

# KNOWLEDGE, PERCEPTION AND PRACTICE OF PROPER COLLIMATION IN PAEDIATRIC CHEST X-RAY AMONG IIUM UNDERGRADUATE MEDICAL IMAGING STUDENTS



Inayatullah Shah Sayed, Amira Syazwani Binti Misri, Najihah Binti Shaik Nurudin

Department of Diagnostic Imaging and Radiotherapy, Kulliyyah of Allied Sciences, International Islamic University Malaysia, Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

### INTRODUCTION

Chest X-ray examination is important in diagnosing medical illnesses associated with the lungs, heart, and chest wall. Chest X-ray also has been used as a baseline imaging in Medical Imaging. Thus, a large number of chest X-ray examinations are requested by the clinicians especially in infants. Given this situation, a radiographer plays a vital role in minimizing the patient dose while producing a diagnostically acceptable radiograph. Principle of ALARA and proper beam collimation can be implemented in reducing patient exposure. This is because collimation can control the size of the beam reaching the patient's body part of examination which will affect the amount of scatter radiation produced. Larger collimation will increase the production of scatter radiation, thus increasing the patient dose, and reducing the image quality.

### **OBJECTIVES**

To evaluate the level of knowledge, perception, and practice of year 3 and year 4 undergraduate students of IIUM Medical Imaging on proper collimation in paediatric chest X-ray examination.

### MATERIALS AND METHODS

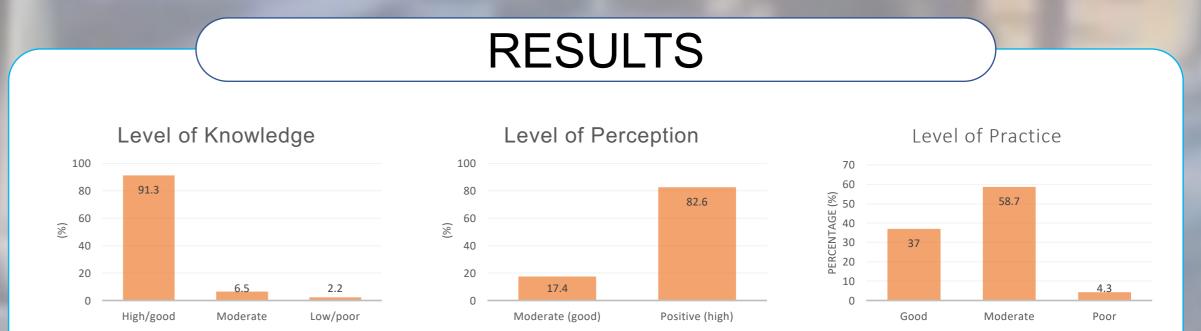
A cross-sectional study design was used to collect the data conducted A set of questionnaire was developed and distributed among the respondents via the Google Form. It consisted of four sections which were respondents' demographic data, knowledge, perception, and practice. The minimum sample size required for this study at 95% Confidence Interval and 5% margin of error is 46 students. The sample size was calculated using Slovin's formula as shown in Equation 1.

$$n=N \div (1+Ne^2)$$
 Equation 1

Where *n* represents the number of samples, *N* is the total population and *e* is the margin of error.

Statistical analysis of the data were conducted

using SPSS Version 26.



Graphs show that the level of knowledge, perception and practice of IIUM Medical Imaging undergrade students on the use of proper collimation in paediatric chest X-ray examination, respectively. Further, results revealed that there is no significant relationship between these three elements at *p*-value <0.05.

### DISCUSSION

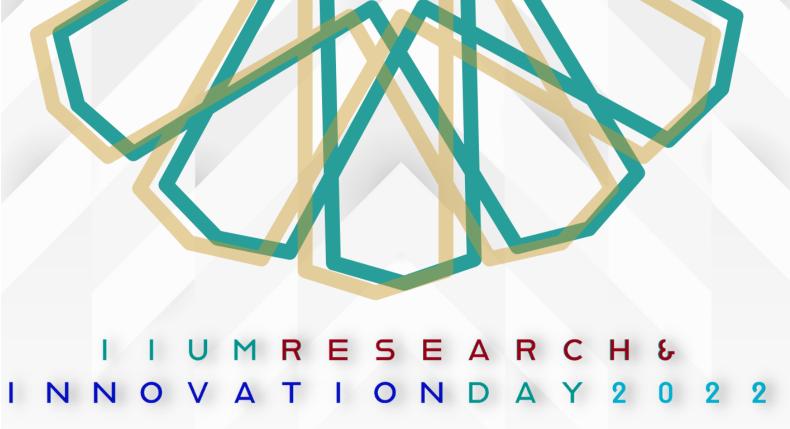
The level of knowledge related to collimation in Medical Imaging among the respondents obtained was significantly high with a percentage of 91.3%. This indicates that the respondents are well informed with the collimation techniques and terms. Five Likert Scale questions were used in evaluating the perception level of the respondents on the effect of collimation in paediatric imaging. A positive perception of 82.6% (38) was portrayed by the respondents. In addition, the level of practice on the use of proper collimation observed was moderate. This might be due to the respondents' lack of skill and experience in the clinical setting. Moreover, this study revealed that there is no significant relationship between these three elements as the *p*-value obtained was 0.065 which is more than 0.05.

