Statistical analysis of electric energy production of Romania and consumption forecasting

**Introduction**

**Parameters for statistical Analysis**

Mean

Std

Skew

Kurtosis

range

variation

de facut explicatie / interpretarea la toate

**Results of Statistical Analysis**

(-) la sold inseamna export

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Mean | Std | Skew | Kurtosis | Variation | Range |
| Coal | 1270 | 315.2 | (-)0.231 | 0.103 | 0.248 | 333 - 2168 |
| Hydro | 1853 | 724.3 | 0.661 | 0.101 | 0.390 | 159 - 4200 |
| Oil&Gas | 1150.21 | 431.5 | (-)0.05 | (-)0.877 | 0.375 | 210 - 2068 |
| Nuclear | 1298.89 | 236.54 | (-)2.12 | 2.68 | 0.182 | 626 - 1436 |
| Wind | 764.81 | 672.96 | 0.972 | 0.013 | 0.879 | (-)24/0 - 2756 |
| Solar | 153.671 | 225.67 | 1.304 | 0.366 | 1.468 | (-)3/0 - 839 |
| Biomass | 58.25 | 14.02 | (-)0.345 | (-)0.676 | 0.240 | 19 - 87 |
| Sold | 248.417 | 700.098 | (-)0.248 | (-)0.458 | 2.818 | (-)2073 - 2025 |

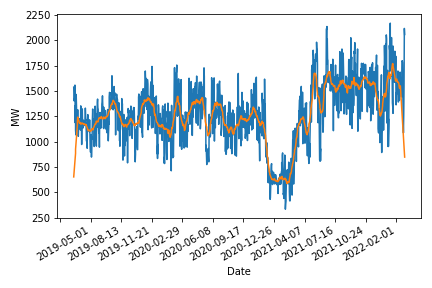
Vezi histograma centrala nucleara functioneaza doar la 700/1400 MW?

Exista caz in care centrala eoliana consuma energie sau e eroare in datele lor?

Panouriile solare sigur nu consuma energie deci as fii inclinat sa spun ca e eroare de la ei la Solar & Wind

**Plots**

seven day running average represented with orange

Chart, histogram

Description automatically generated Fig 1: Coal Fig 2: Hydro

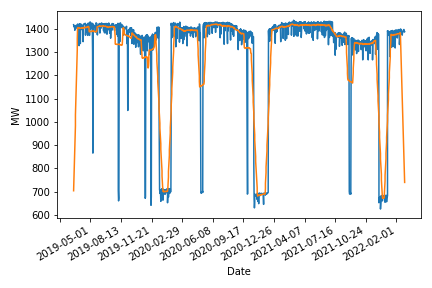
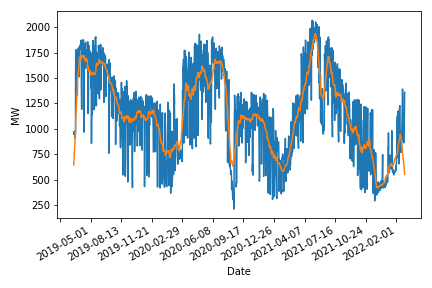


Fig 3: Oil&Gas Fig 4: Nuclear

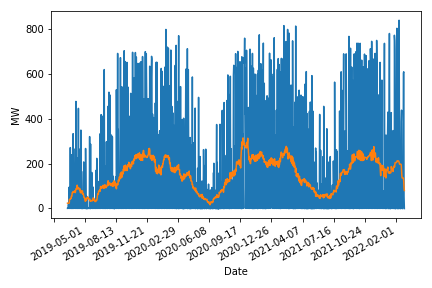
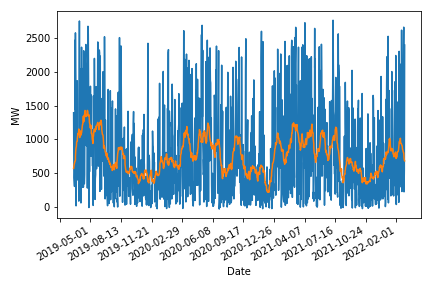


