Professor Peter Ansourian

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Research Interests:
Behaviour, analysis and design of shell structures in the context of silos and tanks.
Composite structures of steel and concrete.

Current projects:
Effect of differential settlement on cylindrical shell structures
Buckling of shells under external pressure
Buckling of shells under combined axial load and lateral pressure
Collapse of shell structures
Partial interaction in composite beams of steel and concrete

Selected publications:
Book Chapters:

Ansourian, P. (2006). Buckling failure of structures consisting of curved plates. In Shanmugan and Wang (Eds.), Analysis and Design of Plated Structures: Volume 1. Stability, (pp. 422-449). UK: Woodhead Publishing Ltd.

Ansourian, P. (2004). Cylindrical Shells Under Non-Uniform External Pressure. In J. G. Teng; J. M. Rotter (Eds.), Buckling of Thin Metal Shells, (pp. 175-197). London: Taylor and Francis.

Ansourian, P. (2003). Structural Integrity Isssues in the Mining Industry: Learning From Failures - Instructive Case Studies. In I. Milne, R.O. Ritchie, B. Karihaloo (Eds.), Comprehensive Structural Integrity: Fracture of Materials From Nano to Macro Volume 1, (pp. 305-318). Oxford, England: Elsevier Science.

Journals:

Ansourian, P. (2011). Behaviour of stiffened composite beams with partial shear interaction accounting for time effects. Procedia Engineering, 14(2011), 402-409.

Ramirez, A., Ansourian, P., Nielsen, J., Rasmussen, K., Ayuga, F. (2009). Analysis of Measurements Obtained by Plate-type Pressure Cells Having a Recess - DEM Simulation. Bulk Solids and Powder, Science and Technology, 4(1), 34-38.

Ranzi, G., Bradford, M., Ansourian, P., Filonov, A., Rasmussen, K., Hogan, T., Uy, B. (2009). Full-scale tests on composite steel-concrete beams with steel trapezoidal decking. Journal of Constructional Steel Research, 65(7), 1490-1506.

Ranzi, G., Gara, F., Ansourian, P. (2006). General method of analysis for composite beams with longitudinal and transverse partial interaction. Computers and Structures, 84(31-32), 2373-2384.

Conferences:

Moy, C., Ostinelli, A., Ranzi, G., Ansourian, P. (2013). An Experimental Study of the Long-Term Behaviour of Composite Beams with Trapezoidal Steel Sheeting. Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing, Stirlingshire, Scotland: Civil-Comp Press.

Ansourian, P., Ranzi, G., Zona, A. (2012). Partial interaction analyses of composite steel-concrete girders subjected to combined bending and shear. Sixth International Conference on Bridge Maintenance, Safety, Management, Resilience and Sustainability (IABMAS 2012), London: Taylor & Francis.

Ansourian, P., Ranzi, G., Zona, A. (2011). The effects of the shear deformability of composite beams on their long-term and ultimate behaviour. The 2011 International Conference on Advances in Structural Engineering and Mechanics (ASEM '11).

Ansourian, P., Ranzi, G., Zona, A. (2010). Partial interaction behaviour of composite steel-concrete members at elevated temperatures accounting for geometric nonlinearities. Cost Action C26, London: CRC Press.

(Loo Chin) Moy, C., Ansourian, P., Ranzi, G. (2009). Closed form solutions for the long-term behaviour of prestressed composite steel-concrete beams. 9th International Conference on Steel Concrete Composite and Hybrid Structures, Singapore: Research Publishing Services.

(Loo Chin) Moy, C., Ansourian, P., Ranzi, G. (2008). General analytical solutions for prestressed steel-concrete composite beams with partial interaction accounting for time effects. The 4th International Conference on Advances in Structural Engineering and Mechanics (ASEM'08), P O Box 33, Yuseong, Daejeon 305-600, Korea: Techno-Press.

Ranzi, G., Vrcelj, Z., Ansourian, P., Gara, F., Leoni, G. (2007). A generic modelling for the time-dependent behaviour of composite steel-concrete members with longitudinal and transverse partial interaction. 5th International Conference on Advances in Steel Structures, Singapore: Research Publishing Services.

Ansourian, P. (2007). Aspects of steel silo and tank design. 4th International Specialty Conference on The Conceptual Approach To Structural Design (2007), Italy: Universita IUAV di Venezia.

Ansourian, P., Ranzi, G. (2007). Behaviour of composite beams stiffened by a longitudinal plate accounting for time effects. 19th Australasian Conference on the Mechanics of Structures and Materials (ACMSM19 2006), Bath, UK: Taylor and Francis.

