Bansilal Ramnath Agarwal Charitable Trust's

VISHWKARMA INSTITUTE OF INFORMATION TECHNOLOGY, PUNE

DEPARTMENT OF COMPUTER ENGINEERING

**PROJECT SYNOPSIS**

**1. Group Id**

SY-COMP/ A-11

**2. STUDENT: -**

1) Mayur Gotmare-221040

2) Rohan Goregoankar-221038

3) Amit Gawande-221034

4)Aniruddha Gayake - 221035

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**3. Project Title**

Knight’s Travails

**4. Internal Guide**

Mrs. Snehal Rathi

Mrs. Disha Wankhede

**5. Sponsorship and External Guide**

**6. Technical Keywords (As per ACM Keywords)**

1. Binary Search Trees
2. Breadth First Search
3. Depth First Search

**7. Problem Statement**

Task is to build a function knight\_moves that shows the simplest possible way to get from one square to another by outputting all squares the knight will stop on along the way.

**8. Abstract**

A knight in chess can move to any square on the standard 8x8 chess board from any other square on the board, given enough turns . Its basic move is two steps forward and one step to the side. It can face any direction.

Put together a script that creates a game board and a knight . Treat all possible moves the knight could make as children in a tree. Don’t allow any moves to go off the board.Decide which search algorithm is best to use for this case. Hint: one of them could be a potentially infinite series . Use the chosen search algorithm to find the shortest path between the starting square (or node) and the ending square.

**9. Goals and Objectives**

The main objective of this project is to build a function knight\_moves that shows the simplest possible way to get from one square to another by outputting all squares the knight will stop on along the way.