Cloud/Mobile Computing
- Smart Transportation System
- AI, Machine Learning, NLP
- Networks and Security
- SOA, Data Analytics
- and Any other relevant Topics

- **EVENTS**
- Paper Presentation
- Code the Concept
- Technical Quiz
- Fun with Math
- Web Design

- **Non Technical Events**
- Gadget Review
- Blind Coding
- Mix Pix



**Last Date to Apply : 30.08.2018**

THE CONVENOR, Pointers2K18 , Dept.of CSE, Arunai Engineering College, Tiruvannamalai-606603.

e-mail : pointers2k18@gmail.com, 04175255101, 7339090161, 7373422522, 7358933726

web: www.arunai.org/pointers/





ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	5	To enhance the practical exposure of faculty members by undergoing industrial training/ workshops/ FDPs and need funding for these.	Faculty members are undergoing various skill enhancement programme in regular basis and management supported by providing registration fee.	ATTACHED
Students	48	Requested to provide RO water system with high water capacity in the department block.	RO water system is provided as per the request.	
Alumni	2	Encourage the students to give seminars so that they can improve their presentation skills.	Organized National level conference for the students to become aware and improve their presentation skill.	
Employers	1	Student's entrepreneurial abilities should be fostered.	A career coaching program on how to become a responsible youth will be planned.	

Prepared By

**Dr. S. ELANGO** E., M.E., P., ...  
HOD/CE  
Professor & Head  
Dept. of Electronics and Communication Engg.  
Arunai Engineering College,  
Tiruvannamalai-606 603.

Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI – 606 603**



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**Workshops attended by faculty to enhance the practical exposure:**

Learner's Intellectual Sanctuary  
**ARUNAI**  
 Engineering College  
 TIRUVANNAMALAI

**FINANCIAL ASSISTANCE – REQUEST FORM**

Faculty Name	Mrs. G. Sujatha						
Designation	Assistant professor						
Department	ECE						
Academic Year	2018-2019						
Financial Request to Attend (Put a Tick Mark in the Relevant Field)	Seminar	Workshop <input checked="" type="checkbox"/>	Conference	FDP	Professional Membership	NPTEL	Others (Specify)
Name of the Event	Realtime Application development using Labview						
Date/Duration of the Event	11-16 JUNE 2018						
Amount Spent	Registration Fees		750				
	TA						
	Accommodation/Food						
	Others						
Sanctioned Amount	Total		750				

Signature				
	Faculty	HOD	Principal	Registrar

**VIT**  
 Vellore Institute of Technology  
 (Deemed to be University under section 3 of UGC Act, 1956)

**CERTIFICATE OF COMPLETION**

This Certificate is Proudly Presented to:

Mrs. G. Sujatha, AP, ECE

from ARUNAI ENGINEERING COLLEGE has completed successfully the Summer Training on "REAL-TIME APPLICATION DEVELOPMENT USING LABVIEW" at Vellore Institute of Technology from 11th to 16th June 2018

COORDINATOR

CONVENER





ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**RO Water system in the Department:**





**ARUNAI ENGINEERING COLLEGE**  
**TIRUVANNAMALAI – 606 603**



**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**National Level Conference organized by the department:**

Tiruvannamalai,  
Date: 28.12.18.

From,  
Dr. S Elango,  
Head of the Department,  
Department of ECE,  
Arunai Engineering College,  
Tiruvannamalai.

To,  
The Vice-Chairman, (Through Secretary)  
Arunai engineering College,  
Tiruvannamalai.

Respected Sir,

Sub: - Seeking permission for organizing Department Inaugural function and One day National Conference – Reg.

The Department of ECE had planned to organize inaugural function and One day National conference on 15/02/2019(Friday). In this regard, we kindly request you to grant permission to conduct the National Conference at Arunai Centre A/c Auditorium.

Thanking You,

Yours faithfully,  
*[Signature]*  
(Dr. S. Elango)  
(HOD/ECE)

*[Handwritten: Puckety]*

**ARUNAI**  
ENGINEERING COLLEGE  
Tiruvannamalai, TamilNadu

*Invitation*

**Department of Electronics and Communication Engineering**

*The Management, Principal, Staff & Students of e-SAT association Cordially invites you for the National Conference on Emerging trends in Wireless Communication & Signal Processing on 15.02.19 @ 10.30 a.m in A/C Auditorium.*

*Chief Guest*  
**Dr. U. Sabura Banu**  
Founder & CEO, Intellectz (Tech for All), Chennai.

*In the August Presence of*  
**Er. E. V. Kumaran**  
Vice Chairman

*Felicitation by*  
**Dr. M. Arumugam**  
Advisor  
**Mr. M. Prukinth Raj**  
Secretary

*Welcome Address*  
**Dr. S. Elango**  
HOD/ECE

*Vote of Thanks*  
**Student President**

www.arunai.org

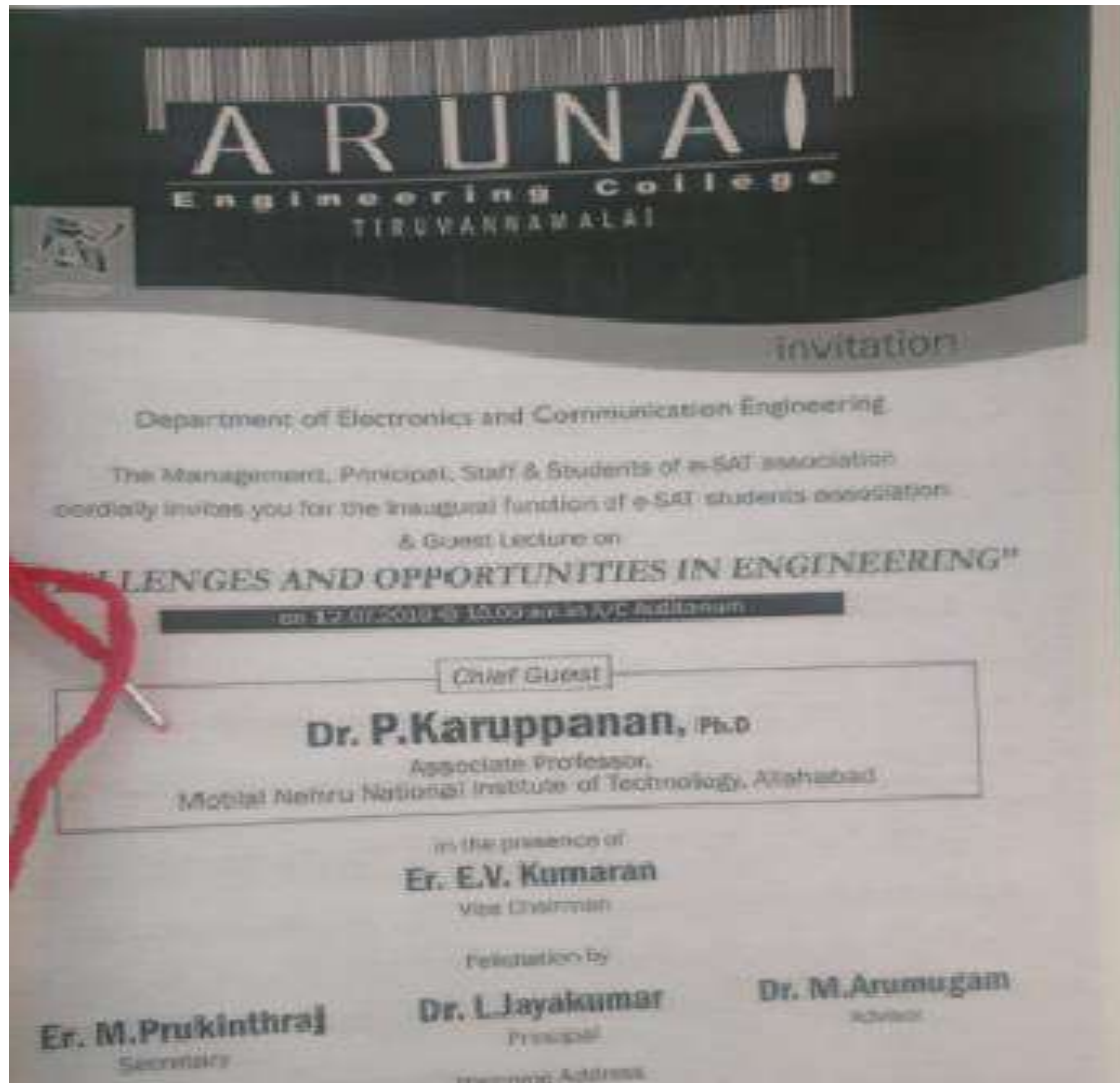


ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI – 606 603



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Program Organized to motivate the students:





Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	1. Internet facility is required at staff room 2. to enhance the practical exposure of faculty members by undergoing workshop/ FDP	1. Internet facility provided at CAM Lab/CAD Lab 2. Faculty members motivate to participate various skill development programs in reputed institution	Attached
Students	120	1. Need more coaching class for problem solving skills and Identifying problem and formal. 2. Arrange guest lectures for currents trends and opportunities	1. Prepared study material for problematic subjects. 2. Deptrament guest lecture was arranged	
Alumni	12	1. Placement Training and communication skill development needed 2. Alumni Guest Lecture improve Gap between industry and institution.	Additional coaching class and practices conducted by Training and placement cell. Suggests for reading practice to improvise communication skill. Alumni Guest Lecture Arranged	
Employers	4	Technical skill needed	1. Several technical programs organized to improve technical skills. 2. Workshops arranged for students to become more subject matter experts.	

Prepared By

HOD-MECH

Principal



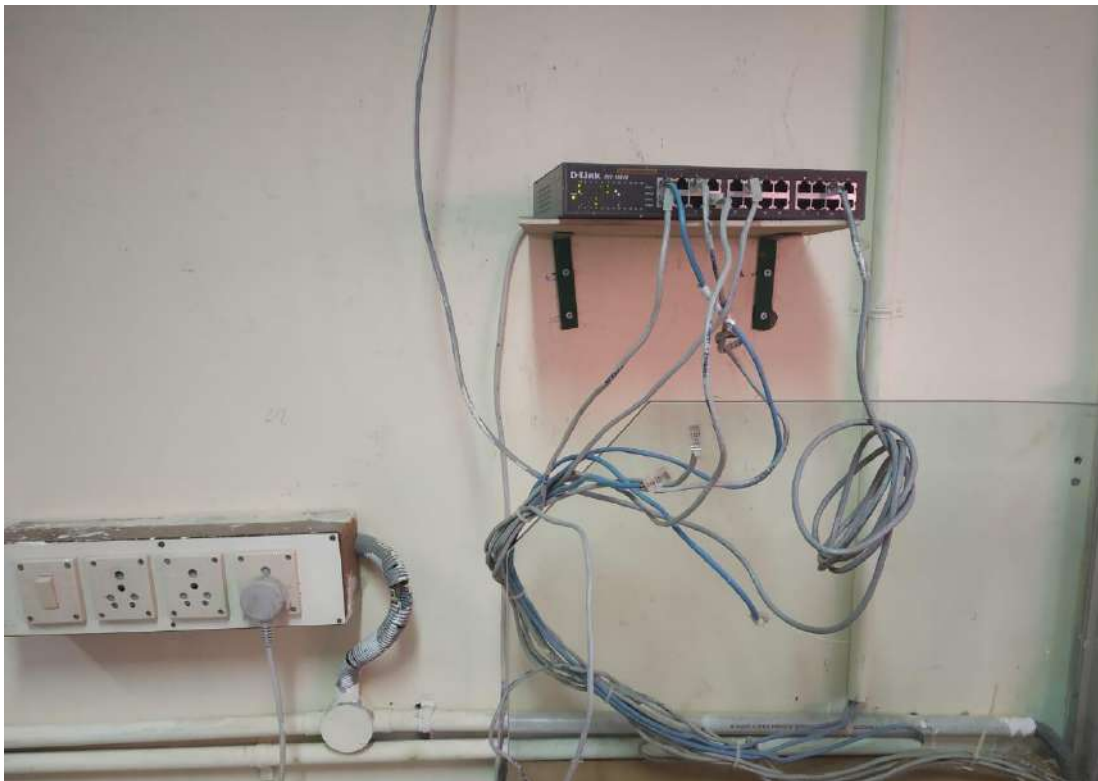
# ARUNAI ENGINEERING COLLEGE

## TIRUVANNAMALAI

### DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

Internet facility Arranged to Staff Cabin.





# ARUNAI ENGINEERING COLLEGE

TIRUVANNAMALAI

## DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19


Prepared Study Material and given to students.

**ARUNAI**  
Engineering College  
Tiruvannamalai, TamilNadu

**DEPARTMENT OF MECHANICAL ENGINEERING**

WELCOME TO  
**ARUNAI**  
START BUILDING YOUR FUTURE

**Study Materials for  
Slow Learners**

  
Tiruvannamalai

**Arunai Engineering College**  
Velu Nagar, Tiruvannamalai-606603, TamilNadu  
04175-255101/102/103  
[www.arunai.org](http://www.arunai.org)

UNIT-11  
SECOND LAW, ENTROPY & AVAILABILITY.

Given data:  
 $T_H = 873\text{K}$   
 $T_L = 333\text{K}$   
 $\eta_{Carnot} = \frac{T_H - T_L}{T_H}$   
 $\eta_{HE} = \dots$

Given data:  
 $P_1 = 120\text{ kN/m}^2$   
 $V_1 = 1.21\text{ m}^3$   
 $P_2 = 1750\text{ kN/m}^2$   
 $V_2 = 0.1427\text{ m}^3$   
 $n = 1.3$   
 $W = P_1 V_1 - P_2 V_2$   
 $W = \dots$

Given:  
 $P_1 = 100\text{ kN/m}^2$   
 $T_1 = 288\text{K}$   
 $P_2 = 1700\text{ kN/m}^2$   
 $n = 1.25$   
 $T_2 = \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} \times T_1$   
 $T_2 = \dots$

Given:  
 $m = 1$   
 $C_p = 1.005$   
 $T_2 = 373\text{K}$   
 $T_1 = 278\text{K}$   
 $\Delta S = m C_p \ln(T_2/T_1)$   
 $\Delta S = \dots$

Given:  
 $P_1 = 3.59\text{ kN/m}^2$   
 $P_2 = 100\text{ kN/m}^2$   
 $W = 0.622(P_2 V_2 - P_1 V_1)$   
 $W = \dots$

6) Given:  
 $x = 5/28$   
 $\left(\frac{5/28 + 10/44}{1}\right)$   
 $x = \dots$

7) Given:  
 $m = 10\text{ kg}$   
 $T_1 = 673\text{K}$   
 $P_1 = 0.28\text{ bar}$   
 $T_2 = 248.58\text{K}$   
 $\gamma = 1.4$   
 $W = m R (T_1 - T_2) / (\gamma - 1)$   
 $W = \dots$

8) Given:  
 $P_1 = 800\text{ kN/m}^2$   
 $P_2 = 90\text{ kN/m}^2$   
 $V_1 = 0.15\text{ m}^3$   
 $V_2 = 0.73\text{ m}^3$   
 $\gamma = \frac{\log(P_1/P_2)}{\log(V_2/V_1)}$   
 $\gamma = \dots$

9) Given:  
 $m = 1.5\text{ kg}$   
 $C_p = 0.99$   
 $T_1 = 273\text{K}$   
 $T_2 = 160.5\text{K}$   
 $\Delta H = m C_p (T_2 - T_1)$   
 $\Delta H = \dots$

10) Given:  
 B.P.F. = 0.4  
 $t_{d2} = 20$   
 $t_{d1} = 14$   
 To find:  $t_{d3}$   
 $B.P.F. = \frac{t_{d2} - t_{d3}}{t_{d2} - t_{d1}}$

