



*Certificate Course
ON*

NON-DESTRUCTIVE METHODS & TECHNIQUES IN MANUFACTURING INDUSTRIES

From 18th November 2019 to 22nd November 2019



ORGANIZED BY

**DEPT. OF MECHANICAL ENGINEERING
AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY,
MAKAVARAPALEM (V), VISAKHAPATNAM-531113**

AVANTHI EDUCATIONAL SOCIETY

Avanthi Educational Society under the Leadership of Sri M. Srinivasa Rao garu as chairman was started in the Year 1991. Within a short span of its establishment, the group has made a remarkable stride in the field of education offering various courses at Under Graduate, Post Graduate, Pharmacy & Engineering levels. This milestone is achieved as the institution carved itself to impart quality and career oriented education, countering the challenges of the modern world through planning, dedication, determination, prompt execution and with the innovative ideas of our advisory board.

Today, Avanthi Educational Society is proud to have a strength of over 16000 students with 15 institutions under its ambit. It is the path of glory towards the success during the last 19 years. The institution has been adjudged many times as the second best educational institutions in the twin cities and 16th best in all over India through the impartial survey made by the renowned magazine "India Today".

AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

AIET started in the year 1999 and offers various courses at Engineering and PG level. The college is providing with rooms, computer centre, laboratories and seminar hall with audio-visual equipments. Industry Institute interaction is conducted regularly to emphasize on the latest trends in the present market.



It is very near to Narsipatnam. Frequent bus facilities are available both from and to Visakhapatnam and Narsipatnam. Very safe and secure hostel facility is available for Girl students. These are the additional facilities besides excellent academic atmosphere in the college campus.

DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical Engineering department was started in the year 2005 with intake strength of 60 seats, this was increased to 120 students in 2012 and this was increased to 180 students in 2013. The department has well qualified and trained faculty members. It has well equipped laboratories and workshops and includes a CAD/CAM laboratory where students are imparted training in advanced production techniques and design and analysis of machine elements.

The department of Mechanical Engineering has been contributing its humble share of the Mechanical Engineering graduates for national needs. Several of the graduates who have passed out of this department are occupying responsible positions in various Engineering Industries like Hindustan Shipyard Limited, Renault Nissan, Varun Motors, Tata Consultancy Services, HP and IBM and holding responsible positions in the premier educational institutes in and outside India.

CHIEF PATRON

Smt .M.Gnaneswari
President ,
Avanthi Educational Society

PATRON

Dr. C P V N J Mohan Rao
Principal,
Avanthi Institute Of Engineering And Technology

CHAIRMAN

Sri. V. Harikiran
Head of the Department
Mechanical Engineering

ABOUT WORKSHOP

Non-destructive testing or non-destructive testing (NDT) is a wide group of analysis techniques used in science and technology industry to evaluate the properties of a material, component or system without causing damage. The terms non-destructive examination (NDE), non-destructive inspection (NDI), and non-destructive evaluation (NDE) are also commonly used to describe this technology. The six most frequently used NDT methods are eddy current, magnetic-particle, liquid penetrate, radiographic, ultrasonic, and visual testing. An additional challenge for NDT manufacturers is meeting the high customer expectations. Customers are demanding a host of features in the new equipment, which may not be possible due to technology or economic limitations.

TOPICS TO BE COVERED

Introduction to NDT and Overview of NDT Platforms, Engineering Materials & Manufacturing Processes, Properties of Material & Testing, Properties of Material & Testing, Visual Testing, Liquid Penetrate Testing, Magnetic Particle Testing Ultrasonic Testing

For Registration, please contact Mr. A. Prem Kumar, Assistant Professor, Department of Mechanical Engineering.



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Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113

DEPARTMENT OF MECHANICAL ENGINEERING

CIRCULAR

Date: 11/11/2019

We are happy to inform you that, Department of Mechanical Engineering, AIET is organizing six day certificate course on “Non – Destructive Methods & Techniques in Manufacturing Industries” from 18th November, 2019 to 22nd November, 2019 in physical mode for all IV B. Tech students. Interested candidates are directed to enrol above course on or before 17/11/2019. For further details contact Course Coordinator Mr. A. Prem Kumar, Assistant Professor, Mechanical Engineering.

