

4<sup>th</sup> International Conference and Expo on

# Novel Physiotherapies

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## Physiotherapy Hand Glove

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This project aims to design a wearable, flexible physiotherapy hand glove. Because the hardness facing the physiotherapist to diagnosis the problems in hand muscle and monitoring, evaluating the treatment process. So the needed to make the device that wearable, portable to measure the force of fingers increase. This device consist of five force sensors (FSR 402) that is resistive sensor the resistor decrease with the force to measure the press force of finger, microcontroller (atmrga8) to process signal from sensor and calculate the force for every finger, LCD display to display the result from microcontroller and power supply unit to supply all components in circuit, all components sewed and connected in glove using conductive thread to fabricated the circuit to make the circuit flexible and wearable. Determine the normal ranges and abnormal ranges to any individual finger by measuring the force of fingers to thirty normal people, to measure the grip force calculate the average of force for five fingers, after complete the design experiment in physiotherapy clinic for ten abnormal people during four sections. The design is comfortable for long term wear, portable, low power consumption, easy to use, low cost

### Biography

Mohamed alamin a medical engineer who studied at the University of Sudan. Since the period of university I am interested in the field of physiotherapy and was a research graduate in the field. I am now working with the company medical equipment as an engineer design and maintenance, I have many of the ideas that I intend to turn to research and that for the service of humanity.

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