11) Given:  
 $m = 10\text{ kg}$   
 $P_1 = 100\text{ kN/m}^2$   
 $V_1 = 1.293\text{ m}^3$   
 $V_2 = 0.154\text{ m}^3$   
 $W = 100 \times 1.293 \ln(V_2/V_1)$   
 $W = \dots$

12) Given:  
 $P_1 = 100\text{ kN/m}^2$   
 $V_1 = 1.293\text{ m}^3$   
 $V_2 = 0.154\text{ m}^3$   
 $W = 100 \times 1.293 \ln(V_2/V_1)$   
 $W = \dots$

13) Given:  
 $m_1 = 10\text{ kg}$   
 $C_1 = 4.187$   
 $T_1 = 363\text{K}$   
 $m_2 = 2.5\text{ kg}$   
 $C_2 = 4.187$   
 $T_2 = 273\text{K}$   
 $T_F = \frac{m_1 C_1 T_1 + m_2 C_2 T_2}{m_1 C_1 + m_2 C_2}$   
 $T_F = \dots$

14) Given:  
 $Q_R = 3000\text{ W}$   
 $T_H = 303\text{K}$   
 $T_L = 263\text{K}$   
 $Q_R = \frac{Q_H}{T_H} \times T_L$   
 $Q_R = \dots$

15) Given:  
 $m = 1.6\text{ kg}$   
 $R = 0.287$   
 $T_1 = 273\text{K}$   
 $P_1 = 120\text{ kN/m}^2$   
 $V_1 = m R T_1 / P_1$   
 $V_1 = \dots$

ENGINEERING THERMODYNAMICS  
UNIT III.

1) Given:  
 $M = 3$   
 $h_1 = 3374.6$   
 $h_2 = 2298.27$   
 $W = 2000$   
 Formula:  $m(h_1) = m(h_2 + Q_2)$   
 $C_2 = \dots$

2) Given:  
 $m = 12$   
 $h_1 = 407.62$   
 $h_2 = 1390.68$   
 $V_1 = 0.0025$   
 $P_1 = 80\text{ kPa}$   
 $P_2 = 7000\text{ kPa}$   
 $Q = m(h_2 - h_1) - V_1(P_2 - P_1)$   
 $Q = \dots$

3) Given:  
 $P_1 = 2000\text{ kPa}$   
 $V_1 = 0.09053$   
 $P_2 = 100$   
 Formula:  $P_1 V_1^n = P_2 V_2^n$   
 $Q = \dots$

4) Given:  
 $V_1 = 0.152$   
 $T = 1.25$   
 $P_1 = 15\text{ kPa}$   
 $P_2 = 1.5\text{ kPa}$   
 $V_2 = V_1 \left(\frac{P_1}{P_2}\right)^{1/\gamma}$   
 $V_2 = \dots$

5) Given:  
 $m = 0.8$   
 $P_1 = 1500\text{ kPa}$   
 $V_1 = 0.152$   
 $P_2 = 150$   
 $V_2 = 0.455$   
 $n = 1.25$   
 Formula:  $W = m \left[ \frac{P_1 V_1 - P_2 V_2}{n-1} \right]$   
 $W = \dots$

6) Volume ( $V_4$ )  
 Given:  
 $h_2 = 3114.48$   
 $h_3 = 1920.46$   
 $V_4 = \sqrt{2000(h_2 - h_1)}$   
 $V_4 = \dots$

7) Given:  
 $h_1 = 3160.62$   
 $h_2 = 173.9$   
 $S_1 = 7.085$   
 $S_2 = 0.593$   
 $T_{mean} = \frac{h_1 - h_2}{S_1 - S_2}$   
 $T_{mean} = \dots$

8) Given:  
 $h_1 = 3160.62$   
 $h_2 = 173.9$   
 $W_F = 2.0079$   
 $Q_1 = h_1 - (h_2 + W_F)$   
 $Q_1 = \dots$

9) Given:  
 $S_1 = 6.925$   
 $S_2 = 0.699$   
 $S_F = 7.602$   
 $S_1 = S_F + (S_2 - S_F)$   
 $S_3 = \dots$

10) Given:  
 $P_1 = 1\text{ bar}$   
 $R_1 = 0.1\text{ bar}$   
 $P_2 = \sqrt{P_1 P_4}$   
 $P_2 = \dots$

11) Given:  
 $h_1 = 0.8$   
 $h_2 = 3160.62$   
 $h_3 = 2197.78$   
 $W_F = \eta_T \times (h_1 - h_2)$   
 $W_F = \dots$

12) Given:  
 $W_{net} = 778.16$   
 $h_1 = 3245.7$   
 $h_2 = 255.04$   
 Formula:  $W_{net} = \frac{W_{net}}{h_1 - h_2}$   
 $\eta = \dots$

13) Given:  
 $m_1 = 3$   
 $h_1 = 3025$   
 $m_2 = 2$   
 $h_2 = 3245.7$   
 $m_3 = 5$   
 $h_3 = \frac{m_1 h_1 + m_2 h_2}{m_3}$   
 $h_3 = \dots$

14) Given:  
 $h_1 = 2097.73$   
 $h_2 = 2632$   
 $V_2 = 0.3235$   
 $P_1 = 400\text{ kPa}$   
 $P_2 = 550\text{ kPa}$   
 $Q = (h_2 - h_1) - V_2(P_2 - P_1)$   
 $Q = \dots$

15) Given:  
 $x = 0.005529$   
 $y = 0.99447$   
 $h_{fg} = 2113.3$   
 $h_f = 634$   
 $h = (x h_{fg}) + (y h_f)$   
 $h = \dots$

UNIT-4  
IDEAL AND REAL GASES, THERMODYNAMIC RELATIONS

1)  $V_1 = 0.60\text{ m}^3$   
 $P_1 = 1\text{ bar} = 100\text{ kPa}$   
 $P_2 = 8\text{ bar} = 800\text{ kPa}$   
 $T_1 = 295\text{K}$   
 $n = 1.3$   
 $W = \frac{n}{n-1} P_1 V_1 \left[ \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} - 1 \right]$

2)  $P = 0.16\text{ m}$   
 $L = 300\text{ mm}$   
 $P_1 = 100\text{ kPa}$   
 $T_1 = 27^\circ\text{C}$   
 $P_2 = 650\text{ kPa}$   
 $N = 120\text{ rpm}$   
 $P V^\gamma = C$   
 $\gamma = 1.4$   
 $V_1 = \frac{\pi}{4} D^2 L$   
 $V_2 = \frac{m}{\rho}$   
 $W = P_1 V_1 \ln\left(\frac{P_2}{P_1}\right)$   
 $W = \dots$

3)  $m = 8\text{ kg/s}$   
 $P_1 = 100\text{ kPa}$   
 $P_2 = 850\text{ kPa}$   
 $T_1 = 303\text{K}$   
 $n = 1.3$   
 $x = 2$   
 $C_p = 0.287\text{ kJ/kgK}$   
 $P_2 = \sqrt{P_1 P_3}$   
 $P_2 = \dots$

4)  $V_1 = 0.2\text{ m}^3$   
 $P_1 = 100\text{ kPa}$   
 $P_2 = 3500\text{ kPa}$   
 $T_1 = 27^\circ\text{C}$   
 $n = 1.25$   
 $x = 3$   
 $W = \frac{x n}{n-1} m R T_1 \left[ \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} - 1 \right]$

5)  $T_1 = 303\text{K}$   
 $P_1 = 100\text{ kPa}$   
 $P_2 = 412.12\text{ kPa}$   
 $n = 1.2$   
 $T_2 = T_1 \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}}$   
 $T_2 = \dots$

6)  $\log 5 = \frac{1}{x} \log(135)$   
 $x = \dots$

7)  $m = 1.6\text{ kg}$   
 $R = 0.287\text{ kJ/kgK}$   
 $V_1 = 1.01\text{ m}^3$   
 $V_2 = 0.407\text{ m}^3$   
 $C_v = 0.718\text{ kJ/kgK}$   
 $T_1 = 273\text{K}$   
 $T_2 = 549.57\text{K}$   
 $\Delta S = m c_v \ln\left(\frac{V_2}{V_1}\right) + m c_p \ln\left(\frac{T_2}{T_1}\right)$   
 $\Delta S = \dots$

