Course: CSE-4334-002

Proposal

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<u>Project description:</u>
The purpose of the paper is to perform several statistical analysis methods to gain knowledge and more information regarding the forest fires data set.

<u>Source:</u>
Cortez,Paulo and Morais,Anbal. (2008). Forest Fires. UCI Machine Learning Repository. https://doi.org/10.24432/C5D88D.

<u>Scientific Research Questions:</u>

Additional Variable Information

For more information, read [Cortez and Morais, 2007].
  1. X – x-axis spatial coordinate within the Montesinho park map: 1 to 9
  2. Y – y-axis spatial coordinate within the Montesinho park map: 2 to 9
  3. month – month of the year: 'jan' to 'dec'
  4. day – day of the week: 'mon' to 'sun'
  5. FFMC – FFMC index from the FWI system: 18.7 to 96.20
  6. DMC – DMC index from the FWI system: 1.1 to 291.3
  7. DC – DC index from the FWI system: 7.9 to 860.6
  8. ISI – ISI index from the FWI system: 0.0 to 56.10
  9. temp – temperature in Celsius degrees: 2.2 to 33.30
  10. RH – relative humidity in %: 15.0 to 100
  11. wind – wind speed in km/h: 0.40 to 9.40
  12. rain – outside rain in mm/m2 : 0.0 to 6.4
  13. area – the burned area of the forest (in ha): 0.00 to 1090.84
  (this output variable is very skewed towards 0.0, thus it may make
   sense to model with the logarithm transform).

- Predict the burned area of forest fires, in the northeast region of Portugal, by using variables gathered by meteorological department such as temperature and wind, and indices used by the forest weather index to predict forest fires.
- Using these statistical methods, we can predict the impact of weather and FWI indices on Fire Severity.