

Paper: “Onsite Load Bearing Capacity of Curved-up versus Straight Beams”

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Peer review:

Reviewer 1: Soumyajit Koley
Indian Institute of Technology Kharagpur, India

Reviewer 2: Satish Kumar
Dire Dawa University, Ethiopia

ESJ Manuscript Evaluation Form 2023

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Reviewer Name: SATISH KUMAR DAMODAR	
University/Country: Indonesia	
Date Manuscript Received: 18/07/2023	Date Review Report Submitted: 20/07/2023
Manuscript Title: Load capacity of curved-up beams	
ESJ Manuscript Number: e-ISSN 1857-7431 (Paper for review: 0658/23)	
You agree your name is revealed to the author of the paper: Yes	
You approve, your name as a reviewer of this paper, is available in the “review history” of the paper: Yes	
You approve, this review report is available in the “review history” of the paper: Yes	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

<i>Questions</i>	<i>Rating Result</i> [Poor] 1-5 [Excellent]
1. The title is clear and it is adequate to the content of the article.	3.8

<i>The title is clear and adequate. However, a more precise title can be suggested as (i) ONSITE PERFORMANCE OF LOAD BEARING CAPACITIES OF CURVED-UP VERSUS STRAIGHT BEAMS (or) (ii) A COMPARATIVE ONSITE STUDY OF LOAD CAPACITY OF CURVED-UP BEAMS WITH THAT OF STRAIGHT BEAMS</i>	
2. The abstract clearly presents objects, methods and results.	3.5
<i>The objective in the abstract is clear. However, the methodology used in the study requires two or three lines of explanation (which is missing in the abstract). Also there is a need to briefly quantify the outcome of the study</i>	
3. There are a few grammatical errors and spelling mistakes in this article.	5
<i>The vocabulary used is much appreciable</i>	
4. The study methods are explained clearly.	3
<i>Introduction and Literature review are combined in this study. Recent literature review is required (under a separate heading LITERATURE REVIEW). Also, separate heading for methodology is also required (METHODOLOGY). Methodology need to be specific. Explain the concept of 'geometric non-linearity.' Shear force, bending moment for uniformly distributed load is required. Explain 'traditional approach of load application' and how it is different from other approaches. Why this approach was used? Research design requires elaboration. Elaborate on the methodology used in the study and how the results are calculated (explain using formulae).</i>	
5. The results are clear and do not contain errors.	5
<i>Under section DISCUSSION, the author is expected to elaborate findings from the observations of the study</i>	
6. The conclusions or summary are accurate and supported by the content.	5
<i>No comments</i>	
7. The references are comprehensive and appropriate.	3.5
<i>There are 10 references in this study (adequate). However, 1 reference is over 100 years old, 4 references are over 50 years old; and 2 references over 30 years old. Only 3 references are recent ones. What about similar studies conducted during the last 20 years? Although the time period may not matter much for studies related to structural engineering, the composition of ingredients used in the construction industry (especially the bricks) vary significantly over a period of time (due to change in variables) ESJ recommended style of referencing to be checked.</i>	

Overall Recommendation (mark an X with your recommendation):

Accepted, no revision needed	
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Accepted, minor revision needed	
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

1. Please use recent literatures related to study
2. Please use separate headings for LITERATURE REVIEW & METHODOLOGY
3. Please explain the formula and how results are arrived at, and how the comparisons made so that an ordinary person who reads the article understands the concept and terminologies.
4. Extensive rework required in the sections of 'Literature review' and 'Methodology'
5. Please check the ESJ requirements regarding referencing style (APA or Harvard?)

Comments and Suggestions to the Editors Only:

Requires rework in the area of LITERATURE REVIEW & METHODOLOGY.
Recent studies related to 'bending moment of uniformly distributed load' is required.
Most of the references are very old (more than 30 years).
Detailed explanation of the research design is required. After rework and resubmission, the article can be evaluated for the next stage.
Referencing style to meet the requirements as specified by ESJ.



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Please respond within the appointed time so that we can give the authors timely responses and feedback.

NOTE: ESJ promotes peer review procedure based on scientific validity and technical quality of the paper (not perceived the impact). You are also not required to do proofreading of the paper. It could be recommended as part of the revision.

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Reviewer Name: Soumyajit Koley	
University/Country: Indian Institute of Technology Kanpur, India	
Date Manuscript Received: July 5, 2023	Date Review Report Submitted: July 8, 2023
Manuscript Title: LOAD CAPACITY OF CURVED-UP BEAMS	
ESJ Manuscript Number: 0658/23	
You agree your name is revealed to the author of the paper: Yes	
You approve, your name as a reviewer of this paper, is available in the “review history” of the paper: Yes	
You approve, this review report is available in the “review history” of the paper: Yes	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

Questions	Rating Result [Poor] 1-5 [Excellent]
1. The title is clear and it is adequate to the content of the article.	5
<i>Title is good and concise.</i>	
2. The abstract clearly presents objects, methods and results.	5
<i>Abstract is good.</i>	

3. There are few grammatical errors and spelling mistakes in this article.	5
<i>The paper is well-articulated.</i>	
4. The study methods are explained clearly.	5
<i>Methods' section is correct and clearly-described.</i>	
5. The results are clear and do not contain errors.	2
<i>Results have been meticulously explained. However, a minor revision has been advised for further improvement in certain aspects.</i>	
6. The conclusions or summary are accurate and supported by the content.	5
<i>Conclusions' section is correct and clearly-described.</i>	
7. The references are comprehensive and appropriate.	3
<i>Yes, the references are adequate and appropriate, though a few more can be added for the purpose of implementing the recommended minor revision.</i>	

Overall Recommendation (mark an X with your recommendation) :

Accepted, no revision needed	
Accepted, minor revision needed (X)	Yes, a minor revision is needed.
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

With mechanical experiments, the paper explores the effect of load application (assumed as uniform distributed load) on straight and curved-up beams in order to estimate the load bearing capacity as per 6 theoretical models. The study finds that curved-up beams tend to straighten when loaded, which increases the axial force at both ends, thereby increasing the intensity of compressive stresses and decreasing the intensity of tensile stresses across the concrete section, and thus improving the flexural performance. Overall, the paper is well-explained. However, from a sustainability assessment

perspective, how effective or useful these findings can be in fostering novel building material development methods in resource-constrained and economically poor regions (e.g., <https://doi.org/10.3390/ma14112996>, <https://doi.org/10.3390/ma12010101>, etc.), should also be briefly elaborated in the final discussion portions of sub-sections 1 and 2 under the Study Observations section, towards highlighting the scope field-scale applicability of the research results across geographic spectrums. This recommended minor revision shall help enable publication of the paper and promote its prospective readership as well.

Comments and Suggestions to the Editors Only:

Towards the current form and scope of the research described in the Paper, I rate the manuscript 75/100. Once the suggested revision is successfully attained, the Paper can be Accepted.



The image is a promotional graphic for the European Scientific Journal. It features a dark blue background with white and yellow text and graphics. On the left, there is a logo consisting of a stylized 'E' and 'S' with the word 'YEARS' underneath. Below the logo, the text reads '6 REASONS TO PUBLISH WITH ESJ' in yellow and white, followed by a bulleted list: '• Visibility', '• Agility', '• Internationalisation', '• Quality', '• Transparency', and '• Open Access'. At the bottom left is the 'ESI' logo. On the right side, the words 'EUROPEAN SCIENTIFIC JOURNAL' are written in large, white, sans-serif capital letters. The background is decorated with faint, light-colored circular and curved lines.