

to obtain an optimum production plan and an economical maintenance planning should be performed on the wind turbine taking into account the influence of the production rate on the wind turbine failure rate.

REFERENCES

- [1] Byon E., Ntairo L., and Ding Y., (2010) "Optimal maintenance strategies for wind power systems under stochastic weather conditions," IEEE Transactions on Reliability.
- [2] E. Byon and Y. Ding, (2010) "Season-dependent condition-based maintenance for a wind turbine using a partially observed markov decision process" IEEE Transactions on Power Systems
- [3] Chattopadhyay, D. (2004) "Life-cycle maintenance management of generating units in a competitive environment". IEEE Power & Energy Society, vol. 19, Issue 2, pp. 1181 – 1189, May.
- [4] G.V.Bussel, (1999) "The development of an expert system for the determination of availability and O&M costs for offshore wind farms, in Proceedings of the European Wind Energy Conference and Exhibition, Nice, France, pp. 402-405.
- [5] J. Nilsson and L.Bertling, (2007) "Maintenance management of wind power systems using condition monitoring systems-life cycle cost analysis for two case studies," IEEE Transactions on Energy Conversion vol.22,pp.223–229.
- [6] C.Pacot, D. Hasting, and N.Baker,(2003) "Wind farm operation and maintenance management " in proceedings of the PowerGen Conference Asia, Ho Chi Minh City, Vietnam, pp. 25-27.
- [7] H. J. Krokoszinski, (2003) "Efficiency and effectiveness of wind farms-keys to cost optimized operation and maintenance" Renewable Energy, vol. 28, pp. 2165-2178.
- [8] P.J. Tavner,C. Edwards, A. Brinkman, and F. Spinato (2006) " Influence of wind speed on wind turbine reliability", Wind Engineering, vol 30 pp 55-72.
- [9] Andrawus J. A., Watson J., and Kishk M., (2007) "Modelling system failures to optimise wind farms," Wind Engineering, vol. 31, pp. 503–522.
- [10] F. C. Sayas and R. N. Allan, (1996) "Generation availabilityassessment of wind farms," IEE Proceedings Generation, Transmission and Distribution, vol.144, pp.1253–126.
- [11] D.McMillan and G. W.Ault, (2008) "Condition monitoring benefit for onshore wind turbines: sensitivity to operational parameters," IET Renewable Power Generation, vol.2, pp.60–72.
- [12] Hajej Z., Dellagi S., Rezg N., (2011)"Optimal integrated maintenance/production policy for randomly failing systems with variable failure rate" International Journal of Production Research, vol. 49, Issue 19, p5695-5712.
- [13] Van Kuik G. A. M., (2007) "The Lanchester–Betz–Joukowsky limit", Wind Energy, vol. 10, pp. 289–291.
- [14] Patrick Lyounet, (2000)" la maintenance mathématiques et methods", 4ième édition. Page 138, Editions TEC & DOC. Lavoisier, Paris.