

# **CLUSTERING WITH THE K-MEANS METHOD FOR MATCHMAKING IN MOBILE LEGENDS ONLINE GAMES**

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## ***ABSTRACT***

*This study analyzes the balance of matchmaking of players in the most popular online game application today, namely Mobile Legends, this game application is an MMOPRG (Massively Multiplayer Online Role Playing Game) genre game. In this game application the majority of winners are experienced players or players who already understand the way to play. the game, on the other hand, the opportunity for new players to gain experience are low, that's why a system is needed to balancing the composition of players in a team so that one match session obtains equality of ability between teams and provides a more pleasant experience for new players by using the k-means method by choosing a cluster randomly from a set of data populations. Each component is tested in the data population and moves the component to one of the cluster centers. This study are studying or processing the payer profie using the k-means method. Hopefully from this research, a balanced team composition will be obtained when the match starts, so that the experience for new players and experienced players is better.*

**Keywords :** *Clustering, Game, K-means Algorithm, Matchmaking, Multiplayer Online Battle Arena*