

List of publications G. McClure – 2012-2018

Names of supervisees are underlined.

Scientific Publications under Review

- SJ1 Ji, K., Liu B., Zhan X., Si J., and McClure G. Evaluation and Optimization of a Shock Load De-icing Method for Transmission Lines with Combined Ice Failure Criteria. *IEEE Transactions on Power Delivery*. Manuscript ID: TPWRD-00756-2018. Submitted on 30 June 2018.
- SJ2 Asgarian, A. and McClure, G. Direct generation of Floor Design Spectra (FDS) from Uniform Hazard Spectra (UHS) - Part I: Formulation of the method. *Canadian Journal of Civil Engineering*. Manuscript ID: cjce-2018-0146. Submitted on 5 March 2018.
- SJ3 Asgarian, A. and McClure, G. Direct generation of Floor Design Spectra (FDS) from Uniform Hazard Spectra (UHS) - Part II: Extension and Application of the method. *Canadian Journal of Civil Engineering*. Manuscript ID: cjce-2018-0151. Submitted on 6 March 2018.
- SJ4 Hafeez, G., Doudak, G. and McClure, G. Establishing the fundamental period of light-frame wood buildings. *Canadian Journal of Civil Engineering*. Manuscript ID: cjce-2017-0348.R1 Submitted on 12 June 2017.
- SJ5 Hafeez, G., Doudak, G., and McClure, G. Dynamic Characteristics of Light-Frame Wood Buildings. *Canadian Journal of Civil Engineering*. Manuscript ID: cjce-2017-0266.R1 Submitted on 25 April 2017.

Refereed Journal Publications

- J1 Shu, L., Qiu, G., Hu, Q., Jiang, X., McClure, G. and Yang, H. 2018. Numerical and field experimental investigation of wind turbine dynamic de-icing process. *Journal of Wind Engineering and Industrial Aerodynamics*. Vol. 175, April 2018, 90-99.
- J2 Ji, K., Rui, X., Li, L., and McClure, G. 2017. Dynamic Response of Overhead Transmission Lines with Eccentric Ice Deposits Following Shock Loads. *IEEE Transactions on Power Delivery*. (32)3 June 2017: 1287-1294.
- J3 Mirshafiei, F., Mirshafiei, M., and McClure, G. 2017. A new three-dimensional seismic assessment method (3D-SAM) for buildings based on experimental modal analysis. *Computers and Structures*. CIVIL-COMP2 Vol. 180, 125-137.
- J4 Youance, S., Nollet, M.-J., and McClure, G. 2016. Effect of critical sub-system failures on the post-earthquake functionality of buildings: A case study for Montreal hospitals. *Canadian Journal of Civil Engineering*. 43(10); 929-942.
- J5 Mirshafiei, F., and McClure, G. 2016. Modified three-dimensional seismic assessment method for buildings based on ambient vibration tests: extrapolation to higher shaking levels and measuring the dynamic amplification portion of natural torsion. *Journal of Earthquake Engineering and Structural Dynamics*. 45(12): 2011-2026.

