



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

# NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

# Workshop

# Day 1

## Novel Physio 2017

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

# NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK



## *Konstantinos Fousekis*

Technological Educational Institute of Western Greece, Greece

### Treatment of low-back pain using ERGON® IASTM technique

**Purpose:** The purpose of this workshop is to introduce specific ERGON® Instrument-Assisted Soft Tissue Mobilization (IASTM) techniques to health scientists/physiotherapists and to train them in the basic application of ERGON® Technique for the low-back pain treatment.

**Description:** ERGON® IASTM Technique is an evidence based innovative therapeutic approach combining static and dynamic manipulations of the body's soft tissue with special clinical equipment for the treatment of neuro-musculoskeletal pathologies. ERGON® technique is an innovative development of older approaches (IASTM Technique, Graston Technique, Smart tools technique, Tools assisted massage technique, etc.). In the framework of the ERGON® IASTM workshop, trainees will be taught basic techniques of ERGON instrument-assisted soft tissue mobilization, and there will afterwards be an extensive practical lesson on their specialized use in a) fascial meridians and areas of the body in general presenting findings indicating myofascial afflictions, and b) in the treatment of the low-back pain syndromes.

**Intended Audience:** Health scientists/physiotherapists dealing with musculoskeletal and sports pathologies/injuries are the audience for this workshop.

**Materials Provided:** Each participant will receive both a paper and electronic copy of (1) detailed handouts to be used during the lecture portions of the workshop, (2) descriptions of the teaching techniques that will be presented written as we will teach participants to write up new techniques, (3) scenarios and questions used during the small group critique portions of the session.

**Space and Enrollment Restrictions:** Enrollment must be limited to 20 participants and the room should have at least 5 treatment tables.

### Biography

Konstantinos Fousekis is an Associate Professor in Sports Physiotherapy at the Department of Physical Therapy, Technological Educational Institute of Western Greece. He is a Physiotherapist specializing in soft tissue mobilization techniques (IASTM). He has years of experience in treating musculoskeletal and sports injuries and is a Professional Physical Therapist for several professional soccer teams. His research interests deals with the assessment and rehabilitation of sports and musculoskeletal injuries using IASTM techniques. In cooperation with Konstantinos Mylonas, he created the ERGON® IASTM Technique as a basic treatment of painful and non-musculoskeletal disorders.

[konfousekis@gmail.com](mailto:konfousekis@gmail.com)



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

# NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

## Scientific Tracks & Abstracts Day 1

Novel Physio 2017

## Sessions:

Day 1 August 21, 2017

### Manual Physiotherapy Strategies | Artificial Physiotherapy Methods | Experimental techniques in Physiotherapies | Sports & Physiotherapy

Session Chair

**Giancarlo Russo**

University of Naples Federico II, Italy

#### Session Introduction

**Title: Rehabilitation of hernia discal with physical therapy**

**Jeton M Tifeku**, University of Tirana Ferizaj, Albania

**Title: Neonatal early intervention physical therapy programs effectiveness of sensory-motor outcomes: A one year experience**

**Areej Al-Abdulrahman**, King Abdul-Aziz Medical City, Riyadh

**Title: Relevance of mind-body connection for a physiotherapist**

**Divya Mohan**, Manipal University, India

**Title: Investigation of the holistic body at the supra molecular level as a new direction in medicine**

**Vladimir Dodtiyevitch**, Academy of Medical and Technical Sciences, Moscow, Russia

**Title: Treatment of low-back pain using ERGON® IASTM technique**

**Konstantinos Fousekis**, Technological Educational Institute of Western Greece, Greece

**Title: Exploring effectiveness of team members in multidisciplinary setup in developing countries**

**Muhammad Naveed Babur**, Isra Institute of Rehabilitation Sciences, Pakistan

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Rehabilitation of hernia discal with physical therapy

