

Professor Amin Heidarpour



From: Mohammad Nissirnia, Amin Heidarpour, Xiao-Ling Zhao, Rui Wang, Wei Li and Lin-Hai Han, "Experimental behavior of innovative hollow corrugated columns under lateral impact loading", Procedia Engineering, Vol. 173, pp 383-390, 2017

See:

https://www.monash.edu/engineering/aminheidarpour https://scholar.google.com/citations?user=A_BLeugAAAAJ&hl=en https://www.researchgate.net/profile/Amin_Heidarpour

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Autobiography:

I am a Senior Lecturer and Head of Structures Group at Monash University. My research focus is on structural and computational mechanics, with specific application to construction materials subjected to extreme actions such as fire, impact, blast and earthquake. I am also currently the Coordinator of Engineering for Extremes in the Department.

I received my BSc (Civil) degree in 2002 with Hons 1 from Isfahan University of Technology, Iran, and received my MSc in Structural Engineering from Sharif University of Technology, Iran, in 2004. I received my PhD from the University of New South Wales (UNSW), Australia, in 2008. After receiving my PhD in 2008 till January 2011, I worked as a Research Associate at UNSW's Centre for Infrastructure Engineering and Safety. In 2011 I moved to the preeminent research group at Monash as a lecturer and was promoted to senior lecturer in 2014.

I contribute to both undergraduate and postgraduate teaching. I am the coordinator and lecturer for Advanced Structural Analysis (CIV4234) that is mainly offered to the 4th year undergraduate students, and also Advanced Computational Methods (CIV5888/CIV6888) that is offered to Masters/PhD students.

Research Interests:

Engineering for extremes; Evaluation and rehabilitation of structures; Self-healing materials; Ultra highstrength steel; Computational mechanics; Steel and steel-concrete composite structures.

Selected Publications:

Amin Heidarpour, "Behaviour of steel and steel-concrete composite beams and beam-to-column connections at elevated temperatures", PhD dissertation, Civil and Environmental Engineering, The University of New South Wales, Sydney, Australia, November 2007

Lotfi, S., Azhari, M., Heidarpour, A.: Inelastic initial local buckling of skew thin thickness-tapered plates with and without intermediate supports using the isoparametric spline finite strip method. Thin Wall Struct. 49, 1475–1482 (2011)

Nasrin Jafari, Mojtaba Azhari and Amin Heidarpour, "Local buckling of thin and moderately thick variable thickness viscoelastic composite plates", Structural Engineering and Mechanics, Vol. 40, No. 6, pp 783-800, DOI: 10.12989/sem.2011.40.6.783

Sh. Kasaeian, M. Azhari, A. Heidarpour and A. Hajiannia, "Inelastic local buckling of curved plates with or without thickness-tapered sections using finite strip method", International Journal of Steel Structures, Vol. 12, No. 3, pp. 427-442, September 2012

H.R. Analooei, M. Azhari, and A. Heidarpour, Elastic Buckling and Vibration Analyses of Orthotropic Nanoplates Using Nonlocal Continuum Mechanics and Spline Finite Strip Method, Appl. Math. Model., vol. 37, pp. 6703–6717, 2013

Amin Heidarpour, Sanel Cevro, Qian-Yi Song and Xiao-Ling Zhao, "Behaviour of innovative stub columns utilizing mild-steel plates and stainless steel tubes at ambient and elevated temperatures", Engineering Structures, Vol. 57, pp 416-427, December 2013

A. Heidarpour, N.S. Tofts, A.H. Korayem, X.L. Zhao, C.R. Hutchinson, Mechanical properties of very high strength steel at elevated temperatures, Fire Saf. J., 64 (2014), pp. 27-35

Amin Heidarpour, Sanel Cevro, Qian-Yi Song and Xiao-Ling Zhao, "Behaviour of stub columns utilizing mildsteel plates and VHS tubes under fire", Journal of Constructional Steel Research, Vol. 95, pp 220-229, April 2014

