Review Form 3

Journal Name:	**Journal of Engineering Research and Reports**
Manuscript Number:	**Ms_JERR_125265**
Title of the Manuscript:	**OPTIMIZATION OF STEAM BOILER AIRFLOW CONTROL SYSTEM IN A TYPICAL OIL REFINERY POWER PLANT**
Type of the Article	**Original Research Article**

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PART 1: Review Comments

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	**This article is very important in the field of speed control of induction motors. These motors can replace the FD Fans in the air-flow control of steam boilers. This manuscript is in my specialist field in electrical engineering.**	
Is the title of the article suitable? (If not please suggest an alternative title)	**Yes**	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	**No, the author must write the optimization method used in this study, and the type of motor control(scalar or vector).**	
Are subsections and structure of the manuscript appropriate?	**Yes, but not enough.**	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	**This manuscript is scientifically robust but technically is not correct.**	
Are the references sufficient and recent? If you have suggestions for additional references, please mention them in the review form. -	**References are not sufficient but recent.**	

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Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	yes	
Optional/General comments	1-There is no algorithm for optimization used in this article. 2-One reference in the introduction section is not enough. 3-The last paragraph in section(2) requires a reference. 4-Figure(1) is blurry. 5- Figure(3) is blurry. All blocks of the proposal in this figure must be explained in detail with specifications. 6-Figure(4) is blurry. All units(blocks) must be specified. 7-The switches of the inverter must be specified. Can the IGBTs operate with 3.3Kv, these switches must be replaced by thyristors. 8-The LC filter is connected before or after the inverter? This filter requires a design. 9- What is the value of the switching frequency of the inverter? 10-All the control system components (rectifier-inverter-filter) require design steps. 11-All equations require references. 12- Can the author manufacture an 80 Henery coil and 7500 Farad capacitance according to the parameters in Table (1)? The size of this capacitance is larger than the volume of a large city? 13-The output voltage of the inverter must be filtered. Figure(8) shows this voltage with expected very high total harmonic distortion(THD), with not acceptable percent according to IEEE Standard. The voltage and current in Figure (8&9) must be zoomed in. 14-From figure(10), the speed of FDF is very low(about 600 rpm not reached 2900 rpm). 15- Why the efficiency of VFD & FDF is not compared? 16- How did the author calculate the cost? By assuming? Assuming without reference is not acceptable. 17- The speed of VFD & FDF must be shown and compared.	

PART 2:

	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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Bilal Abdullah Nasir**
Department, University & Country	**Northern Technical University, Iraq**