



NRI INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

Approved by AICTE, New Delhi: Permanently Affiliated to JNTUK, Kakinada
Accredited by NAAC with "A" GRADE, Accredited by NBA (CSE, ECE&EEE)
An ISO 9001:2015 Certified Institution
Pothavarappadu (V), Agiripalli (M), Eluru District, A.P., India, Pin: 521 212
URL: www.nriit.edu.in, email: principal@nriit.edu.in, Mobile: + 91 8333882444



A short Report on Orientation Programme

for the students of I B.Tech 2022 -23 Batch

On 28th September 2022

Introduction

NRI Institute of Technology has welcomed the newcomers to the campus with extended arms to receive them with care and concern. A long-awaited day has finally arrived for the students who aspire to be engineers of the future times. The students have come to the portals of the NRIIT with much enthusiasm to pursue their graduation in B.Tech in their preferred branches.

Highlights of Orientation

The orientation for the students of 2022-23, First B.Tech, was organized on 28th September 2022.

The programme went on in two sessions.

Forenoon Session: ECE, CSE, AMIL, CSD, CSM

Afternoon Session: IT, Mechanical, Civil, EEE

Venue: College Seminar Hall, Block-1

People Presided:

Principal

Academic Director

Placement Director

HoD of FED

HoDs of respective departments.

Orientation Proceedings

The Principal addressed the students informing them about the general discipline, examination pattern.

The HoD of FED addressed the students and parents and assured them about successful education on the campus of NRIIT.

All the Heads of respective departments also addressed them about their respective departments.

The programme ended with the National anthem.

Then the students were asked to attend the classes.






FED HOD

H.O.D. Dept. of Basic Sciences & Humanities
M.R.I. Institute of Technology
POTHAVARAPPADU-521 212
Agiripalli (M), Krishna Dist.


PRINCIPAL

PRINCIPAL
M.R.I. Institute of Technology
Pothavarappadu (V), Agiripalli (M)



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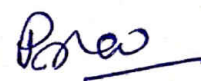
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DEPARTMENT OF MECHANICAL ENGINEERING

List of Short-Term Courses & Workshops Organized for the A.Y. 2021-2022

S. No.	Name of the Topic	Date- Month-Year	Resource Person with Destination, Company	No. of Students	PO, PSO Mapping
1	Applications of Non-Destructive Techniques in Various Industries and Its Importance	2 – 5 March, 2022	Mr. G. Vijay Kumar, Managing Director, VIDAL NDT, Vijayawada	133	PO1, PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2, PSO3


Coordinator



HOD-ME

Head, Mechanical Department
NRI Institute of Technology
POTHAVARAPPADU (VIII)
Agiripalli (Mdl), Krishna Dist.





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DEPARTMENT OF MECHANICAL ENGINEERING

Date: 20-02-2022.

To

Mr. G. Vijay Kumar

Managing Director

VIDAL NDT

Vijayawada

Respected Sir,

On behalf of the Department of Mechanical Engineering, I would like to invite you to deliver a series of expert lectures for workshop titled in your specialized area, Non-Destructive Techniques Applied in Industries, for the benefit of our Mechanical Engineering students during the proposed period 2 – 5 March, 2022.

I will be very thankful to you for assisting us with this task and I hope you will again be involved in future activities.

HEAD OF THE DEPARTMENT
Head, Mechanical Department
NRI Institute of Technology
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Agiripalli (Mdl), Krishna Dist.





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Ref No: NRIIT/ME/WS or STC/Circular/01/A.Y. 2021-2022

Date: 25-02-2022

CIRCULAR

Sub: A Workshop Titled "Applications of Non-Destructive Techniques in Various Industries and Its Importance" during 2nd – 5th March, 2022 by Department of Mechanical Engineering – Reg.

This is to inform that the Department of Mechanical Engineering is organizing a Workshop on "Applications of Non-Destructive Techniques in Various Industries and Its Importance" during 2nd – 5th March, 2022 for all the students and faculty members of Department of Mechanical Engineering.

