

To,

The Principal,

KLS VEDIT

Haliyal

Subject: Proposal for Utilization of Sponsored EZON EV Scooters and Integration of an Industry-Validated Add-on Course.

Respected Sir,

We are pleased to submit this report regarding the strategic utilization of the electric scooters sponsored by EZON, a Bengaluru-based EV start-up. This collaboration provides a unique opportunity to position our institute at the forefront of e-mobility education.

1. Technical staff Readiness & Technical Training

Following the sponsorship, our technical staff members have successfully completed a technical training led by EZON's experts. Our team is now proficient in conducting advanced diagnostic tests on these vehicles, covering **BMS analysis, electrical wiring integration, power electronics (controllers/converters), and ride performance metrics.**

2. Industry & Alumni Stakeholder Consultation

To ensure the curriculum is robust and career-oriented, the draft syllabus for the proposed add-on course was shared with two key stakeholder groups:

- **Industrial Experts:** Engineers from the EV sector (including EZON), **EKA Mobility Pune, Larsen & Toubro Limited Pune** provided feedback on high-voltage safety protocols and the latest DC-DC converter technologies.
- **Alumni Network:** Our alumni currently working in the automotive industry suggested a stronger focus on **Diagnostic Troubleshooting and Real-world Performance Testing** to improve student employability.

Action Taken: The syllabus has been refined to include these suggestions, specifically adding a dedicated module on **EV Fault Diagnosis and Field Performance Analysis** using the sponsored vehicles.

3. Proposed: 30-Hour Add-on Course: "EV Technology & Diagnostics"

The curriculum is designed as 18 hours theory and 12 hours hands-on, course to be integrated into the current semester.

Syllabus Overview: Module-3, Hours-30, and Focus Area - **EV Architecture:** Drivetrain layouts and internal mobility solutions. **Energy Storage:** BMS operations, cell balancing, and thermal safety. **Power Electronics:** Working of EV controllers and converters. **Assembly & Fixtures:** Hands-on chassis assembly and wiring connections. **Performance & Diagnostics:** Troubleshooting and riding performance tests.


4. Strategic Impact

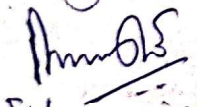
- **Resource Utilization:** Transforms sponsored scooters into a "Live Laboratory" for students.
- **Skill Alignment:** Directly addresses the skill gap identified by our alumni and industry partners.
- **Institutional Prestige:** Showcases a successful industry-academia partnership with a leading start-up like EZON.

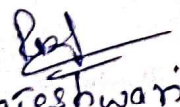
Conclusion and Request

With the equipment, trained technical staff, faculty, and a vetted syllabus ready, we request your formal approval to launch this Add-on course for the upcoming academic session. This initiative will provide our budding engineers with a significant competitive edge in the modern automotive job market.

Yours Sincerely,


HOD C/AE


HOD (ECE)
(Naguraj Bhat)


HOD EEE
(Rajeshwari N.)


Principal

KLS Vishwanathrao Deshpande
Institute of Technology, Haliyal

KLS VishwanathraoDeshpande Institute of Technology



(Accredited by NAAC with "A" Grade)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognized Under Section 2(f) by UGC, New Delhi)

Udyog Vidya Nagar, Haliyal – 581 329, Dist.: Uttara Kannada

Phone: 08284-220861

www.klsvdit.edu.in | principal@klsvdit.edu.in



Department of Mechanical Engineering

Add-On Course Syllabus (Skill Development)

Course Title: Fundamentals of Electric Vehicle Technology

Semester: 4th and 6th sem

Total Duration: 30 Hours

Credits: Certificate Course

Contact Hours: 15 Theory + 15 Practical

1. Course Objectives

The objectives of this add-on course are to:

- Introduce fundamentals of electric vehicle systems and architecture
- Develop understanding of batteries, drives and charging systems
- Provide hands-on exposure to EV components and diagnostic tools
- Familiarize students with current trends, standards, and safety practices in EV technology

2. Course Outcomes

Upon successful completion, the student will be able to:

1. Explain EV types, configurations, and basic architecture
2. Understand working of different drives and its control.
3. Describe battery types, BMS operation and safety requirements
4. Perform basic practical activities on EV components, software tools, and diagnostics.

