



SDI Review Form 1.6

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_50061
Title of the Manuscript:	Construction of Irreducible Polynomials in Galois elds, $GF(2)$ Using Normal Bases.
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)
Compulsory REVISION comments	The paper is tightly written and provides sufficient calculation to support. However similar works had been published in similar journals. Part 3.1.2 and Part 3.1.4 are similar with setion 3.3 and 3.4 of the book " Coding Theory A First Course SAN LING ". Furthermore,this work just discussed the case $p=2$, "the general rule for construction of $GF(pm)$ " needed to be given a further justification. And the authors must have their work reviewed by a proper translation service before submission; only then can a proper review be performed. Most sentences contain grammatical mistakes or are ambiguous.	
Minor REVISION comments		
Optional/General comments	<p>Comment1: In line 7 of 1.1, the sentence "such that the n elements are linearly independent" is ambiguous.</p> <p>Comment2: In line 13 of 1.1, "degree n" should be "degree m"</p> <p>Comment3: In line 22 of 1.1,the sentence "The classical expression of this the normal basis theorem..." is ambiguous.</p> <p>Comment4: In line 24 of 1.1, the sentence "The irreducible polynomial..." is ambiguous.</p> <p>Comment5: In line 3 of page 2, the setence "...and also to deduce..."is wrong.</p> <p>Comment6: In line 6 of page 2,the "define" should be something else.</p> <p>Comment7:In the 9 of page 2,the "be factored into a product" is wrong.</p> <p>Comment8: In the 9 of page 2,the "The term irreducible must thus ..." is an ambiguous statement .</p> <p>Comments9: In line 5 of page 3, the sentence "contradicting the primitivity of a because its order is not maximal" is wrong</p> <p>Comments10:In line 6 of page 3, the words "the non-zero field element" is not a normal mathematical vocabulary</p> <p>Comments11: In line11 of page3,"the non-zero elements have" should be "each non-zero element has"</p> <p>Comments12: On the definition2.3.1, the expression is not concise.</p> <p>Comments13: In the proof of the 2.3.1 theorem, "n"is not clear.</p> <p>Comments14: In the definition2.4.1, "on which the opertions...and satisfied under..."should be "with the opertions...,satisfying..." .</p> <p>Comments15: In the proof of the 2.7.1 theorem, there exists a wrong matrix equation.</p> <p>Comments16: In line 6 of page 5,the words "with degree" should be deleted .</p> <p>Comments17: In the case of "$q = 16 = 2^4 = p^m$ ", "$\alpha^{12}=1+x^2+x^3$" should be $\alpha^{12}=1+x+x^2+x^3$.</p> <p>Comments18: In the last line of page 5, the formula needs a better presentation by using "$1+\sum_{(i=0)^3}^{\infty} x^{(8/2^i)}$ ",similarly for the formula in line2 of page 6.</p> <p>Comments19: In line 6 of page 6 ,the statement "which is a second degree polynomial" is not suitable.</p> <p>Comments20: In line 8 of page 6 , "the polynomial for $GF(4)$" should be "the generator polynomial for $GF(4)$"</p>	All necessary corrections have been made.

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