

iMEDiTEC 2017

PROGRAMME BOOK

INTERNATIONAL MEDICAL DEVICE AND TECHNOLOGY CONFERENCE

6th-7th SEPTEMBER 2017

JOHOR BAHRU

ORGANISER



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

MediTeg



**Medical Devices &
Technology Group**

MEDICAL DEVICE

SCIENCE ▼ ENGINEERING ▼ HUMANITIES



ACADEMIA ▲ INDUSTRY ▲ AUTHORITIES

TRIPLE HELIX

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FOREWORD BY THE CHAIR

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Bismillahirrahmanirrahim

On behalf of the organising committee, I would like to extend my warm welcome or 'Selamat Datang' to all the delegates attending this International Medical Device and Technology Conference (IMEDITEC) 2017. We are indeed very proud and honoured to organise this conference!

"Triple Helix Medical Device", has been chosen as IMEDITEC theme, which reflects the synergic co-existence of three key players; academia, industry and authority, in striving towards advancing medical device, globally. IMEDITEC also welcomes everyone of the same interest, be it scientist, engineer, industry player, regulatory agency, to meet and present their research findings and running projects, in a collaborative and receptive environment.

In this one and a half day conference, we've got so much to offer! Our keynotes are of those prominent in their very subject, and each of them represents the respective helix aforementioned as part of the conference theme. The day will be further spiced up by presentations of high quality papers from our highly dedicated scientists and engineers during the parallel sessions. There are 15 tracks, with diverse fields of related subjects. All these presentations are surely not to be missed!

IMEDITEC2017 will also witness another big event, wherein an MOU will be signed by Universiti Teknologi Malaysia (UTM) and Cyberjaya University College of Medical Sciences (CUCMS), aiming to further tighten existing collaborations. Many research projects and academic programmes are in the pipeline, waiting to be handsomely executed. The future of medical device is now apparently!

Lastly, my utmost appreciation to all speakers, professional organisations, societies, government agencies, university colleagues and companies for their continued and invaluable supports in making this conference a success.

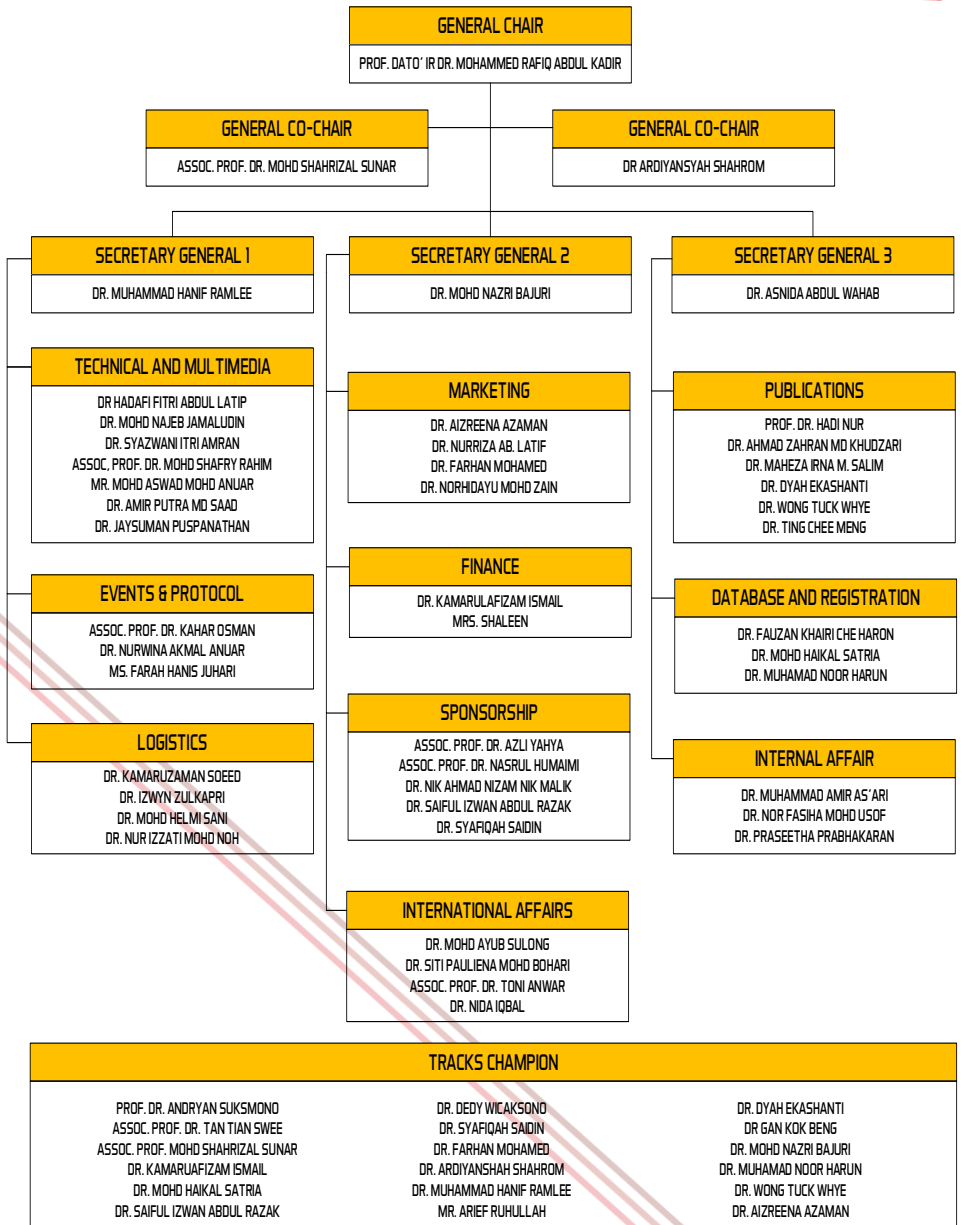
To everyone, I wish you all a fruitful and enjoyable conference!