3. Prerequisites: (Not compulsory but desirable)

Basic knowledge of:

- Electrical & Electronics fundamentals and Basic Machines

Syllabus

Module 1: Introduction & EV Architecture (5 Hours)

- **EV History & Evolution:** From early electric carriages to modern vehicles.
- **Classification of EVs:** Understanding BEV (Battery), HEV (Hybrid), PHEV (Plug-in Hybrid), and FCEV (Fuel Cell).
- **EV Layout:** Block diagram of a typical EV, drive train configurations, and chassis integration.
- **Comparison:** Performance, efficiency and Environmental Impact
- **Economics:** Total Cost of Ownership (TCO) and government incentives/subsidies.

KLS VishwanathraoDeshpande Institute of Technology



(Accredited by NAAC with "A" Grade)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognized Under Section 2(f) by UGC, New Delhi)

Udyog Vidya Nagar, Haliyal – 581 329, Dist.: Uttara Kannada

Phone: 08284-220861

www.klsvdit.edu.in | principal@klsvdit.edu.in



Module 2: Energy Storage & Battery Management (5 Hours)

- **Traction Motors:** Working principles of BLDC, PMSM, and Induction Motors (IM).
- **Motor Controllers:** Role of the Inverter and DC-DC converters functionality.
- **Speed & Torque Control:** Methods of speed and torque control
- **Regenerative Braking:** How energy is recovered during deceleration.
- **Charging Levels:** Level 1 (Home), Level 2 (AC Public), and Level 3 (DC Fast Charging).
- **Charging Protocols:** Understanding Global Standards (CCS, CHAdeMO, GB/T, and NACS).
- **Grid Integration:** Vehicle-to-Grid (V2G) technology and smart charging concepts.

Module 3: Charging Systems & Standards (5 Hours)

- **Battery Swapping:** Pros, cons, and current infrastructure in urban mobility.
- **Telematics & IoT:** Connected vehicles, remote diagnostics, and OTA (Over-the-Air) updates.
- **Battery Chemistry:** Lead-acid, Lithium-ion (LFP, NMC) and future Solid-State batteries.
- **Battery Pack Design:** Cells, modules, and pack construction; series / parallel connections.
- **Battery Management System (BMS):** SOC (State of Charge) and SOH (State of Health) estimation.
- **Safety:** Battery hazards, thermal runaway, and fire suppression standards.
- **Maintenance & Troubleshooting:** Common EV faults and high-voltage safety precautions.
-

8. Assessment & Certification

- Attendance & participation.
- Viva / Quiz
- Final test / assignment

KLS VishwanathraoDeshpande Institute of Technology



(Accredited by NAAC with "A" Grade)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognized Under Section 2(f) by UGC, New Delhi)

Udyog Vidya Nagar, Haliyal – 581329, Dist.: Uttara Kannada

Phone: 08284-220861

www.klsvdit.edu.in | principal@klsvdit.edu.in



EV Laboratory Experiments:

1. Identification of Components of an EV Two-Wheeler
2. Disassembly of External Body and Frame of an EV Two-Wheeler
3. Battery Removal, Inspection, and Reassembly in an EV.
4. Demonstration of Motor and Controller Wiring in an EV.
5. Assembly of Subsystems of an EV.
6. Performance Demonstration of an EV on Test Stand
7. Troubleshooting and Fault Diagnosis in EV.
8. Demonstration of Charging System and Safety Practices in EV.

Textbooks

1. **Electric Vehicle Technology Explained** – James Larminie & John Lowry (Wiley)
2. **Introduction to Electric Vehicles** – B. R. Gupta (University Press)
3. **Battery Management Systems for Large Lithium-Ion Battery Packs** – Davide Andrea (Elsevier)
4. **Hybrid Electric Vehicles Principles and Applications** by Dr. G Nageshwar Rao
5. **Electric Vehicle Batteries: Fundamentals, Technologies and Applications** – Gianfranco Pistoia (Elsevier)
6. **Hybrid Electric Vehicles: Principles and Applications with Practical Perspectives** – Chris Mi, M. Abul Masrur, and David Wenzhong Gao (Wiley).

2. *G. H. Joshi*
(G.H. JOSHI)
Faculty Incharge

[Signature]
HOD (ME)

[Signature]
HOD (ECE)

[Signature]
HOD (EEE)

[Signature]
Dean Aca

[Signature]
Principal
Principal
KLS Vishwanathrao Deshpande
Institute of Technology, Haliyal



Dr. Shylesha Channapattana <svc@klsvidit.edu.in>

Request for your expert suggestions on Add-on Course syllabus: Fundamentals of EV Technology

3 messages

Dr. Shylesha Channapattana <svc@klsvidit.edu.in>

Wed, Jan 7, 2026 at 2:50 PM

To: "patilakashap727@gmail.com" <patilakashap727@gmail.com>, naveen@decibleslab.com,

Praveenkumar.Kori@larsentoubro.com

Cc: hod mech <hodmech@klsvidit.edu.in>

Dear Sir,

Greetings.