Mohammad Nassirnia, Amin Heidarpour, Xiao-Ling Zhao and Jussi Minkkinen, "Innovative hollow corrugated columns: A fundamental study", Engineering Structures, Vol. 94, pp 43-53, July 2015

Fatemeh Javidan, Amin Heidarpour, Xiao-Ling Zhao and Jussi Minkkinen, "Performance of innovative fabricated long hollow columns under axial compression", Journal of Constructional Steel Research, Vol. 106, pp 99-109, March 2015

H. Amoushahi, M. Azhari, and A. Heidarpour, "A fully discretized nonlinear finite strip formulation for prebuckling and buckling analyses of viscoelastic plates subjected to time-dependent loading," Mech. Adv. Mater. Struct., vol. 22, no. 8, pp. 655–669, 2015

Mojtaba Farahi, Amin Heidarpour, Xiao-Ling Zhao and Riadh Al-Mahaidi, "Compressive behaviour of concrete-filled double-skin sections consisting of corrugated plates", Engineering Structures, Vol. 111, pp 467-477, March 2016

Mohammad Nassirnia, Amin Heidarpour, Xiao-Ling Zhao and Jussi Minkkinen, "Innovative hollow columns compising corrugated plates and ultra high-strength steel tubes", Thin-Walled Structures, Vol. 101, pp 14-25, April 2016

F. Javidan, A. Heidarpour, X.L. Zhao, C.R. Hutchinson, J. Minkkinen, Effect of weld on the mechanical properties of high strength and ultra-high strength steel tubes in fabricated hybrid sections, Eng. Struct., 118 (2016), pp. 16-27

Fatemeh Javidan, Amin Heidarpour, Ziao-Ling Zhao and Jussi Minkkinen, "Application of high strength and ultra-high strength steel tubes in long hybrid compressive members: Experimental and numerical investigation", Thin-Walled Structures, Vol. 102, pp 273-285, May 2016,

Mojtaba Farahi, Amin Heidarpour, Xiao-Ling Zhao and Riadh Al-Mahaidi, "Parametric study on the static compressive behaviour of concrete-filled double-skin sections consisting of corrugated plates", Thin-Walled Structures, Vol. 107, pp 526-542, October 2016

Mahsa Mirmoneni, Amin Heidarpour, Xiao-Ling Zhao, Riadh Al-Mahaidi and Jeffrey A. Packer, "Sizedependency of concrete-filled steel tubes subject to impact loading", International Journal of Impact Engineering, Vol. 100, pp 90-101, February 2017

Qian-Yi Song, Amin Heidarpour, Xiao-Ling Zhao and Lin-Hai Han, "Post-earthquake fire performance of flange-welded/web-bolted steel I-beam to hollow column tubular connections", Thin-Walled Structures, Vol. 116, pp 113-123, July 2017

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Ftemeh Javidan, Amin Heidarpour, Xiao-Ling Zhao and Riadh Al-Mahaidi, "Bending moment and axial compression interaction of high capacity hybrid fabricated members", Thin-Walled Structures, Vol. 121, pp 89-99, December 2017

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Mohammad Nassirnia, Amin Heidarpour, Xiao-Ling Xhao, Rui Wang, . . . Lin-Hai Han, "Lateral impact response of innovative hollow corrugated members", International Journal of Impact Engineering, Vol. 114, pp 43-52, April 2018

Mohammad Nassirnia, Amin Heidarpour, Xiao-Ling Zhao, Rui Wang, and Lin-Hai Han, "Hybrid corrugated members subjected to impact loading: Experimental and numerical investigation", International Journal of Impact Engineering, Vol. 122, pp 395-406, December 2018

Wei Li, Ying-Zhuo Gu, Lin-Hai Han, Xiao-Ling Zhao, Rui Wang, Mohammad Nassirnia and Amin Heidarpour, "Behaviour of ultra-high strength steel hollow tubes subjected to low velocity lateral impact: Experiment and finite element analysis", Thin-Walled Structures, Vol. 134, pp 524-536, January 2019