Package 'ImHD'

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Type Package

Title Artificial Intelligence Based Machine Learning Algorithms for Height Diameter Relationships of Conifer Trees

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Description Estimating height of forest plant is one of the key challenges of recent times. This package will help to fit and validate AI (Artificial Intelligence) based machine learning algorithms for estimation of height of conifer trees based on diameter at breast height as explanatory variable using algorithm of Paul et al. (2022) <doi:10.1371/journal.pone.0270553>..

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Encoding UTF-8

Imports stats, randomForest, e1071, xgboost, ggplot2, reshape2, rpart

RoxygenNote 7.2.1

Depends R (>= 2.10)

NeedsCompilation no

Repository CRAN

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R topics documented:

ImHD *Artificial Intelligence Based Machine Learning Algorithms for Height Diameter Relationships of Conifer Trees*

Description

Artificial Intelligence Based Machine Learning Algorithms for Height Diameter Relationships of Conifer Trees

Usage

```
ImHD(data, splitratio = 0.7)
```

Arguments

data	Datasets
splitratio	Train-Test split ratio

Value

- Prediction: Prediction of all ML models
- Accuracy: Accuracy metrics

References

- Jeelani, M.I., Tabassum, A., Rather, K and Gul,M.2023. Neural Network Modeling of Height Diameter Relationships for Himalayan Pine through Back Propagation Approach. Journal of The Indian Society of Agricultural Statistics. 76(3): 169–178. <doi:10.1002/9781118032985>

Examples

```
library("ImHD")
data <- system.file("extdata", "data_test.csv", package = "ImHD")
data_test <- read.csv(data)
Model<-ImHD(data =data_test)
```

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