**Asansol Engineering College**

**Department of Computer Science and Engineering**

**Project Proposal for 7th Semester students of 2022-2026 Batch**

**ODD 2025**

**Name of Project Supervisor:**

**Project Proposal: 01**

**Title:** StayPoint: Intelligent Room Locating System with Real-Time Availability and ML-Based Recommendation

**Project Description:** In Tier 2 and Tier 3 cities, students often struggle to find suitable Paying Guest (PG) accommodations due to the lack of structured, reliable, and up-to-date online listings. With limited hostel capacities and outdated or insufficient data on existing platforms, students are forced to rely on word of mouth or physically visit multiple PGs, leading to a time-consuming and frustrating experience. To solve this problem, we will develop **StayPoint**—an intelligent and scalable web and mobile application that centralizes verified, real-time PG data collected directly from local sources. The platform will offer advanced search and filter functionalities, real-time room availability status, and Google Maps-based location listings to simplify the accommodation search process. A key highlight of StayPoint will be its **machine learning-powered recommendation engine**, which will analyse user preferences such as budget, amenities, location, and room type to deliver highly personalized PG suggestions—making the entire process smarter, faster, and more efficient.

**Prerequisite Knowledge Needed: 1)** Basics of frontend and UI design. 2) Understanding of backend development using Java, Spring Boot, and REST APIs. 3) Familiarity with databases (MySQL) and version control tools like GitHub. 4) Fundamental knowledge of machine learning with Python and scikit-learn.

**Project Proposal: 02**

**Title:**

**Project Description:**

**Prerequisite Knowledge Needed:**

**Project Proposal: 03**

**Title:**

**Project Description:**

**Prerequisite Knowledge Needed:**

**Project Proposal: 04**

**Title:**

**Project Description:**

**Prerequisite Knowledge Needed:**

**Project Proposal: 05**

**Title:**

**Project Description:**

**Prerequisite Knowledge Needed:**