

**Review Form 1.7**

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_113272
Title of the Manuscript:	Edge-UltraFilter and Edge-Tangle for graph
Type of the Article	Short Research Article

**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><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>This manuscript introduce and define a new concept called edge-ultrafilters on graphs and establish their equivalence with edge-tangles, a tree-cut-width parameter.</p> <p><b>Yes.</b></p> <p><b>Yes.</b></p> <p><b>Yes.</b></p> <p><b>The proof of the theorem requires greater clarity. For example:</b>            1." Since <math>[B_1, A_1] \in E</math> and <math>A_1 \subseteq A_2</math>, by the definition of an edge-tangle, we can infer that <math>[B_2, A_2]</math> belongs to <math>E</math>." How this inference is possible?            2. "The axiom (F5) is clearly satisfied by F". F(5)says, "If <math>V(A) = V(G)</math>, then <math>[A, B] \in F</math>." Since A and B are disjoint subsets of G, <math>V(A)=V(G)</math> implies <math>V(B)=\emptyset</math>. Hence, it is doubtful that <math>V(A)=V(G)</math></p> <p><b>Yes. The references are more than enough.</b></p>	
<p><b>Minor</b> REVISION comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p><b>Yes. However, there are a few typological and linguistic errors.</b>            Example:            Title: Edge-UltraFilter, elsewhere it is Edge-Ultrafilter.            Section 2.1: The complement of an filter in a            Section 2.2: Note that An edge-cut ...            Definition 2 [1]: A Edge-tangle E ...            Definition 3: (F5) (F4) If <math>V(A) = V(G)</math>, then <math>[A, B] \in F</math></p>	
<p><b>Optional/General</b> comments</p>	<p>1. Font sizes of Section headings 2 &amp; 3 are different            2. Font sizes of second and third sentences in section 2.2 are different from other sentences.            3. Better to have citation for Definiton 1, since there are some ambiguity in the definition such as i) Whether <math>A \in F</math> implies <math>X \in F</math>? ii) Whether A and B can't be disjoint?</p>	

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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <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>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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