Article submit

Dear Prof. Hu,

This is to acknowledge, with thanks, the receipt of your article co-authored with Cindrawaty Lesmana entitled, "Nonlinear Finite Element Analysis of Rectangular Reinforced Concrete Slabs Strengthened by Fiber Reinforced Plastics" (Ref. No: 30.513.121013), submitted to *Scientia Iranica*.

Please find attached a copy of the 'Sole Submission Form' for this paper. I would be grateful if you could please send the completed and signed 'Sole Submission Form' to the offices of *Scientia Iranica*, by regular mail at your earliest convenience.

Also, please note that, before the journal office initiate the review process of your paper, you are seriously requested to modify the format of your paper, enclose a brief technical biography of each author (in narrative form) and enhance the quality of the figures exactly according to the guidelines written in detail in the "Notes for Contributors", and then return the hard copy and the Word and pdf files of the modified paper and biographies with the Tiff or eps files of the figures to this office. A pdf file of the "Notes for Contributors" is attached in order to facilitate your access to the guidelines of article submission.

Along with implementing our above request, in order to facilitate the processing of papers for *Scientia Iranica*, your assistance in the provision of the names and addresses of 6 potential reviewers, preferably from the reference list of your paper (by providing full addresses, including their names, fax and/or e-mail), would also be greatly appreciated. Please note that your paper may not necessarily be submitted to these specific referees for examination.

You will be informed of the status of your article subsequent to the receipt of the above-mentioned documents.

Your cooperation is gratefully acknowledged.

Sincerely yours,

Abolhassan Vafai, Professor

Editor-in-Chief

Article Review

Dear Dr.Hsuan Teh,

Please find attached the review comments on your article entitled, " Nonlinear Finite Element Analysis of Rectangular Reinforced Concrete Slabs Strengthened by Fiber Reinforced Plastics" (Ref. No: SCIENTIA-D-13-00033), which was submitted to Scientia Iranica for possible publication.

It would be appreciated if you could kindly examine the review comments and accomplish the followings:

If applicable, please implement the review recommendations and provide an itemized list of the alterations made.

2. In the revised manuscript, please highlight the places where the contents have been revised according to the review comments.

3. If the review comments are inapplicable, please forward a response to the review suggestions.

Please send/upload the file of the revised paper and the itemized list of the alternations made in a period of at most three months from the receipt of this letter. The paper will be ignored from the list of submitted papers, if it is not received within this period.

Your cooperation and consideration are fully appreciated and we are looking forward to hearing from you regarding this matter in the near future.

Sincerely yours,

Abolhassan Vafai, Professor

Editor-in-Chief

Comments to the Author:

The Editorial Board of the journal has requested you to update the references of your paper.

Reviewer:

Ref. No: SCIENTIA-D-13-00033

"Comments to the Authors"

The paper deals with interesting topics of numerical investigation into load carrying capacity of FRP-retrofitted RC slabs. The analytical part is well described and results are interesting. Past experimental studies have been employed to validate the suggested analytical modeling. Commercial finite element analysis code, ABAQUS is used to implement proposed FRP failure model.

Numerical modeling of FRP-strengthened RC structures using ABAQUS is limited in the literature. In fact, its element and model for brittle materials is more realistic than the other similar soft wares.

The following points should be considered in revising the paper:

1) The abstract needs to be revised. Change the word 'inspects' in line six of abstract to 'examines'.

2) Change, the word 'empirical' in line eight of abstract and throughout paper to 'fitted'.

3) The lines 45 to 55 of the Introduction on page one can be deleted. The physical properties of fibre composites are now very well-known and so the readers are well-informed of the advanced composite materials.

4) Change the word 'crucial' on Page 2, line 9 to 'necessary' and also 'attain' to 'obtain'.

5) Rephrase lines 12 to 16 on Page 2.

6) There is a paradox between line 31 in terms of 'nonlinearity' and the term of 'The linear stress-strain relationship of FRP' in lines 51 to 53 on Page 2. A justification is required.

7) Add a reference after line 1 on Page 5.

8) Section 2.2 is too short. Moreover, 'the plastic perfectly plastic' modeling is not applicable for deformed rebars. A multi-linear model is more realistic.

9) The authors encourage referring to the following paper in terms of modeling rebars, concrete and FRPs with ABAQUS.

Mahini, S. S., Hadigheh, S. A., & Maheri, M. R. (2011). Seismic Assessment of FRP-Retrofitted
RC Frames Using Pushover Analysis Considering Strain Softening of Concrete. In Advances in
FRP Composites in Civil Engineering (pp. 841-844). Springer Berlin Heidelberg.

