SIR MODEL WITH GENERALIZED STANDARD INCIDENCE RATE FUNCTION

ANKIT AGRAWAL¹ & G. SAXENA²

¹Lecturer, Mahakal Institute of Technology and Management, Ujjain, Madhya Pradesh, India ²Director, Chitrans Mathematics Classe, Ujjain, Madhya Pradesh, India

ABSTRACT

I present in this paper aims to study an SIR epidemic model with generalized saturated incidence rate function. We analyze stability of the disease-free and the endemic equilibrium is with a nonlinear incidence rate.

KEYWORDS: Epidemic SIR Model, Basic Reproduction Number R_0 , Disease-Free Equilibrium and Endemic Equilibrium, Stability