I hope you are doing well. We are in the process of designing an add-on course titled "Fundamentals of Electric Vehicle Technology" for 4th semester engineering students at KLS Vardha Institute of Technology, Haliyal.


As an industry expert in the field of electric mobility, your inputs are highly valuable to us. I am attaching the proposed syllabus of the course for your kind perusal.

I kindly request you to review the syllabus and share your valuable suggestions, additions, or modifications to improve its industrial relevance, practical orientation, and alignment with current EV technologies and trends.

Your guidance will greatly help us in enhancing the effectiveness of the course and in better preparing our students for emerging opportunities in EV technology.

Thank you very much for your time and support.

With regards,
Dr. Shylesha V Channapattana
Professor, Dean R&D
Mechanical Engineering Department
KLS Vardha Institute of Technology, Haliyal
940230733

 **EV Syllabus_Add_On.docx**
444K

Patil Akash <patilakashap727@gmail.com>

Wed, Jan 7, 2026 at 4:12 PM

To: "Dr. Shylesha Channapattana" <svc@klsvidit.edu.in>, "naveen@decibleslab.com" <naveen@decibleslab.com>,

"Praveenkumar.Kori@larsentoubro.com" <Praveenkumar.Kori@larsentoubro.com>

Cc: hod mech <hodmech@klsvidit.edu.in>

Dear sir,

Warm good noon. With reference to the trailing mail. Would like to firstly congratulate the entire concern Vardha Institute of Technology team for coming up with such great initiatives, which will definitely help the students for the upcoming academics and further educational journey/ opportunities.

Regarding the fundamentals of EV technologies:

As we all know previous year i.e 2025 has been a great year for EV sector. Which has given more than approx 16% market growth in automobiles. Similar to this there are a lot of other sectors as well, where EV technology has been playing a vital role.

Coming to the inputs and important points regarding the syllabus and other key areas. Let me get through the attached file and look into it.

Will revert once I review the attached file.

Thankyou for the consideration.

Regards,
Akash Patil.
(Lead Engineer - Eka Mobility)

Get [Outlook for Android](#)

From: Dr. Shylesha Channapattana <svc@klsvidit.edu.in>

Sent: Wednesday, January 7, 2026 2:50:28 PM

To: patilakashap727@gmail.com <patilakashap727@gmail.com>; naveen@decibleslab.com <naveen@decibleslab.com>; Praveenkumar.Kori@larsentoubro.com <Praveenkumar.Kori@larsentoubro.com>

Cc: hod mech <hodmech@klsvidit.edu.in>

Subject: Request for your expert suggestions on Add-on Course syllabus: Fundamentals of EV Technology

Dear Sir,

Greetings.

I hope you are doing well. We are in the process of designing an add-on course titled “Fundamentals of Electric Vehicle Technology” for 4th semester engineering students at KLS VDIT, Haliyal.

As an industry expert in the field of electric mobility, your inputs are highly valuable to us. I am attaching the proposed syllabus of the course for your kind perusal.

I kindly request you to review the syllabus and share your valuable suggestions, additions, or modifications to improve its industrial relevance, practical orientation, and alignment with current EV technologies and trends.

Your guidance will greatly help us in enhancing the effectiveness of the course and in better preparing our students for emerging opportunities in EV technology.

Thank you very much for your time and support.

With regards,
Dr.Shylesha V Channapattana
Professor, Dean R&D
Mechanical Engineering Department
KLS VDIT, Haliyal
940230733

Praveen Kumar Kori <PraveenKumar.Kori@larsentoubro.com>
To: "Dr. Shylesha Channapattana" <svc@klsvidit.edu.in>
Cc: principal vdit <principal@klsvidit.edu.in>, hod mech <hodmech@klsvidit.edu.in>

Fri, Jan 9, 2026 at 4:20 PM

Dear Sir,

I hope this message finds you well. I would like to express my sincere appreciation for the thoughtfully designed syllabus for "Fundamentals of EV Technology".

The syllabus is well-structured comprehensive and clearly outlines the course objectives, learning outcomes and assessment methods.

The logical sequencing of topics and inclusion of relevant, up-to-date content have made the learning process more engaging and easier to follow.