Resource Person Details:

1. Sri Rohit,
QA/QC Inspector,
R. Radiant Engineering Services,
Visakhapatnam.
2. Sri D. Chiranjeevi Raju,
Sr. Engineer,
Power Plant Maintenance Section,
India Cements Ltd,
Chilamkur, Kadapa.

V. Harikiran

HOD of Mechanical Engineering Department

Copy to: Principal, AIET

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem Visakhapatnam - 531113.



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DEPARTMENT OF MECHANICAL ENGINEERING

A five-day workshop on

NON-DESTRUCTIVE METHODS & TECHNIQUES IN MANUFACTURING INDUSTRIES

18th November to 22nd November 2019

Syllabus of the Workshop:

Chapter-1

- Introduction to NDT and Overview of NDT Platforms

Chapter-2

- Engineering Materials & Manufacturing Processes

Chapter-3

- Properties of Material & Testing

Chapter-4

- Visual Testing (Theory & Practical)

Chapter-5

- Liquid Penetrate Testing (Theory & Practical), Magnetic Particle Testing (Theory & Practical)
Ultrasonic Testing (Theory & Practical)

Chapter-6

- Applicability & Q&A Practical use, Further skill development and Training prior to joining industry)

EXPECTED OUTCOMES

- This workshop will provide insight on NDT
- It will strengthen participants skills in NDT to perform various engineering problems.
- Workshop will help to understand application of NDT in the multidisciplinary areas such as nuclear, Materials inspection and so on.

COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanathi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.



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DEPARTMENT OF MECHANICAL ENGINEERING

Non-Destructive Methods & Techniques In Manufacturing Industries

From 18th November 2019 to 22nd November 2019

Schedule

Day-1 (18/11/2019)

- 9.00 AM to 11.00 AM - Introduction to NDT and Overview of NDT Platforms
- 11.00 AM to 11.15 AM – Tea Break
- 11.15 AM to 1.15 PM – NDT types
- 1.15 PM to 2.15 PM – Lunch Break
- 2.15 PM to 4.15 PM – Radiography and X-rays, Gamma rays (Hands-on training)

Day-2 (19/11/2019)

- 9.00 AM to 11.00 AM – Ultrasonic testing Liquid penetration in Aerospace and Defence
- 11.00 AM to 11.15 AM – Tea Break
- 11.15 AM to 1.15 PM - Magnetic Particle Testing
- 1.15 PM to 2.15 PM – Lunch Break
- 2.15 PM to 4.15 PM –Ultrasonic practical. (Hands on Training)

Day-3 (20/11/2019)

- 9.00 AM to 11.00 AM - Multiphase Flows
- 11.00 AM to 11.15 AM – Tea Break
- 11.15 AM to 1.15 PM – Defects in material based on operations
- 1.15 PM to 2.15 PM – Lunch Break
- 2.15 PM to 4.15 PM –Theoretical procedures of NDT. (Hands on Training)

Day-4 (21/11/2019)

- 9.00 AM to 11.00 AM –Visual testing method
- 11.00 AM to 11.15 AM – Tea Break
- 11.15 AM to 1.15 PM – Infrared and thermal imaging Process

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM - applications in Automotive, Railway, and Tunnels. (Hands on Training)

Day-5 (22/11/2019)

9.00 AM to 11.00 AM – Eddy current test process

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM - applications in Marine and Aerospace (Hands on Training)

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM - Valediction/Feedback Session



COORDINATOR


HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.



AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY,

TAMARAM (V), MAKAVAAPALEM (M),

VISAKHAPATNAM - 531113

DEPARTMENT OF MECHANICAL ENGINEERING

Workshop on Non-Destructive Methods & Techniques in Manufacturing Industries

From 18-11-2019 to 22-11-2019

STUDENTS ATTENDANCE LISTS

S.NO	Roll Number	Name of the student	18.11.2019	19.11.2019	20.11.2019	21.11.2019	22.11.2019
1	16811A0351	NALLABELLI RAMA SEKHAR	✓	✓	✓	✓	✓
2	16811A0352	NALLALA CHARAN	✓	✓	✓	✓	✓
3	16811A0353	NAMMINA SOMESH	✓	✓	✓	✓	✓
4	16811A0354	NEERUKONDA PRABHU DEVA	✓	✓	✓	✓	X
5	16811A0355	NETHINTI THARUN KUMAR	✓	X	✓	✓	✓
6	16811A0356	PACHIKORA AYYAPPA	✓	✓	✓	✓	✓
7	16811A0357	PAILA PAVAN KUMAR	✓	✓	✓	✓	✓
8	16811A0358	PAKKURTHI BALAJI	✓	✓	✓	✓	✓
9	16811A0359	PALLA GANESH	✓	✓	✓	✓	✓
10	16811A0360	PALLA VENKATESH	✓	✓	✓	✓	✓
11	16811A0361	PANDRANKI TEJESWARA RAO	✓	✓	X	✓	✓
12	16811A0362	PANNASA BHASKAR RAO	✓	✓	✓	✓	✓
13	16811A0363	PEELA ARUN KUMAR	✓	✓	✓	✓	✓
14	16811A0364	PENTAKOTA PHANI KUMAR	✓	✓	✓	✓	✓
15	16811A0365	PERLA HEMANTH KUMAR	✓	✓	✓	✓	✓
16	16811A0366	PETLA PAVAN KUMAR	✓	✓	✓	✓	✓
17	16811A0367	POLIREDDI VISHNU VARAHALA NAIDU	✓	✓	✓	✓	✓
18	16811A0368	POTHURAJU NANDA KISHOR	✓	✓	✓	X	✓
19	16811A0369	POTTI PRATAP	✓	✓	✓	✓	✓
20	16811A0370	POTTI SOMESWARA RAO	✓	✓	✓	✓	✓
21	16811A0371	RAPETI AVINASH	✓	✓	✓	✓	✓
22	16811A0372	RAVADA RAJARAO	X	✓	✓	✓	✓
23	16811A0373	RITHVIK RANJAN	✓	✓	✓	✓	✓
24	16811A0374	RUNKU RAMBABU	✓	✓	✓	✓	✓

25	16811A0375	SARAGADAM GANESH	✓	✓	✓	✓	✓
26	16811A0376	SENAPATHI HEMANTH KUMAR	✓	✓	✓	✓	✗
27	16811A0377	SHAIK MANSOOR	✓	✓	✓	✓	✓
28	16811A0378	SOORA SAI PAVAN	✓	✓	✓	✓	✓
29	16811A0379	SOWBANDI MOHAN SATYA SAI	✓	✓	✓	✓	✓
30	16811A0380	SURISETTI VIJAYA SIVA	✓	✓	✓	✓	✓
31	16811A0381	TALARI MAHESH	✓	✓	✓	✗	✓
32	16811A0382	TAMARANA RAVITEJA	✓	✓	✓	✓	✓
33	16811A0383	THATIKONDA NAGA SAI KIRAN	✓	✓	✓	✓	✓
34	16811A0384	THOKADA SRINU VASU	✓	✓	✓	✓	✓
35	16811A0385	UDATHA GUNA SUBRAMANYAM	✓	✓	✓	✓	✓
36	16811A0386	VAKADA NAGA RAJU	✓	✓	✓	✓	✓
37	16811A0387	VANGAPANDU JAGAN SAI	✓	✓	✗	✓	✓
38	16811A0388	VEGI HAREESH	✓	✓	✓	✓	✓
39	16811A0389	VENU SAI KRISHNA	✓	✓	✓	✓	✓
40	16811A0390	VINDULA KALYAN KUMAR	✓	✓	✓	✓	✓
41	16811A0391	VOLLU HANISH	✓	✓	✓	✓	✓
42	16811A0392	VYBOINA ASHOK KUMAR	✓	✓	✓	✓	✓
43	16811A0393	YALAMANCHILI VENKATA PRUDHVI	✓	✓	✓	✓	✓
44	16811A0394	YARRAMSETTI HEMANTH SAI PRASAD	✗	✓	✓	✓	✓
45	16811A0395	YEDURU HARISH	✓	✓	✓	✓	✓
46	16811A0396	YELLAPU VIJAY KUMAR	✓	✓	✓	✓	✓
47	16811A0397	INDALA PRASAD	✓	✓	✓	✓	✓
48	16811A0398	JALLI VENKATESH	✓	✓	✓	✓	✓
49	17815A0301	ALLA MEGHANA SANTHI	✓	✓	✓	✓	✓
50	17815A0302	ANGA RAJESH	✓	✓	✓	✓	✓
51	17815A0303	APPANA MAHENDRA	✓	✓	✓	✓	✓
52	17815A0304	ARJILLI RAJASEKHAR	✓	✓	✓	✓	✓
53	17815A0305	BALLA RAHUL	✓	✓	✓	✓	✓
54	17815A0306	BONDALA HARISH KUMAR	✓	✓	✓	✓	✓
55	17815A0307	CH BHAVANI	✓	✓	✓	✓	✓
56	17815A0308	CH YESWANTH DURGA CHELLA RAO	✓	✓	✓	✓	✓
57	17815A0309	CHEEPURUPALLI RAMUDU	✓	✗	✓	✓	✓

