

Fault detection methods for tower sensors

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Abstract—The abstract goes here.

I. INTRODUCTION

Renewable energy source is playing an important role in the global energy mix, as a mean of reducing the impact of energy production on climate change.

Supervisory control and data acquisition (SCADA) is an application that collects data from a system and sends them to a central computer for monitoring and controlling. Current CM systems essentially provide the necessary sensor and capability of data capture required for monitoring A wind turbine (WT) is a machine used for converting the kinetic energy in wind into mechanical energy.

A. Notas bibliografica

Diagnosis and prognosis of the wind turbine based upon SCADA data using a AI based framework [1].

Fault diagnosis techiques for meteorogial masts [2] .

Mathematical methods for SCADA data mining of onshore wind farms: Performance evaluation and wakeanalysis [3].

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[8] Survey of the wind turbine condition monitoring done in 2014 [9].

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Exploration of exisisting wind turbine SCADA data fro development of fault detections and diagnostic technicaques for wind turbine using clustering algorithms and principal components analysis [11].

II. SCADA DATA

III. FAILURE IN THE SENSOR TOWERS

In this section, we are going to describe different existing types of failures in sensor towers. We can classify them in three group

A. Mechanical faults

Mechanicals faults are identify by a mechanical failure in the sensor. For example in the XXX *veleta*, in the anemometers .there is a large variety of mechanical faults

B. Connection faults

Intermittant faults

C. Calibration faults

Faults that changes the measurement all along the scales

IV. SENSOR TOWER DIAGNOSTICS WITH SCADA DATA

V. ALGORITHMS

VI. RATIO

VII. PEARSON CORRELATIONS

VIII. RESULTS AND DISCUSSION

IX. CONCLUSION

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