**Jeton M Tifeku**

University of Tirana Ferizaj, Albania

Lumbar syndrome entered the group of degenerative spinal cord diseases that are quite common. This process takes place especially in those places where a spinal wheel part passes to the rest of the body less mobile or completely non-mobile. With lumbar syndrome we understand pain and other obstructions in the lumbar region or in the larynx. The disease can manifest itself as lumbago, where the pains are localized only in the lumbar regions, Lumbosacralgia where pain also spreads in the sacral region, and Lumboischiagia where pain also spreads along the lower limbs in one foot or two feet. The etiologic factors are many but in 90% of cases the degenerative intervertebral discrepancy between the L4-L5 and L5-S1 rings is caused. In the ordinance for Physical Therapy and Rehabilitation in Ferizaj, we treated patients with dyskal prolaps and hernia diskale diagnosed with CT or MRI. Patients were with great pain, and difficulty in moving. Patients were treated with physical trauma modalities, last generation and a special protocol where the results were very good. Physical therapy has lasted 2 weeks; each patient has completed a psychiatric examination for his subjective condition. We have used two stages of treatment i.e., Stage One - Pain Relief and Phase Two - Functional Rehabilitation. The modalities that were applied were: Electrotherapy, Kinesiotherapy, Sonotherapy, Ultraviolet Radiation, Sonotherapy, Mc Kenzi, Chiropractic, Vertebral Therapy and Electrophoresis with analgesic in cases of severe pain. At the end of the therapy, the condition of the patients was very good. Results were over 90% of patients did not need surgical intervention, while some cases not having the expected results were due to failure to work and terminate the therapy.

### Biography

Jeton M Tifeku has completed Physiotherapy Technician course in Secondary Medical School "Elena Gjikaj", in Ferizaj during 2001-2005. He obtained Bachelor of Physiotherapy from Physiotherapy Branch, Faculty of Medicine, University of Prishtina during 2005-2009 and Master of Physiotherapy from Physiotherapy Branch, Faculty of Medicine, University of Tirana during 2010-2013. He participated in conferences like 2nd International Congress of Physiotherapy – Tirana in April 2014, International Congress of Physiotherapy – Tirana in December 2013, International Congress of Rheumatology – Prishtina in November 2012, Symposium on Physical Therapy on Neurological Problems in Children and the Elderly - Athens, Greece in October 2011. From October 2008, he is an Ongoing Director and Physiotherapist at the Physical Therapy and Rehabilitation Center "PHYSIOTHERAPY", Ferizaj, Kosovo.

fizioterapia1@hotmail.com

### Notes:

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Neonatal early intervention physical therapy programs' effectiveness of sensory-motor outcomes: A one year experience

**Areej Al-Abdulrahman**

King Abdul-Aziz Medical City, Saudi Arabia

**Statement of the Problem:** The importance of early intervention programs' effectiveness is acknowledged worldwide. Based on its effectiveness Neonatal Early Intervention (EI) Physical Therapy (PT) Program was established one year ago, in King Abdullah Specialized Children's Hospital in Riyadh. The program starts by screening, evaluating and treating neonates during admission and continued after hospitalization discharge following in the Early Intervention Clinic in Outpatient Physical Therapy Department.

**Purpose of the Study:** The purpose of the study is to determine the effectiveness of implementing the EI Program starting from Neonatal Intensive Care Unit (NICU) admission until 12-18 months, Post Conceptual age, on the Sensory-Motor performance after hospitalization discharge, until following the Early Intervention Clinic in Outpatient PT Department in one year duration.

**Methodology & Theoretical Orientation:** Retrospectively all Medical charts were reviewed for all patients and data were collected and statistically analyzed by SPSS, for all patients included in the EI - PT Program ranging from birth until 12-18 months of age. Therefore, patients not included in the EI - PT program since NICU admission will be excluded from the study. Many factors, information and investigations were considered such as; diagnosis, respiratory support modalities, gestational age, post conceptual age, radiology outcomes, postural alignment, length of stay in hospital and the developmental milestone level. Objective measures used are; Osteopathic approach assessment and evaluation, General Movements (GM), Alberta Infant Motor Scale (AIMS). The treatment approaches utilized are; NE-O Osteopathic approach, Bobath concept, and family education.

**Findings:** The results of Neonatal Early Intervention Physical Therapy Program outcomes will be finalized in 4 months' time.