58	17815A0310	CHINTAKAYALA VENKATA VARAHA SATYA PRAKASH	✓	✓	✓	✓	✓
59	17815A0311	DAKARAPU DURGA PRASAD	✓	✓	✓	✓	✓
60	17815A0312	DANIMIREDDI ASHOK	✓	✓	✓	✓	✓
61	17815A0313	DODDI LAXMIKANTH	✓	✓	X	✓	✓
62	17815A0314	DUPPATLA VINAY	✓	✓	✓	✓	✓
63	17815A0315	GORLI PAWAN KUMAR	✓	✓	✓	✓	✓
64	17815A0316	GUDIVADA TEJA	✓	✓	✓	✓	✓
65	17815A0317	JAYACHANDRA NAVEEN KUMAR	✓	✓	✓	✓	✓
66	17815A0318	KADIYAM PRAVEEN KUMAR	✓	✓	✓	✓	✓
67	17815A0319	KAKARA ANVESH	X	✓	✓	✓	✓
68	17815A0320	KAMBAM BHASKAR REDDY	✓	✓	✓	✓	✓
69	17815A0321	KANDRAKOTA KRANTHI KUMAR	✓	✓	✓	✓	✓
70	17815A0322	KANDREGULA SURESH	✓	✓	✓	✓	✓
71	17815A0323	KANDREGULA THANUJ	✓	✓	✓	✓	✓
72	17815A0324	KANNAM SATYA VENKATA SAI	✓	✓	✓	✓	✓
73	17815A0325	KARI RAJESH	✓	✓	✓	X	✓
74	17815A0326	KARRI VENKATESH	✓	✓	✓	✓	✓
75	17815A0327	KINTADA VENKATESH	✓	✓	✓	✓	✓
76	17815A0328	KONA HARI VAMSI RAM	✓	✓	✓	✓	✓
77	17815A0329	KONDA MANIKANTA	✓	✓	✓	✓	✓
78	17815A0330	KRISHNA BANDI	✓	✓	✓	✓	✓
79	17815A0331	LANKA MOULI	✓	✓	✓	✓	✓
80	17815A0332	MAJJI HEMA SATYA SAI	✓	✓	✓	✓	✓
81	17815A0333	MALLA JAYA PRADEEP CHANDRA	✓	✓	✓	✓	✓
82	17815A0334	MAMIDI SHYAM	✓	✓	✓	✓	✓
83	17815A0335	MANGALAGIRI SHANMUKA SURYA SAI	✓	✓	✓	✓	✓
84	17815A0336	MARISETTI ARIVINDA MOULI	✓	✓	✓	✓	X
85	17815A0337	MRUTYUNJAY SHUKLA	✓	✓	✓	✓	✓
86	17815A0338	MYLAVARAPU SUMANTH	✓	✓	✓	✓	✓
87	17815A0339	NAKKA APPALARAJU	✓	✓	✓	✓	✓
88	17815A0340	NAKKA HARI KRISHNA	✓	X	✓	✓	✓
89	17815A0341	NELLURI SAI	✓	✓	✓	✓	✓
90	17815A0342	PAILA JEEVAN KUMAR	✓	✓	✓	✓	✓

