

**APPLYING PROJECTILE MOTION MODEL IN DETERMINE
OF THE MAXIMUM HEIGHT IN HIGH JUMP**

SYAFIQAH HANIS BINTI MOHD FAUZI

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DECLARATION BY CANDIDATE

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the disciplines.



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SYAFIQAH HANIS BINTI MOHD FAUZI

2015230216

JULY 2018

ABSTRACT

High jump is a track and field event in which competition must jump unaided over a horizontal bar placed at measured heights without dislodging it. Every high jumper has a problem to jump high in order to clear the bar. Their coaches worry about this problem and want to improve their athletes' performance. They need to know a few conditions that will affect the jump of their athletes' and they can make a strategy to aimed maximum height in high jump. So, the purpose in this project is to determine the maximize jump height in high jump. In this project, method that will be use is projectile motion, which from physic and calculus. The present study, the result will obtain the maximum of approach horizontal velocity, the impact force due to the athletes' mass and the effectiveness of time taken with the vertical distance. Hence, this research will help the athletes of the high jump to improve their high jump performance.

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