

TUGAS AKHIR
DEVELOPMENT OF SMART SCHOOL MOBILE APPLICATION



Disusun sebagai salah satu syarat menyelesaikan pendidikan pada
Jurusan Manajemen Informatika
Program Studi Sarjana Terapan Manajemen Informatika

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PALEMBANG
2025



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It has been tested on the Final Project Exam, 5 June 2025
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ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest gratitude to my supervisor, Madam Nor Takrim binti Ibrahim, for her invaluable guidance, unwavering support, and constructive feedback throughout the course of my thesis. Her encouragement and expertise have been instrumental in shaping this research.

I would also like to sincerely thank my evaluators, Mr. Dr. Jamal, for their insightful comments, critical evaluation, and valuable suggestions that greatly enhanced the quality of this work.

My heartfelt appreciation goes to my beloved parents, Refiko Juliandri and Indah Thalina, whose prayers, unconditional love, and continuous support have been the driving force behind my academic journey.

To someone whose presence is no less important, Sholekhah Tulus Suciati, thank you very much for being part of the author's life journey. You have contributed greatly to the writing of this work, both in terms of energy and time. You have always been supportive, encouraging, listening to complaints, and witnessing the writing process of this work so that the author could complete this final assignment.

To all my fellow students who have walked this path with me, your friendship, encouragement, and shared struggles have made this journey more meaningful and unforgettable. Thank you for being part of this experience.

I am truly grateful to everyone who, in their own way, has contributed to the completion of this thesis. Your support means more than words can express.

Lastly I would like to thanks to all lecturers and members of the staff of the Faculty of Information Sciences and Engineering, who helped me in many ways and made my education journey at MSU unforgettable.

ABSTRACT

DEVELOPMENT OF SMART SCHOOL MOBILE APPLICATION

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June 2025

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The development of digital technology has driven significant transformation in the education sector, particularly through the implementation of smart applications that integrate learning, administration, and communication functions into a single integrated platform. This study aims to develop a Smart School mobile application designed to improve school management efficiency, strengthen interactions among stakeholders (students, teachers, parents, and administrators), and support more personalized and adaptive learning. Using Agile methodology and a mixed-method approach in research, the application is designed with key features such as interactive quiz-based individual assessments, automatic attendance tracking, digital payment management, and a centralized notification system. User needs analysis results indicate the need for a system that is easy to use, secure, and widely accessible to all stakeholders. As such, this application is expected to address the limitations of traditional education systems and create an efficient, inclusive, and sustainable education ecosystem in the digital age.

Keywords: Smart School, Mobile Application, Adaptive Learning, School Management, Centralized Communication.

ABSTRAK

DEVELOPMENT OF SMART SCHOOL MOBILE APPLICATION

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Juni 2025

Fakulti: Sains Maklumat dan Kejuruteraan

Perkembangan teknologi digital telah mendorong transformasi signifikan di sektor pendidikan, terutama melalui implementasi aplikasi cerdas yang mengintegrasikan fungsi pembelajaran, administrasi, dan komunikasi ke dalam satu platform terintegrasi. Studi ini bertujuan untuk mengembangkan aplikasi seluler *Smart School* yang dirancang untuk meningkatkan efisiensi manajemen sekolah, memperkuat interaksi antar pemangku kepentingan (siswa, guru, orang tua, dan administrator), serta mendukung pembelajaran yang lebih personal dan adaptif. Menggunakan metodologi *Agile* dan pendekatan campuran dalam penelitian, aplikasi ini dirancang dengan fitur-fitur utama seperti penilaian individu berbasis kuis interaktif, pelacakan kehadiran otomatis, manajemen pembayaran digital, dan sistem pemberitahuan terpusat. Hasil analisis kebutuhan pengguna menunjukkan kebutuhan akan sistem yang mudah digunakan, aman, dan dapat diakses secara luas oleh semua pemangku kepentingan. Oleh karena itu, aplikasi ini diharapkan dapat mengatasi keterbatasan sistem pendidikan tradisional dan menciptakan ekosistem pendidikan yang efisien, inklusif, dan berkelanjutan di era digital.

Kata kunci: Sekolah Cerdas, Aplikasi Seluler, Pembelajaran Adaptif, Manajemen Sekolah, Komunikasi Terpusat.

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