**NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY**

**ARTIFICIAL INTELLIGENCE**

**OEL**

**Batch:2022**

**REPORT**

**Group Members:**

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**Submitted To:**

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**PROJECT DESCRIPTION**:

The project uses a Genetic Algorithm to solve equations of any degree, to provide a strong solution toward getting roots or approximate solutions for complex mathematical problems. Analytical or numerical methods often have considerable problems in the solution of degrees that are higher or non-linear since they use a high amount of computation or tend to diverge. This genetic algorithm uses evolutionary principles inspired from natural selection effectively to overcome these problems.

The algorithm encodes potential solutions as chromosomes and iteratively evolves through such operations as selection, crossover, and mutation. In order to find the optimal or nearly optimal solution, a well-defined fitness function is developed. The adaptability of this algorithm and the simplicity allow it to be scalable to solve equations of different characteristics within computational problem-solving.

This project demonstrates the power of GAs in solving non-linear optimization problems and makes visible their potential applications in mathematics, engineering, and other fields.

**ALGORITHM: #** idhar code ajayega sara

**CHROMOSOME:**

**FITNESS FUNCTION:**

**CHROMOSOME SELECTION TECHNIQUES:**

**CROSSOVER:**

**MUTATION:**