



**University of Basra**

**College of Physical Education**

**Analysis of the relationship between some variables  
Bio mechanics and the central the arc force and  
acceleration curve with values achievement  
over distances of 200 m Sprint**

**Presented by**

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**Supervision**

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## ABSTRACT

**(Analysis of the relationship between some variables Bio mechanics and the central the arc force and acceleration curve with values achievement over distances of 200 m Sprint)**

**Researcher**

Hussein Muhsin Saadoun

**supervisor**

Dr. hajim Chaney Odah

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**The Research Included Five Sections:**

**Section 1:**

Title I definition of research contained this section provided and the importance of research, which included requirements and facts mechanical that occur during jogging in the bow and its impact on the situation mechanical body hostility that can help in the progress of digital by giving a description of quantitative and qualitative performance sports and the estimated Alangazih runners Iraqis so that we can diagnosed cases of weakness and strength in order for the coaches to Atdarquua motor problems during the interval of 200 m to the enemy.

**The researches problem manifested**

The adoption of Bio mechanics analysis of the variables affecting the speed of the enemy, particularly in arch enemy way requires the arc take all body parts to a situation different from the enemy in the rectum and aim primarily to resist centrifugal force which whenever a player increased his speed in the curve, the greater the resistance against centrifugal force.

**The Research Aims at:**

1. Identify the relationship between the variables Bio mechanics and acceleration curve values for distances of 200 m between the enemy and with achievement.

2. Evaluation of some Bio mechanics variables and values of the acceleration curve hostile Iraqis and their impact on the achievement of 200 enemy compared with the global model.

**Either The Hypotheses were:**

1. A correlation between some variables Bio mechanics and values of acceleration curve for distances of 200 m between the enemy and with achievement.

2. There is impairment in the values of some variables Bio mechanics and values of the acceleration curve Iraqi runners which reflected negatively on the achievement of 200 enemy compared with the global model.

**Areas of Research are:**

1-5-1 Hostile Iraqi national team in the effectiveness of the enemy 200 m for the sports season (2014-2013).

1.5.2 Temporal domain from 28 / 12 / 2013 , to 2 / 3 / 2014.

1-5-3 Stadium Club auspicious for athletics in the province of Maysan.

**Section II:**

Turning researcher to theoretical studies and included what Bio mechanics and branches of science Bio mechanics, and the concept of analysis Bio mechanics rules and divisions, stages the technical performance of the effectiveness of the enemy (200 m), the foundations of mechanical affecting the activities of sprinting fast, technical performance and mechanical ran the bow (curve) over the effectiveness of the enemy 200 m , stride length and frequency, centrifugal force and the force of gravity and the central mainframe, also touched on the researcher to theoretical studies and similar to his research.

**Section III:**

The researcher used the descriptive approach, a relational manner Studies curriculum appropriate to the nature of the problem of search May represent the research community with famous national team for the enemy of 200 m for the season 2013-2014 totaling (8) runners where



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The researcher selecting a sample search way intentional totaling (4) runners who have the complete (22 sec) or less, where they formed the proportion (50%) of the community Search.

**Section IV:**

presentation of results, analysis and discussion through this door is showing results, analysis and discussion to achieve a goal.

**Chapter 5: Conclusions and Recommendations Reached by The**

**Investigator to a Set of Conclusions, Including:**

1. Has a sample search rate total amount of animosity with a significant time lag bolt within three seconds, the indicator of the declining values of speed and affecting the level of achievement which is at the forefront of the variables Bio mechanics function.
2. Has a sample search for average speed overall world runner bolt far exceeded per second due to the inverse relationship between time and speed and decrease time reflected his influence on the rate of decline.

**The Researcher Found a Series of Recommendations Including:**

1. To affirm the requirements Bio mechanics during the 200 m sprint from the starting blocks to use for the least time possible in the moment with the perfect angle to maintain the values of the rate of total time and average speed overall, affected by these requirements through distances of the four interfaces and each 50 m along the distance race.
2. To affirm the values of times as important variables during an enemy just 200 m from the time step and time building and flying time and time intervals for each 50 m to achieve a high rate of air time relative to the time of building the College distance during distances referred to its importance in achieving the completion time is macro.