

## Review Form 1.6

Journal Name:	<a href="#">Asian Research Journal of Mathematics</a>
Manuscript Number:	Ms_ARJOM_74593
Title of the Manuscript:	POSITIVE SOLUTION FOR A SINGULAR FOURTH-ORDER DIFFERENTIAL SYSTEM
Type of the 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><b>Compulsory</b> REVISION comments</p>	<p>1. Page 1:</p> $u^{(4)} = \varphi u + f(t, u, u''), \quad 0 < t < 1$ <p style="text-align: center;">               What is \varphi ?         </p> <p>2. Page 2:</p> <p><b>Lemma 1.</b> <math>K(t, s)</math> has the following properties: <b>Proof of Lemma 1:</b></p> <p>(i) <math>K(t, s) &gt; 0, \forall t, s \in (0, 1)</math>; <span style="float: right;">(i), (ii), (iii) are easy to check.</span></p> <p>(ii) <math>K(t, s) \leq K(s, s), \forall t, s \in [0, 1]</math>; <span style="float: right;">(iv): It should be added some comments to proof.</span></p> <p>(iii) <math>K(t, s) \geq K(t, t)K(s, s), \forall t, s \in [0, 1]</math>;</p> <p>(iv) <math> K(t_1, s) - K(t_2, s)  \leq  t_1 - t_2 </math>, for all <math>t_1, t_2, s \in [0, 1]</math> .</p> <p>3. Page 2:</p> <p><b>Lemma 2</b> ([14]). Let <math>E</math> be a real Banach space and let <math>P \subset E</math> be a cone in <math>E</math>. Assume <math>\Omega_1, \Omega_2</math> are open subset of <math>E</math> with <math>\theta \in \Omega_1, \bar{\Omega}_1 \subset \Omega_2</math>, and let <math>Q : P \cap (\bar{\Omega}_2 \setminus \Omega_1) \rightarrow P</math> be a completely continuous operator such that either</p> <p>(i) <math>\ Qu\  \leq \ u\ , u \in P \cap \partial\Omega_1</math> and <math>\ Qu\  \geq \ u\ , u \in P \cap \partial\Omega_2</math>; or</p> <p>(ii) <math>\ Qu\  \geq \ u\ , u \in P \cap \partial\Omega_1</math> and <math>\ Qu\  \leq \ u\ , u \in P \cap \partial\Omega_2</math>.</p> <p style="text-align: center;">[14] is a book, so adding the detail the page or which Lemma, Theorem to easy for reader.</p> <p>4. Page 5:</p> <p style="text-align: right;">Adding the symbol the end of proof Lemma 3 and other theorems or lemmas too</p> $-(Tu)''(t) \geq K(t, t) \ Tu''\ _0 \text{ for } t \in [0, 1].$ <p>5. Pages 8-13, 16</p> <p><math> (Tu)(t_1) - (Tu)(t_2) </math> <del>X</del> Delete some symbols like this</p> $\leq \mu \int_0^1 \int_0^1  K(t_1, \tau) - K(t_2, \tau)  K(\tau, s) u(s) \int_0^1 K(s, v) g(v, u(v), u''(v)) dv ds d\tau +$ <p>6. Page 16</p>	

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	<p><math>(B_\rho \setminus B_r) \cap P</math>, i.e. problem (3) has at least two positive solutions.</p> <p>Adding some examples to apply the theory to show that it has at least 1 (or some) positive solutions.</p> <p><b>References</b></p> <p>[1] C.P. Gupta, Existence and uniqueness theorems for a bending of an elastic beam equation, Appl. Anal. 26 (1988) 289-304.</p> <p>[9] C.P. Gupta, Existence and uniqueness results for some fourth order fully quasilinear</p>	
<b>Minor</b> REVISION comments	No	
<b>Optional/General</b> comments	Revision the position of some formulas whole the paper. In the present version, it is a little not good.	

**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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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