8)  $P_1 = 100\text{ kPa}$   
 $P_2 = 90\text{ kPa}$   
 $V_1 = 0.15\text{ m}^3$   
 $V_2 = 0.73\text{ m}^3$   
 $\gamma = \log(P_1/P_2) / \log(V_2/V_1)$   
 $\gamma = \dots$

9)  $P_1 = 1000\text{ kPa}$   
 $P_2 = 100\text{ kPa}$   
 $T_1 = 673\text{K}$   
 $\gamma = 1.4$   
 $T_2 = \left(\frac{P_2}{P_1}\right)^{\frac{\gamma-1}{\gamma}} \times T_1$   
 $T_2 = \dots$

10)  $m = 1\text{ kg}$   
 $C_p = 1.005\text{ kJ/kgK}$   
 $T_0 = 300\text{K}$   
 $T_1 = 600\text{K}$   
 $T_2 = 300\text{K}$   
 $(S_1 - S_2) = -0.697\text{ kJ/kgK}$   
 $\Phi_1 - \Phi_2 = m C_p (T_1 - T_2) - T_0 (S_1 - S_2)$   
 $\Phi_1 - \Phi_2 = \dots$

11)  $W = \frac{2 \times 1.3}{1.3-1} \times 6 \times 0.287 \times 293 \left[ \left(\frac{1500}{100}\right)^{\frac{1.3-1}{1.3}} - 1 \right]$   
 $W = \dots$

12)  $T_1 = 303\text{K}$   
 $T_2 = 196.57\text{K}$   
 $T_3 = 266\text{K}$   
 $\gamma = 1.4$   
 $n = 1.3$   
 $T_4 = 126\text{K}$   
 $COP = \frac{T_3 - T_2}{\frac{T_3}{n-1} \left[ \frac{T_4 - T_1 + T_3 - T_2}{T_3} \right]}$   
 $COP = \dots$

UNIT-5  
PSYCHROMETRY.

1) Given:  
 $m_a = 45\text{ kg}$   
 $C_p = 1.005$   
 $T_m = 408.2\text{K}$   
 $T_a = 423\text{K}$   
 $\Delta S_a = m_a C_p \ln(T_m/T_a)$   
 $\Delta S_a = \dots$

2) Given:  
 $C_p = 1$   
 $t_d = 293\text{K}$   
 $\omega = 0.0074$   
 $h_g = 2538.2$   
 $h = C_p t_d + \omega h_g$   
 $h = \dots$

3) Given:  
 $h_1 = 697.1$   
 $h_2 = 2827.76$   
 $h_3 = 1634$   
 $h_b = (m_1 \times h_2) + (1 - m_1) \times h_3$   
 $m_1 = \dots$

4) Given:  
 $h_1 = 2995.1$   
 $h_2 = 2119.26$   
 $h_3 = 229.025$   
 $\eta_{humid} = \frac{(h_1 - h_3)}{(h_1 - h_2)}$   
 $\eta_{humid} = \dots$

5) Given:  
 $R = 0.01519$   
 $P_2 = 0.02337$   
 $P_b = 1.0132$   
 $\mu = P_v / P_b \left( \frac{P_b - P_b}{P_b - P_b} \right)$   
 $\mu = \dots$

6) Given:  
 $dP/dt = 35 \times 10^{-3}$   
 $T_c = 473\text{K}$   
 $V_g = 0.06603$   
 $V_f = 0.00119$   
 $(dP/dt) = \frac{h_{fg}}{T_s(V_g - V_f)}$   
 $\text{Ans: } h_{fg} = \dots$

7) Given:  
 $P_2 = 400\text{ kN/m}^2$   
 $P_1 = 200\text{ kN/m}^2$   
 $n = 1.25$   
 $T_1 = 293\text{K}$   
 $T_2 = 293\text{K}$   
 $T_2/T_1 = (P_2/P_1)^{\frac{n-1}{n}}$   
 $T_2 = \dots$

8) Given:  
 $P_{2W} = 3.778\text{ kN/m}^2$   
 $P_b = 100\text{ kN/m}^2$   
 $T_d = 311\text{K}$   
 $T_w = 301\text{K}$   
 $P_v = P_{2W} - (P_b - P_{2W})(h - h_w) / (1527.4 - 1.3 \times h)$   
 $P_v = \dots$

9) Given:  
 $m_1 = 1\text{ kg}$   
 $m_2 = 2\text{ kg}$   
 $\omega_1 = 0.083$   
 $\omega_2 = 0.015$   
 $\frac{m_1 \omega_1 + m_2 \omega_2}{m_1 + m_2} = \omega_3$   
 $\omega_3 = \dots$

10) Given:  
 $V = 0.05$   
 $V_f = 0.0007362$   
 $V_g = 0.14729$   
 $V = V_f + x(V_g - V_f)$   
 $x = \dots$

11) Given:  
 $\phi = 0.6$   
 $P_2 = 4.246\text{ bar}$   
 $\phi = P_v / P_b$   
 $P_v = \dots$



**INVITATION**



**WORKSHOP ON  
PROCESS  
PLANNING AND  
COST  
ESTIMATION**

**RECENT TRENDS IN  
PROCESS PLANNING AND  
COST ESTIMATION IN  
COMMERICAL VEHICLE**

**RESOURCE PERSON**

**Mr.P.HARIBABU**

senior Manger New Business  
and Value Engineering Daimeter Commerical Vehicle  
BharatBenz  
Chennai.

**Organised By**

**DEPARTMENT OF MECHANICAL ENGG.**

On  
**17.9.2018**

**Er.EV. Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.L.Jayakumar**  
Principal

**Dr.L.Jayakumar**  
HOD / Mech



Guest Lecture For Students Learning Purpose.

ARUNAI  
Engineering College  
TIRUVANNAMALAI

25  
YEARS  
IN EDUCATION  
1993 - 2018

DEPARTMENT OF MECHANICAL ENGINEERING  
CORDIALLY INVITES YOU FOR THE INAUGURATION  
OF  
MECHANICAL ENGINEERING STUDENTS ASSOCIATION

MAJESTIC HEALTH CHARACTER EDUCATION MECHANICAL

MESA  
MECHANICAL ENGINEERING STUDENTS ASSOCIATION  
ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI-606663  
(MESA)

ISTE

13<sup>th</sup> August 2018 Monday, 10.00 A.M. @ AC Auditorium

**Chief Guest**  
**Dr. SHANKAR VENUGOPAL**  
Vice President, Mahindra & Mahindra  
Mahindra Research Valley, Chennai



In the Presence of : Er. E.V. Kumaran Vice Chairman  
Felicitation : Dr. G. MohanKumar Principal  
Dr. V. Ramanathan Director Academics  
Welcome Address : Dr. L. Jayakumar Prof& Head, Mech. Engg.  
Vote of Thanks : Students Secretary

**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**INVITATION**



**TOPIC**

**“PERFORMANCE OF TRACTOR  
ON ROAD/OFF ROAD”**

**ALUMINI GUEST LECTURE**

**P.POOVARASAN (2006-2010)**

**Service Manager in  
International Business Unit  
VST Tillers,  
Tractoo Ltd-Bengaluru.**

**On  
10-08-2018**

**Organised By**

**DEPARTMENT OF MECHANICAL ENGG.**

**Er.EV. Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.L.Jayakumar**  
Principal

**Dr.L.Jayakumar**  
HOD / Mech



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

Department of Humanities and Science

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	19	Need reference book in Department Library	Reference and text books arranged in department library	Attached
Students	400	Maths special special classes was asked	Maths special classes were arranged for the slow learners	