Best wishes,

Prof. Dato' Ir. Dr. Mohammed Rafiq bin Dato' Abdul Kadir,
Chair, IMEDITEC 2017



ORGANIZING COMMITTEE



We are promoting a triadic relationship between 3 important sectors to spur growth of medical device innovations and related economic development. This is only possible through hybridisation of elements (helices) of university, industry and government in realising the transfer and application of knowledge through a complete economic chain from innovative ideas to lab testing, policy making and mass production.

Industry, as the driving force, could provide a balanced configuration, between transition of a specific knowledge to society, and offer insights for innovation in the field. Being customer-driven, practicality and feasibility will strengthen focused research in the world of academia. Creating a favorable environment with the aim of sustainable product development is the key for the triple helix success.

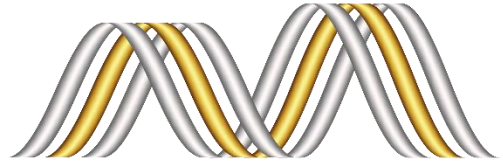
University's "third mission" of commercialisation (after the first two missions of teaching and research) could be made more effective through the concept of Triple Helix. It takes a pro-active stance in creating new knowledge, putting it to use, and operates with an interactive model of innovation.

It provides higher levels of training and sharing of knowledge through joint exploitation of intellectual properties. The socio-economic development could only be realised through collaborative efforts in the triple helix.

Government could play a leading role in driving academia and industry, but its capacity to initiate and develop innovative transformations is limited. It could also act as a public entrepreneur and venture capitalist in addition to its traditional role in setting the rules of the game. Initiatives to enhance the whole system will only come to fruition through collaboration with experts in academia and industrial leaders.

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TRIPLE HELIX

This conference is a starting point in our endless efforts to spur the growth of the medical device sector by providing a platform to develop an explicit framework for the systemic interactions between Triple Helix actors - Academia, Industry & Authorities. The circulation of knowledge flows and the non-linear interactions between them will allow successful exploration of complex innovation dynamics in the medical device sector.