**Conclusion & Significance:** Some considerations as the co-relations between all factors and the collected data besides, the efficacy of Physical Therapy at the early age of intervention.

### Biography

Areej Al-Abdulrahman has an experience of 16 years in Pediatric Physical Therapy, specialized in Neonatal and Early Intervention program establishment. This program's guidelines include screening method, physical therapy referring criteria and categorization list; all established relying on experience, literature review and reliable and valid assessment instruments. This one-year EI program benefits allowed us to include many patients who need PT services, to be able to minimize the risk and complication of disabilities; good findings and outcomes is another major benefit from this plan. The parent's satisfaction and participation were improved. The no-show-rate was less with high commitment by parents to the home program.

therapist23@hotmail.com

### Notes:

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Relevance of mind-body connection for a physiotherapist

**Divya Mohan**

Manipal University, India

Typically, physiotherapist's focus of practice remains pain management. Also, improvement of the movement control and skill is a common goal that the physiotherapist frequently aims to reach. These goals have traditionally been met based on the interventions derived from the understanding of the various structural pathologies or functional insufficiencies in the musculoskeletal system. This understanding can be expanded by understanding that the mind does influence the structural and functional aspects of the musculoskeletal system. Mind body approaches like biofeedback have in the past to some extent been used for the retraining of movement control by trying to retrain the mind. Also towards the management of chronic pain, this understanding has been found to be effective with approaches like relaxation strategies, meditation. But a more in-depth understanding of other mental and emotional process and their contributions to symptoms for which physiotherapy is frequently been sought, could give a physiotherapist a much larger scope in practice. There is research evidence recently that emotional regulation is also found to be useful for the pain management. Likewise, it has been proven that movement quality and performance is greatly influenced by the state of the mind. And retraining of movement skills and control for wide range of discipline like neurological, paediatric, cardiopulmonary and sports rehabilitation could use this premise. Generally, an agitated mind is associated with the poor performance and deterioration of subtle movement qualities like flow, timing, sequencing and thereby impacting its precision, and efficiency. Whereas a better regulated mind can produce smoother and well controlled movement. For example, tone a variable influencing movement also frequently shows variation to mental effort, level of challenge, stress, excessive emotionality, fear of failure, familiarity of task, enthusiasm, and motivation. Hence understanding of the mind-body relations and interactions could assist the physiotherapist to move a step further in management strategies. Hence the talk intends to explore and discuss the ideas around mind-body connection and its relevance to physiotherapists.

### Biography

Divya Mohan has been associated with academics in Physiotherapy since May 2007 after completion of Master's in Physiotherapy from Manipal University, India. She has been involved in intense clinical practice in areas of rehabilitation in Paediatrics with special emphasis on Early Intervention, Cerebral Palsy and Developmental Supportive Care. She draws on a mix of the ideas from sensory integration, biomechanical approaches, and play therapy to provide a customized intervention. Her desire to provide holistic realm of rehabilitation to children encouraged her to complete trainings and utilize techniques of fascia manipulation, craniosacral therapy and somatic experiencing and energy healing for rehabilitation and healing. This combination of therapies that cater mind, body and healing shall benefit both physiotherapist and their clients.

dimspt2002@yahoo.co.in

### Notes:

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Investigation of the holistic body at the supra molecular level as a new direction in medicine