10) All parameters in Equation (2) should be defined.

11) Cite a reference in taking 0.83 for shear correction factors appears in line 34 on Page 6.

12) Reword expressions on Page 7 in line15. E.g. 'resin fracture' or 'fiber breakage' to 'debonding failure' or 'FRP rapture'.

13) After developing equation (18) in element coordinate, it needs to proceed to assemble the system in terms of structure coordinate, X, Y and Z. An Equation needs to be added to show the assembling process.

14) It is worthwhile to give some details of the developed code for 'constitutive equations of FRP' on Page 10 lines 1-2.

15) Regarding assumption of perfect bond between FRP and concrete on Page 10, line 28, it should be explained that in this numerical modeling, due to simplicity, a perfect bond is assumed. However, in real structures, debonding might be a dominant failure mode and so it should be formulated in a further research.

16) Cut the sentence in line 50 to 53 on Page 10 up to '....were measured.' and past

after the next sentence in lines 53 to 55.

17) The parametric studies on Page 11 are too long followed by given graphs in Figures 6-11. It is suggested to present the results with fewer graphs where possible.

Response for review

Dear Mr. Morovati:

Reference: Nonlinear Finite Element Analysis of Rectangular Reinforced Concrete Slabs Strengthened by Fiber Reinforced Plastics"(Ref. No: SCIENTIA-D-13-00033), submitted to Scientia Iranica for possible publication.

On April 30, I send you the revised paper and the "response to the reviewer's comments" to you for the above referenced paper. However, up to now, I have not receive any information from you. Have you received them? Please Let me know the status of the paper as soon as possible.

Regards,

Hsuan-Teh Hu

Dear Mr. Morovati:
    The revision of my paper has been completed. The valuable suggestions from the reviewer are greatly appreciated. I have made the necessary amendments to incorporate the reviewer's comments to the revised paper. All the revised parts in the paper have been indicated by the red color characters. A file with name "response.pdf" outlining each change made as raised in the reviewer comments is attached with the revised paper. Please do not hesitate to contact me if you have any questions about the revised paper. With best regards.
Sincerely yours,
Hsuan-Teh Hu, Professor

Author's Response to the Comments of Editor

Comments of Editor	Authors' Response to Editor
(1) All authors' addresses should be complete. Ensure that telephone, mobile and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.	The authors have added complete addresses as recommended.
(2) At the end of the abstract, there should be five to ten keywords.	The keywords have been modified into 6 items in the revised paper which shown in red color.
(3) A brief technical biography of each author in narrative form at least in one to two paragraphs should be enclosed.	The brief technical biography of each author has been added to the manuscript on page 20 and shown in red color.
(4) All mathematical expressions or variables should be in italic format (this should be followed on figures and tables as well). In this regard, a consistency should be followed.	All mathematical expressions or variables have been checked.
(5) The formulae and equations of your paper cannot be converted to LaTex which is the journal's program, therefore you are requested to have them to be typesetted again in MathType program.	The formula and equations have been retyped.
(6) Figures should be sharp and clean. All line drawings should be in black and white, unless color is specifically requested. All letterings, graph lines and point or legends on the graphs should be solid and also be sufficiently large and bold to permit the reproduction. In a figure graphs should be distinguished from each other and match their legends. Very thin lines or "hairlines" in the final printing process become nearly invisible and may be lost entirely. Also, all letterings should be legible. After quality enhancement, all the figures are required to be with the width of 8cm and their graphic files be provided in EPS (Encapsulated Postscript) format, with the resolution of 600 dpI. If this is not possible, TIFF files are acceptable as long as they can be opened in Adobe Photoshop.	The figures have been re-checked.
(7) "Change the word 'lab testing' on Page one, the third line of the Introduction; to 'laboratory testing'.	The authors have been revised the sentences in the revised paper which shown in red color.

Journal Acceptance

Scientia
Iranica

August 05, 2014

Prof. Hsuan-Teh Hu
Department of Civil Engineering
National Cheng Kung University
Tainan 701, Taiwan

Dear Prof. Hu,

I am pleased to inform you that your paper co-authored with Cindrawaty Lesmana, entitled, "Nonlinear Finite Element Analysis of Rectangular Reinforced Concrete Slabs Strengthened by Fiber Reinforced Plastics" (Ref.No: SCIENTIA-D-13-00033), has been accepted as an "Article" for publication in one of the issues of *Scientia Iranica*, Transaction A: Civil Engineering.

Sincerely Yours,

Abolhassan Vafai