

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar – 574225, Moodbidri.

Dakshina Kannada Karnataka, India.



Department of Mechanical Engineering

CERTIFICATION COURSE

On

“Industrial safety Engineering”

FOR THE ACADEMIC YEAR

2016-17



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225
Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Date: 27/12/2015

APPROVAL LETTER

To,

The Principal,
AIET, Moodbidri

Respected Sir,

Sub: - Approval for Organizing the Students Certification/Training Program on "Industrial safety Engineering"-Reg.

With reference to the subject cited above, I would like to bring to your kind notice that, the Department is planning to host a **Five day's** Student Training Program/ hands on workshop on "**Industrial safety Engineering**" from "**18th July 2016**" to "**22nd July 2016**".

Kindly consider the above request and approve the same for further proceedings.

Thanking you Sir.


Coordinator:

Mr. Hemanth S


Head of the Department:

Dept. of Mechanical Engineering
Prof. K. V. Suresh
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225


Principal:

PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.

Place: AIET, Moodbidri.



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

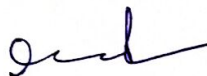
Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Date: 13/7/2016

CIRCULAR

All the students are hereby informed that there is a certification course on about **Industrial safety engineering** which is scheduled from 18.07.2016 to 22.07.2016, which is conducted by Mr. G B Vaggar & Mr. Sadashiv M B, AIET, Dept of mechanical engineering, moodbidri. Interested students kindly register your names on or before 10.07.2016.


Head of the Department:
H. G. B.
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

ABOUT VTU, BELAGAVI

Visvesvaraya Technological University is a collegiate public state university in Karnataka State, India. It was established by the Government of Karnataka. The university is named after **M. Visvesvaraya** from Karnataka, the only engineer to be awarded a "**Bharat Ratna**", the highest civilian award in India. Jnana Sangama, Belagavi is the headquarters of VTU. Additionally, the university has three regional centers in Bangalore, Gulbarga and Mysore. VTU is one of the largest universities in India with 212 colleges affiliated to it with an intake capacity of over 467,100 undergraduate students and 12,666 postgraduate students. The university encompasses technical and management fields which offer 30 undergraduate and 71 postgraduate courses. It has around 1800 PhD candidates. VTU has 13 QIP centers and 17 extension centers in its affiliated colleges offering postgraduate courses. It has around 2,305 departments recognized as research centers which are spread across its affiliated institutions in cities of Karnataka.

AIET, MOODBIDRI

Alva's Education Foundation (AEF) established in 1995 with the vision of our Chairman **Dr. M. Mohan Alva** has succeeded in making Moodbidri, an Educational hub in the South Canara Region, with more than 25000 students pursuing various courses ranging from primary school to post-graduate courses in social sciences, pure sciences, engineering and management. There are 21 institutions functioning under the Alva's Education Foundation.

Alva's Institute of Engineering and Technology, Moodbidri is a Premier Engineering Institute of Alva's Education Foundation, established in the year 2008. The college is certified to the ISO 9001: 2008 standards. The institute offers top quality education in five under graduate programs in Engineering-Computer Science, Civil, Electronics & Communications, Information Science, and Mechanical Engineering-Three Post Graduate programs- Master of Technology in Thermal Power Engineering, Computer Science & Engineering, VLSI Design Embedded System and Master of Business Administration.

DEPARTMENT OF MECHANICAL ENGINEERING

Department of Mechanical Engineering was established in the year 2008 with an intake of 60 and has enhanced to 180 from academic year 2012-13. The Post Graduate course, M.Tech in Thermal Power Engineering was introduced from the academic year 2012-13 with an intake of 18 students. Department is recognized as a research centre by VTU. Department is actively involved in Curricular and extracurricular activities in associations with professional bodies. The main objective of the department is to provide academic excellence, knowledge and nurture talent in the area of Mechanical Engineering. The department has started Bio Diesel research testing centre in the campus to explore in the area of Alternative Fuels.

Department vision is to develop Quality Mechanical Engineers to meet the ever growing and ever changing needs of the economy. The Department is committed to provide high quality technical education at under graduate and post graduate level by means of state of art curriculum with best teaching-learning process.