**Vladimir Dodtiyevitch Bitsoyev**

Academy of Medical and Technical Sciences, Russia

The actual task of modern medicine is the early diagnosis of diseases, as well as monitoring the state of the exposed disease and the efficiency of drugs taken with a therapeutic purpose at the supra molecular level. The man is a complex nonlinear system consisting of a large number of different functional structures. Blood system, nervous, endocrine and pulse systems support the information balance in the body, modeling and compensating signaling effects on each other. The blood is an organ that instantly perceives and deposits information of all the processes of the holistic organism in the past, present and future at the supra molecular level simultaneously, that is a main unit of "blood system" which is available in the study and correction from birth to the last minutes of life. It has been established that cardiovascular, nervous and lymphatic systems, as well as formed blood elements are LEDs around which the evanescent (damped) waves are formed that are perpendicular to the external surface of the vessels, capillaries, nerve roots when being exposed by electromagnetic waves on any zone of skin surface, i.e., the holistic organism starts operating the mode of the "scanning tunnel microscope". Therefore, the infrared spectroscopy of the total disturbed internal reflection when touching the infrared fiber of the skin surface is unique, not traumatic, requiring no special skin preparation is a "blood spectro biopsy" from the diagnostic zones and the zones of Ged-Zakharin on the skin surface of a living organism in a normal state, can diagnose the pathology of organs and systems at the atomic level with high accuracy, as well as identify early disease stages, intermediate states of developing pathology and their reduction. This is a new progressive trend in medicine.

### Biography

Vladimir Dodtiyevitch Bitsoyev (PhD Medicine) is an Academician of the Academy of Medical and Technical Sciences, Colonel of Medical Service in retirement, Doctor of the highest category. He graduated from the Military Medical Faculty at the Gorky State Medical Institute with specialty "Medical Treatment" in 1971. From 1971 to 1995, he served in the Armed Forces of the USSR, then in the Russian Federation, as a Neurologist, Head of the Neurological Department in military hospitals, and a Chief Physiotherapist of Moscow Military District. He has 75 scientific publications in national and foreign journals, 1 monograph on "Restorative Medicine", methodological recommendations for physicians in restorative medicine, 4 patents (3 Russian patents and 1 German patent). He has proved the "World Novelty" of water and blood plasma activating under the influence of underwater light therapy through the fiber optic cable. He revealed first previously unknown new mechanisms of the effect of weak electromagnetic waves on the holistic organism as a "tunnel effect", as well as ways of their registration at the atomic and molecular levels.

bitsoev@mail.ru

### Notes:



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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Exploring effectiveness of team members in multidisciplinary setup in developing countries

**Muhammad Naveed Babur**

Isra Institute of Rehabilitation Sciences, Pakistan

A multidisciplinary team refers to a number of health care providers associated with different specialties, each providing specific service to the patient focusing on detailed assessment and treatment. Multidisciplinary teams provide numerous benefits to patients and its team members. Researches on the said topic are indicative that multidisciplinary team approach leads to improved health outcomes and patients and attendants satisfaction levels. The appropriate and effective use of available equipment and modalities results in improved efficacy of services and staff satisfaction at job. Teamwork is the key factor in rehabilitation to achieve holistic goal regarding the problems of patients. This team approach facilitates to acquire the possible and best outcome in rehabilitation. The comprehensive rehabilitation has widespread areas and to manage the person with limited functional is challenge for professional. The health care profession is progressing very fast and new innovations are included in the management. The world is moving towards the concept of collaboration and coordination to get context specific objectives. The different professional in rehabilitation field can come together and provide best expertise to enhance the quality life of patients. Although multidisciplinary teams deliver services based on various skills and experiences as compare to single health care provider but it requires co-ordination among members and appropriate handing over taking over of case load. Effective multidisciplinary team will need good leadership and relations based on respect and trust among team members.

### Biography

Muhammad Naveed Babur is an active Entrepreneur in Rehabilitation Sciences. He is the first ever PhD in Rehabilitation Sciences in Pakistan. Currently, he is holding the position of Principal/Dean at the Isra Institute of Rehabilitation Sciences, Isra University, Pakistan. He is Director International Academy of Rehabilitation Sciences Research & Education (IARSRE), Pakistan. He is the Secretary General of Pakistan Society for Neuro Rehabilitation (PSNR), Pakistan (a member organization of WFNR). He is Founder & Member Board of Directors, Pakistan Physical Therapy Association (PPTA), a WCPT member Organization. He is Member of National Curriculum & Revision Committee, Physical Therapy, Higher Education Commission of Pakistan. He is Editor in Chief of *International Journal of Rehabilitation Sciences (IJRS) and Rehab Times*, Pakistan. He is Full Member of World Association for Medical Editors (USA). He is Chairman of National Rehabilitation Conference (NRC) & Neuro Rehabilitation Conference, Pakistan since 2012. He has 26 research publications and one book to his credit.