Prepared By



  
PRINCIPAL

Principal  
Arunai Engineering College  
Tiruvannamalai - 606 002

  
HOD-HAS

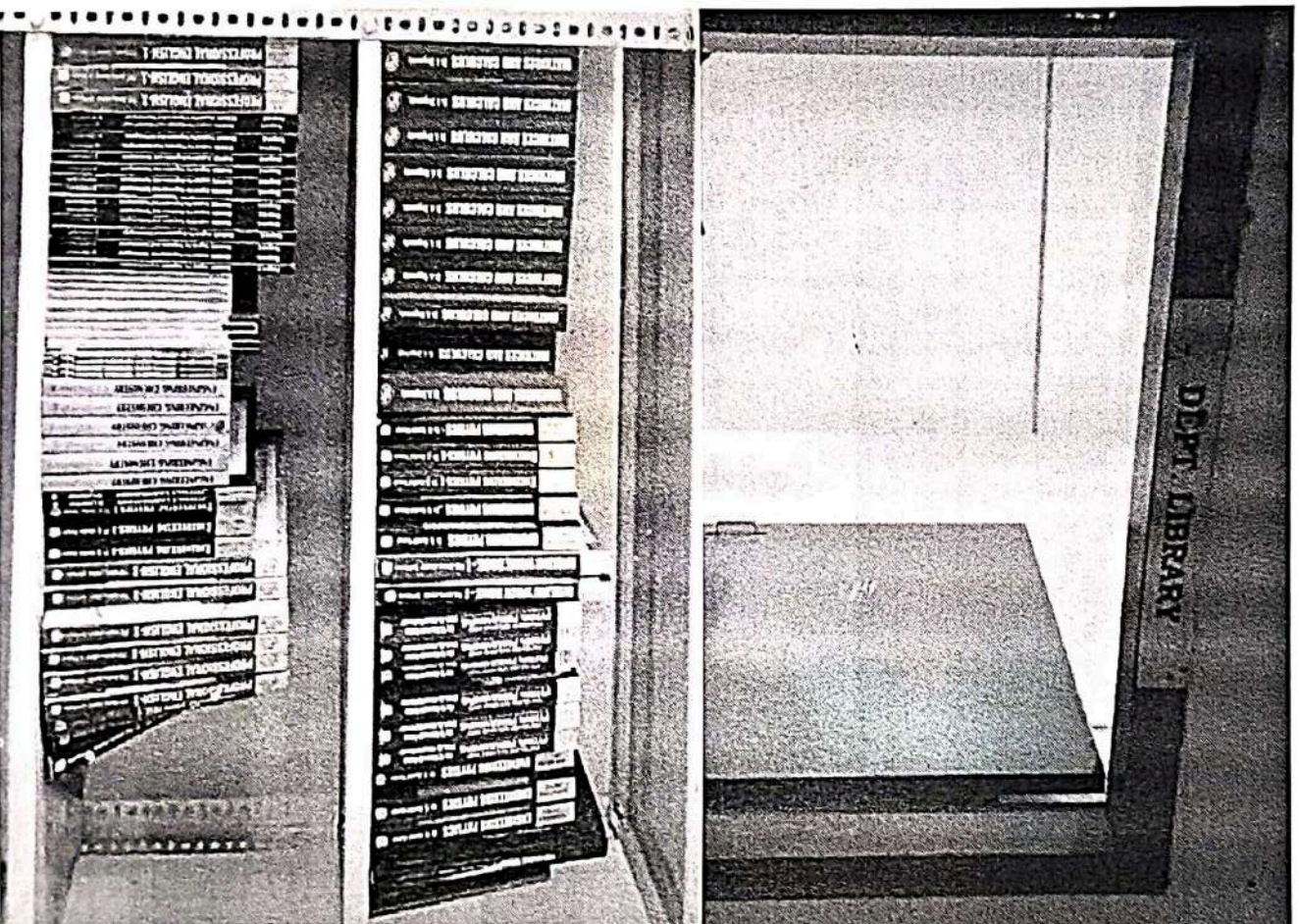
Department of HAS  
Arunai Engineering College,  
Tiruvannamalai - 3

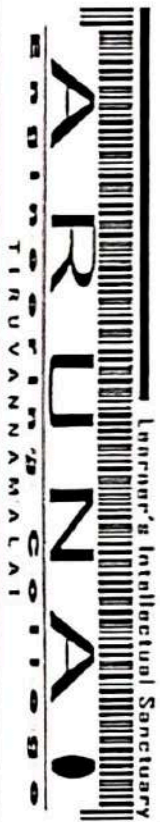


**Department of Humanities and Science**

Action taken report for the Analysis of Feedback Collected from Various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

Reference and text book arranged in Department Library





Date: 11/02/2019.

Circular

This is to inform you all that maths special classes are arranged for the slow learners in the department of HAS from this week to next four Saturdays. Slow learners has attached in it and the mentioned students should attend the special classes without fail. Attendance is compulsory.

Special dates:

1. 16/02/2019
2. 23/02/2019
3. 02/03/2019
4. 09/03/2019

  
HAS/HOD



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

**Department of Information Technology**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	8	1. Curriculum gap identification and recommendation in the syllabus Web Technology using python theory	1. Through proper channel a suggestion letter forwarded to Director, Centre for Academic Course, Anna University-Chennai.	Attached
Students	10	1. Need more coaching class for problem solving skills 2. Arrange Value Added Course for currents trends and opportunities	1. Special Classes conducted for problematic subjects. 2. Department Value added Course was arranged	
Alumni	95	Placement training and practices should be provided	Additional coaching class and practices conducted by Training and placement cell	
Employers	2	1. Enhance awareness about new technologies 2. Improve the domain knowledge and to put employability skills	1. Several technical programs organized to improve technical skills. 2. Workshops arranged for students to become more subject matter experts.	

Prepared By

HOD-IT

PRINCIPAL

Principal

Arunai Engineering College  
Tiruvannamalai - 606 603



Affiliated to Anna University

· NBA & NAAC Accredited

· An ISO 9001-2015 Certified Institution

Date: 21.10.2019

From:  
The Principal  
Arunai Engineering College,  
Velu Nagar, Su-Kihachipattu,  
Tiruvannamalai - 606 603.

To:  
The Director  
Centre for Academic Courses Anna University  
Chennai- 600025.

**Respected Sir,**

Greetings

SUB: Review of feedback from faculty members about curriculum as per regulation 2017-Reg.

As per the feedback received from our faculty members, the following topics may be included in the new regulations syllabus of Web Technology.

- Study of Web Technology using Python code. Python is a general programming language. It can be used for both frontend and backend development. However, it is more widely used in backend: in fact, Python is listed among the most popular backend language
- Study of Python with web application development typically employs Python frameworks to construct its backend. These tasks, including parsing HTTP requests and creating responses: accessing databases; authenticating users; authorizing access.
- Django is a free, open-source Python framework that enables rapid development of complicated code and applications by programmers. Python web developers can use it to create high-quality web apps. Django is widely used to construct APIs and web applications and is one of the top Python frameworks

Kindly request you to consider the above mentioned and that can be included in the forthcoming regulations.

Thank and regards



*[Signature]*  
31.10.19  
PRINCIPAL  
ARUNAI ENGINEERING COLLEGE,  
TIRUVANNAMALAI - 606 603.