ABOUT INDUSTRIAL SAFETY ENGINEERING COURSE

Industrial Safety engineering is an engineering discipline which assures that engineered systems provide acceptable levels of safety. It is strongly related to systems engineering, industrial engineering and the subset system safety engineering

Industrial Safety engineering is an engineering discipline which assures that engineered systems provide acceptable levels of safety. It is strongly related to systems engineering, industrial engineering and the subset system safety engineering. Safety engineering assures that a life-critical system behaves as needed, even when components fail. The main aim of this course is to train personnel of scientific know-how and orientation in theory and practice in the area of safety, health and hygiene

COURSE CONTENT

1. Introduction to Introduction safety engineering
2. Preliminary Hazard Analysis
3. Fault Tree Analysis
4. Bowtie Tool
5. Risk Assessment
6. Quantification of basic events for non-repairable components
7. Human error
8. Accident Investigation
9. Virtual Reality

RESOURCE PERSON

Mr. G B Vaggar & Mr. Sadashiv M B
Associate Professor, Assistant Professor
Department of Mechanical Engineering, AIET
Moodbidri

Co-ordinators

Mr. Jayanaik J, Mr. Prashanth M D, Mr. Santosh A G
Assistant Professor
Department of Mechanical Engineering AIET
Moodbidri

PROGRAM SCHEDULE

July 18, 2016

Inauguration:	09:00 am to 09:30 am
Tea Break:	9:30 am to 9:45 am
Session 1:	9:45 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 2:	02:00 pm to 05:00 pm

July 19, 2016

Session 3:	09:30 am to 11:00 am
Lunch Break:	01:00 pm to 02:00 pm
Session 4:	02:00 pm to 05:00 pm

July 20, 2016

Session 5:	09:30 am to 11:00 am
Lunch Break:	01:00 pm to 02:00 pm
Session 6:	02:00 pm to 05:00 pm

July 21, 2016

Session 7:	09:30 am to 11:00 am
Lunch Break:	01:00 pm to 02:00 pm
Session 8:	02:00 pm to 05:00 pm

July 22, 2016

Session 9:	09:30 am to 11:00 am
Lunch Break:	01:00 pm to 02:00 pm
Session 10:	02:00 pm to 04:00 pm
Valedictory:	04:30 pm to 05:00 pm

PROGRAMME SCHEDULE

- ❖ Invocation
- ❖ Welcome Speech
- ❖ Introducing the Chief Guest
- ❖ Honoring the Chief Guest
- ❖ Inauguration
- ❖ Presidential Speech
- ❖ Vote of Thanks

INVITATION

ALVA'S INSTITUTE OF ENGINEERING AND

TECHNOLOGY, MOODBIDRI

DEPARTMENT OF MECHANICAL ENGINEERING

Cordially invites you to the

Inauguration of Certification Program

On

“ INDUSTRIAL SAFETY ENGINEERING ”

Resource Person: Mr. G B Vaggar & Mr. Sadashiv M B

Dept. of ME, AIET Moodbidri

Guest of Honor: Mr. Vivek Alva

Managing Trustee

President: Dr. Peter Fernandes

Principal, AIET, Moodbidri.

Coordinator

Mr. Hemanth S

Assistant Professor

Head of the Department

Mr K V Suresh

Associate Professor and Head

Venue: AIET MECH Block@9.00AM

ABO
vesvaraya Tech
public state univer
established by
iversity is n

INDUSTRIAL SAFETY ENGINEERING -- ATTENDANCE REPORT-2016-17					

Coordinator

HoD

24.	4AL13ME052	JIBIN JAISON	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
25.	4AL14ME030	GURUMURTHY J L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
26.	4AL14ME031	HARSHA RAJ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	A
27.	4AL14ME037	JYOTHISH KUMAR K P	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
28.	4AL14ME062	NIKHIL P	✓	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓
29.	4AL14ME074	RAJATH RAJ U K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30.	4AL14ME096	SHRAVIKA K A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
31.	4AL14ME738	VAISNAV V R	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
32.	4AL14ME109	ASHWARYA P B	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
33.	4AL13ME134	ANOOP R B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
34.	4AL14ME110	ASWAGOSH.B.S	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓
35.	4AL14ME108	PRATHISHA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
36.	4AL16ME400	ADARSH J	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
37.	4AL16ME401	AKHIL S	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓
38.	4AL16ME402	ARUNKUMAR H D	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓
39.	4AL16ME403	ARUNKUMAR S	✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
40.	4AL16ME404	BHUSAHAN D	✓	✓	A	A	✓	✓	✓	✓	✓	✓	✓	✓	✓
41.	4AL16ME405	DARSHAN V	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
42.	4AL16ME406	DEEPAK H A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
43.	4AL16ME407	DEEPAK TIRAKANNAVAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓	✓	✓
44.	4AL16ME408	DHARMAVEERA B M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
45.	4AL16ME409	DIVAKAR K N	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
46.	4AL16ME410	GADKAR ROHAN RAJESH	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	A	✓	✓
47.	4AL16ME411	GIRISH R	✓	✓	A	✓	✓	A	✓	✓	✓	✓	✓	✓	✓
48.	4AL16ME412	GIRISH UGARGOL	✓	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	A	✓
49.	4AL16ME413	HALESHA B S	✓	✓	✓	✓	✓	✓	✓	✓	A	✓	✓	A	✓

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DEPARTMENT OF MECHANICAL ENGINEERING

