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**Mau Nam Nguyen\*** (nguyenmn@utpa.edu), Department of Mathematics, University of Texas-Pan American, 1201 W. University Dr., Edinburg, TX 78539. *Convex and Nonsmooth Analysis of Minimal Time Functions in Banach Spaces.*

We study generalized differential properties of the so-called *minimal time functions* associated with constant dynamics and arbitrary closed target sets. Functions of this type play a significant role in many aspects of optimization, control theory, and Hamilton-Jacobi partial differential equations. We pay the main attention to computing and estimating limiting subgradients of the minimal value functions and to deriving the corresponding relations for Fréchet subgradients in Banach spaces. We also derive new relations between subgradients minimal time functions and the corresponding convex subgradients of Minkowski functions. (*This talk is based on the joint work with Boris Mordukhovich*) (Received September 05, 2009)