Velu Nagar, Thiruvannamalai - 606 603, Tamil Nadu, India. Tel : 04175 - 255101 - 102 - 103  
Email : aectvm1993@gmail.com website : www.arunai.org



Department of Information Technology

Organising



COURSE DURATION

OCTOBER 2019- NOVEMBER 2019

Resource Person

**Mr. Uvan L**

CEO-Projects,

STU Innovations Pvt Ltd

[www.arunai.org](http://www.arunai.org)





Engineering College  
TIRUVANNAMALAI

Department of Information Technology

Organising



COURSE DURATION  
August-2019

www.arunai.org

# ARUNAI

## Engineering College

Tiruvannamalai, Tamil Nadu

Department of Information Technology

*The Management, Principal, staff, and students of Arunai Engineering College  
cordially invites you to join*

GUEST LECTURE  
On

## Web Application using python

Date 28.10.2019 @ 10.30 am Venue: AC Auditorium

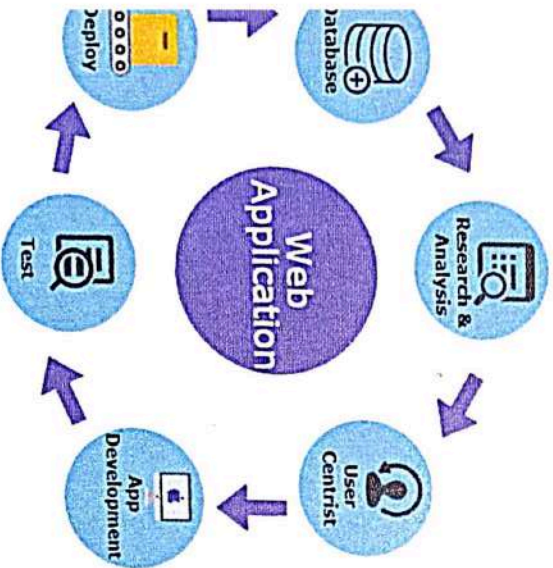
In association wi



Chief Guest

**DR. S. V. K. S. S. S.**

Senior Programmer,  
SOFT TECHNOLOGIES,  
Eudalore,  
Tamilnadu



In the Presence of

**Er. E. V. Kumaran**

Vice Chairman

Presided by

**Dr. R. Sathiyaseelan**

Registrar

Felicitation by

**Dr. L. Jayakumar**

Principal

Welcome Address

**Dr. K. Anitha**

HOD



Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

**Department of Mechanical Engineering**

Feedback Collected from	Number of responses	Suggestions	Action taken	Evidence
Faculty	7	1. Internet facility is required at staff room 2. to enhance the practical exposure of faculty members by undergoing workshop/ FDP	1. Internet facility provided at CAM Lab/CAD Lab 2. Faculty members motivate to participate various skill development programs in reputed institution	Attached
Students	120	1. Need more coaching class for problem solving skills and Identifying problem and formal. 2. Arrange guest lectures for current trends and opportunities	1. Prepared study material for problematic subjects. 2. Department guest lecture was arranged	
Alumni	12	1. Placement Training and communication skill development needed 2. Alumni Guest Lecture improve Gap between industry and institution.	Additional coaching class and practices conducted by Training and placement cell. Suggests for reading practice to improve communication skill. Alumni Guest Lecture Arranged	
Employers	4	Technical skill needed	1. Several technical programs organized to improve technical skills. 2. Workshops arranged for students to become more subject matter experts.	

Prepared By

HOD-MECH

Principal



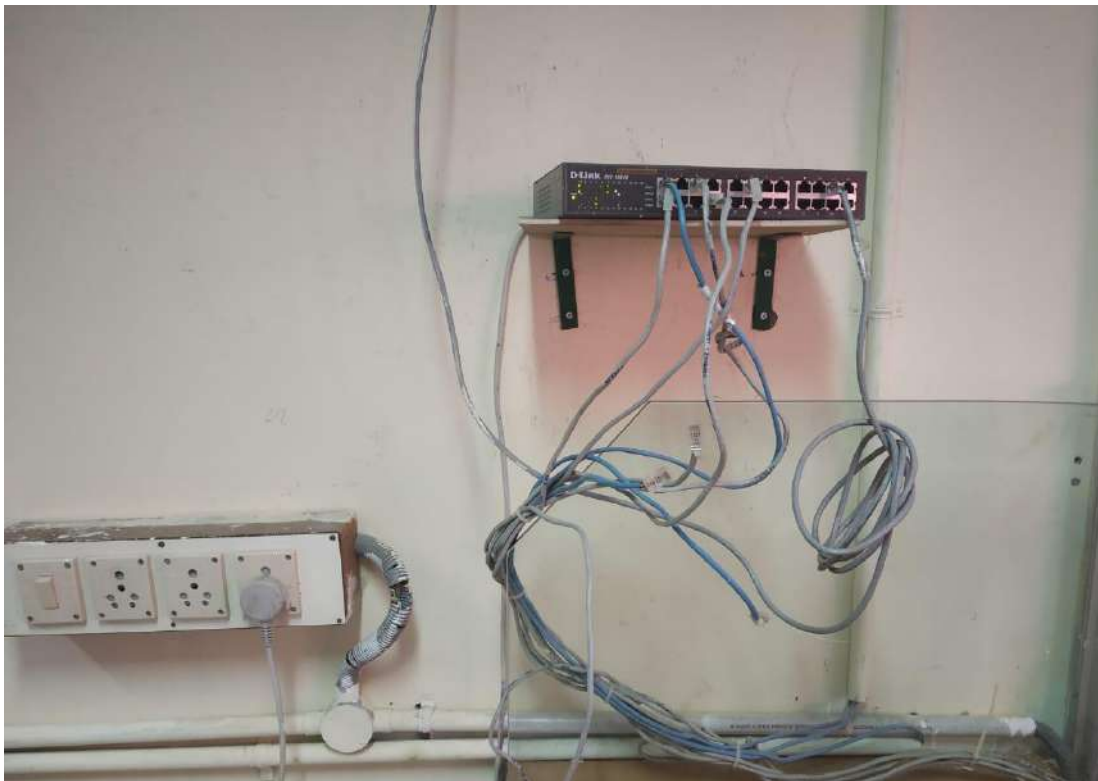
# ARUNAI ENGINEERING COLLEGE

## TIRUVANNAMALAI

### DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19

Internet facility Arranged to Staff Cabin.





# ARUNAI ENGINEERING COLLEGE

TIRUVANNAMALAI

## DEPARTMENT OF MECHANICAL ENGINEERING

Action taken report for the Analysis of Feedback Collected from various stakeholders, such as Students, Teachers, Employers, Alumni on the academic performance and ambience of the institution during Academic year 2018-19


Prepared Study Material and given to students.

**ARUNAI**  
Engineering College  
Tiruvannamalai, TamilNadu

**DEPARTMENT OF MECHANICAL ENGINEERING**

WELCOME TO  
**ARUNAI**  
START BUILDING YOUR FUTURE

**Study Materials for  
Slow Learners**

  
Tiruvannamalai

**Arunai Engineering College**  
Velu Nagar, Tiruvannamalai-606603, TamilNadu  
04175-255101/102/103  
[www.arunai.org](http://www.arunai.org)

UNIT-11  
SECOND LAW, ENTROPY & AVAILABILITY.

Given data:  
 $T_H = 873\text{K}$   
 $T_L = 333\text{K}$   
 $\eta_{re} = \frac{T_H - T_L}{T_H}$   
 $\eta_{re} = \dots$

Given data:  
 $P_1 = 120\text{ kN/m}^2$   
 $V_1 = 1.21\text{ m}^3$   
 $P_2 = 1750\text{ kN/m}^2$   
 $V_2 = 0.1427\text{ m}^3$   
 $n = 1.3$   
 $W = P_1 V_1 - P_2 V_2$   
 $W = \dots$

Given:  
 $P_1 = 100\text{ kN/m}^2$   
 $T_1 = 288\text{K}$   
 $P_2 = 1700\text{ kN/m}^2$   
 $n = 1.25$   
 $T_2 = \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} \times T_1$   
 $T_2 = \dots$

Given:  
 $m = 1$   
 $C_p = 1.005$   
 $T_2 = 373\text{K}$   
 $T_1 = 278\text{K}$   
 $\Delta S = m C_p \ln(T_2/T_1)$   
 $\Delta S = \dots$

Given:  
 $P_1 = 3.59\text{ kN/m}^2$   
 $P_2 = 100\text{ kN/m}^2$   
 $W = 0.622(P_2 V_2 - P_1 V_1)$   
 $W = \dots$

6) Given:  
 $x = 5/28$   
 $\left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} = \dots$   
 $x = \dots$

7) Given:  
 $m = 10\text{ kg}$   
 $T_1 = 673\text{K}$   
 $P_1 = 0.28\text{ bar}$   
 $T_2 = 248.58\text{K}$   
 $\gamma = 1.4$   
 $W = m R (T_1 - T_2) / (\gamma - 1)$   
 $W = \dots$