50.	4AL16ME414	MADHUSUDHAN K	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	A	✓
51.	4AL16ME415	MAHALAKSHMI P D	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
52.	4AL16ME416	MAHANTESH S B PATIL	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
53.	4AL16ME417	NAIK JAGADISH D	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
54.	4AL16ME418	OMPRAKASH BASAPPA K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
55.	4AL16ME419	PRABHUKUMAR M	✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓
56.	4AL16ME420	PRAKASH HULLUR	✓	✓	✓	✓	✓	A	✓	✓	✓	✓	A	✓
57.	4AL16ME421	PRASHANT GANI	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	A	✓
58.	4AL16ME422	RAGHU A	✓	✓	✓	A	✓	✓	✓	A	✓	✓	✓	✓
59.	4AL16ME423	RAGHUNATHAGOUDA N P	✓	✓	✓	✓	✓	✓	A	✓	✓	✓	✓	✓
60.	4AL16ME424	RAJITH KUMAR G	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	A
61.	4AL16ME425	SACHIN KOKATNUR	✓	✓	✓	✓	✓	✓	✓	✓	A	✓	✓	✓
62.	4AL16ME426	SACHIN NANDIKOL	A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
63.	4AL16ME427	SANGAPPA ANKUSH	✓	✓	✓	A	✓	✓	✓	A	✓	✓	✓	✓
64.	4AL16ME428	SHARATH T D	✓	✓	✓	✓	✓	✓	✓	A	✓	✓	✓	✓
65.	4AL16ME429	SHASHIKUMAR J	✓	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓
66.	4AL16ME430	SHETTY RAHUL S	✓	✓	A	✓	✓	✓	✓	✓	A	✓	✓	✓
67.	4AL16ME431	SOMSHEKHAR C	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	✓
68.	4AL16ME432	SRINIVAS R	✓	✓	✓	✓	✓	✓	✓	✓	A	✓	A	✓
69.	4AL16ME434	SUSHANTH	✓	✓	✓	✓	A	✓	✓	✓	✓	✓	✓	A
70.	4AL16ME435	VIKRAMRAJ YANKAPPA K	✓	✓	✓	✓	✓	✓	A	✓	✓	✓	A	✓
71.	4AL16ME436	VINAY DAYANAND C	✓	✓	A	✓	✓	✓	✓	✓	✓	✓	✓	✓
72.	4AL16ME437	VINAYAK N RAYAKAR	✓	✓	✓	✓	✓	✓	✓	✓	A	✓	✓	✓
73.	4AL16ME438	VISHAL RAJAGOUDA P	A	✓	✓	✓	✓	✓	✓	A	✓	✓	✓	✓
74.	4AL16ME433	SUJITH J	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Coordinator

HoD



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DEPARTMENT OF MECHANICAL ENGINEERING

Quiz on Industrial safety Engineering Course

11. What is the leading cause of death on construction sites?

- A. Struck by object
- B. Falls
- C. Caught-in or -between
- D. Electrocutions

12. Which of the following is not a chemical-related health hazard?

- A. Carcinogenicity
- B. Reactivity
- C. Corrosivity
- D. Toxicity

13. A container holding a hazardous material must include which of the following as of June 15, 2014:

- A. Identity of the hazardous chemical only
- B. Identity of the hazardous chemical, instructions on how to use
- C. Identify of the hazardous chemical, names of employees authorized to use
- D. None of the above

14. If you wanted to convey the most severe type of hazard, which word would you use?

- A. Warning
- B. Notice
- C. Danger
- D. Caution

15. If you transfer chemicals from a labeled container to a portable container, you

don't need to comply with standard hazardous material labeling requirements when:

- A. You hand the container off to someone else
- B. You leave the work area before using the materials
- C. You don't use the materials before the end of your work shift
- D. None of the above

16. Ammonia becomes an immediate danger to your life and health when it is present at the following level or greater:

- A. 10 ppm
- B. 30 ppm
- C. 300 ppm
- D. 1000 ppm

17. You should wear eye, head, and face protection if you are working with which of the following tools? A. Portable abrasive wheel tools B. Electric tools C. Pneumatic tools D. Liquid fuel tools

18. If you are working near a flammable substance, you should always use iron or steel hand tools. A. True B. False

19. You should not use a wedge if it has: A. Pointed head B. Triangular head C. Mushroomed head D. Flat head

20. Exposure to high levels of noise can lead to which of the following: A. High blood pressure B. Gastrointestinal problems C. Chronic fatigue. D. All of the above



Quiz on Industrial safety Engineering Course

1. The purpose of a lock-out/tag-out procedure is to:

- (A) Improve productivity on the job
- (B) Secure harmful energy sources to prevent injury
- (C) Slow down work so technicians are less stressed
- (D) Save money