- J6 Ji, K., Rui, X., Li, L., Yang, F., and McClure, G. 2016. Dynamic response of iced overhead electric transmission lines following cable rupture shocks and induced ice shedding. *IEEE Transactions on Power Delivery*. DOI 10.1109/TPWRD.2016.2520082.
- J7 Ji, K., Rui, X., Li, L., Zhou, C., Liu, C., and McClure, G. 2015. The Time-varying Characteristics of Overhead Electric Transmission Lines Considering the Induced Ice-shedding Effect. *Shock and Vibration*. Vol. 2015, Paper no. 6235230, 8p. DOI 10.1155/2015/635230.
- J8 Ji, K., Rui, X., Li, L., and McClure, G. 2015. A novel ice shedding model for overhead power line conductors with the consideration of adhesive/cohesive forces, *Computers and Structures*. 157(2015): 153-164. DOI 10.1016/j.compstruc.2015.05014.
- J9 Assi, R., and McClure, G. 2015. Evolution of the NBCC seismic provisions for operational and functional components in buildings. *Canadian Journal of Civil Engineering*. 42(12): 993-999. DOI 10.1139/cjce.2014.0219.
- J10 Tischer, H., Mitchell, D., and McClure, G. 2014. Adapting a rapid seismic screening method for the evaluation of school buildings. *Canadian Journal of Civil Engineering*. 41(11): 970-976.
- J11 Ghafari Osgoie, M., McClure, G., and Ghafari Oskoei S.A. 2014. Validation of seismic response prediction of a guyed mast using ambient vibration measurements. *Journal of the International Association for Shell and Spatial Structures (J. IASS)*. September 2014, 55(181): 143-154.
- J12 Asgarian, A., and McClure, G. 2014. Impact of seismic rehabilitation and presence of Un-Reinforced Masonry (URM) infill walls on the dynamic characteristics of a hospital building in Montreal. *Canadian Journal of Civil Engineering*. 41(8): 748-760.
- J13 Hafeez, G., Mustafa, A., Doudak, G., and McClure, G. 2014. Predicting the Fundamental Period of Light-Frame Wood Buildings. *ASCE Journal of Performance of Constructed Facilities*. Nov/Dec 2014. 28(6). DOI: 10.1061/(ASCE)CF.1943-5509.0000519.
- J14 Huang, W.C., McClure, G., and Hussainzada, N. 2013. Seismic Interactions between Suspended Ceilings and Nonstructural Partition Walls. *Journal of Coupled Systems Mechanics*. 2(4): 329-348.
- J15 Keyhan, H., McClure, G., and Habashi, W.G. 2013. Dynamic analysis of an overhead transmission line subject to gusty wind loading predicted by wind-conductor interaction. *Computers and Structures*. Computational Fluid and Solid Mechanics 2013. Proceedings Seventh MIT Conference on Computational Fluid and Solid Mechanics. Vol. 122, June 2013, 135-144.
- J16 Mirshafiei, F., McClure, G., and Farzaneh, M. 2013. Modelling the dynamic response of iced transmission lines subjected to cable rupture and ice shedding. *IEEE Transactions on Power Delivery*. 28(2): 948-954.
- J17 Borna, A., Habashi, W.G., McClure, G., and Nadarajah, S.K. 2013. CFD-FSI simulation of vortex-induced vibrations of a circular cylinder with low mass-damping. *Journal of Wind and Structures*. 16(5): 411-431.
- J18 Ghafari Oskoie, S.A., Ghafari Osgoie, M., and McClure, G. 2013. Validation of a linearized seismic analysis method for tall communication masts. *Journal of Civil Engineering and Science (JCES)*. 2(3): 163-170.
- J19 Habashi, W.G., Borna, A., and McClure, G. 2012. Towards Numerical Prediction of Galloping Events of Iced Conductors. *Computational Methods for Engineering Science* 139-165.

- J20 Tischer, H., Mitchell D., and McClure, G. 2012. Comparison of North American Seismic Screening Methods Applied to School Buildings. *J. of Civil Engineering and Architecture*, 6(7): 799-811.
- J21 Gilles, D., and McClure, G. 2012. Measured natural periods of concrete shear walls buildings: Insights for the design of Canadian buildings. *Can. J. of Civil Engineering*, 39(8): 867-877.
- J22 Ghafari Oskoei, S.A., and McClure, G. 2012. A new robust linearized seismic analysis method for tall guyed telecommunication masts. *ASCE J. of Structural Engineering*, 138(4): 502-513.
- J23 Doudak, G., McClure, G., and Smith, I. 2012. Experimental evaluation of load paths in light-frame wood structure. *ASCE Journal of Structural Engineering*, 138(2): 258-265.

Contributions to Peer-reviewed Industry Design Guidelines

- IG1 McClure, G. (Working Group Leader). 2012. Mechanical Security of Overhead Lines - Containing Cascading Failures and Mitigating Their Effects. *CIGRÉ Technical Brochure 515*, International Council on Large Electrical Systems. Working Group B2.22, 80 p. ISBN: 978-2-85873-208-1.
- IG2 McClure, G. Member of CIGRÉ Working Group B2.39. 2012. Overhead Line Design Guidelines for Mitigation of Severe Wind Storm Damage. *CIGRÉ Technical Brochure 485*, International Council on Large Electrical Systems. 38 p. ISBN: 978-2-85873-177-0.