KEYNOTE SPEAKERS

Prof. Dr. Ir. H. Muhammad Nuh

Professor of Biomedical Engineering
Institut Teknologi Sepuluh Nopember



Prof. Nuh is a Professor of biomedical system engineering at the Institut Teknologi Sepuluh Nopember (ITS), one of Indonesian's Institution of higher learnings well known in the field of engineering and technology. He was the Indonesian Minister for Education and Culture for 5 years, from 2009-2014, and the Minister Communication and Informatics from 2007-2009. Previously, he was appointed as the Rector for ITS from 2003-2006, the youngest Rector ever appointed at the age of 42. He used to be the Director of Politeknik Eletronika Negeri Surabaya (PENS), where through his leadership, PENS became a trusted partner of Japan Industrial Cooperation Industry (JICA) and secured extensive financial collaboration. During his service to Indonesian's President Susilo Bambang Yudhoyono, he introduced the concept of Information Bridging and completed a book entitled Strategy, Utilization & Policy Direction of Information and Communication Technology.

Mr. Zamane Abdul Rahman

Chief Executive, Medical Device Authority

Mr. Zamane is currently the Chief Executive of the newly formed Medical Device Authority. He was formerly the Director of the Medical Equipment Control Division Ministry of Health Malaysia from September 2008 until March 2013. He was primarily involved in the drafting the Medical Device Bill and the Medical Device Authority Bill during his tenure as the Director and was responsible for ensuring that the Malaysia Parliament passed the two bills and promulgating it into law. In terms of global harmonization and medical device regulatory convergence among ASEAN, he represents Malaysia and appointed as the chair of the Medical Device Product Working Group (MDPWG) which is responsible for drafting out the ASEAN Medical Device Directive (AMDD).



KEYNOTE SPEAKERS

Prof. Ir. Dr. Ahmad Fadzil Mohamad Hani

President & Group Chief Executive
SIRIM Berhad



Prof. Fadzil is the President and Group Chief Executive of SIRIM. Previously he held the post of Deputy Vice Chancellor (Research & Innovation) at Universiti Teknologi Petronas (UTP). He received his PhD in Image Processing from the University Malaysia since 1984, before joining UTP in 1997. He was appointed as General Manager in Frontier Technology at Petronas Research in 2008 before returning to UTP as Deputy Vice Chancellor (Academic) from 2010 to 2016. He is a Fellow Prince Court Medical Centre, Kuala Lumpur. An expert, in signal and image processing, Prof. Fadzil is the founder and head of the Centre for Intelligent Signal and Image Processing (CISIR), a centre that started as a research lab in 2000, which has been awarded a National Higher Institution Centre of Excellence (HiCOE) status in 2014. His recent research includes analysing mental health in workplace via FNIRS technology

Dr. Akhmal Yusof

Chief Executive Officer, Clinical Research Malaysia



Dr. Akhmal Yusof obtained his Bachelor of Medicine and Bachelor of Surgery (MBBS) from the Royal College of Surgeon, Ireland in 1992. He started serving the Ministry of Health as a House Officer at the University of Malaya Medical Centre and subsequently as a Medical Officer at Tanjong Karang Hospital, Kuala Lumpur Hospital and Tawakal Medical Centre between 1993 and 2000. He later ventured into Medical Insurance under the American International Assurance, Kuala Lumpur as Medical Manager (2000-2002). It was in AstraZeneca Sdn Bhd where he gained extensive experience in the field of research-based biopharmaceutical where he was the Medical Director across Malaysia, Singapore and Brunei. He later assumed the position of Head of Government Affairs. Dr. Akhmal was in AstraZeneca Sdn Bhd from 2002 to 2015. Dr. Akhmal is currently a member of the Ethics Committee of the Pharmaceutical Association of Malaysia (PhAMA) and a member of the National Committee for Clinical Research (NCCR). He is currently the Chief Executive Officer of Clinical Research Malaysia.

