BOOK of ABSTRACT

FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA
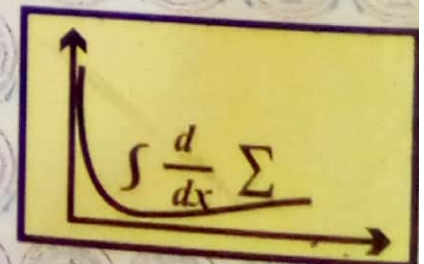Technology for Empowerment

35th

Annual
Conference
of the

NIGERIAN MATHEMATICAL SOCIETY (NMS)

Theme

MATHEMATICS: A TOOL FOR VERITABLE CHANGE

Host

Department of Mathematics
Federal University of Technology, Minna.

$$\int \frac{d}{dx} \sum$$

DATE: 3RD -6TH MAY, 2016

D27: Seasonal Rainfall Modeling for Crop Production With Hidden Markov Model.

Lawal Adamu[1], Abubakar U.Y[1]., Danladi Hakimi[1], Andrew Saba Gana[2].
[1]Department of Mathematics, Federal University of Technology Minna, Nigeria.
[2]Department of Crop Production, Federal University of Technology Minna, Nigeria.

Abstract

In this paper, a stochastic model is developed using the principle of Markov. The model divide a year into three seasons taking into account planting and maturity period of crops and rainfall distribution within seasons. The model predict next and subsequent seasonal rainfall states and their observations given the current state. The results from the model provides important information to the farmers and policy makers to plan strategies for high crop production in north central Nigeria.