



SDI Review Form 1.6

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2012/BJAST/2341
Title of the Manuscript:	CONDITION BASED MAINTENANCE OPTIMIZATION FOR FAULTY GEARBOX UNDER CONTINUOUS NOISE MONITORING.

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	CBM is a very important topic that helps industry to reduce the cost significantly. The article title authors presented is interesting, and a NDT employment experimental system was illustrated for gear condition monitoring. However, the author need to clearly notice the following questions: 1. The paper did not present any important work that was stated in the introduction part, which can highlight the paper and are supposed to be the important aspects. For example: Authors said they proposed the method considering multi-state performance level and multi-component in a system, which do increase the problem complexity and are expected to see the author's advance in the paper, however I didn't see any relevant discussion; They also said they discussed AE and vibration analysis techniques for diagnosis of gear wear but nothing presented in the main part; There are many other issues authors stated that they discussed and presented in the paper, unfortunately I couldn't find them in the main part, e.g. de-noising approach in case of the clouded signal problem, review and comparison of AE, vibration and oil analysis, so on.	The work in this paper concerned only with multi-state performance only. Also, the work performs possible schedule preventive maintenance actions not a propose method. We mention that in the introduction based on the works of Refs [1-2]. It is not our work. We mention in the introduction based on the works of Refs [3]. It is not our work. The new in this work is about the applications of scheduling the preventive maintenance actions which are performed and affect strongly the effective age. The applications consist of create



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	In summary, the paper did not present impressive work but mainly talk about the time-based maintenance optimization in terms of cost and availability respectively, which are not new. 2. Reference Citation The reference was cited with improper time tense or wrong way, which confused the people the author cited the work presented in the reference as their own work in the paper. A typical example is: “Examples using real-world condition monitoring data are provided to demonstrate the proposed methods [8-9]”. 3. Improve the paper writing First, the paper is not organized well. Extensively repeated paragraphs, especially in Introduction part (e.g. The last two paragraphs). In addition, grammar errors, inappropriate punctuations, inconsistent expressions, etc. 4. Wrong equation expressions: Equation (1) does not represent the PHM model; Equation (4) does not make sense, instead it only represents the unit cost considering the maintenance time.	faults, measuring sound pressure level and apply the well known relations which do not used before for real data. By this way, component failure can be estimated in quick and cheap ways by making measurement in few hours (interpolation) and the rest (extrapolation) by analysis in doing measurement until the component fail. The references citation are corrected, see section 1 (Introduction) Corrected The repeated paragraphs are corrected. All grammar errors, inappropriate punctuations, inconsistent expressions are revised and corrected all over the manuscript. O.K. For equation (1), the expression of PHM model is corrected to be "Hazard Rate Model". See pages 4, 5 and 6. Equation (9) is present in Ref. [16] which is replaced by new one for more details, where it is
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		called "EXAKT Cost Model". The correction is shown in Page 8, section 4.1, from lines 11 to 15.
<u>Minor</u> REVISION comments	1. Authors should explain the phrase “the operating time between failure and optimum (hr) saving is worse by 66.87%”, what does it mean “worse” here?	O.K. The word worse is wrong and it is omitted from the text. See Abstract, and Pages 10 and 11
<u>Optional/General</u> comments	The paper did not present actual work that the topic and introduction indicated. Non-specific to be useful.	The paper introduces a new technique by which component failure can be estimated in quick and cheaper ways by making measurement in few hours (interpolation) and the rest (extrapolation) by analysis in doing measurement until the component fail.