8) Given:  
 $P_1 = 800\text{ kN/m}^2$   
 $P_2 = 90\text{ kN/m}^2$   
 $V_1 = 0.15\text{ m}^3$   
 $V_2 = 0.73\text{ m}^3$   
 $\gamma = \frac{\log(P_1/P_2)}{\log(V_2/V_1)}$   
 $\gamma = \dots$

9) Given:  
 $m = 1.5\text{ kg}$   
 $C_p = 0.99$   
 $T_1 = 273\text{K}$   
 $T_2 = 160.5\text{K}$   
 $\Delta H = m C_p (T_2 - T_1)$   
 $\Delta H = \dots$

10) Given:  
 $\text{B.P.F.} = 0.4$   
 $t_{d2} = 2.0$   
 $t_{d1} = 1.4$   
 $\text{To find: } t_{d3}$   
 $\text{B.P.F.} = \frac{t_{d2} - t_{d3}}{t_{d2} - t_{d1}}$

11) Given:  
 $m = 10\text{ kg}$   
 $P_1 = 100\text{ kN/m}^2$   
 $V_1 = 1.293\text{ m}^3$   
 $V_2 = 0.154\text{ m}^3$   
 $W = 100 \times 1.293 \ln(V_2/V_1)$   
 $W = \dots$

12) Given:  
 $P_1 = 100\text{ kN/m}^2$   
 $V_1 = 1.293\text{ m}^3$   
 $V_2 = 0.154\text{ m}^3$   
 $W = 100 \times 1.293 \ln(V_2/V_1)$   
 $W = \dots$

13) Given:  
 $m_1 = 10\text{ kg}$   
 $C_1 = 4.187$   
 $T_1 = 363\text{K}$   
 $m_2 = 2.5\text{ kg}$   
 $C_2 = 4.187$   
 $T_2 = 273\text{K}$   
 $T_F = \frac{m_1 C_1 T_1 + m_2 C_2 T_2}{m_1 C_1 + m_2 C_2}$   
 $T_F = \dots$

14) Given:  
 $Q_R = 3000\text{ W}$   
 $T_H = 303\text{K}$   
 $T_L = 263\text{K}$   
 $Q_R = \frac{Q_H}{T_H} \times T_L$   
 $Q_R = \dots$

15) Given:  
 $m = 1.6\text{ kg}$   
 $R = 0.287$   
 $T_1 = 273\text{K}$   
 $P_1 = 120\text{ kN/m}^2$   
 $V_1 = m R T_1 / P_1$   
 $V_1 = \dots$

ENGINEERING THERMODYNAMICS  
UNIT III.

1) Given:  
 $M = 3$   
 $h_1 = 3374.6$   
 $h_2 = 2298.27$   
 $W = 2000$   
 $\text{Formula: } m(h_1) = m(h_2 + Q_2)$   
 $C_2 = \dots$

2) Given:  
 $m = 12$   
 $h_1 = 407.62$   
 $h_2 = 1390.68$   
 $V_1 = 0.0025$   
 $P_1 = 80\text{ kPa}$   
 $P_2 = 7000\text{ kPa}$   
 $Q = m(h_2 - h_1) - V_1(P_2 - P_1)$   
 $Q = \dots$

3) Given:  
 $P_1 = 2000\text{ kPa}$   
 $V_1 = 0.09053$   
 $P_2 = 100$   
 $\text{Formula: } P_1 V_1^n = P_2 V_2^n$   
 $Q = \dots$

4) Given:  
 $V_1 = 0.152$   
 $T = 1.25$   
 $P_1 = 15\text{ kPa}$   
 $P_2 = 1.5\text{ kPa}$   
 $V_2 = V_1 \left(\frac{P_1}{P_2}\right)^{1/\gamma}$   
 $V_2 = \dots$

5) Given:  
 $m = 0.8$   
 $P_1 = 1500\text{ Pa}$   
 $V_1 = 0.152$   
 $P_2 = 150$   
 $V_2 = 0.455$   
 $n = 1.25$   
 $\text{Formula: } W = m \left[ \frac{P_1 V_1 - P_2 V_2}{n-1} \right]$   
 $W = \dots$

6) Volume ( $V_4$ )  
 Given:  
 $h_2 = 3114.48$   
 $h_3 = 1920.46$   
 $V_4 = \sqrt{2000(h_2 - h_1)}$   
 $V_4 = \dots$

7) Given:  
 $h_1 = 3160.62$   
 $h_2 = 173.9$   
 $S_1 = 7.085$   
 $S_2 = 0.593$   
 $T_{\text{mean}} = \frac{h_1 - h_2}{S_1 - S_2}$   
 $T_{\text{mean}} = \dots$

8) Given:  
 $h_1 = 3160.62$   
 $h_2 = 173.9$   
 $W_F = 2.0079$   
 $Q_1 = h_1 - (h_2 + W_F)$   
 $Q_1 = \dots$

9) Given:  
 $S_1 = 6.925$   
 $S_2 = 0.699$   
 $S_F = 7.602$   
 $S_1 = S_F + (S_2 - S_F) \gamma$   
 $X_3 = \dots$

10) Given:  
 $P_1 = 1.0\text{ bar}$   
 $R_1 = 0.1\text{ bar}$   
 $P_2 = \sqrt{P_1 P_4}$   
 $P_2 = \dots$

11) Given:  
 $x = 0.005529$   
 $y = 0.99447$   
 $h_{fg} = 2113.3$   
 $h_f = 634$   
 $h = (x h_{fg}) + (y h_f)$   
 $h = \dots$

12) Given:  
 $W_{\text{net}} = 778.16$   
 $h_1 = 2157.78$   
 $h_2 = 255.04$   
 $\text{Formula: } W_{\text{net}} = \frac{W_{\text{net}}}{h_1 - h_2}$   
 $\eta_r = \dots$

13) Given:  
 $m_1 = 3$   
 $h_1 = 3025$   
 $m_2 = 2$   
 $h_2 = 3245$   
 $m_3 = 5$   
 $h_3 = \frac{m_1 h_1 + m_2 h_2}{m_3}$   
 $h_3 = \dots$

14) Given:  
 $h_1 = 2097.73$   
 $h_2 = 2632$   
 $V_2 = 0.3235$   
 $P_1 = 400\text{ kPa}$   
 $P_2 = 550\text{ kPa}$   
 $Q = (h_2 - h_1) - V_2 (P_2 - P_1)$   
 $Q = \dots$

15) Given:  
 $x = 0.005529$   
 $y = 0.99447$   
 $h_{fg} = 2113.3$   
 $h_f = 634$   
 $h = (x h_{fg}) + (y h_f)$   
 $h = \dots$

UNIT-4  
IDEAL AND REAL GASES, THERMODYNAMIC RELATIONS

1)  $V_1 = 0.60\text{ m}^3$   
 $P_1 = 1\text{ bar} = 100\text{ kPa}$   
 $P_2 = 8\text{ bar} = 800\text{ kPa}$   
 $T_1 = 295\text{K}$   
 $n = 1.3$   
 $W = \frac{n}{n-1} P_1 V_1 \left[ \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} - 1 \right]$   
 $W = \dots$

2)  $P = 0.16\text{ m}$   
 $L = 300\text{ mm}$   
 $P_1 = 100\text{ kPa}$   
 $T_1 = 27^\circ\text{C}$   
 $P_2 = 650\text{ kPa}$   
 $N = 120\text{ rpm}$   
 $P V^\gamma = C$   
 $\gamma = 1.4$   
 $V_1 = \frac{\pi}{4} D^2 L$   
 $V_2 = \frac{m}{\rho}$   
 $W = P_1 V_1 \ln\left(\frac{P_2}{P_1}\right)$   
 $W = \dots$

3)  $m = 8\text{ kg/s}$   
 $P_1 = 100\text{ kPa}$   
 $P_2 = 850\text{ kPa}$   
 $T_1 = 303\text{K}$   
 $n = 1.3$   
 $x = 2$   
 $C_p = 0.287\text{ kJ/kgK}$   
 $P_2 = \sqrt{P_1 P_3}$   
 $P_2 = \dots$

4)  $W = \frac{x n}{n-1} m R T_1 \left[ \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}} - 1 \right]$   
 $W = \dots$

