# ABSTRACT

Fanny Anggraini/ 50150479/ 2019/ M-Library Application Design with Android-Based React Native Framework in the Library of the Institute of Business and Informatics Kwik Kian Gie/ Advisor : Budi Berlinton Sitorus, S. T., M. Sc.

The purpose of this study is to design an Android-based library application that has a book reservation feature, book loan extension, can display details of the total fine, and also displays the deadline for returning books borrowed, in order to help facilitate students of the Business and Informatics Institute Kwik Kian Gie (IBIKKG) in borrowing books, extending book loans, and looking at the deadline for returning books.

Platform and the main theory that used by author is Android. Furthermore, authors also study React-Native framework as basic framework for making these applications.

This research was conducted with qualitative, quantitative, and Personal Extreme Programming (PXP) methods. Data collection was carried out by direct observation, questionnaires and structured interviews with those who knew about the library system at the Kwik Kian Gie Institute of Business and Informatics. In addition, there are also literature studies from books, journals, and ebooks that can be a reference about the library.

The design of the system created will include system architecture, flowcharts, and UML diagrams to better illustrate the program. The results obtained will also be in the form of a library application with a reservation feature, an online extension, as well as detailed information on borrowed books.

From the results of the study, it was concluded that the Android-based library application made with the book reservation feature, book lending extension, can display details of the total fine, and also display the deadline for returning books borrowed can facilitate students in making loans and book extensions.

**Keywords**: Android, React Native, m-library.