Fig 5: Wind Fig 6: Solar

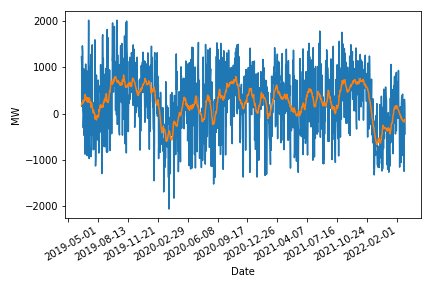
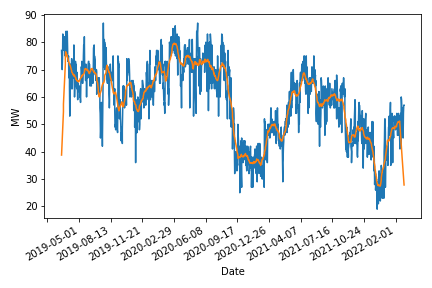


Fig 6: Biomass Fig 8: Sold

**Histograms**

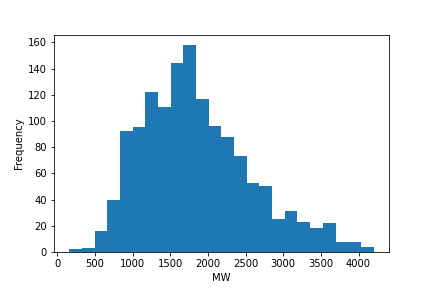
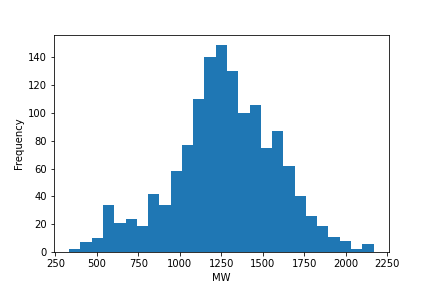
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Fig 9: Coal Fig 10: Hydro

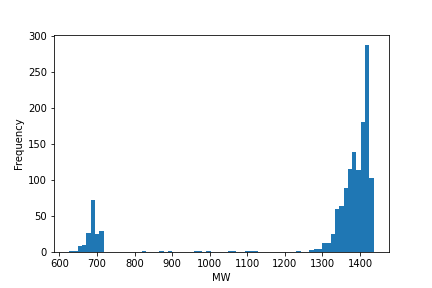
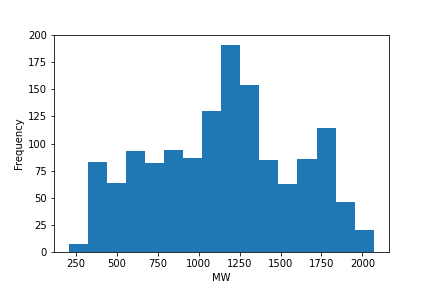


Fig 11: Oil&Gas Fig 12: Nuclear

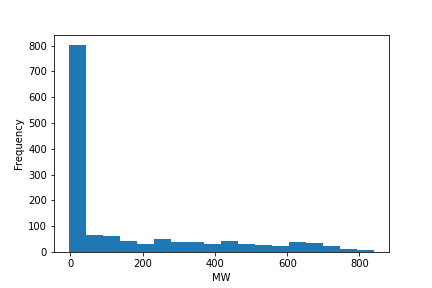
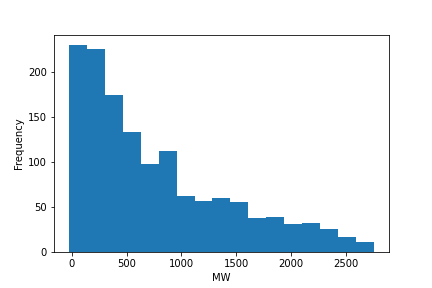


Fig 13: Wind Fig 14: Solar

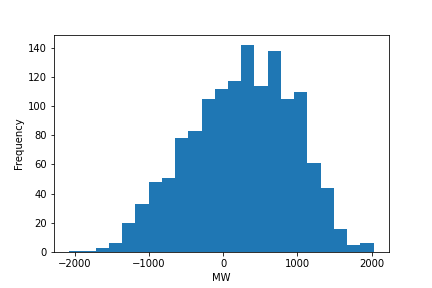
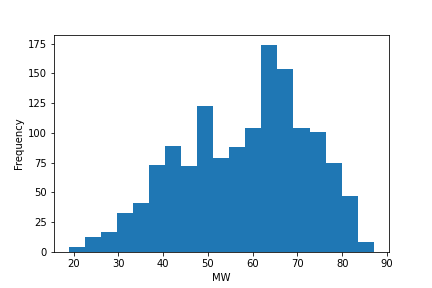


Fig 13: Biomass Fig 14: Sold

**Consumption forecasting method**

**Forecasting Results**

**Conclusions**

**References**

**https://www.sistemulenergetic.ro**