GENERAL PROGRAMME SCHEDULE

6 SEPTEMBER 2017

- 8.00 am Registration
- 9.00 am IMEDITEC 2017 Opening Ceremony
- 9.20 am Keynote Speaker 1: **Mr. Zamane Abdul Rahman**
Chief Executive, Medical Device Authority
- 9.30 am Keynote Speaker 2: **Prof. Ir. Dr. Ahmad Fadzil Mohamad Hani**
President & Group Chief Executive, SIRIM Berhad
- 10.00 am Invited Speaker: **Assoc. Prof. Dr. Takahisa Yamamoto**
National Institute of Technology, Gifu College, Japan
- 10.20 am Photography session & Break
- 11.00 am Parallel session
- 1.00 pm Lunch
- 2.10 pm Keynote Speaker 3: **Dr. Akhmal Yusof**
Chief Executive Officer, Clinical Research Malaysia
- 2.30 pm Keynote Speaker 4: **Prof. Dr. Ir. H. Muhammad Nuh**
Professor of Biomedical Engineering
Institut Teknologi Sepuluh Nopember, Indonesia
- 3.00 pm MoU Signing Ceremony between UTM & CUCMS
- 3.45 pm 3D Hand Booth Visit & Break
- 4.15 pm Parallel Session
- 6.15 pm Conference End
- 7.30 pm Registration for conference dinner
- 8.00 pm Gala Dinner at Pulau Springs Resort
- 11.00 pm End

7 SEPTEMBER 2017

- 9.30 am IMEDS First Assembly
- 11.00 am Light Refreshment
- 11.30 am Nusajaya Coach Tour
- 5.00 pm Return to FBME, UTM



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6 SEPTEMBER 2017

SEMINAR ROOM 1 & 2

- 3.00 pm Arrival of delegates
3.05 pm Arrival of VIP
 Recitation of Doa
3.15 pm Welcome address by
 YBhg. Prof. Dato' Ir. Dr. Mohammed Rafiq Abdul Kadir
 Dean, Faculty Biosciences & Medical Engineering
3.20 pm Speech from CUCMS representative
3.25 pm Montage of UTM-CUCMS Collaborations
3.30 pm MoU signing ceremony
3.35 pm Press conference

UNIVERSITI TEKNOLOGI MALAYSIA

- Signee **YBhg. Prof. Datuk Ir. Dr. Wahid bin Omar**
 Vice Chancellor, Universiti Teknologi Malaysia
Witness **YBhg. Prof. Dato' Ir. Dr. Mohammed Rafiq bin Abdul Kadir**
 Dean, Faculty Biosciences & Medical Engineering

CYBERJAYA UNIVERSITY COLLEGE OF MEDICAL SCIENCES

- Signee **YBhg. Prof. Dato' Dr. Mohamad bin Abdul Razak**
 President, Cyberjaya University College of Medical Sciences
Witness **YBhg. Prof. Dr. Abdul Latiff bin Mohamed**
 Deputy President, Cyberjaya University College of Medical Sciences

PRESENTATION SCHEDULE 1

Session 1 : Biomaterials Time : 11am - 1pm
Venue : Lecture Room 2

Time	ID	Author	Title
11.00	6	NIK AHMAD NIZAM NIK MALEK et al	CELL VIABILITY AND MIGRATION STUDY OF HYDROXYAPATITE ENCAPSULATED SILICA AEROGEL (HAESA) TOWARDS NORMAL HUMAN FIBROBLAST CELLS
11.15	47	NORHIDAYU MUHAMAD ZAIN*; MOHAMMED RAFIQ ABDUL KADIR	THE STABILISATION OF CALCIUM CARBONATE VATERITE PHASE VIA INTEGRATION OF MUSSEL-INSPIRED POLYDOPAMINE
11.30	67	SAYYID AHMAD ASYRAF SAMSUDIN et al	EFFECT GAMMA IRRADIATION ON STARCH-BASED BIOMATERIALS COMPOSITES FOR WOUND HEALING
11.45	73	FADILA NASHIRI KHOIRUN NISAK et al	ANTIBACTERIAL ABSORBABLE SURGICAL SUTURE BASED ON PLGA-COLLAGEN WITH CITRUS PARADISE EXTRACT
12.00	77	ERNIE MADURATNA SETIAWATIE A et al	VIABILITY HYDROXIAPATITE FROM TOOTH BOVINE ON BONE MARROW MESENCHYMAL STEM CELLS
12.15	78	IRA WIDJASTUTI * et al	LACTOBACILLUS ACIDOPHILLUS STIMULATES THE ACTIVATION OF NFK-B AND DMP-1 ODONTOBLAST LIKE CELLS IN THE DENTINOGENESIS PROCESS
12.30	80	LATIEF MOODUTO A* et al	CYTOTOXICITY OF SODIUM HYPOCHLORITE, CHLORHEXIDINE AND PROPOLIS ON HUMAN PERIODONTAL LIGAMENT FIBROBLAST CELL
12.45		AKBAR TEGUH PRAKOSO et al	EFFECT OF FLOW CHARACTERISTICS ON BIODEGRADATION OF BONE SCAFFOLD