Publications in Refereed Conference Proceedings

- RC1 Rodríguez, P., Useros, A., Alvarado, L.F., Zhang, X.H., Malik, D., and McClure, G. 2018. Advanced conductor displacement modelling under wind conditions to improve right-of-way management. *Proc. 47th General Session of CIGRÉ (International Council on Large Electric Systems)*, 27 August-1 September, Paris, France. Paper B2-311, 14 p.
- RC2 Ji, K., Liu, B., Dong, Y., Rui, X., and McClure, G. 2017. Dynamic analysis of multi-span overhead electrical transmission line considering induced ice shedding. *Proc. 17th International Workshop on Atmospheric Icing on Structures*, Chongqing City, China. 24-29 September. Paper no.IWAI2017CNCQ0066, 5 p.
- RC3 Asgarian, A., and McClure, G. 2017. Using ambient vibration measurements to generate experimental floor response spectra and inter-storey drift curves of Reinforced Concrete (RC) buildings. *Proc. 10th International Conference on Structural Dynamics (EURODYN 2017)*, Rome, Italy. 10-13 September, Paper no. 207.
- RC4 Hafeez, G., Doudak, G., and McClure, G. 2017. Dynamic properties of light-frame buildings. *Proc. 1st International Conference On Timber Structures and Engineering*, Timber Structures 2017, New Forest, UK, 13 - 15 June.
- RC5 Abo-El-Ezz, A., Youance, S., Nollet, MJ, McClure, G., and Assi, R. 2017. Assessment of post-earthquake functionality of acceleration-sensitive systems in hospitals. *Proc. Canadian Society of Civil Engineering Annual Conference*, Vancouver, Canada, 31 May – 3 June.

- RC6 Mirshafiei, F., and McClure, G. 2017. Measuring the dynamic amplification portion of natural torsion based on the 3D-SAM method and sensing tests. *Proc. 16th World Conf. in Earthquake Engineering*, Santiago, Chile. January 9-13. Paper no. 4656, 8 p.
- RC7 Asgarian, A. and McClure, G. 2017. New methodology for seismic assessment of non-structural building components based on ambient vibration measurements. *Proc. 16th World Conference on Earthquake Engineering*, Santiago, Chile. January 9-13. Paper no. 1105, 12 p.
- RC8 Asgarian, A., Mirshafiei, F., and McClure, G. 2015. Experimental floor response spectra for seismic evaluation of OFCs using ambient vibration tests. *Proc. 11th Canadian Conference on Earthquake Engineering (CCEE)*, Victoria, BC, Canada, July 21-24. Paper no. 95210, 10 p.
- RC9 Mirshafiei, F., and McClure, G. 2015. Application of a three-dimensional seismic assessment method (3D-SAM) based on ambient vibration tests to few buildings in Montreal. *Proc. 11th Canadian Conference on Earthquake Engineering (CCEE)*, Victoria, BC, Canada, July 21-24. Paper no. 95226, 10 p.
- RC10 Hafeez, G., Doudak, G., and McClure, G. 2015. Predicting the fundamental period of light-frame wood buildings. *Proc. 11th Canadian Conference on Earthquake Engineering (CCEE)*, Victoria, BC, Canada, July 21-24. Paper no. 98944, 10 p.
- RC11 McClure, G. 2015. Post-earthquake functionality of Operational and Functional Components in Buildings. *Proc. 11th Canadian Conference on Earthquake Engineering (CCEE)*, Victoria, BC, Canada, July 21-24. Paper no. 99065, 2 p.
- RC12 Hafeez, G., Doudak, G., and McClure, G. 2014. Predicting seismic lateral drift and natural period of mid-rise wood and hybrid buildings. *Proc. World Conference on Timber Engineering. WCTE 2014*. Quebec City, Canada, 10-14 August, 10 p.
- RC13 McClure, G., Asgarian, A., and Mirshafiei, F. 2014. Seismic assessment of buildings and their OFCs using AVM and experimental FRS. *Proc. 9th International Conference on Structural Dynamics*, Porto, Portugal, 30 June - 2 July, Paper MS01, 463-468.
- RC14 McClure, G., Keyhan, H., and Habashi, W.G. 2014. A simplified procedure for modeling gusty wind effects on overhead transmission lines using CFD. *Proc. 9th International Conference on Structural Dynamics*, Porto, Portugal, 30 June - 2 July, Paper MS20, 3167-3170.
- RC15 McClure, G., Ji, K., and Rui, X. 2014. An integrated ice-shedding model of electric transmission lines with consideration of ice adhesive/cohesive failure. *Proc. 9th International Conference on Structural Dynamics*, Porto, Portugal, 30 June - 2 July, Paper MS26, 3731-3736.
- RC16 Asgarian, A., Mirshafiei, F., and McClure, G. 2014. Experimental floor response spectra for seismic evaluation of operational and functional components of buildings. *Proc. 4th International Structural Specialty Conference*, CSCE Annual Conference, Halifax, Canada, 28-31 May. Paper CST-44, 10 p.
- RC17 Mirshafiei, F., Asgarian, A., and McClure G. 2014. Operational modal analysis of low rise buildings in Montréal, Canada. . *Proc. 4th International Structural Specialty Conference*, CSCE Annual Conference, Halifax, Canada, 28-31 May. Paper CST-46, 9 p.
- RC18 Youance, S., Nollet, M.J., and McClure, G. 2014. Criticality analysis for post-earthquake functionality assessment of hospitals in Montreal. *Proc. 4th International Structural Specialty Conference*, CSCE Annual Conference, Halifax, Canada, 28-31 May. Paper CST-33, 10 p.
- RC19 Huang, W.C., and McClure, G. 2013. Experimental Study on the Seismic Performance of Suspended Ceiling Systems in Interaction with Partition Walls. *Proc. International Conference*

