**JAYPEE INSTITUE OF INFORMATION TECHNOLOGY**

**SECTOR-62, NOIDA**



**MINOR PROJECT (PROJECT SYNOPSIS)**

**OUTCOME MAPPING AUTOMATION TOOL**

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**MOTIVATION BEHIND THE PROJECT**

**CHALLENGES OF MANUAL CO-PO MAPPING:**

1. **Time-consuming and Laborious:**

Manually mapping course outcomes (COs) to program outcomes (POs) is a tedious and time-consuming process for faculty, often taking away from their core teaching and research activities.

1. **Inconsistent Application:**

Manual mapping can lead to inconsistencies in how COs are aligned with POs, hindering the effectiveness of program evaluation and improvement.

1. **Data Inaccuracy:**

Manual data entry is prone to errors, which can compromise the accuracy and reliability of assessment data.

**MOTIVATION IN INDIA:**

The Indian educational landscape emphasizes Outcome-Based Education (OBE) framework mandated by accreditation bodies like the National Board of Accreditation (NBA). This framework necessitates CO-PO mapping, making automation increasingly relevant to ensure efficient and reliable implementation.

Additionally, many institutions, particularly Tier-1 universities and those seeking accreditation, are actively adopting automated CO-PO mapping solutions to streamline their assessment processes.

**BENEFITS OF AUTOMATED CO-PO MAPPING:**

1. Reduced Faculty Workload
2. Improved Consistency
3. Enhanced Data Accuracy
4. Continuous Improvement

**ABSTRACT**

This project proposes the development of an automated CO-PO mapping system for professors in the Jaypee Institute of Information Technology.

The system aims to minimize manual effort by requiring only two inputs:

1. Student marks for each exam
2. Course outcomes of the subject

Utilizing this data, the system will automatically map COs to POs, providing professors with valuable insights into student learning and program effectiveness.

This will enhance efficiency, objectivity, and data-driven decision-making in OBE implementation for the university.

**INTRODUCTION**

Outcome-based education (OBE) has become a critical framework in higher education, focusing on student learning outcomes rather than just curriculum content. Mapping course outcomes (COs) to program outcomes (POs) is an essential element of OBE, allowing institutions to demonstrate how their programs equip students with the necessary knowledge and skills. However, traditional CO-PO mapping methods are often manual, time-consuming, and subjective, hindering the effectiveness of OBE implementation.

This project addresses these challenges by proposing the development of an automated CO-PO mapping system. This system will streamline the mapping process by requiring minimal input from professors and utilizing data-driven algorithms to objectively map COs to POs.

**LITERATURE REVIEW**

**PROBLEM STATEMENT**

**PROBLEM**:

Manually mapping course outcomes (COs) to program outcomes (POs) is a time-consuming, error-prone, and inefficient process for faculty, hindering valuable data analysis and program improvement.

**SOLUTION**:

This project proposes an automated CO-PO mapping system that:

* Reduces workload for faculty by requiring minimal data input (student exam scores and course outcomes).
* Improves accuracy by minimizing human error.

**WORK-FLOW**

