





























Fig. 7 Original and deformed frame structure

## VII. CONCLUSION

This paper presents the experience of teaching FEM at the university. We currently use mathematical software such as MathCAD to solve truss and frame structures. Not knowing the essence of the problems leads to unprofessional and ineffective solutions to the static problem. The authors offer the readers of this article, those interested in the presented problems, the original library of applications in MathCAD software created by the authors and used at the university for teaching the finite element method for free.

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## Contribution of individual authors to the creation of a scientific article (ghostwriting policy)

We confirm that all Authors equally contributed in the present research, at all stages from the formulation of the problem to the final findings and solution.

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## Conflict of Interest

The authors have no conflict of interest to declare that is relevant to the content of this article.

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