- on Earthquakes and Structures (ICEAS13)*, World Congress on Advances in Structural Engineering and Mechanics (ASEM13), Jeju, Korea, 8-12 September.
- RC20 Boutin, M., Proulx, J., Mestar, M., Nollet, M.-J., Tischer, H., McClure, G., and Paultre, P. 2013. Dynamic characterization of URM school buildings in Quebec. *Proc. 12th Canadian Masonry Symposium*, Vancouver, Canada, 2-5 June.
- RC21 Youance, S., Nollet, M.-J., and McClure, G. 2013. Analyse de la défaillance fonctionnelle des composants non structuraux d'un système de protection incendie d'un hôpital sous l'effet d'un séisme. *Proc. 3rd Specialty Conf. On Disaster Prevention and Mitigation*, Canadian Society for Civil Engineering (CSCE) Annual Conference, Montréal, Canada, 29 May – 1 June. DIS-018.
- RC22 Huang, W.-C., Hussainzada, N., and McClure, G. 2013. Experimental study on the seismic behaviour of suspended ceilings. *Proc. 3rd Specialty Conf. On Disaster Prevention and Mitigation*, CSCE Annual Conference, Montréal, Canada, 29 May – 1 June. Paper DIS-028.
- RC23 Mirshafiei, F., McClure, G., and Lignos, D. 2013. Seismic assessment of irregular low-rise buildings based on a 3-dimensional simplified method. *Proc. 3rd Specialty Conf. On Disaster Prevention and Mitigation*, CSCE Annual Conference, Montréal, Canada, 29 May – 1 June. Paper DIS-041.
- RC24 Ji, K., Xiaoming, R., Lin, L., and McClure, G. 2013. A novel ice-related disaster regional mapping method for electric networks based on Grey clustering theory and field incident records. *Proc. 3rd Specialty Conf. On Disaster Prevention and Mitigation*, CSCE Annual Conference, Montréal, Canada, 29 May – 1 June. Paper DIS-046.
- RC25 Mestar, M., Nollet, M.-J., Bourgeon, F., Proulx, J., and McClure, G. 2013. Procédure à 3-niveaux pour l'évaluation sismique des écoles au Québec. *Proc. 3rd Specialty Conf. On Disaster Prevention and Mitigation*, CSCE Annual Conference, Montréal, Canada, 29 May – 1 June. Paper DIS-054.
- RC26 Qi, G., and McClure, G. 2013. Advanced computational stress analysis of a stranded overhead line conductor under fretting fatigue conditions. *Proc. 3rd Specialty Conf. On Materials Engineering and Applied Mechanic*, CSCE Annual Conference, Montréal, Canada, 29 May – 1 June. Paper MEC-067.
- RC27 Habashi, W.G., Borna A., and McClure, G. 2012. Towards Numerical Prediction of Galloping Events of Iced Conductors, *Proc. 8th International Conference on Engineering Computational Technology*, Dubrovnik, Croatia.
- RC28 Bouras, E., and McClure, G. 2012. Seismic Vulnerability of Components in Post-Critical Structures: Views on Montreal Hospitals. *Proc. 15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 September, Paper 4401, 10 p.
- RC29 Asgarian, A., and McClure, G. 2012. Impact of seismic retrofit and presence of terra cotta masonry walls on the dynamic properties of a hospital building in Montréal, Canada. *Proc. 15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 September, Paper 2530, 10 p.
- RC30 Mirshafiei, F., and McClure, G. 2012. Experimental modal analysis of emergency shelters in Montréal, Canada. *Proc. 15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 September, Paper 4437, 10 p.