naveedphysio@gmail.com

### Notes:



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

# NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

# Workshop

# Day 2

## Novel Physio 2017

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

# NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK



## Zuraida Zainun

*Universiti Sains Malaysia, Malaysia*

### Latest update on vestibular rehabilitation using BAL EX innovation products for balance disordered and stroke patients

Vestibular rehabilitation is one of the optimum treatments to promote the recovery among vestibular disordered and stroke patients. The effectiveness of these physical therapies has been clearly demonstrated. In fact, having an effective therapy that is home based or one to one offers many advantages to the patients and clinicians. Zainun and her colleagues (2009) had developed the first video guided exercise that is home-based known as Bal Ex that is available in multi-languages. Other modules and protocols developed for balance rehabilitation are: Bal Ex Stand Up: Manual footplate for balance rehabilitation, Bal Ex Mobile virtual room for visual vertigo patients, Bal ex stroke home-based video module for stroke rehabilitation, Bal Ex Physio home-based physiotherapy module for stroke patients and others. This module has many advantages which are easy to perform as there are step by step instructions presented with audio and visual cues. Second, since it is home-based, the patients will be able to use as self-guidance and they can minimize their follow up to the hospital for treatment. This is also practical for patients with reduced mobility and it also offers more flexibility. Indirectly, it is also cost-effective in a long run. Indirectly having these latest innovation products will improve our current clinical management of vestibular disordered and stroke patients.

### Biography

Zuraida Zainun is currently working as a Medical Officer at Vertigo Clinic, ORL-HNS Department, PPSP, USM, Malaysia. She has published numerous research papers and articles in reputed journals and has various other achievements in the related studies. She has extended her valuable service towards the scientific community with her extensive research work.

[drzuraida@yahoo.com](mailto:drzuraida@yahoo.com)



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

# NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

## Scientific Tracks & Abstracts Day 2

Novel Physio 2017

## Sessions:

Day 2 August 22, 2017

### Neurological Rehabilitation | Advancements in Physiotherapeutic treatments | Physiotherapy Methods and Instrumentation

Session Chair

**Konstantinos Fousekis**

Technological Educational Institute of Western Greece, Greece

#### Session Introduction

**Title: The problem of SCM muscle in children: Physical treatment, orthotic treatment, and the myogene of SCM in children**

**Visar Tifeku**, Physical Therapy and Rehabilitation Center, Albania

**Title: The fascial distortion model according to S. Typaldos – unlocking the pain code**

**Matthias Fink**, Hannover Medical School, Germany

**Title: Neuropsychological outcomes post broadband and Quranic rhythmic therapy among tinnitus patient**

**Zuraida Zainun**, Universiti Sains Malaysia, Malaysia

**Title: Physiotherapy hand glove**

**Mohammed Alamin**, Sudan University, Sudan

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## The problem of SCM muscle in children: physical treatment, orthotic treatment, and the myogene of SCM in children

**Visar Tifeku**

Physical Therapy and Rehabilitation Center, Albania

The purpose of this research was to analyze patients treated with myogenium torticulis at the Psychiatric Clinic for the period from November 2016 to April 2017. The research is retrospective time with the descriptive component. Study subjects were 116 cases and were analyzed during 10 treatment days. We have analyzed the treatment based on gender, age, place, physical therapy and the attacked side. Statistical calculations, tables and graphs are worked on the SPSS program. Torticulis is a deformity characterized by the lateral flexion (flexion) of the head to the arm on the side of the localization of deformity and its rotation on the opposite side. It is caused by unilateral contractility of the sternocleidomastoid muscle and secondary muscle relaxation and neck fascias. The word Torticulis is derived from the Latin words, "*tortus*", twisted, and "*collum*" neck. Torticulis can be: primary (congenital) and secondary (gained). Congenital torsion is manifested at birth. Acquired or secondary torsion is manifested in most infants, in children and adults.

