



# RETRACTED ARTICLE: Adaptive neuro-fuzzy estimation of bridge girder forces with perforations under tsunami wave loading

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The Editor-in-Chief has retracted this article (Akib et al. 2014) because validity of the content of this article cannot be verified. This article showed evidence of substantial text overlap (most notably with the articles cited (Akib et al. 2015; Rahman et al. 2014)), authorship and peer review manipulation. Author S. Shamshirband disagrees; S. Akib and S. Rahman have not responded to correspondence about this retraction.

## References

- Akib S, Rahman S, Shamshirband S (2014) J Coast Conserv. <https://doi.org/10.1007/s11852-014-0356-6>
- Akib S, Rahman S, Shamshirband S et al (2015) Bull Earthquake Eng 13: 935. <https://doi.org/10.1007/s10518-014-9656->
- Rahman S, Akib S, Khan MTR et al (2014) Engineering and Technology International Journal of Bioengineering and Life Sciences 8:2. <https://doi.org/10.5281/zenodo.1090687>

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**Electronic supplementary material** The online version of this article (<https://doi.org/10.1007/s11852-014-0356-6>) contains supplementary material, which is available to authorized users.

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