

MODULE BASED BOND GRAPH MODELING OF A RAILWAY WHEELSET

Nilotpal Banerjee

Department of Mechanical Engineering, National Institute of Technology, Durgapur-713209, India.

E-mail: nil_rec@yahoo.com

ABSTRACT

This paper presents an object oriented bond graph model of a railway wheelset on curved track. Here objects or capsules representing various analytical aspects of the dynamics of a single railway wheelset are created. These objects can be repeatedly used for the bond graph modeling of complex systems in a multi energy domain. An example of a railway wheelset has been considered here to illustrate the methodology.

KEY WORDS: Bond graph; Capsule; Wheelset