

FRictional CONTACT PROBLEMS SOLVED BY NUMERICAL METHODS

POP, N. & CIOBAN, H.

Abstract: *The theory of non-smooth analysis shows that many results of standard analysis may be extended to a more general, non-smooth framework. In this paper we present some definitions and results from non-smooth analysis which leads to some sufficient conditions such that the nonlinear and non-differential system that modeling the contact problems with frictions, does have one solution, obtained by Newton's method using the generalized gradient. An example illustrating the generalizations by means of Newton's method applied to the contact problem with friction is presented.*

Key words: *damped Newton's method, frictional contact problems, generalized gradient, finite element method*



Authors' data: Univ. Assoc. Prof. Dr. **Pop**, N[icolae]; Univ. Assoc. Prof. Dipl.-Eng. Dr. **Cioban**, H[oria], North University of Baia Mare, V.Babes 62A, 430083, Baia Mare, Romania, nicpop@ubm.ro, horia.cioban@ubm.ro

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