

# Table of Contents

1. Introduction
  - (a) Background and Motivation
  - (b) Previous Work
  - (c) Contribution and Scope of this Report
  - (d) Organization of this Report
  - (e) Nomenclature and Notation
2. Materials and Methods
  - (a) Key Features of a Wind Turbine
  - (b) Program Overview and Strategy
  - (c) Module Descriptions
    - i. Color Thresholding
    - ii. Canny Edge Detection
    - iii. Dilation Filter
    - iv. Finding Contours
  - (d) Autonomous Parameter Tuning Using Moments
  - (e) Input Samples
  - (f) Output Data
3. Results
  - (a) Image as Input
  - (b) Ill Conditioned Image as Input
  - (c) Video as Input
  - (d) Computation Speed
4. Discussion
  - (a) Applicability of Output Data
  - (b) Causes of Errors
  - (c) Cross-Platform Compatibility
  - (d) Future Work
    - i. Frame to Frame Memory
    - ii. Cross-Referencing Different Methods
5. Conclusion

6. Acknowledgements
7. Literature Cited
8. Appendices
  - (a) C++ Code
  - (b) UML Diagrams?