COLLEGE OF COMMERCE SCIENCE AND
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Research Work - II Synopsis

On

"AI-Driven Smart Ticketing Systems in Metro"

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Research Problem

- **Lack of Public Awareness and Trust:**
  Many passengers are unfamiliar with how facial recognition technology works, leading to skepticism and mistrust. The absence of clear communication, public engagement, and transparency in system operations results in resistance to adoption.

- **Limited Accessibility and User Choice:**
  The implementation of facial recognition as a primary ticketing method may alienate passengers who are uncomfortable or unwilling to use facial authentication. Without alternative ticketing options, such as NFC cards, QR codes, or mobile apps, some passengers may feel excluded from the system.

Objectives

- Educate passengers on how facial recognition works and address common misconceptions.
- Provide clear, transparent policies on data collection, storage, and security.
- Implement strict data protection protocols, including encryption and compliance with privacy laws
- Minimize data retention by using temporary or decentralized storage methods.
- Develop multiple ticketing options (e.g QR codes, mobile apps) to accommodate all passengers.

Methodologies:

- **Literature Review :** Reviews how facial, Biometric recognition technology has evolved and its integration into ticketing systems. Includes accuracy rates, privacy issues, and use cases in various industries.
- **Interviews and Surveys :** Summarize insights from interviews with passengers about their experiences using AI-driven ticketing systems, focusing on ease of use, perceived benefits, and any issues encountered.
- **Data Collection :** Gather data on system performance, such as processing times, error rates, and throughput from smart ticketing systems using facial recognition, biometrics, and mobile technologies.
- **Case Study Analysis :** Identify common factors that contributed to successful implementations across different case studies, such as technology integration, user acceptance, and operational support.

Expected Outcome

- Alternative ticketing options (e.g, QR codes, mobile apps) allow passengers to choose their preferred method.
- Reduction in resistance as users become familiar with the technology through awareness campaigns.
- Faster and more seamless ticketing experience, reducing congestion and improving efficiency in metro systems.