

Review Form 3

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_126740
Title of the Manuscript:	DYNAMIC SIMULATION AND ANALYSIS OF THREE PHASE INDUCTION MOTOR FOR FAULTS DETECTION USING MATLAB/SIMULINK
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
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 manuscript provides valuable insights into the dynamic behavior of three-phase induction motors under fault conditions, a crucial aspect for both the reliability and safety of motor-driven systems in various industries. By simulating symmetrical and unsymmetrical faults using the d-q model in MATLAB/Simulink, the work offers a validated framework for analyzing key motor parameters under stress. The findings underscore the importance of robust fault detection and mitigation strategies, contributing to advancements in motor fault diagnostics and control systems. Ultimately, this research serves as a foundational reference for developing more resilient and efficient motor designs, benefiting researchers and engineers focused on enhancing motor performance and reliability.	
Is the title of the article suitable? (If not please suggest an alternative title)	Title clearly reflects the core focus of your work on fault detection in three-phase induction motors.	
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.	<ol style="list-style-type: none"> 1. Start with a concise objective statement to immediately capture the purpose of the study. For example, "This study aims to simulate and analyze the impact of electrical faults on three-phase induction motors to improve fault detection and isolation strategies." 2. A quick note on the motor ratings (like rated power or speed) or initial conditions would provide context for the baseline, making it easier for readers to understand the impact of faults. 3. Phrases like "The motor model presented is based on d-q model of a three-phase induction motor" could be shortened to "The d-q model was used to simulate motor dynamics." 4. For instance, rather than stating "The results obtained shows that, at 1.5 seconds when the fault occurred..." a clearer version might be, "At 1.5 seconds, when the fault was introduced..." 	
Are subsections and structure of the manuscript appropriate?	It is overall ok but title of few subsection can be modified like: in section 3 it can be "Dynamic modelling of three phase induction motor", in section 3.1 it can be "Simulation using MATLAB/Simulink"	
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 and technically sound due to its systematic approach in simulating and analyzing both symmetrical and unsymmetrical faults in three-phase induction motors, using the established d-q modeling framework in MATLAB/Simulink. By examining key performance indicators—such as rotor speed, electromagnetic torque, and stator current—the study provides comprehensive insights into the specific ways faults affect motor performance. The inclusion of detailed simulation parameters and fault scenarios strengthens the study's reliability, making it a valuable reference for engineers and researchers. Furthermore, the study's practical implications for fault detection and motor control highlight its relevance to real-world applications, bridging the gap between theoretical analysis and industrial needs.	

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Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Maximum references are before year 2020, so please give more references from the year 2021 to 2024 in this domain.	
Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	1. The language/English quality of the article suitable for scholarly communications.	
Optional/General comments	1. The unit of torque will be Nm instead of N*m. 2. Figure 3 is not visually clear, please improve the resolution. 3. How the faults are simulated in dynamic modelling, is not shown. 4. In case of Induction motor, L-L fault is more severe than LG and LLG fault. So, please try to incorporate that fault also if possible.	

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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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