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Title: Automated Cleaning of Wind Turbine Blades with No Downtime

Abstract: Several factors affect the power generation efficiency of wind energy extracted from wind turbines. One of them is dust accumulation resulting in roughness of the blade surface and resulting in power loss. To overcome this problem, wind turbine blades need to be cleaned frequently. There are some existing techniques of cleaning but not very efficient and economically viable. In this paper, we have analyzed and discussed, an algorithm for fully automated wind turbine blade cleaning system with no downtime and thereby more economically efficient even over the semi-automated blade cleaning solutions available in literature. The proposed solution also does not use water jets unlike other existing solutions.