Department of Civil and Environmental Engineering
University of Auckland, New Zealand

Biography:
My PhD was on the topic of cold-formed steel portal frames supervised by Professor D.A. Nethercot. Following this, I spent five years working at the Steel Construction Institute (The SCI), where I extended my research interests to include hot-rolled steel, composite construction and fire. I have been a full-time academic since 2007, working at the University of Strathclyde, Glasgow, and Queen's University, Belfast, before joining the University of Auckland in 2014. To date, I have authored slightly over 70 journal papers and supervised ten PhD students to completion, three of whom are pursuing full-time academic careers. My research is dominated in trying to understand fundamental structural behavior, for which I employ a combination of full-scale testing and finite element modeling. More recently, my research includes structural engineering applications to Building Information Modeling (BIM). A recent paper entitled "Finite element investigation of cold-formed steel portal frames in fire" describes how a BIM model was moved to ABAQUS and subsequently used to investigate the behavior of portal frames in fire; this paper won the Palmer Prize.

Research Interests:
Portal frames, Thin-walled structures, Cold-formed steel structures, Steel structures, Structural dynamics and earthquake engineering, Composite construction

Selected publications:
J.B.P. Lim, D.A. Nethercot Ultimate strength of bolted moment-connections between cold-formed steel members Thin Wall Struct., 41 (2003), pp. 1019–1039
Asraf Uzzaman, James B.P. Lim, David Nash, Jim Rhodes and Ben Young, “Web crippling behaviour of cold-formed steel channel sections with offset web holes subjected to interior-two-flange loading”, Thin-Walled Structures, Vol. 50, pp 78-86, January 2012
Asraf Uzzaman, James B.P. Lim, David Nash, Jim Rhodes and Ben Young, “Cold-formed steel sections with web openings subjected to web crippling under two-flange loading conditions – Part I: Tests and finite element analysis”, Thin-Walled Structures, Vol. 56, pp 38-48, July 2012
Asraf Uzzaman, James B.P. Lim, David Nash, Jim Rhodes and Ben Young, “Cold-formed steel sections with web openings subjected to web crippling under two-flange loading conditions – Part II: Parametric study and proposed design equations”, Thin-Walled Structures, Vol. 56, pp 79-87, July 2012
Asraf Uzzaman, James B.P. Lim, David Nash, Jim Rhodes and Ben Young, “Effect of offset web holes on web crippling strength of cold-formed steel channel sections under end-two-flange loading condition”, Thin-Walled Structures, Vol. 65, pp 34-48, April 2013
Amir M Yousefi, James BP Lim, Asraf Uzzaman, Ying Lian, G Charles Clifton, Ben Young, “Web crippling strength of cold-formed stainless steel lipped channel-sections with web openings subjected to interior-one-flange loading condition”, Steel and Composite Structures, 21 (3). pp. 629-659, 2016
Amir M. Yousefi, Asraf Uzzaman, James B.P. Lim, G. Charles Clifton and Ben Young, “Numerical investigation of web crippling strength in cold-formed stainless steel lipped channels with web openings subjected to interior-two-flange loading condition”, Steel and Composite Structures, Vol. 23, No. 4, pp 363-383, February 2017
Ying Lian, Asraf Uzzaman, James B.P. Lim, Gasser Abdelal, David Nash and Ben Young, “Web crippling behaviour of cold-formed steel channel sections with web holes subjected to interior-one-flange loading condition – Part II: parametric study and proposed design equations”, Thin-Walled Structures, Vol. 114, pp 92-106, May 2017
Asraf Uzzaman, James B.P. Lim, David Nash and Ben Young, “Effects of edge-stiffened circular holes on the web crippling strength of cold-formed steel channel sections under one-flange loading conditions”, Engineering Structures, Vol. 139, pp 96-107, May 2017
Krishanu Roy, Tina Chui Huon Ting, Hieng Ho Lau and James B.P. Lim, “Nonlinear behaviour of back-to-back gapped built-up cold-formed steel channel sections under compression”, Journal of Constructional Steel Research, Vol. 147, pp 257-276, August 2018
Amir M. Yousefi, James B.P. Lim and G. Charles Clifton, “Web crippling behavior of unlipped cold-formed ferritic stainless steel channels subject to one-flange loadings”, ASCE Journal of Structural Engineering, Vol. 144, No. 8, August 2018