Session 2 : Smart Biopolymer Time : 11am - 1pm
Venue : Lecture Room 3

Time	ID	Author	Title
11.00	29	WANG RACHAEL *	ENCAPSULATING ESSENTIAL OILS IN HNT FOR SMART PACKAGING SYSTEMS
11.15	64	NURUL SHAFIQA MOHD YUSOF et al	ULTRASOUND IMAGING AND CHARACTERIZATION OF CARDIAC MUSCLE PHANTOM
11.30		RETNO INDRAWATI ROESTAMADJI* et al	INCREASED LEVELS OF HUMAN B DEFENSINS IN CHILDS WITH DENTAL CARIES
11.45	82	SRI KUNARTI A* et al	COMPARISON OF THREE MOUTHWASHES CONTAINED IPMP, CHLORINE DIOXIDE AND CHLORHEXIDINE GLUCONAT TO REDUCED EXOPOLYSACCHARIDE BIOFILM PRODUCED BY STREPTOCOCCUS MUTANS
12.00	83	TAMARA YUANITA * et al	THE EFFECT OF COCOA HUSK EXTRACT AGAINST THE AMOUNT OF EXTRACELLULAR POLYSACCHARIDE (EPS) ENTEROCOCCUS FAECALIS BIOFILM
12.15		WIDYA SARASWATI * et al	THE EXPRESSION OF HMGB1 IN DENTIN PULP COMPLEX INDUCED BY RESIN MONOMER HEMA
12.30		NIRAWATI PRIBADI A* et al	THE DIFFERENCE BETWEEN NEUTRAL PH AND OPTIMAL PH DUE TO THE AMOUNT OF GLUCOSE AS THE PRODUCT OF METABOLISM OF GLUCOSYL TRANSFERASE ENZYME STREPTOCOCCUS MUTANS

PRESENTATION SCHEDULE 2

Session 3 : Biomechanics
Surgery & Surgical Technology

Time : 11am - 1pm
Venue : Lecture Room 4

Time	ID	Author	Title
11.00	57	RAIHAN ABDUL KADIR*	SHAPE MEMORY ALLOY-BASED ACTUATOR FOR ENDOSCOPIC SURGICAL INSTRUMENT
11.15	76	DIAN AGUSTIN WAHJUNINGRUM A* et al	EFFECT OF EXTRACT PROPOLIS ON THE ADHERENCE OF ENTEROCOCCUS FAECALIS AS A CANDIDATE ROOT CANAL IRRIGATION SOLUTION
11.30	79	KUN ISMIYATINA A *et al	THERAPEUTIC EFFICACY OF TOPICAL EPIGALLOCATECHIN-GALLATE AS A NEW THERAPEUTIC STRATEGY FOR INHIBITION OF PAIN CONDUCTION ON RAT MODELS WITH ACUTE PULPAL INFLAMMATION
11.45	14	SITI BADRIAH RAZAK*; MOHD NGALI	A REAL-TIME MONITORING OF WARDED PATIENT VIA MOTION CAPTURE SYSTEM
12.00	25	JAMALUDDIN MAHMUD*	MEASURING ANKLE ANGLE AND ANALYSIS OF WALKING GAIT USING KINOVEA
12.15	38	KHENG LIM GOH*	DEVELOPMENT OF A NOVEL MICROMECHANICAL TESTER FOR BIOMEDICAL ENGINEERING APPLICATIONS
12.30	66	NURULNATISYA TISYA AHMAD ET AL	FLOW SIMULATION OF PATENT DUCTUS ARTERIOSUS TO EVALUATE THROMBOSIS FACTORS ON CLOSURE DEVICE

Session 4 : Medical Imaging and Interaction Technology
Healthcare Information Technology

