

[ReviewForm3](#)

JournalName:	<a href="#">JournalofEngineeringResearchandReports</a>
ManuscriptNumber:	Ms_JERR_124244
Titleof theManuscript:	HYBRIDNEURO-FUZZYBASEDIMPROVEDCONTROLDESIGNOFFLECTRO-PNEUMATICCLUTCHACTUATIONCONTROLSYSTEMFORHEAVYDUTY VEHICLES.
Typeof the Article	

Createdby: DR

Checked by: PM

Approvedby:MBM

Version: 3(07-07-2024)

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**PART1: ReviewComments**

<b>Compulsory</b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>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.</b></p>	<p>The manuscript provides application of Neuro-Fuzzy systems for a dynamic and real-time application. The application is in the automotive field and can be extended for various categories of the heavy-duty vehicle. Results are represented with real-time data and materials.</p>	
<p><b>Is the title of the article suitable? (If not, please suggest an alternative title)</b></p>	<p>Yes <b>SEE ATTACHMENT</b></p>	
<p><b>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.</b></p>	<p>Author needs to work on the Abstract.: Rewrite the abstract</p> <p>The statements can be put in an abstract and with short length. Make the statement grammatically correct. The statement is very long, it can be short but informative.</p> <ol style="list-style-type: none"> <li>1. The application of hybrid Neuro-Fuzzy principles of clutch actuation control in enhancing the performance of electro-pneumatic clutch actuation system for heavy-duty vehicles is the aim of this presentation. Neuro-Fuzzy is a hybrid design that accommodates the principles of fuzzy Logic and Neural Network in a manner that takes advantage of their positive sides.</li> </ol> <p>The following paragraph can be added in conclusion. This paragraph also contains long statements. Please make the statements short but informative.</p> <ol style="list-style-type: none"> <li>2. These results depict conclusively that Hybrid Neuro-Fuzzy controller application in intelligent clutch actuation control of an electro-pneumatic clutch system for heavy-duty vehicle will have over the use of a single mode of either fuzzy logic or Artificial Neural Network. Its impact in the operation of heavy-duty vehicle is indeed significant.</li> </ol>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>Section:2: Title modification: Neuro-Fuzzy Systems</p> <p>Accordingly, section 2.1 and 2.2 titles need modification. Figure title needs modification: Provide appropriate title</p>	
<p><b>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.</b></p>	<p>The manuscript is scientifically robust as ELECTRO-PNEUMATIC CLUTCH ACTUATION CONTROL SYSTEM is designed using Neuro-Fuzzy controller. Electro-pneumatic clutch actuation is an important phenomenon in heavy-duty vehicle to improve the life span of the vehicle.</p>	

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<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p> <p>-</p>	<p><b>Recent References need to be mentioned.</b></p> <p><b>Also work done related to CLUTCH ACTUATION CONTROL SYSTEM in automation need to be presented.</b></p> <p>Ndubuisi, Paul-Darlington Ibemezie, et al. "Improving the electro-pneumatic clutch actuation control system of a heavy-duty vehicle using artificial neural network." <i>GSC Advanced Research and Reviews</i> 19.3(2024):018-030.</p> <p>Biswas, Atriya, Aashit Rathore, and Ali Emadi. "Coordinated clutch actuation for drivability improvement and energy management of a novel multi-mode hybrid electric vehicle and HIL validation." <i>Energy Conversion and Management</i> 287(2023):117060.</p>	
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	<p>Wang, Yue, et al. "Adaptive Pressure Control of the Clutch Hydraulic Actuator in Wet Dual Clutch Transmission based on TS Fuzzy Model and Extended State Observer." <i>IEEE Access</i> (2023).</p> <p>Formento, Cecilia, Antonio Tota, and Mauro Velardocchia. "Analysis of Engine Braking System for Heavy Vehicle Performance Improvement." <i>The International Conference of IFTO MMITALY</i>. Cham: Springer Nature Switzerland, 2024.</p>	
<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the articles suitable for scholarly communications?</b></p>	<p>Major REVISION is required for Manuscript <b>language/English</b> of the articles suitable for scholarly communications</p> <p>The topic and contents are innovative, but the overall presentation and organization of the paper needs improvement.</p>	
<p><b>Optional/General</b> comments</p>	<ol style="list-style-type: none"> <li>1. Add methodology</li> <li>2. Some statements are very long, please do make it short and meaningful.</li> <li>3. Figure quality needs to improve, visibility is very less.</li> <li>4. Theory contents can be optimized.</li> <li>5. Mention future scope</li> </ol>	

**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>	

**Reviewer Details:**

Name:	Vaishali S. Kulkarni
Department, University & Country	Savitribai Phule Pune University, India