

SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_119464
Title of the Manuscript:	GENERAL STRUCTURE AND PROPERTIES OF CYCLIC CODES IN GF(2)
Type of Article :	ORIGINALRESEARCH PAPER

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
<p>1. Include the references mentioned in my last review report. 2. Should not write generating function associated with codes.</p> <p>Comments are</p> <p>The manuscript need modification and overall correction.</p> <ol style="list-style-type: none"> 1. The Paper in present form is not suitable for publication. 2. Some results are incorrect. <p>Following are some suggested corrections.</p> <ol style="list-style-type: none"> i) Page 1, Line 1, Codes in GF(2) should be Codes over GF(2) ii) Page 1, Line 4, Encryption and Decryption should be replaced by encoding and decoding iii) Page 1, Line 22, , and digital communications should be , digital communications and Quantum computing iv) Page 1, Line 10 from last, investigated spelling is incorrectly written v) Page 2, In statement of Theorem $F_q[x]/x^{n-1}$ should be $F_q[x]/\langle x^{n-1} \rangle$, it should be followed in the entire paper. vi) Page 2, 3, Check GF(2) not GF2 vii) Page 4, Generator function should be generator polynomial. viii) Theorem 5 Must be checked and modified accordingly, $C(x)$ cannot be a generating function. A cyclic code can is associated with generator polynomial/generator matrix not generating function. This theorem should be modified. ix) Check the conclusion GF(2) is incorrectly written as gf2. <p>In the present form this paper cannot be accepted. To make the work more robust and sound I suggest the author to modify the paper and read the following references and add them in the reference section and do the above suggested corrections.</p> <ol style="list-style-type: none"> 1. A new construction of quantum codes from quasi-cyclic codes over finite fields. Soumak Biswas and Maheshanand Bhaintwal, Indian Journal of Pure and Applied Mathematics, 54(2), 375-388, 2023. 2. On m-spotty weight enumerators of $Z_2(Z_2+uZ_2)$-linear codes and Griesmer type bound, Soumak Biswas and Maheshanand Bhaintwal, Computational and Applied Mathematics, 41(2), 64, 2022. 	

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<p>3. On the structure of \mathbb{Z}_2-linear and cyclic codes, I. Aydogdu, I. Pathan, Roger Ten-Valls, Finite Fields and their Application, 48, 241-260, 2017.</p> <p>4. On Some characterization of quasi-cyclic codes over \mathbb{Z}_q, Soumak Biswas, Maheshanand Bhaintwal, Advances in Mathematics of Communications, Online published in December 2023.</p> <p>5. On the structure of linear and cyclic codes over a finite chain ring, G. H. Norton, A. Salagean, Applicable Algebra in engineering, communication and computing, 2. 10, 489-506,2000.</p>	
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