Time : 11am - 1pm
Venue : Lecture Room 5

Time	ID	Author	Title
11.00	11	YUSMAN AZIMI YUSOFF* et al	VISUALIZING VOLUME IN CT IMAGES USING VASCULAR MODELLING TOOLKIT
11.15	32	NUR AFIKAH ZAINAL ABIDIN et al	AWAKENING EVENT DETECTION USING KINECT-LIKE DEPTH IMAGE FOR FALL PREVENTION AMONG BEDRIDDEN PERSON
11.30	81	TAUFAN BRAMANTORO* et al	COULD WE PREDICT CARIES RISK OF CHILDREN BEFORE THEY WERE BORN? THE SENSITIVITY AND SPECIFITY TEST OF MOTHER BELIEF EARLY CHILDHOOD CARIES RISK PREDICTOR SOFTWARE
11.45	41	MOHAMAD HAIDER ABU YAZID* et al	ARTIFICIAL NEURAL NETWORK IN CLINICAL PATHWAY VARIANCE PREDICTION: GENERAL FRAMEWORK
12.00	53	MURK MEMON*	LABVIEW BASED STRYKER TRANSPORT STRETCHER
12.15	43	MOHD KHALID MOKHTAR*	REAL-TIME INTERACTIVE VISUALIZATION OF SIMULATED BLOOD FLOW DATA WITH PHYSICAL-BASED ANIMATION

PRESENTATION SCHEDULE 3

Session 5 : Mechanobiology, Biophysics & Modelling Time : 11am - 1pm
Sport Technology and Engineering Venue : Auditorium Ibnu Rushd

Time	ID	Author	Title
11.00	40	FATIMAH DZAHARUDIN*	EFFECTS OF MICROBUBBLE SIZE ON THE DYNAMICAL BEHAVIOUR OF ENCAPSULATED SONOVUE® CONTRAST AGENTS IN ULTRASONIC FIELDS
11.15	61	SYAZATUL ANIZA ARSHAD et al	NUMERICAL MODELLING OF BLOOD CELLS DISTRIBUTION IN FLOW THROUGH CEREBRAL ARTERY ANEURYSM
11.30	62	MOHD JAMIL MOHAMED MOKHTARUDIN*	2D FINITE ELEMENT ANALYSIS OF CEREBRAL TISSUE SWELLING OCCURRENCE IN BRAIN ISCHAEMIA-REPERFUSION INJURY
11.45		MOHD AYUB SULONG, et al	MECHANICAL DEGRADATION MODEL OF BIODEGRADABLE SCAFFOLDS: A COMPUTATIONAL APPROACH
12.00		AKBAR TEGUH PRAKOSO, et al	A COMPARISON OF DEGRADATION RATE BONE SCAFFOLD MORPHOLOGY BETWEEN COMPUTER SIMULATION AND EXPERIMENTAL RESULT
12.15	37	NURUL FARHA BINTI ZAINUDDIN*	THE BIOMAKERS OF BRAIN ACTIVITY, PHYSIOLOGY AND BIOMECHANICS IN CYCLING PERFORMANCE: A LITERATURE REVIEW
12.30	52	ZULKIFLI AHMAD*	DETECTION OF LOCALISED MUSCLE FATIGUE BY USING WIRELESS SURFACE ELECTROMYOGRAM (SEMG) AND HEART RATE IN SPORTS

Session 6 : Biomedical Electronics and Instrumentation Time : 4.15pm - 6.15pm
Venue : Lecture Room 2

