HELICAL STRAND MODELS 2014

- 1. Chouairi, A.; El Ghorba, M.; Benali, A.; Boudlal, E. M., and El Had, K. *Numerical modeling of wires incorporation response applied to a concealed cable*. Intl J. of Sustainable Energy and Environmental Res. 2014; 3(3):145-154.
- 2. Fontanari, V.; Benedetti, M., and Monelli, B. D. *Elasto-plastic behavior of Warrington-Seale rope: Experimental analysis and finite-element modeling*. Engineering Structures. 2015; 82:113-120.
- 3. Nasution, F. P.; Saevik, S., and Berge, S. *Experimental and finite element analysis of fatigue strength for 300 mm*² *copper power conductor*. Marine Structures. 2014 Dec; 39:225-254.
- 4. Spak, K.; Agnes, G., and Inman, D. *Cable parameters for homogeneous cable-beam models for space structures*. In: Fikret Necati Catbas, Editor. Dynamics of civil structures, Vol. 4, Proc. of the 32nd IMAC A Conf. and Exposition on Structural Dynamics: SEM/Springer; 2014. ISBN: 978-3-319-04546.
- 5. Spak, K.; Agnes, G., and Inman, D. *Parameters for modeling stranded cables as structural beams*. Experimental Mechanics. In press. 2014.
- 6. Spak, K.; Agnes, G., and Inman, D. *Inclusion of shear effects, tension, and damping in a DTF beam model for cable modeling*. Proc. of. 55th AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics and Materials Conf.; National Harbor, Maryland. AIAA; 2014.
- 7. Wang, XY; Meng, XB; Wang, JX; Sun, YH, and Gao, K. *Mathematical modelling and geometric analysis for wire rope strands*. Applied Math. Modelling. In press. 2014.
- [1] is a rather simple application of FEA (using ABAQUS) to a three-wire strand under axial load. In the literature review, comment on paper Cardou and Jolicoeur (1997) is meaningless.
- [2] is an analysis of a Warrington-Seale wire rope, also restricted to the axial load case.
- [3] is concerned with marine copper power conductors. Such conductors are subject to bending fatigue. However, the type of loading is quite different from that of overhead electrical conductors (my own field of interest).
- [4] [5] deal with space applications. Cable modelling uses composite material approach. I have not had the opportunity to have a look at [6], which seems to be similar to [5].
- [7] deals with the purely geometric modelling of helical strands, as well as multistrand systems.