2. The purpose of CPR is to:

- (A) Maintain oxygenated blood circulation
- (B) Stabilize body temperature to avoid hypothermia
- (C) Build upper body strength
- (D) Dislodge blood clots within the victim's lungs

3. The very first thing you should do if you are the first to witness or discover an accident on the job site is to:

- (A) Go find at least one co-worker to help you so you can work as a team
- (B) Go to the scene and help the person(s) injured
- (C) Find and fill out the necessary forms to document the incident
- (D) Activate the emergency response system

4. The purpose of a cartridge-style respirator is to:

- (A) Reduce the concentration of particulates in the air you breathe
- (B) Provide a pure oxygen breathing environment where there is insufficient oxygen in the air
- (C) Enhance your personal appearance for maximum social appeal
- (D) Convert exhaled carbon dioxide back into oxygen for re-breathing

5. Shock is defined as an abnormal condition of the body where:

- (A) A broken bone has penetrated the skin

- (B) The lungs are unable to process oxygen properly
- (C) The muscles in the body have "frozen" and will not move
- (D) There is insufficient blood delivered to the body's cells

6. A confined space is deemed ready for employee entry when:

- (A) A company safety inspector has certified it
- (B) The unit operations foreman declares it ready
- (C) An engineer has completed the necessary calculations
- (D) Your supervisor assigns you to the job

7. One of the common signs of a heart attack is:

- (A) A sharp pain in the lower area of the spine
- (B) Loss of bowel control
- (C) A feeling of numbness in the legs
- (D) Discomfort in the chest and/or upper body

8. Heat stroke is often indicated by the following symptoms:

- (A) A sudden affinity for country-western music
- (B) Dizziness, vomiting, cold skin, profuse sweating
- (C) Cold and clammy skin, thirst, vomiting, confusion
- (D) Hot and dry skin, inability to drink, vomiting, confusion

9. Arc blast is caused by:

- (A) Poor contact within electrical wire splices
- (B) Radio frequency emissions from high-power transmitters
- (C) Discharge of high electrical current through open air
- (D) Failure to lock-out and tag-out electrical breakers

10. Current measurements are more dangerous to make with a multimeter than voltage measurements because:

- (A) You must use both hands to take the measurement
- (B) Most multimeters are unfused
- (C) The resulting magnetic fields may be very strong
- (D) The circuit must be broken (opened)



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DEPARTMENT OF MECHANICAL ENGINEERING

FEEDBACK FORM

Five days Students Training Program

On

"INDUSTRIAL SAFETY ENGINEERING"

For the following areas, please indicate your rating from 1 to 5:

1=strongly Disagree 2=Disagree 3=neither agree nor disagree 4=Agree 5=strongly Agree

SN	Topics	1	2	3	4	5
A.	Content					
1	Understood the basics of INDUSTRIAL SAFETY ENGINEERING					✓
2	Understood the fundamental of safety in industry					✓
3	Able to apply the studied techniques for the problems at the hand.				✓	
4	Understood the fundamentals of safety				✓	
5	Able to do practical problems					✓
B	Presentation					
6	Instructor's knowledge					✓
7	Instructor's presentation style					✓
8	Instructor covered material clearly				✓	
9	Instructor responded well to questions				✓	
10	Instructor facilitated interactions among participants well					✓
C. How could this workshop be improved?						
— Mil —						
D. Any other comments or suggestions?						
— Mil —						
E. Overall, how would you rate this workshop?						
<input type="checkbox"/>	Poor	<input type="checkbox"/>	Good			
<input checked="" type="checkbox"/>	Neither Good Nor Poor	<input type="checkbox"/>	Excellent			



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DEPARTMENT OF MECHANICAL ENGINEERING

Report on Industrial Safety Engineering

The department of ME conducted a 5 Days hands on students training program for the students of ME from 18-07-2016 to 22-07-2016 on "Industrial Safety Engineering" at AIET Moodbidri.

Mr. G B Vaggar C H, Mr.Sadashiv M B, Department of Mechanical Engineering AIET, Moodbidri delivered a comprehensive and in depth information about the Fundamentals of Industrial Safety Engineering techniques & its Applications. Participants have enthusiastically participated and learnt the safety in engineering.

Photo





ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY MOODBIDRI

A Unit of Alva's Education Foundation®
(Affiliated to VTU, Belagavi and Approved by A.I.C.T.E., New Delhi)
Shobhavana Campus, Mijar, Moodbidri DK Karnataka-574225

DEPARTMENT MECHANICAL ENGINEERING

Certificate

*This is to certify that Mr./Ms.....bearing the
USN from has attended
the Students Training Program on "Industrial Safety
Engineering" from 18th July 2016 to 22nd July 2016*

Mr. Hemanth S
Coordinator

Head of the Department
Mechanical Engineering

Dr. Peter Fernandes
Principal
AIET Moodbidri