91	17815A0343	PALIPINI GANESH	✓	✓	×	✓	✓
92	17815A0344	PALLI MURALI	✓	✓	✓	✓	✓
93	17815A0345	PAPPU BALA GANAPATHY	✓	✓	✓	✓	✓
94	17815A0346	PEDAPATI NAVEEN	✓	✓	✓	✓	✓
95	17815A0347	PEDAPATI VENKATACHARI	×	✓	✓	✓	✓
96	17815A0348	PITTA KOTESWARA RAO	✓	✓	✓	✓	✓
97	17815A0349	POLARAPU RAJU	✓	✓	✓	✓	✓
98	17815A0350	RAMANA OSIPALLI	✓	✓	✓	✓	✓
99	17815A0351	RAYI MANI KANTA	✓	✓	✓	✓	✓
100	17815A0352	REDDI APPALANAIDU	✓	✓	✓	✓	×
101	17815A0353	REDDI GOPAL	✓	✓	✓	✓	✓

Praveen
COORDINATOR

[Signature]
HOD

Head of the Department
Department of Mechanical Engg.
Avanathi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.



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CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Mrs _____ of _____
_____ has participated in the Certificate Course entitled
on “**Non- Destructive Methods & Techniques in Manufacturing Industries**” during from
18th November 2019 to 22nd November 2019 in Department of Mechanical Engineering.

Coordinator

HOD

Principal



AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

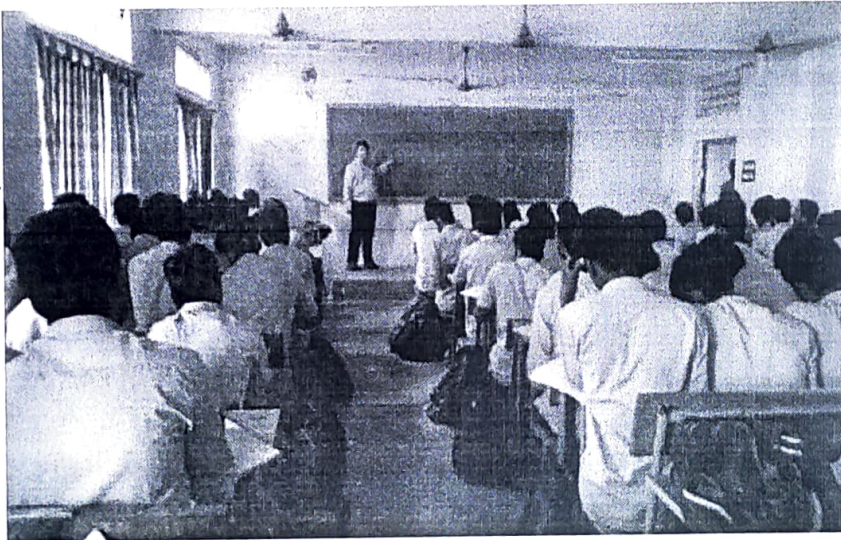
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DEPARTMENT OF MECHANICAL ENGINEERING

A 5-Day Workshop on

Non-Destructive Methods & Techniques in Manufacturing Industries

Dated on - 18/11/2019 to 22/11/2019



COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam-531113.



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DEPARTMENT OF MECHANICAL ENGINEERING

Dt:24/11/2019

BRIEF REPORT

Department of Mechanical Engineering, Avanthi Institute of Engineering and Technology had organized a certificate course on “**NON-DESTRUCTIVE METHODS & TECHNIQUES IN MANUFACTURING INDUSTRIES**” from 18th Nov 2019 to 22nd Nov 2019

We had Mr. Rohit, QA/QC Inspector from R. Radiant Engineering Services, as the speaker to explain detail Introduction of NDT and overview of NDT platforms. He started off with the need of Radiography and X-rays, Gamma rays, he extensively explained the plus points of this technology, one of the major advantage is Increased Product Reliability, Less down Time.

We had Mr. D. Chiranjeevi Raju, Sr. Engineer in Power Plant Section, from India Cements Ltd. He started off with detail information about Ultrasonic testing, Liquid penetration. Then after he gave the limitations that it can only detect defects open to the surface, consuming time, they are generally used for Automotive, Aerospace applications. Later he discussed some of the topics during the course are Visual testing methods, Thermal imaging process, Magnetic Particle Testing, Annotations Toolbar. He concluded with the real time applications like Automotive, Railway and Tunnels and in various Industries.


Coordinator


Head of the Department

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.