Ramirez, A., Einav, I., Ansourian, P., Ayuga, F., Rasmussen, K. (2007). Granular effects arising from mounted pressure cells in silo walls - dem analyses. 2007 Agriculture and Engineering Conference -Challenge Today, Technology Tomorrow, Adelaide: Australian Society for Engineering in Agriculture.

Ramirez, A., Einav, I., Ansourian, P., Ayuga, F., Rasmussen, K. (2007). Influence of Local Imperfections in Silo Pressure Measurements - Dem Analysis. 9th International Conference on Bulk Materials Storage, Handling and Transportation (ICBMH 2007), 11 National Circuit, Barton ACT Australia: Engineers Australia.

Ansourian, P., Ranzi, G., Gara, F., Leoni, G. (2007). Longitudinal and transverse partial interaction analysis of composite beams accounting for time effects and shear-lag effects. 19th Australasian Conference on the Mechanics of Structures and Materials (ACMSM19 2006), Bath, UK: Taylor and Francis.

Ranzi, G., Ansourian, P. (2006). A generic modelling of multi-layered composite beams with partial interaction. 4th International Conference on Advances in Steel Structures (ICASS'05), Great Britain: Elsevier.

Ranzi, G., Bradford, M., Ansourian, P. (2006). Behaviour of composite steel-concrete beams with longitudinal and transverse partial interaction in fire. III European Conference on Computational Mechanics Solids, Structures and Coupled Problems in Engineering (ECCM 2006), Netherlands: Springer.

Ranzi, G., Ansourian, P. (2006). Behaviour of stiffened composite beams with partial shear interaction. 4th International Symposium on Steel Structures (ISSS'06). KSSC.

Ansourian, P., Ranzi, G., Bradford, M. (2006). Closed-form Solutions for the Time-Dependent Behaviour of Prestressed Composite Beams with Partial Interaction. Second International fib (CEB*FIB) Congress (2006), Italy: doppiavoce.

Bradford, M., Ranzi, G., Ansourian, P. (2006). Composite beams in frame sub-assemblages with longitudinal and transverse partial interaction at elevated temperatures. Second International Congress on Mathematical Software (ICMS2006). ICMS.

Ansourian, P., Ranzi, G., Gara, F., Leoni, G. (2006). Displacement-based Formulations for the Partial Interaction Analysis of Composite Beams Accounting for Time Effects. Second International fib (CEB*FIB) Congress (2006), Italy: doppiavoce.

Ranzi, G., Ansourian, P., Gara, F., Leoni, G. (2006). Partial interaction analysis of composite beams accounting for time effects: evaluation of displacement-based formulations. ASCCS 06 - 8th International Conference on Steel-Concrete Composite and Hybrid Structures, China: Assoc for International Cooperation and Research in Steel-Concrete Composite Structures (ASCCS).

Ranzi, G., Ansourian, P., Dezi, L., Zhang, S. (2006). Partial interaction analysis of multi-layered composite beams accounting for time effects. III European Conference on Computational Mechanics Solids, Structures and Coupled Problems in Engineering (ECCM 2006), Netherlands: Springer.

Ansourian, P., Ranzi, G., Dezi, L., Zhang, S. (2006). The long-term behaviour of multi-layered composite beams with partial interaction. Professor Jean-Marie Aribert Retirement Symposium, France.

Ranzi, G., Ansourian, P., Zhang, S. (2006). Time-dependent behaviour of multi-layered composite beams with partial shear interaction. ASCCS 06 - 8th International Conference on Steel-Concrete Composite and Hybrid Structures, China: Assoc for International Cooperation and Research in Steel-Concrete Composite Structures (ASCCS).

Ranzi, G., Ansourian, P., Gara, F., Leoni, G., Dezi, L. (2005). A generic modeling of composite beams with longitudinal and vertical partial interaction.

Ranzi, G., Ansourian, P., Gara, F., Leoni, G., Dezi, L. (2005). A generic modelling of composite beams with longitudinal and vertical partial interaction. 4th International Conference on Advances in Steel Structures (ICASS'05), Great Britain: Elsevier.

Ranzi, G., Ansourian, P. (2005). Partial interaction analysis of multi-layered composite beams.

Ranzi, G., Ansourian, P. (2005). Stiffness analysis of prestressed composite beams with partial shear interaction. 3rd International Symposium on Steel Structures (ISSS '05), Korea: KSSC.

Ansourian, P. (2004). Structural Failures And Design Approach. The 2004 International Conference on Structural and Foundation Failures, Singapore: IES/StructE Joint Committee, Singapore.

Ansourian, P., Glaesle,, M. (2002). Aspects of Corrugated Silos. ICASS'02 Third International Conference on Advances in Steel Structures, Kidlington, Oxford OX5 IGB, UK: Elsevier Science.