It has provided clear guidance on expectations and has significantly helped in planning student studies effectively.

I especially appreciate the balance between theoretical concepts and practical applications, which has enhance the understanding the subject. The recommended readings

and resources are also very helpful in deepening knowledge beyond the classroom.

Thank you for the effort and dedication put into designing such a meaningful and student-friendly syllabus.

Yours sincerely,

Praveen Kori

From: Dr. Shylesha Channapattana <svc@klsvdit.edu.in>

Sent: 07 January 2026 14:50

To: patilakashap727@gmail.com; naveen@decibleslab.com; Praveen Kumar Kori <PraveenKumar.Kori@larsentoubro.com>

Cc: hod mech <hodmech@klsvdit.edu.in>

Subject: Request for your expert suggestions on Add-on Course syllabus: Fundamentals of EV Technology

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The Link contained in this mail is external & may be suspect in nature. Think twice before clicking any links. It is advisable to contact your IT Team OR the Sender & get the Link validated.

Dear Sir,

Greetings.

I hope you are doing well. We are in the process of designing an add-on course titled “Fundamentals of Electric Vehicle Technology” for 4th semester engineering students at KLS VEDIT, Haliyal.

As an industry expert in the field of electric mobility, your inputs are highly valuable to us. I am attaching the proposed syllabus of the course for your kind perusal.

I kindly request you to review the syllabus and share your valuable suggestions, additions, or modifications to improve its industrial relevance, practical orientation, and alignment with current EV technologies and trends.

Your guidance will greatly help us in enhancing the effectiveness of the course and in better preparing our students for emerging opportunities in EV technology.

Thank you very much for your time and support.

With regards,
Dr. Shylesha V Channapattana
Professor, Dean R&D
Mechanical Engineering Department
KLS VEDIT, Haliyal
940230733

Larsen & Toubro Limited

www.larsentoubro.com

This Email may contain confidential or privileged information for the intended recipient (s). If you are not the intended recipient, please do not use or disseminate the information, notify the sender and delete it from your system.



COURSE PLAN

Semester: III

Year: 2025-26 (EVEN)

Course Title	Fundamentals of Electric Vehicle Technology	Course Code	ADDON 2
Total Teaching Hours	30	Teaching hours/week	01
CIA: 10		Prerequisites	IC Engines, Basics of Electrical
Course Plan prepared by	Prof. G H Joshi	Approved by	Dr. Shylesha C
Course Outcomes			
CO1: Explain EV types, configurations, and basic architecture CO2: Understand working of different drives and its control. CO3: Describe battery types, BMS operation and safety requirements CO4: Perform basic practical activities on EV components, software tools, and diagnostics.			

CO's And PO's Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	3	2										2		
2	3	2										2		
3	3	2										2		
4	3	2										2		

Text /Reference Books

Textbooks

T1. Electric Vehicle Technology Explained – James Larminie & John Lowry (Wiley)

T2. Introduction to Electric Vehicles – B. R. Gupta (University Press)

T3. Battery Management Systems for Large Lithium-Ion Battery Packs – Davide Andrea (Elsevier)

T4. Hybrid Electric Vehicles Principles and Applications by Dr. G Nageshwar Rao

T5. Electric Vehicle Batteries: Fundamentals, Technologies and Applications – Gianfranco Pistoia (Elsevier)

T6. Hybrid Electric Vehicles: Principles and Applications with Practical Perspectives – Chris Mi, M. Abul Masrur, and David Wenzhong Gao (Wiley)

Module Wise Text /Reference Books


Module 1: T1, T2, T4


Module 2: T3, T5

Module 3: T3, T5

Syllabus for the Internal Assessment Tests (Tentative)

Internal Assessment Test	One Test at the end of the Semester
Module 1,2,3	Module 1,2,3
Test pattern: MCQ and Descriptive.	