Speaker : Mr. G. Vijay Kumar, Managing Director, VIDAL NDT, Vijayawada
Date & Time : 2nd – 5th March, 2022 at 10AM
Venue : ME Seminar Hall

All the faculty members and students of other departments, who are interested in the above Workshop, are also invited to attend the same.


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DEPARTMENT OF MECHANICAL ENGINEERING

Workshop on “Applications of Non-Destructive Techniques in Various Industries and Its Importance”

Dt: 07-03-2022.

A workshop on “Applications of Non-Destructive Techniques in Various Industries and Its Importance” has been organized by the department of mechanical engineering during the period 2 – 5 March, 2022 for four days. Mr. G. Vijay Kumar, Managing Director, VIDAL NDT, Vijayawada is delivered talk.

Testing methods that do not compromise the structural integrity of the parts being tested are called **non-destructive tests (NDT)**.

NDT is used to test the quality of components and machine condition before or during their active use. Non-destructive testing is used for condition assessment and quality control in a wide range of industries, which include (but are not limited to):

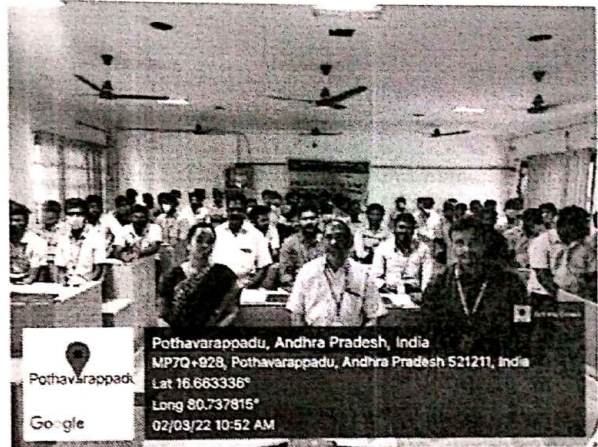
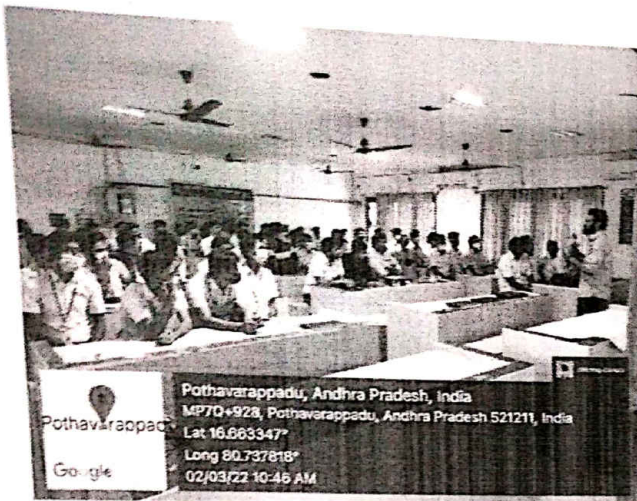
- **Aerospace** – testing castings
- **Automotive** – to test the durability of piston heads
- **Manufacturing** – to test the quality of components before it goes into production
- **Medical devices** – to test the durability and composition of stents
- **Military and defense** – ballistics testing and analysis
- **Packaging** – to test the structure and chances of leakage for packages
- **Marine industries** – to identify corrosion
- **Power generation** – to test welding-related defects
- **Waste management** – to identify redeemable metals in waste
- **Petrochemical industry** – to test pipelines used to transport oil

Top 5 industries where NDT is used

The non-destructive Testing (NDT) market continues to prove that it is a technology that is well worth investing in for a wide variety of industries. Part of the reason for its growing popularity among technicians and engineers in these fields is that it saves companies millions



of dollars in repair costs. Let's take a look at some of the other big industries where the application of NDT is evident.



