

International J. of Math. Sci. & Engg. Appls. (IJMSEA)
ISSN 0973-9424, Vol. 7 No. II (March, 2013), pp. 385-389

A NOTE ON EXACT CONTROLLABILITY OF A STOCHASTIC HEAT EQUATION WITH BILINEAR CONTROL

RAMDAS B. SONAWANE

Department of Mathematics and Statistics,
KAANMS College, Satana, Nashik (M.S.)-423301, India

Abstract

We consider the problem of exact controllability of a stochastic heat equation with Dirichlet boundary conditions and multiplicative noise. A bilinear control is a coefficient of a state variable like uy . Stochastic problem is converted into deterministic problem, and solved. Exact controllability result is stated and proved for some particular targets.

Key Words : *Exact controllability, Stochastic heat equation, Multiplicative noise, Bilinear control.*

AMS Subject Classification : 93B05, 60H15.

© <http://www.ascent-journals.com>