

## **ABSTRACT**

### **DESIGN AND DEVELOPMENT OF A BOARDING HOUSE ROOM RESERVATION INFORMATION SYSTEM USING THE EXTREME PROGRAMMING METHOD (Case Study: D'KOST PURWOKERTO)**

Oleh  
Farhan Adhyasta  
20102114

*This study aims to design and develop a website for a dormitory room booking information system using the Extreme Programming (XP) methodology for D'KOST dormitories in Purwokerto. Based on observations and interviews conducted, it is known that D'KOST dormitories currently face several issues including low occupancy rates, face-to-face payment requirements, manual bookkeeping, and the absence of a system to display facilities and room availability statuses. Extreme Programming was chosen due to its flexibility in adapting to changes, involving stages such as planning, design, coding, and testing. The research involves observation and interviews to identify the problems, a literature review to establish theoretical foundations, UML design, coding based on the UML design, and testing using blackbox testing and the System Usability Scale (SUS) to ensure the website's performance. The results indicate that this room booking website can be a solution to the current issues faced by D'KOST dormitories. Blackbox testing showed a success rate of 100%, while the System Usability Scale (SUS) provided an average score of 94. This score indicates that the website is highly rated for usability and effectively meets user needs.*

**Keywords:** *Blackbox testing, D'KOST, Extreme programming, UML, Website.*