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Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_102040
Title of the Manuscript:	A NEW PRESSURE-BASED MODELING APPROACH FOR EARLY LEAK DETECTION IN GAS PROCESSING PLANTS USING MACHINE LEARNING
Type of the Article	Original Research Article

General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: 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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> Yes, the topic discussed in this manuscript is very important. The gas leakage not only will be harmful effect to environment and human health, it will also effect the financial of the company. Therefore, an early leak detection system is very useful to inhibit all these bad effects. The use of machine learning is even better as it will make it easier and safer to detect these leaks. Yes, the title is suitable. Yes, the abstract cover all the important point. However, it is recommended that the abstract is written in a single paragraph. Yes. Yes Yes. Most of the reference used are within 5 years (2018-2023). The "Type of gas plants" section is not relevant or related to work reported in this manuscript. The authors should remove this section. How is the "ECONOMIC LOSS DUE TO VENTING AND FLARES" section related to work in this manuscript? If it is not related, the authors should remove it. There are few information in the "GAS LEAKS DURING OPERATIONS" and the "HEALTH IMPLICATIONS OF GASEOUS POLLUTANTS" which are similar. The authors should avoid repeating the same information. Instead, the authors should try to combine both these sections. In the "SUMMARY AND DISCUSSION" section, the authors wrote "From fig 2, the red line represents inlet guage while the blue line represents the outlet guage." Is the authors referring to figure 2 or figure 3? The authors need to check this and make sure the correct figure is cited. The "SUMMARY AND DISCUSSION" is very confusing. Is the result for this study? What are the findings from the study? The authors should explain each figure one by one and show all the important and significant findings. For example, what does the "residual phase", "ramp phase" and stabalisation phase" mean? All these needs to be explained in detail. In the "LEAK VOLUME ESTIMATION", where is the result? Is there any value for the leak volume? The conclusion should be written in a paragraph rather that bullets. 	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	Yes	
<p>Optional/General comments</p>		

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
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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