### Biography

Visar Tifeku has completed Physiotherapy Technician Course in Secondary Medical School "Elena Gjika", in Ferizaj. In 2017, he started Senior Studies at the Faculty of Medicine in Physiotherapy Course. He has extended his valuable service towards the scientific community with his extensive research work.

visar.tifeku@msn.com

**Notes:**

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## The fascial distortion model according to S. Typaldos – unlocking the pain code

Matthias Fink and Georg Harrer Vienna  
Hannover Medical School, Germany

The fascial distortion model (FDM) is an anatomical-functional diagnosis and treatment concept, postulating that every painful functional impairment of the musculoskeletal system is the result of one or more of six abnormalities, so-called fascial distortions (subcutaneous connective tissue, ligaments, intermuscular septa, periosteum). Injuries (esp. blunt trauma) are also categorized using this distortion system. The mechanism of injury, the body language and the clinical findings are combined to establish a diagnosis which leads to precisely one therapeutic consequence. In the context of FDM, the term body language means that patients do not only show the painful site or area with their hand but also the type of underlying pathophysiology. Based on the pain body language, the therapist can recognise the underlying fascial distortion. In this way, the patient becomes the director of his treatment. Techniques used for this are the combinations of manual soft tissue techniques in the subepidermal connective tissue as well as impulse techniques at the extremities, vertebral joints and intermuscular septa. Concept of the Fascial Distortion Model and recent results of clinical trials will be presented.

### Biography

Matthias Fink is leading an Outpatient Ambulance for Complementary Medicine at the Hannover Medical School and performed also Clinical and Experimental Studies in this field for over 20 years. His new focus is Clinical Studies on the Fascial Distortion Model (FDM).

fink.matthias@mh-hannover.de

Notes:

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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Neuropsychological outcomes post broadband and Quranic rhythmic therapy among tinnitus patient

Zuraida Z, Muzaimi M, Mohd Normani Z, Dinsuhaimi S and Reza MF  
Universiti Sains Malaysia, Malaysia

Tinnitus is not a disease but a symptom where the person can hear the ringing sounds in their ears without external stimuli and it is a disquieting problem experienced by the affected individuals. One of the challenges in the treatment of tinnitus is determining effective therapy for individual sufferers. Of the treatment options, Quranic therapy has the least clinical evidence. Main aim of this study is to assess the cognitive and psychological changes in tinnitus patients rehabilitation outcome post Quran rhythm and broadband noise using behavioral test (BAI, BDI, ATQ), P300). In this study, 25 tinnitus patients (14 BBM group and 11 Quranic group) with age range from 29 to 55 years old were recruited. The outcomes of psychological evaluations on 12 patients who suffer from tinnitus in a pre and post treatment study with a six months therapy period. They were divided into two different groups according to their mode of treatment (Quranic rhythm and Broadband Masker). Upon informed consent, all patients completed the Beck Anxiety Inventory (BAI-M), Beck Depression Inventory (BDI-M), Automatic Thought Questionnaire (ATQ-M) and underwent p300 test. The results showed that Group 1 (Quranic rhythm) evidenced more functional and psychological improvement and Group 2 (Broadband noise) has shown better cognitive improvement. Post therapy, group 1 showed a lower mean score in BDI-M compared to group 2. Post BBM group showed better outcome with larger amplitude significantly in these electrodes F7, T3, T4 and FZ. This case study provides some evidence that tinnitus patients benefitted from Quranic rhythm therapy in term of psychological improvement and broadband noise therapy improved patient cognitive functions. To improve validity, more studies with a bigger sample size that would enable comparisons across tinnitus onset ages and other types of tinnitus treatments are recommended for a wider generalization.

### Biography

Zuraida Z is currently working as a Medical Officer at Vertigo Clinic, ORL-HNS Department, PPSP, USM, Malaysia. She has published numerous research papers and articles in reputed journals and has various other achievements in the related studies. She has extended her valuable service towards the scientific community with her extensive research work.

drzuraida@yahoo.com

### Notes:



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

# Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

## Physiotherapy Hand Glove

**Mohamed Alamin**

Sudan University, Sudan

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.

alameem733@gmail.com

**Notes:**