(Dr. S.V. Channappa)


MOD
Mechanical Engineering
KLS Vishwanathrao Deshpande
Institute of Technology
Haliyal-581329



KLS Vishwanathrao Deshpande Institute of Technology, Haliyal

(Accredited with A Grade by NAAC)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognised Under Section 2(f) by UGC, New Delhi)

Udyog Vidya Nagar, Haliyal – 581329, Dist: Uttara Kannada

Phone: 08284-220861, 220334, 221409

Web: www.klsvdit.edu.in Email: principal@klsvdit.edu.in / hodmech@klsvdit.edu.in



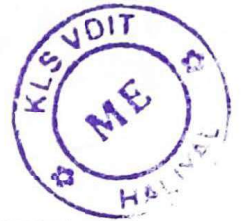
DEPARTMENT OF MECHANICAL ENGINEERING

Add On Course for 4th And 6th Sem Mechanical Engineering

Syllabus: Non-Destructive Testing and Industrial Inspection

Total Duration: 30 Hours

- **Theory: 15 Hours**
- **Practicals: 15 Hours**
- No. of Modules: 3**



Module 1: Fundamentals of Non-Destructive Testing (NDT)

Total: 10 Hours (Theory: 5 | Practical: 5)

Theory (5 Hours)

- Introduction to NDT: Definition, objectives, advantages, and limitations
- Classification of NDT methods
- **Radiographic Testing (RT):**
 - Principle, radiation sources, film and digital radiography
 - Safety precautions
- **Ultrasonic Testing (UT):**
 - Basic principles, wave types, probes, calibration
- **Ultrasonic Thickness Gauging:**
 - Measurement principles and applications

Practicals (5 Hours)

- Demonstration of UT equipment and calibration blocks
 - Thickness measurement of plates/pipes using UT thickness gauge
 - Interpretation of basic UT signals (A-scan)
 - Case studies on defect detection using RT and UT
-



KLS Vishwanathrao Deshpande Institute of Technology, Haliyal

(Accredited with A Grade by NAAC)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognised Under Section 2(f) by UGC, New Delhi)

Udyog Vidya Nagar, Haliyal – 581329, Dist: Uttara Kannada

Phone: 08284-220861, 220334, 221409

Web: www.klsvdit.edu.in Email: principal@klsvdit.edu.in / hodmech@klsvdit.edu.in



DEPARTMENT OF MECHANICAL ENGINEERING

Module 2: Surface & Material Testing Techniques

Total: 10 Hours (Theory: 5 | Practical: 5)

Theory (5 Hours)

- **Magnetic Particle Testing (MPT):**
 - Principle, equipment, applications, limitations
- **Dye Penetrant Testing (DPT):**
 - Types of penetrants, procedure, acceptance criteria
- **Hardness Testing:**
 - Brinell, Rockwell, Vickers – principles and comparison
- **Positive Material Identification (PMI):**
 - Importance, alloy verification, industrial applications
- **Pre-Heating and Post Weld Heat Treatment (PWHT):**
 - Purpose, temperature ranges, effects on weld properties



Practicals (5 Hours)

- Conducting DPT on welded specimens
- Performing MPT on ferromagnetic components
- Hardness testing using Rockwell/Brinell tester
- Demonstration of PMI equipment and material verification

Module 3: Industrial Inspection and Quality Documentation

Total: 10 Hours (Theory: 5 | Practical: 5)

Theory (5 Hours)

- **Welding Inspection:**
 - Weld defects, visual inspection, acceptance standards
- **Mechanical Inspection:**
 - Dimensional inspection, tolerances, gauges
- **Painting & Coating Inspection:**
 - Surface preparation, DFT measurement, defects
- **Inspection Documentation:**
 - Welding Procedure Specification (WPS)



KLS Vishwanathrao Deshpande Institute of Technology, Haliyal

(Accredited with A Grade by NAAC)

(Approved by AICTE, New Delhi. Affiliated to VTU, Belagavi)

(Recognised Under Section 2(f) by UGC, New Delhi)

UdyogVidya Nagar, Haliyal – 581329, Dist: Uttara Kannada

Phone: 08284-220861, 220334, 221409



Web: www.klsvdit.edu.in Email: principal@klsvdit.edu.in / hodmech@klsvdit.edu.in

DEPARTMENT OF MECHANICAL ENGINEERING

- Procedure Qualification Record (PQR)
- Welder Qualification Test (WQT)
- **Boiler Inspection:**
 - Overview, safety aspects, statutory requirements

Practicals (5 Hours)

- Visual inspection of welded joints
- Measurement of weld dimensions and surface defects
- Coating thickness measurement using DFT gauge
- Preparation of sample WPS, PQR, and WQT formats
- Case study on boiler or pressure vessel inspection



Course Outcomes

After completion of the course, students will be able to:

- Understand and apply major NDT techniques
- Perform basic NDT and inspection procedures
- Interpret inspection results and prepare technical reports
- Gain industry-relevant skills aligned with inspection and QA/QC roles

Course co-ordinators
1) Ranganath N. Patil
2) Gurusaj. R. Sattigeri

HOD
Mechanical Engineering
KLS Vishwanathrao Deshpande
Institute of Technology
Haliyal-581329

(Dear Academics)

Principal
KLS Vishwanathrao Deshpande
Institute of Technology, Haliyal

1/14/26, 9:44 AM

Fwd: NDT (Non Destructive Testing) Add On Course Syllabus for Mech Engg - mp@klsvidit.edu.in - Vishwanthrao Deshpande I...

