

# Streamlining Physics Laboratory Management: An Information System Solution

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**Abstract:** *This study investigates the potential of information system solutions to streamline the management of physics laboratories in educational institutions. With the aim of enhancing operational efficiency, resource utilization, and overall student experience, the study adopts the Rapid Application Development (RAD) methodology and leverages Object-Oriented Analysis and Design (OOAD) principles. Common challenges in laboratory management, including resource allocation, communication, safety compliance, and data management, are addressed through the development of an integrated information system. Tests data and user feedback demonstrate the system's effectiveness in optimizing laboratory operations and enhancing user engagement. The study contributes insights into the benefits of technology-driven solutions in educational settings and highlights the importance of user-centric design and safety integration. The successful application of RAD and OOAD methodologies underscores the potential for streamlined educational processes and administrative efficiency in modern learning environments.*

**Keywords:** Physics Laboratory Management, Information System, Streamlining

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