- RC31 Tischer, H., McClure, G., and Mitchell, D. 2012. Development of a Seismic Vulnerability Assessment Method for Schools in Eastern Canada. *Proc. 15th World Conf. on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 Sep., Paper 519, 10 p.
- RC32 Youance, S., Nollet, M.J., and McClure, G. 2012. Post-earthquake functionality of critical facilities: A hospital case study. *Proc. 15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 September, Paper 2287, 10 p.
- RC33 Ghafari Osgoie, M., McClure, G., Zhang, X.H., and Gagnon, D. 2012. Validation of the accuracy of finite element seismic analysis models of a guyed telecommunication mast with ambient vibration measurements. *Proc. 15th World Conf. on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 September, Paper 0733, 10 p.
- RC34 Nollet, M.J., Mestar, M., Proulx, J., and McClure, G. 2012. A three-tier procedure for the seismic evaluation of school buildings in Eastern Canada. *Proc. 15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal, 24-28 Sep., Paper 2783, 11 p.
- RC35 Borna, A., Habashi, W.G., and McClure, G. 2012. Towards numerical prediction of overhead lines instabilities due to icing. *Proc. of the 2012 Cigré Canada Conference – “Technology and Innovation for the Evolving Power Grid”*, Montréal, Canada, 24-26 September, Paper 185, 8 p.
- RC36 Keyhan, H., McClure, G., and Habashi, W.G. 2012. Advances in wind load modeling on overhead transmission lines. *Proc. 2012 Cigré Canada Conference – “Technology and Innovation for the Evolving Power Grid”*, Montréal, Canada, 24-26 September, Paper 166, 8 p.
- RC37 Borna, A., Habashi, W.G., and McClure, G. 2012. Towards numerical prediction of galloping events of iced conductors. *Proc. 8th International Conference on Engineering Computational Technology*, Dubrovnik, Croatia, 4-7 September, Keynote Paper presented by W.G. Habashi.
- RC38 Keyhan, H., McClure, G., and Habashi, W.G. 2012. On the Influence of Wind-Conductor Interactions in Stress Analysis of Overhead Transmission Line Towers. *2012 International Conference on Advances in Wind and Structures (AWAS'12)*, Seoul, South Korea, 26-29 August 2012. Paper WS110-480.
- RC39 Borna, A., Habashi, W.G., and McClure, G. 2012. Numerical Study of Influence of Ice Location on Galloping of an Iced Conductor. *2012 International Conference on Advances in Wind and Structures (AWAS'12)*, Seoul, South Korea, 26-29 August 2012. Paper WS105-947.
- RC40 Ghafari Osgoie, M., McClure, G., Zhang, X.H., and Gagnon, D. 2012. Validation of the accuracy of finite element analysis models of a guyed telecommunication mast with ambient vibration measurements. *Proc. 3rd International Structural Specialty Conference. Canadian Society for Civil Engineering*, Edmonton, Alberta, June 6-9, Paper STR-1239, 11 p.
- RC41 Asgarian, A., and McClure, G. 2012. Influence of terra cotta infill walls and partitions on the seismic response of “pre-code” buildings: a case-study of a Montréal hospital. *Proc. 3rd International Structural Specialty Conference. Canadian Society for Civil Engineering*, Edmonton, Alberta, June 6-9, Paper STR-1104, 12 p.
- RC42 Tischer, H., McClure, G. and Mitchell, D. 2012. Rapid Seismic Vulnerability Assessment Method for Schools in Québec. *Proc. 3rd International Structural Specialty Conference. Canadian Society for Civil Engineering*, Edmonton, Alberta, June 6-9, Paper STR-1016, 11 p.
- RC43 Gilles, D., and McClure, G. 2012. In situ dynamic characteristics of reinforced concrete shear wall buildings. *Proc. ASCE/SEI Structures Congress, 27-31 March, Chicago, IL, 2235-2245.*

RC44 Tischer, H., McClure, G. and Mitchell, D. 2012. Ambient vibration measurements of dynamic properties of school buildings in Montréal (Québec). *Proc. ASCE/SEI Structures Congress*, 27-31 March, Chicago, IL, 2279-2290.

Exhibits

Bouras, E., and McClure, G. (Curators). Considering the Quake | Seismic Design on the Edge. DX Design Exchange, Toronto, 13 September – 13 November 2012.

http://www.dx.org/index.cfm?pagepath=Exhibitions/Past_Exhibitions&id=42966

Bouras, E., and McClure, G. (Curators). Considering the Quake | Seismic Design on the Edge. American Institute of Architecture. The Center for Architecture, New York. February 13 - May 26, 2014.

<http://cfa.aiany.org/index.php?section=PE2014&expid=271>