

# **Thesis Title**

**A DISSERTATION  
SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF DEGREE  
OF**

**DOCTOR OF PHILOSOPHY  
IN  
COMPUTER SCIENCE AND ENGINEERING**

SUBMITTED BY

**Your Name  
(Enrollment No. 22MXXXXXX)**



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
SCHOOL OF ENGINEERING  
SIR PADAMPAT SINGHANIA UNIVERSITY  
UDAIPUR 313601, INDIA

MAY, 2024

# Thesis Title of the PhD Degree

*a Dissertation*

*Submitted in partial fulfillment of the requirements  
for the award of the degree of*

## **DOCTOR OF PHILOSOPHY** in **Computer Science & Engineering**

submitted by

**Your Name**  
**(Enrollment No. 22MXXXXXX)**

*Under the guidance of*

**Dr. Supervisor Name**  
(Major Supervisor)

*and*

**Dr. Supervisor Name**  
(Co-Supervisor)



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
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MAY, 2024

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Department of Computer Science & Engineering  
Sir Padampat Singhania University  
Udaipur, 313601, India

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## CERTIFICATE

I, **Your Name**, hereby declare that the work presented in this dissertation entitled “**Thesis Title**” in partial fulfilment of the requirements for the award of the Degree of **DOCTOR OF PHILOSOPHY** in **Computer Science and Engineering** and submitted in the **Department of Computer Science and Engineering** of the **Sir Padampat Singhania University, Udaipur** is an authentic record of my own work carried out during a period from **month and year** to **month and year** under the supervision of **Dr. Supervisor, Designation**, and **Dr. Supervisor, Designation, Computer science and Engineering Department**. The work presented in this dissertation has not been submitted by me for the award of any other degree of this or any other Institute/University.

**Your Name**  
(Enrollment No.)

This is to certify that the above statement made by the candidate is true to the best of my knowledge and belief.

**Dr. Professor Name**  
**Designation**  
**Co-Supervisor**

**Dr. Professor Name**  
**Designation**  
**Major Supervisor**

**Place: Udaipur**  
**Date:**

The Ph.D. Viva-Voce Examination of your name, Research Scholar, has been held on .....

**Name and Signature of Examiner**  
**Date:** .

# Acknowledgements

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**Your Name**

# Abstract

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# List of Abbreviations

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AC	Alternating Current
DC	Direct Current
EMF	Electromotive Force
HV	High Voltage
GAS	Global Asymptotic Stability
DG	Distributed Generation
MPC	Model Predictive Control

# *Chapter 1*

## **Introduction**

### **1.1 Section Heading**

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### 1.1.1 Subsection Heading



**Figure 1.1:** Department of Computer Science and Engineering

1. Line 1
2. Line 2

3. Line 3

## **1.2 Problem Statement & Objectives**

### **1.2.1 Problem Statement**

### **1.2.2 Objectives**

In order to achieve this aim the following objectives have been laid,

- (i) Objective 1
- (ii) Objective 2
- (iii) Objective 3
- (iv) Objective 4

## **1.3 Structure of the Dissertation**

The work carried out in this dissertation has been organized into five chapters and an overview of these chapters is given below,

**Chapter 1: Introduction** gives a brief summary of chapter.

**Chapter 2: Literature Review** centres on a comprehensive review of the literature related to the topic.

**Chapter 3: Methodology** adopted describes the methodology used to solve the problem.

**Chapter 4: Results & Discussions** chapter concentrates on the findings and simulation results.

**Chapter 5: Conclusions & Future Scopes** presents a comprehensive summary of the results obtained, along with suggestions for advancing this work.

## *Chapter 2*

### **Literature Review**

## 2.1 Section

### 2.1.1 Subsec

## 2.2 Table

**Table 2.1:** Table

<b>Methods</b>	<b>Limitations</b>
Method 1	<ul style="list-style-type: none"><li>• More time-consuming than other methods.</li><li>• Results suffer from subjective judgments of the inspector.</li></ul>
Method 2	<ul style="list-style-type: none"><li>• Sensitive to the shape and size of the structure.</li><li>• Needs highly careful attention during the test.</li><li>• Limited to testing distance and the number of surfaces.</li></ul>
Method 3	<ul style="list-style-type: none"><li>• Impossible to test on structures that are out of the scanner's line of sight.</li><li>• Implementation cost is high.</li><li>• Sensitive to the environment for setting up of equipment.</li></ul>
Method 4	<ul style="list-style-type: none"><li>• Requires certain safety parameters due to hazardous ionising radiation.</li><li>• Two-sided access to the structure is needed.</li><li>• Relatively expensive testing equipment.</li></ul>
Method 5	<ul style="list-style-type: none"><li>• Sensitive to environment noises and illuminated conditions.</li></ul>

## *Chapter 3*

### **Methodology Adopted**

#### **3.1 Equation**

$$(a + b)^2 = (a)^2 + (b)^2 \tag{3.1.1}$$

where,  $a$ , and  $b$  are the variables.



## *Chapter 4*

### **Results and Discussion**

## *Chapter 5*

# **Conclusions and Future Scope**

## **5.1 Conclusions**

## **5.2 Future Scope**

- (i) More detailed high-resolution thermal images can be implemented for better enhancement of important features.
- (ii) Other updated deep-learning algorithms can be implemented for better flaws identification.
- (iii) For improvement of the performance of the fusion algorithm with optimization techniques, other optimizers can be utilized.

# List of Publications

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## **International Conferences:**

[1]

[2]

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[1]

## **International Journals: (Submitted)**

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