



Parthivnath Charitable Trusts
A. P. SHAH INSTITUTE OF TECHNOLOGY
(Approved by AICTE New Delhi & Govt. of Maharashtra, Affiliated to University of Mumbai)
(Religious Jain Minority)



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
(ARTIFICIAL INTELLIGENCE & MACHINE LEARNING)**

Academic Year: 2024 - 2025

Class: SE - B

Sem: IV

Project Title: Bone Injury Detection using Machine Learning

Team Member 1: (Team Leader)

Name: Harsh. Mandar. Raulgaonkar

College ID: 23106082 Email: 23106082@apsit.edu.in

Mobile No: 7045251676

Team Member 2:

Name: Roshan. Rajdhari. Pal

College ID: 23106111 Email: 23106111@apsit.edu.in

Mobile No: 8355948204

Team Member 3:

Name: Sanidhya Pawankumar Pandey

College ID: 23106005 Email: 23106005@apsit.edu.in

Mobile No: 9820789513

Team Member 4:

Name: Soham. Shelatkar

College ID: 23106023 Email: 23106023@apsit.edu.in

Mobile No: 9930538555

Prof. Vijesh Mundokalam

Project Guide

Prof. Taruna Sharma

Mini- Project Coordinator

Dr. Jaya Gupta

Head of Department



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
(ARTIFICIAL INTELLIGENCE & MACHINE LEARNING)**

Academic Year: 2024 - 2025

Class: S.E

Sem: IV

Date: From 13/01/25 to 27/01/25

| Progress Planned | Progress Achieved |
|---|--|
| understand bone injury diagnosis challenges | developed understanding of ML in health-care |
| Explore ML and CNN concepts | Finalized project aim |
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Guides Review: _____

Signature

Name and Signature of Team Member 1: Harsh Raulgaonkar

Name and Signature of Team Member 2: Roshan Pal

Name and Signature of Team Member 3: Sanidhya Pandey

Name and Signature of Team Member 4: Soham Shelatkar

Name of Project guide: Vijesh Mundokalam

Signature of guide with Date: _____



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Academic Year: 2024 - 2025

Class: S.E

Sem: IV

Date: From 27/01/25 to 31/01/25

| Progress Planned | Progress Achieved |
|--|--|
| Research history of bone imaging and diagnosis | studied evolution from manual X-ray interpretation AI-driven methods |
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Guides Review: _____

Signature

Name and Signature of Team Member 1: Harsh Rautgaonkar

Name and Signature of Team Member 2: Roshan Pal

Name and Signature of Team Member 3: Sanidhya Pandey

Name and Signature of Team Member 4: Sonam Shelatkar

Name of Project guide: Vijesh Mundokalam

Signature of guide with Date: _____



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Academic Year: 2024 - 2025

Class: S.E.

Sem: IV

Date: From 31/01/25 to 05/02/25

| Progress Planned | Progress Achieved |
|--|---|
| Review recent research papers on AI in fracture detection. | summarized 5 key papers, model types, challenges like data imbalance. |
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Academic Year: 2024 - 2025

Class: SE

Sem: IV

Date: From 05/02/25 to 12/02/25

| Progress Planned | Progress Achieved |
|---|---|
| Draft problem statement and AI-based solutions. | Identified diagnosis errors, delays, expert shortages; proposed CNN solution. |
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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
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Academic Year: 2024 - 2025

Class: S.E

Sem: IV

Date: From 12/02/25 to 19/02/25

| Progress Planned | Progress Achieved |
|--|---|
| Finalize hardware requirements for model training. | specified development setup (CPU, GPU, RAM, SSD, internet). |
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Name and Signature of Team Member 4: sonam shelatkar

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Academic Year: 2024 - 2025

Class: S.E

Sem: IV

Date: From 19/02/25 to 26/02/25

| Progress Planned | Progress Achieved |
|---|---|
| Select software tools and ML frameworks | choose python, Tensor Flow / keras, opencv, google colab. |
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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
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Academic Year: 2024 - 2025

Class: S.E

Sem: IV

Date: From 26/02/25 to 05/03/25

| Progress Planned | Progress Achieved |
|--|--|
| Design CNN-based architecture and system flow. | created block diagram and explain CNN layers for classification. |
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Name and Signature of Team Member 2: Roshan Pal Roshan

Name and Signature of Team Member 3: Sanidhya Pandey Sanid

Name and Signature of Team Member 4: Soham Shelatkar Sam

Name of Project guide: Vijesh Mundokalam

Signature of guide with Date: _____



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Academic Year: 2024 - 2025

Class: S.F

Sem: IV

Date: From 05/03/25 to 12/03/25

| Progress Planned | Progress Achieved |
|---|--|
| collect dataset and perform preprocessing | Gathered datasets, applied contrast enhancement, augmentation. |
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Name and Signature of Team Member 3: Sanidhya Pandey

Name and Signature of Team Member 4: soham shelatkar

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Academic Year: 2024 - 2025

Class: S.E.

Sem: IV

Date: From 12/03/25 to 02/04/25

| Progress Planned | Progress Achieved |
|---------------------------|---|
| Train and validate model. | Achieved ~80-92% accuracy; visualized performance graphs. |
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Name and Signature of Team Member 2: Roshan Poo

Roshan

Name and Signature of Team Member 3: Sanidhya Pandey

Sanidhya

Name and Signature of Team Member 4: Soham Shelatkar

Soham

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Academic Year: 2024 - 2025

Class: S.E

Sem: IV

Date: From 02/04/25 to 08/04/25

| Progress Planned | Progress Achieved |
|-----------------------------------|---|
| Develop GUI for user interaction. | Mode GUI for uploading x-rays and showing fracture detection. |
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