# Article information:

梯度提升决策树、随机森林和人工神经网络对城市土地利用变化进行建模的比较：以首尔都市圈为例：国际地理信息科学杂志：第 35 卷，第 11 期  
<https://www.tandfonline.com/doi/abs/10.1080/13658816.2021.1887490>

# Article summary:

1. This study compared the performance of Gradient Boosting Decision Trees (GBDT), Artificial Neural Networks (ANN) and Random Forests (RF) in modeling Land Use Change (LUC) in the Seoul Metropolitan Area.

2. Results showed that GBDT and RF had higher predictive power than ANN, indicating that tree-based ensemble methods are an effective LUC prediction technique.

3. The results from GBDT showed that distance to existing residential land was the most important predictor of urban land use change, accounting for 30.4% of relative importance, followed by proximity to industrial and public lands which accounted for 32.3%.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article is a reliable source of information on the comparison between Gradient Boosting Decision Trees (GBDT), Artificial Neural Networks (ANN) and Random Forests (RF) in modeling Land Use Change (LUC) in the Seoul Metropolitan Area. The authors provide a detailed description of their methodology and results, as well as a discussion of their findings. The article is well-written and easy to understand, making it accessible to readers with varying levels of expertise in this field.

The article does not appear to be biased or one-sided; it presents both sides equally and objectively evaluates each method's performance without favoring any particular approach. Furthermore, all claims made are supported by evidence from the study's results, making them trustworthy and reliable.

The only potential issue with this article is that it does not explore any counterarguments or alternative explanations for its findings; however, this is understandable given the scope of the study and its focus on comparing three specific methods rather than exploring broader topics related to LUC modeling.

In conclusion, this article is a reliable source of information on LUC modeling using GBDTs, ANNs and RFs in the Seoul Metropolitan Area; it is well-written, objective, evidence-based and free from promotional content or partiality.

# Topics for further research:

* Land Use Change Modeling
* Gradient Boosting Decision Trees
* Artificial Neural Networks
* Random Forests
* Seoul Metropolitan Area
* Land Use Change Modeling Techniques

# Report location:

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