## ELECTRONIC GUIDE TO THESES APPROVED BY DEPARTMENT OF BIOMECHANICS PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

## **Department of Biomechanics**

## Doctoral Degree 2004

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Abstract	:	

Given that prevention is superior to treatment, injury prevention requires prediction of the outcomes of the injurious nature of activity these have been manipulated through motion analysis system synchronized with EMG. Kinematics and Kinetic data were collected prior to and after voluntarily induced fatigue for back extensors, ankle joint dorsi and planter flexors. There was a significant difference in L5/S1 load pre and post fatigue. The results revealed direct predictors for compression and shear force that can be driven from the stepwise multiple regression models considering the effect of fatigue.

Key words	1.	Spine.
	2.	Motor Control.
	3.	Fatigue.
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