Gururaj Sattigeri
to me

9:40 AM (2 minutes ago)

Forwarded message

From: eagar ddi <eagarsureshddi@gmail.com>
Date: Wed, Jan 7, 2026 at 9:54 PM
Subject: Re: NDT (Non Destructive Testing) Add On Course Syllabus for Mech Engg
To: Gururaj Sattigeri <grs@klsvidit.edu.in>
Cc: <shivaraddi@dsapex.com>, <shrikantu@microlfinishgroup.com>

Respected sir

This is very informative
And basic knowledge for the students

We carry out all these test from third party in our industry as pre
Our process requirement

Thanks & Regards

Kshirsagar



R. N. Patil
G. R. Sattigeri

Dr. Kshirsagar
Academics

[Signature]
HOD
Mechanical Engineering
KLS Vishwanathrao Deshpande
Institute of Technology
Haliyal-581124
KLS Vishwanathrao Deshpande
Mechanical Engineering
HOD

[Signature]
Principal
KLS Vishwanathrao Deshpande
Institute of Technology, Haliyal

4/26, 9:41 AM

Fwd: NDT (Non Destructive Testing) Add On Course Syllabus for Mech Engg - rnp@klsvidit.edu.in - Vishwanthrao Deshpande I...

Fwd: NDT (Non Destructive Testing) Add On Course Syllabus for Mech Engg Inbox



Gururaj Sattigeri

to me

9:36 AM (4 minutes ago)

----- Forwarded message -----


From: Shrikant Nayak <shrikantn@microfinishgroup.com>


Date: Thu, Jan 8, 2026 at 9:23 AM

Subject: NDT (Non Destructive Testing) Add On Course Syllabus for Mech Engg

To: Gururaj Sattigeri <grs@klsvidit.edu.in>, shivaraddi@dsapex.com <shivaraddi@dsapex.com>, sagarsureshddi@gmail.com <sagarsureshddi@gmail.com>

Dear Gururaj sir,
Very good initiative.
My comments;


R. N. Patil


(Dean Academics)


Mechanical Engineering
KLS Vishwanathrao Deshpande
Institute of Technology
Haliyal-581329


G. R. Sattigeri



COURSE PLAN

Year: 2025-26

Semester: I

Course Title	Non Destructive Testing and Industrial Inspection	Course Code	
Total Teaching Hours	30	Teaching hours/week	02
CIA: 30	SEE	Prerequisites	Basic knowledge of materials, welding processes, and manufacturing technology
Course Plan prepared by	Prof. G.R. Sattigeri	Approved by	Prof. R.N.Patil

Course Outcomes

- CO 1. Understand principles and classification of major NDT methods.
- CO 2. Perform basic NDT and inspection procedures.
- CO 3. Interpret inspection results and prepare technical reports.
- CO 4. Gain industry-relevant skills aligned with inspection and QA/QC roles.

CO's And PO's Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO2
1	3	2					2					1		
2	3	3					2					1		
3	3	2					2					1		
4	3	3					2					1		

Text /Reference Books

- T1. Baldev Raj, T. Jayakumar & M. Thavasimuthu, *Practical Non-Destructive Testing*, Narosa Publishing.
- T2. Ravi Prakash, *Non-Destructive Testing Techniques*, New Age International.
- R1. ASNT Handbook, Vol. 1-5.
- R2. Rajendra Prasad, *Welding Engineering and Technology*, Khanna Publishers.

Module-wise schedule or planning / blooms taxonomy levels / CO-PO mapped

Module 1: T1,R1	Module 2: T1,R2	Module 3: T2,R2
-----------------	-----------------	-----------------

Syllabus for the Internal Assessment Tests (Tentative)

Gate Tutor Test-I: Module 1, Module 2(1/2)	Gat Tutore Test-II: Module 2(1/2), Module 3
Test pattern	<ul style="list-style-type: none"> • Questions will be set in Google Tutor according to above syllabus and students should write for 10 Marks in 30min.and all IA's are compulsory.

R.N.Patil

G.R. Sattigeri

JPL