Time	ID	Author	Title
4.15	12	SHAIFUL BAHRI ZAINAL ABIDIN	KINEMATIC ANALYSIS ON REACHING ACTIVITY FOR HEMIPARETIC STROKE SUBJECTS USING VIDEO PROCESSING METHOD
4.30	15	AHMAD G W RAHMAN*, et al	ELECTRIC STANDING WHEELCHAIR CONTROLLER TO PROVIDE USER SAFETY AND COMFORTNESS
4.45	24	MOHD NAJEB JAMALUDIN*; ZULKIFLI AHMAD	DESIGN OF LOW POWER AND MINIATURE WEARABLE ELECTROMYOGRAM FOR HUMAN-MACHINE INTERFACE
5.00	39	AMIRUL SYAFIQ*; JAMALUDIN JALANI	THE DEVELOPMENT OF FORWARD KINEMATICS FOR A 3 FINGER ADAPTIVE ROBOT GRIPPER
5.15	42	KIM SOON CHONG*	DEVELOPMENT OF THERMAL CYCLER USING PROPORTIONAL- INTEGRAL CONTROLLER FOR POLYMERASE CHAIN REACTION
5.30	50	SAMEEN A MALIK et al	EFFECTS OF ULTRAVIOLET LIGHT-EMITTING DIODES (UVA-LEDS) IRRADIATION ON ESCHERICHIA COLI FOR INACTIVATION OF MICROORGANISMS
5.45	59	NURUL ASHIKIN ABDUL-KADIR*, et al	A WEARABLE ECG DEVICE USING NEUROSKY CARDIO MODULE
6.00	60	SAMEEN A MALIK et al	CONTACTLESS POWER TRANSFER SYSTEM FOR LOW POWER MEDICAL DEVICES

PRESENTATION SCHEDULE 4

11

Session 7 : Biomedical Image Processing

Time : 4.15pm - 6.15pm

Venue : Lecture Room 3

Time	ID	Author	Title
4.15	5	ALI HUSSEIN SABRY*	PLANTAR PRESSURE REPEATABILITY DATA ANALYSIS FOR HEALTHY ADULT BASED ON EMED SYSTEM
4.30	7	KAYODE A. AKINTOYE*	ENHANCEMENT OF FINGER VEIN IMAGE USING MULTIFILTERING ALGORITHM
4.45	21	MOHD JUZAILA ABD. LATIF* et al	GRAYSCALE ASSESSMENT OF LOW-FIELD MAGNETIC RESONANCE IMAGING OF ARTICULAR CARTILAGE IN SYNOVIAL JOINT
5.00	49	NURSYAZANA BINTI RIDZUAN*; ASNIDA A WAHAB	MUSCLE FATIGUE EVALUATION USING NON-INVASIVE INFRARED THERMOGRAPHY TECHNIQUE WITH ASSISTED ELECTROMYOGRAPHY : A PRELIMINARY STUDY
5.15	63	NURULAZIRAH MD SALIH* et al	STRUCTURAL CHARACTERIZATION OF ECG-GATED CARDIAC CT IMAGES: TEXTURE ANALYSIS ON SYSTOLE AND DIASTOLE PHASES
5.30	65	TENGKU AHMAD ISKANDAR TENGKU ALANG; et al	EDGE DETECTION IN MAGNETIC RESONANCE IMAGES USING GLOBAL CANNY ALGORITHM
5.45	36	ALI ALZAIDI*	WIRELESS BIPOLAR ELECTROSURGICAL DEVICE BY USING POWER ENERGY TRANSFER

Session 8 : Biomedical Image Processing

Time : 4.15pm - 6.15pm

Neuroscience Engineering

Venue : Lecture Room 4

Biosensor, Bio-diagnostic, Bio-mems & Bio-chips

Time	ID	Author	Title
4.15	51	CHEE-MING TING*; SH-HUSSAIN SALLEH	ESTIMATING BRAIN CONNECTIVITY IN SCHIZOPHRENIA PATIENTS USING ELECTROENCEPHALOGRAPHY SIGNALS
4.30	70	MAIZATUL NADWA CHE AZIZ* et al	HYPERTHERMIA THERAPY MONITORING WITH GUIDANCE OF B-MODE ULTRASOUND
4.45	72	MOHD SYAKIR FATHILLAH et al	COMPLEXITY ANALYSIS ON EEG SIGNAL VIA LEMPEL-ZIV AND APPROXIMATE ENTROPY: EFFECT OF MULTIREOLUTION ANALYSIS
5.00	34	SITI NORHAYATI MD YASSIN*	STUDY ON EMPATHETIC-PAIN PERCEPTION IN BRAIN INDUCED BY THREE LEVELS OF EMPATHETIC-PAIN PERCEPTION STIMULI
5.15	8	ANIS N NORDIN et al	TOXICITY STUDIES OF NATURAL PRODUCT IN VERO CELLS USING IMPEDANCE MONITORING
5.30	48	MURK MEMON*	WIRELESS BRAIN COMPUTER INTERFACE STREAMS CONTROL COMMAND
5.45	74	FADLI AMA et al	DETECTION OF LUNG CANCER USING WAVELET DECOMPOSITION SELF-ORGANIZING MAP (SOM)

