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**Universiti Teknologi MARA**

**Model for Football Player's Market  
Values by Using Artificial Neural  
Network**

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**Thesis submitted in fulfillment of the requirements  
for Bachelor of Computer Science (Hons.)  
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## **SUPERVISOR APPROVAL**

### **MODEL FOR FOOTBALL PLAYER'S MARKET VALUES BY USING ARTIFICIAL NEURAL NETWORK**

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This thesis was prepared under the supervision of the project supervisor, Ms. Nurazian Binti Mior Dahalan. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Computer Science.

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JANUARY 3, 2020

## **STUDENT DECLARATION**

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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## ABSTRACT

This project is about building football player's market value models by using data mining technique ANN with artificial intelligence approach. Nowadays, football player's market value has become an issue among football agents and player themselves since the gap of the market values is getting higher from popular players to the players who plays in minor football leagues. The data is collected from several internet sources, which are WhoScored.com and transfermrkt.com. The data is then cleaned and prepared by using Jupyter Notebook. The technique that was used to analyze the data is by using the big data approach to measure the correlation of attributes with the target variable i.e. market value. The model will be able to predict the market value for football players by taking user data input. The model performance then measured by using Coefficient of Determination,  $r^2$  for each model. The dataset is then visualized by using Bokeh for Python that embedded in the web-based system. The objectives of this project id fully fulfilled. However, the models could be improved by providing a better dataset so that the models can learn better. By doing this research, it will help people who associated with football transfer such as manager, football agents, and the player themselves to determine the market values for football players playing in the Forward, Midfielder, or Defender position.

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