

Review Form 3

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_130084
Title of the Manuscript:	Research and Development of an Experimental Device for Military Communication Using Binary Amplitude Shift Keying
Type of the Article	Original Research Article

PART 1: 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. A minimum of 3-4 sentences may be required for this part.	The research article addresses the limitations of traditional amplitude modulation (AM) methods used in the military communication. The article focuses on successfully developing a modern experimental communication device using Binary Amplitude Shift Keying (BASK) modulation. Experimental work has been conducted with the developed design for testing and validation of the discussed BASK modulation model. The developed model can be scaled up paving a way for further development finding applications in secure communication applications where traditional modulation schemes prove to be inefficient.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes, the title "Research and Development of an Experimental Device for Military Communication Using Binary Amplitude Shift Keying" is suitable.	

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<p>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.</p>	<p>The abstract is apt for the article. Contains all the information that a reader requires to get an idea of the overview of the paper.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The manuscript is scientifically correct and has been written with care especially explaining the concept of BASK, making it easy for the reader to understand. But some more suggestions/queries are to be addressed which will make the article upto the mark of this reputed journal.</p> <ol style="list-style-type: none"> 1. Does the bit sequence generator of your device generate a PRBS sequence? 2. Can the carrier frequency be tuned to the desired frequency by the user? What is the range of frequencies from which the user can tune to? 3. Is any frequency shift from the desired/selected carrier frequency observed from the carrier wave generator? 4. How does the Low Pass Filter (LPF) change the cutoff frequency based on the carrier frequency selected? 5. More technical description about the experimental set-up like the channel, link range, etc., can be involved. This can help the reader to understand and appreciate the work better. 6. The result section may contain a comparative study with other modulation schemes to support the statement “ This study focuses on addressing the limitations of traditional amplitude modulation (AM) methods” and “. The research results confirm that BASK modulation offers advantages in enhancing noise resistance and compatibility with modern communication technologies such as 4G and 5G while maintaining high performance in the harsh environments of military communication systems” given in this article. 7. In the equation binary NRZ encoded signal, please explain the term khi. 8. In the first equation of $Y(f)$ it appears that the authors have missed an equal to symbol after $FT\{y(t)\}$ 9. It would be appreciated if the authors can provide justification for their work as similar modulation related works have been previously cited/published. 	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>Since Modulation is a topic where extensive research is performed, more references can be added to enhance the quality of the article when being published in such a reputed journal. The reference, “Bala, D., Waliullah, G. M., Islam, N., Abdullah, I., & Hossain, M. A.” has not been given properly. Also the references are not numbered or called properly in the body of the article.</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Yes the language throughout the article is suitable for scholarly communications.</p>	
<p><u>Optional/General</u> comments</p>	<ol style="list-style-type: none"> 1. Equations have not been numbered. 2. Font size for all the blocks in the figures have to be same. For example, in figure 6, the block sampler is of smaller font than the rest of the blocks. 	

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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>	

Reviewer Details:

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