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Volume 48 of *Structures* (February 2023) is now available to read at www.sciencedirect.com/journal/structures/vol/48.

As the Featured Article from this issue, John Orr, Associate Editor for *Structures*, has chosen a paper that proposes a new strategy for transferring an analytical damped bipedal pedestrian pendulum model to numerical using finite element software.

The article will be available free of charge for six months.

Editor's Featured Article

Implementation of damped bipedal inverted pendulum model of pedestrian into FE environment for prediction of vertical structural vibration

Bintian Lin[a, b, c], Stana Zivanovic[c], Qingwen Zhang[a, b] and Feng Fan[a, b]

[a] Key Lab of Structures Dynamic Behaviour and Control of the Ministry of Education, Harbin Institute of Technology, Harbin, China

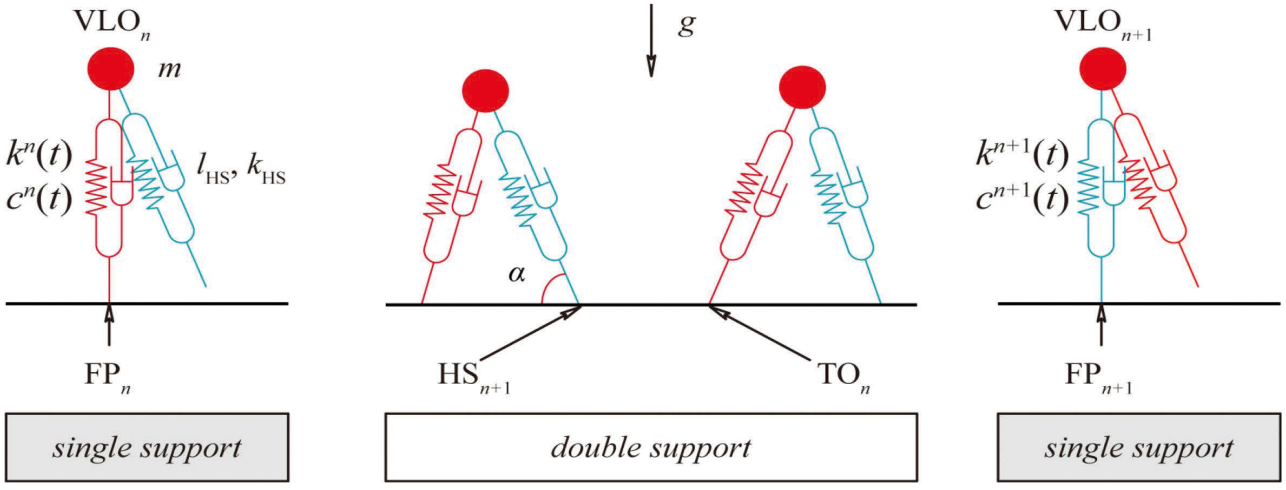
[b] Key Lab of Smart Prevention and Mitigation of Civil Engineering Disasters of the Ministry of Industry and Information Technology, Harbin Institute of Technology, Harbin, China

[c] Faculty of Environment, Science and Economy, University of Exeter, UK

Motivated by the limited availability of tools for vibration serviceability assessment of civil engineering structures under pedestrian excitation in finite element (FE) environment, this study proposes a strategy for transferring a damped bipedal inverted pendulum (DBIP) model for a pedestrian from the analytical to the numerical domain. The strategy is implemented in FE-software ANSYS to addresses the key challenge of pedestrian alternating between the left and right stance leg. This is achieved by using COMBIN14 element in conjunction with employing element birth and death techniques to model temporary nature of the foot-structure contact.

The implementation in FE environment has been verified against the analytical results of the DBIP model. The proposed method successfully transfers the pedestrian load modelling approach from biomechanics to FE modelling environment typical of civil engineering projects enabling efficient vibration serviceability assessment.

→| Read the full paper at **https://doi.org/10.1016/j.istruc.2022.12.091**



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