PRESENTATION SCHEDULE 5

Time : 4.15pm - 6.15pm

Venue : Lecture Room 5

Session 9 : Medical Implants

Time	ID	Author	Title
4.15	10	ROSDAYANTI MS. FUA-NIZAN* et al	MANUFACTURING METHODS FOR MEDICAL PROSTHESES- A REVIEW
4.30	18	ABDUL 'AZEEZ ABDU ALIYU et al	FABRICATION OF NANOPOROSITIES ON METALLIC GLASS SURFACE BY HYDROXYAPATITE MIXED EDM FOR ORTHOPEDIC APPLICATION
4.45	27	MUHAMMAD HANIF RAMLEE* et al	DIFFERENT MATERIALS OF MITKOVIC EXTERNAL FIXATOR INFLUENCE THE STABILITY AND STRESS CONCENTRATION OF OPEN SUBTALAR DISLOCATION - A FINITE ELEMENT STUDY
5.00	44	RUSLIZAM DAUD*	PREDICTION OF STRESS SHIELDING AROUND IMPLANT SCREWS INDUCED BY THREE-POINT AND FOUR-POINT BENDING
5.15	45	RUSLIZAM DAUD*	EFFECT OF CEMENT LINE SHIELDING ON THE STRESS DISTRIBUTION IN SINGLE OSTEON WITH DIFFERENT HAVERSIAN CANAL DIAMETERS AND LACUNAE
5.30	46	RUSLIZAM DAUD*	STRESS INTERACTION ANALYSIS OF UNIAXIAL FIXATOR PINS-DIAPHYSIS FEMUR BONE INTERFACE SUBJECTED TO FOUR-POINT BENDING
5.45	58	ABDUL HADI ABDUL WAHAB*	DIFFERENT MATERIAL PROPERTIES OF CANCELLOUS BONE INFLUENCE GLENOID COMPONENT LOOSENING: A FINITE ELEMENT STUDY
6.00	68	ABU BAKAR SULONG*	TIGAL 4V/WOLLASTONITE COMPOSITE THROUGH POWDER INJECTION MOLDING PROCESS FOR BONE IMPLANT APPLICATION

Time : 4.15pm - 6.15pm

Venue : Auditorium Ibnu Rushd

Session 10 : Rehabilitation Technology & Engineering

Time	ID	Author	Title
4.15	4	KRISHNAN SUBRAMANIAM* et al	EXPERIMENTAL INVESTIGATION OF SHAPE MEMORY ALLOY (SMA) - FORCE AND ANGLE ANALYSES
4.30	16	RENALDO HERDIANO PUTRA* et al	DETERMINATION OF CENTER OF GRAVITY ON ELECTRIC STANDING WHEELCHAIR
4.45	20	IDRIS MAT SAHAT* et al	DEVELOPMENT OF WALKING GAIT CUE STICK WITH LASER AND STABILITY CONTROL FOR PATIENTS WITH TRAUMATIC BRAIN INJURY
5.00	22	MOHD AZRUL HISHAM BIN MOHD ADIB*	DEVELOPMENT OF THE WRIST REHABILITATION THERAPY (WRIST-T) DEVICE BASED ON AUTOMATIC CONTROL FOR TRAUMATIC BRAIN INJURY PATIENT
5.15	28	MISPAN BIN MANGON* et al	ASSESSING ELECTROMYOGRAPHY (EMG) RESPONSE OF LOWER ARM NERVES TO THE ACUPRESSURE SPORT MASSAGE : A PRELIMINARY STUDY
5.30	54	AIZREENA AZAMAN* et al	ANALYSIS OF LEG MUSCLE ACTIVITY ON DIFFERENT BALANCE TRAINING DEVICES
5.45		AMIR PUTRA MD SAAD et al	POLYETHYLENE WEAR IN TOTAL ANKLE REPLACEMENT IS INFLUENCED BY ITS RADIAL CURVATURE: A COMPUTATIONAL WEAR SIMULATION STUDY



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