# PROJECT REPORT

## CAR PRICE PREDICTION USING NEURAL NETWORK AND KNN

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**17.K1.0042**

**Faculty of Computer Science**
**Soegijapranata Catholic University**
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## APPROVAL AND RATIFICATION PAGE

| | | |
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I, the undersigned:

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declare that this work, titled "Car Price Prediction Using Neural Network and kNN", and the work presented in it is my own. I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at Soegijapranata Catholic University
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
3. Where I have consulted the published work of others, this is always clearly attributed.
4. Where I have quoted from the work of others, the source is always given.
5. Except for such quotations, this work is entirely my own work.
6. I have acknowledged all main sources of help.
7. Where the work is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Semarang, 21 Desember 2022


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Fakultas : Ilmu Komputer

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Menyetujui untuk memberikan kepada Universitas Katolik Soegijapranata Semarang Hak Bebas Royalti Nonekslusif atas karya ilmiah yang berjudul "CAR PRICE PREDICTION USING NEURAL NETWORK AND KNN". Dengan Hak Bebas Royalti Nonekslusif ini Universitas Katolik Soegijapranata berhak menyimpan, mengalihkan media/formatkan, mengelola dalam bentuk pangkalan data (database), merawat, dan mempublikasikan tugas akhir ini selama tetap mencantumkan nama saya sebagai penulis / pencipta dan sebagai pemilik Hak Cipta.

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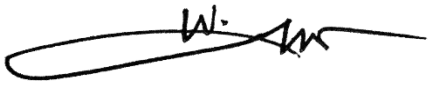

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# ABSTRACT

*The average selling price of new vehicles has increased by around 18% per year over the last ten years. The question of how much a car costs each year has no definitive answer. Car prices can vary depending on the make, model, and year. However, some general trends can be anticipated. Many automakers anticipate an increase in car prices as the cost of raw materials such as steel and aluminum rises. As you can see, many different factors influence the price of a new car. Automobiles are generally more expensive in cities than in rural areas. This can be attributed to the higher costs of maintaining and operating vehicles in cities. The author will use the Orange data mining program using K-Nearest Neighbor and Neural Network algorithms to estimate car prices based on prior exposure. Data from the Kaggle website will be used in this approach. Two techniques will be used to process the data: the first is the K-Nearest Neighbor technique, and the second is the Neural Network technique. Following the completion of the prediction process, it was discovered that the MSE value of the Neural Network model is lower than that of the KNN model. After three trials, this result was reached by comparing the variance between the training data and the testing data. The differences in comparison are 70%–30%, 80%–20%, and 90%–10%. The Neural Network generates the least amount of value out of the three options.*



*Keyword: Neural Network, K- Nearest Neighbor, comparing method, predictions, car price*

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