

## STABILITY ANALYSIS OF PREY PREDATOR MODEL

## WITH FUNCTIONAL RESPONSE

## DINESH KUMAR VERMA<sup>1</sup>, V. H. BADSHAH<sup>2</sup>, SUMAN JAIN<sup>3</sup> & NAYNA KADAM<sup>4</sup>

<sup>1,2</sup>School of Studies in Mathematics, Vikram University, Ujjain (M.P.), India
<sup>3</sup>Department of Mathematics, Govt. College, Kalapipal, Ujjian (M.P.), India
<sup>4</sup>Chameli Devi Group of Institution Indore (M.P.), India

## ABSTRACT

This paper considers the prey predator model with functional response. We study the nonlinear differential equations and also existence of locally stability is discussed using the property of Jacobian. This paper deals with the question of the positive locally asymptotically stable equilibrium in a class of predator Prey systems.

KEYWORDS: Prey Predator Model, Functional Response, Local Stability, Equilibrium Point