

## **RELATIONSHIP OF SELECTED KINEMATIC VARIABLES WITH THE PERFORMANCE OF IN-SWING IN FAST BOWLING AT GATHER PHASE**

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### **ABSTRACT**

*The aim of the study was to assess the relationship of selected kinematic variables with the performance of In-Swing bowling. Twelve male cricket players aged between 19 to 28 years were selected for the purpose of this study. These subjects were participated in Ranji Trophy (first class cricket) from Uttar Pradesh team, Combined University and Under 22 National Championship were selected as subjects for this study. The data was collected by using the two Casio Exilim EX-F1 high speed cameras and frequency of camera was set at 300 frames/second. Siliconcoach Pro 7 software was used for analysis of videos. The Pearson's product moment correlation coefficient method was used to measure the relationship between selected kinematic variables with the performance of In-swing bowling at gather phase. The level of significance was set at 0.05. Knee joint (Left), Hip Joint (Left) and Elbow Joint (Left) has positive contribution on the performance of In-swing bowling at gather phase, In-swing bowling was divided into five phases and the Gather phase is preliminary Phase. The statistical analysis of data reveals that in Gather phase of In-swing bowling left knee joint (front), left hip joint (front) and left elbow joint was found significant. This might be attributed to the fact that every good bowler try to generate maximum force by coiling the body segments towards the centre of gravity so the left knee joint (front), left hip joint (front) and left elbow joint were play important role while bowling In-swing.*