5)  $T_1 = 303\text{K}$   
 $P_1 = 100\text{ kPa}$   
 $P_2 = 412.12\text{ kPa}$   
 $n = 1.2$   
 $T_2 = T_1 \left(\frac{P_2}{P_1}\right)^{\frac{n-1}{n}}$   
 $T_2 = \dots$

6)  $\log 5 = \frac{1}{x} \log(135)$   
 $x = \dots$

7)  $m = 1.6\text{ kg}$   
 $R = 0.287\text{ kJ/kgK}$   
 $V_1 = 101\text{ m}^3$   
 $V_2 = 0.4037\text{ m}^3$   
 $C_v = 0.718\text{ kJ/kgK}$   
 $T_1 = 243\text{K}$   
 $T_2 = 549.57\text{K}$   
 $\Delta S = m c_v \ln\left(\frac{V_2}{V_1}\right) + m c_p \ln\left(\frac{T_2}{T_1}\right)$   
 $\Delta S = \dots$

8)  $P_1 = 100\text{ kPa}$   
 $P_2 = 90\text{ kPa}$   
 $V_1 = 0.15\text{ m}^3$   
 $V_2 = 0.73\text{ m}^3$   
 $\gamma = \log(P_1/P_2) / \log(V_2/V_1)$   
 $\gamma = \dots$

9)  $P_1 = 1000\text{ kPa}$   
 $P_2 = 100\text{ kPa}$   
 $T_1 = 673\text{K}$   
 $\gamma = 1.4$   
 $T_2 = \left(\frac{P_2}{P_1}\right)^{\frac{\gamma-1}{\gamma}} \times T_1$   
 $T_2 = \dots$

10)  $m = 1\text{ kg}$   
 $C_p = 1.005\text{ kJ/kgK}$   
 $T_0 = 300\text{K}$   
 $T_1 = 600\text{K}$   
 $T_2 = 300\text{K}$   
 $(S_1 - S_2) = -0.697\text{ kJ/kgK}$   
 $\Phi_1 - \Phi_2 = m C_p (T_1 - T_2) - T_0 (S_1 - S_2)$   
 $\Phi_1 - \Phi_2 = \dots$

11)  $W = \frac{2 \times 1.3}{1.3-1} \times 6 \times 0.287 \times 293 \left[ \left(\frac{1500}{100}\right)^{\frac{1.3-1}{1.3}} - 1 \right]$   
 $W = \dots$

12)  $T_1 = 303\text{K}$   
 $T_2 = 196.57\text{K}$   
 $T_3 = 266\text{K}$   
 $\gamma = 1.4$   
 $n = 1.3$   
 $T_4 = 126\text{K}$   
 $\text{COP} = \frac{T_3 - T_2}{\frac{n}{n-1} \left[ \frac{T_4 - T_1}{T_3} + T_2 - T_3 \right]}$   
 $\text{COP} = \dots$

UNIT-5  
PSYCHROMETRY.

1) Given:  
 $m_a = 45\text{ kg}$   
 $C_p = 1.005$   
 $T_m = 408.2\text{K}$   
 $T_a = 423\text{K}$   
 $\Delta S_a = m_a C_p \ln(T_m/T_a)$   
 $\Delta S_a = \dots$

2) Given:  
 $C_p = 1$   
 $t_d = 293\text{K}$   
 $\omega = 0.0074$   
 $h_g = 2538.2$   
 $h = C_p t_d + \omega h_g$   
 $h = \dots$

3) Given:  
 $h_1 = 697.1$   
 $h_2 = 2827.76$   
 $h_3 = 1634$   
 $h_b = (m_1 \times h_2) + (1 - m_1) h_3$   
 $m_1 = \dots$

4) Given:  
 $P_2 = 400\text{ kN/m}^2$   
 $P_1 = 200\text{ kN/m}^2$   
 $n = 1.25$   
 $T_1 = 293\text{K}$   
 $T_2 = 293\text{K}$   
 $T_2/T_1 = (P_2/P_1)^{\frac{n-1}{n}}$   
 $T_2 = \dots$

5) Given:  
 $P_{2W} = 3.778\text{ kN/m}^2$   
 $P_b = 100\text{ kN/m}^2$   
 $T_d = 311\text{K}$   
 $T_w = 301\text{K}$   
 $P_v = P_{2W} - (P_b - P_{2W})(h - h_w)$   
 $P_v = \dots$

6) Given:  
 $dP/dt = 35 \times 10^{-3}$   
 $T_c = 493\text{K}$   
 $V_g = 0.06603$   
 $V_f = 0.00119$   
 $(dP/dt) = \frac{h_{fg}}{T_s(V_g - V_f)}$   
 $\text{Ans: } h_{fg} = \dots$

7) Given:  
 $V = 0.05$   
 $V_f = 0.0007362$   
 $V_g = 0.14729$   
 $V = V_f + x(V_g - V_f)$   
 $x = \dots$

8) Given:  
 $m = 12\text{ kg}$   
 $h_2 = 1380.68$   
 $h_1 = 407.62$   
 $V_1 = 0.0025$   
 $P_2 = 7000\text{ kN/m}^2$   
 $P_1 = 80\text{ kN/m}^2$   
 $Q = m(h_2 - h_1) - V_1(P_2 - P_1)$   
 $Q = \dots$

9) Given:  
 $\phi = 0.6$   
 $P_2 = 4.246\text{ bar}$   
 $\phi = P_v/P_2$   
 $P_v = \dots$

10) Given:  
 $V_{f2} = 0.001027$   
 $P_1 = 600\text{ kN/m}^2$   
 $P_2 = 400\text{ kN/m}^2$   
 $W_p = V_{f2} (P_1 - P_2)$   
 $W_p = \dots$



**INVITATION**



**WORKSHOP ON  
PROCESS  
PLANNING AND  
COST  
ESTIMATION**

**RECENT TRENDS IN  
PROCESS PLANNING AND  
COST ESTIMATION IN  
COMMERICAL VEHICLE**

**RESOURCE PERSON**

**Mr.P.HARIBABU**

senior Manger New Business  
and Value Engineering Daimeter Commerical Vehicle  
BharatBenz  
Chennai.

**Organised By**

**DEPARTMENT OF MECHANICAL ENGG.**

On  
**17.9.2018**

**Er.EV. Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.L.Jayakumar**  
Principal

**Dr.L.Jayakumar**  
HOD / Mech

Guest Lecture For Students Learning Purpose.



**ARUNAI**  
Engineering College  
TIRUVANNAMALAI



**25**  
YEARS  
IN EDUCATION  
1993 - 2018

**DEPARTMENT OF MECHANICAL ENGINEERING**

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ARUNAI ENGINEERING COLLEGE  
TIRUVANNAMALAI-606663  
**(MESA)**



**13<sup>th</sup> August 2018 Monday, 10.00 A.M. @ AC Auditorium**

**Chief Guest**  
**Dr. SHANKAR VENUGOPAL**  
Vice President, Mahindra & Mahindra  
Mahindra Research Valley, Chennai



In the Presence of : Er. E.V. Kumaran Vice Chairman  
Felicitation : Dr. G. MohanKumar Principal  
Dr. V. Ramanathan Director Academics  
Welcome Address : Dr. L. Jayakumar Prof& Head, Mech. Engg.  
Vote of Thanks : Students Secretary



**ARUNAI**  
Engineering College  
Tiruvannamalai, Tamil Nadu

**INVITATION**



**TOPIC**

**“PERFORMANCE OF TRACTOR  
ON ROAD/OFF ROAD”**

**ALUMINI GUEST LECTURE**

**P.POOVARASAN (2006-2010)**

**Service Manager in  
International Business Unit  
VST Tillers,  
Tractoo Ltd-Bengaluru.**

**On  
10-08-2018**

**Organised By**

**DEPARTMENT OF MECHANICAL ENGG.**

**Er.EV. Kumaran**  
Vice Chairman

**Dr.R.Sathiyaseelan**  
Registrar

**Dr.L.Jayakumar**  
Principal

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