Photos taken during workshop

- **Aerospace & Defense:** Of course, the aerospace & defense industry is one of the most consistent users of NDT technologies including the use of ultrasonic testing equipment. This is because items such as airframe structures need to be able to be tested for strength and wear and tear as they are under great pressure when in use. The smallest breach in materials – which ultrasonic testing can reveal – can result in the loss of cargo, assets and human life.
- **Biomedical & Medical Devices:** The application of NDT in biomedical & medical devices is very big. This is the one industry that laymen most associate with NDT such as ultrasounds, x-rays, etc. Obviously where the human body is involved technicians want to do as little harm as possible when diagnosing diseases.
- **Civil and Heavy Construction:** As structures have gotten bigger and bigger so too has the need for certain materials to be able to withstand great stresses. NDT makes sure

that the materials that go into constructing buildings, bridges, dams, etc., can withstand those stresses and that they last for generations.

- **Oil and Gas Industry:** Ultrasonic technologies, as well as radiography, is used in this industry to inspect the internal structure of equipment in order to detect welds, cracks, voids and other types of material or structural defects.
- **Primary Metals & Mining:** The products that are produced by this industry support countless other industries including our own. Thus, failure to properly gauge the strength of certain materials can have seismic reverberations.

Additionally, the **applications of NDT** can be found in the following industries:

- Power Generation
- Chemicals
- Mining
- Automotive
- Maritime

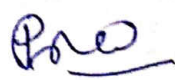
Benefits of NDT

- Without NDT, you couldn't be sure your materials, products, and equipment will achieve their design requirements or their expected life. Undetected defects and flaws usually result in expensive repairs or replacements and can place your company's employees in unsafe conditions. Consider the loss of revenue due to an unplanned plant shutdown when equipment fails. Even more important, a catastrophic failure can have a devastating impact from which some companies never recover.

NDT primarily covers the following:

- Prevent accidents and reduce costs
- Improve product reliability
- Meet regulations and requirements
- Manage assets and resources


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Pothavarappadu (V), (Via) Nunna, Agtikipalli (M), Vijayawada Rural, Krishna (Dt.), Pin : 521 212 - A.P.

A Four-Day Workshop

On

APPLICATIONS OF NON DESTRUCTIVE TECHNIQUES IN VARIOUS INDUSTRIES AND IT'S IMPORTANCE

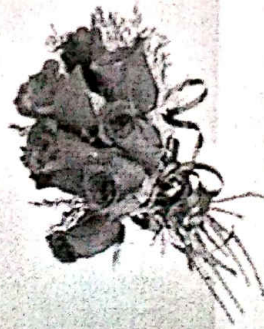
(For B Tech., Mechanical Students on 2nd to 5th March-2022)

In Association with:

VIDAL NDT, VIJAYAWADA

Organized by:

DEPARTMENT OF MECHANICAL ENGINEERING





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Workshop/Short-Term Course Feedback Form

Name of the Program: *Application of non-destructive techniques in various industries and its importance.*
Date: *5/3/22*

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.

4 = Strongly Agree; 3 = Agree; 2 = Disagree; 1 = Strongly Disagree

S No	Statement	Rating			
1	The program objectives were stated clearly and met.	<input checked="" type="radio"/> 4	3	2	1
2	The program was well organized.	<input checked="" type="radio"/> 4	3	2	1
3	The information and/or skills presented were relevant and useful.	<input checked="" type="radio"/> 4	3	2	1
4	The presenter provided adequate time for questions and answered them satisfactorily.	4	<input checked="" type="radio"/> 3	2	1
5	This workshop increased my knowledge and skills	<input checked="" type="radio"/> 4	3	2	1

Remarks, if any:

It helps to improve our skills.

Poro
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5	This workshop increased my knowledge and skills	<input checked="" type="radio"/> 4 3 2 1

Remarks, if any:

Nil
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Remarks, if any:

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Remarks, if any:

Nil

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3	The information and/or skills presented were relevant and useful.	(4) 3 2 1
4	The presenter provided adequate time for questions and answered them satisfactorily.	4 (3) 2 1
5	This workshop increased my knowledge and skills	(4) 3 2 1

Remarks, if any:

This program increased my knowledge in non-destructive testing. This workshop was very useful.

Pore
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