### CONCLUSIONS

It is concluded that, the IIUM Medical Imaging students display high knowledge, positive perception, and a moderate level of knowledge of collimation in paediatric chest X-ray. Besides, no significant correlation shows between these three elements given the external factors mentioned before. Additional steps/programmes can be initiated to enhance the aforementioned level in producing competent IIUM Medical Imaging fresh graduates. Thus, this can help in improving the overall quality of the health care delivery system.

### REFERENCES

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- Zira, J. D., Umar, M. S., Sidi, M., Bature, S. S., & Nkubli, F. B. (2020). Assessment of Level of Collimation for Pediatric Plain Chest Radiographs in a Teaching Hospital in Kano,
   Northwestern Nigeria. Journal of Nuclear Technology in Applied Science, 8(1), 145-152.



"Striving Together Towards Impactful Research And Innovation"

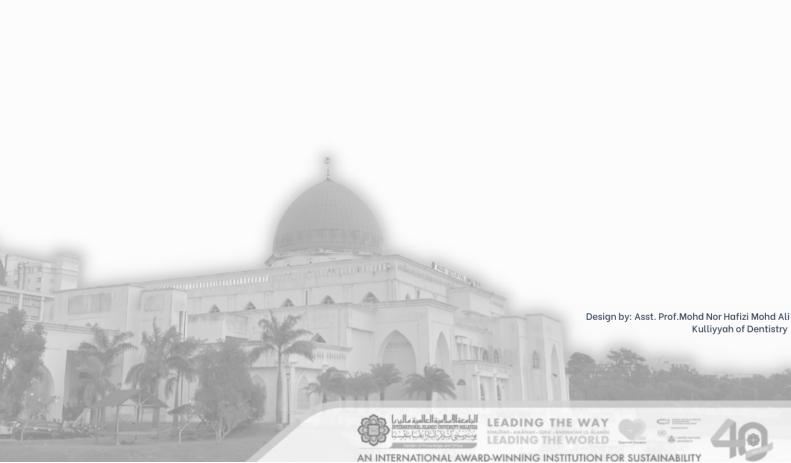
### THURSDAY | 15TH SEPTEMBER 2022 | 18 SAFAR 1444H

GRAND HALL, OFFICE OF CAMPUS DIRECTOR,
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA, KUANTAN, PAHANG















### IRID 2022 | PROGRAM BOOK |

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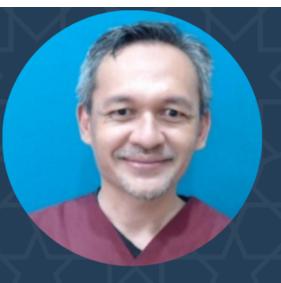
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Prof. Dr. Nazri Mohd. Yusof Chairman of IRID2022

Alhamdulillah, it gives me great pleasure to welcome you to IIUM Research and Innovation Day IRID 2022: An exhibition for health sciences research. This annual programme aims to showcase innovative research findings and encourage research collaboration.

This will be a face-to-face event to allow better interaction and discussion among researchers. We also invite researchers who have creative innovations to show their products at this event.

I hope this event will serve as a good platform for you to receive constructive feedback, share ideas and spark friendships with other researchers.

All submitted abstracts will be published in IIUM Journals of Allied Health Science (IJAHS), and awards will be given for best research and innovation among the students and staff categories.

I hope everyone benefits greatly from this event; I am looking forward to knowing you, sharing our experiences and building a lasting relationship together.

Thank you.











# OMMITTE GANIZING

















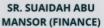
MOHD YUSOFF (RMC)





TREASURER















### **SCIENTIFIC COMMITTEE**























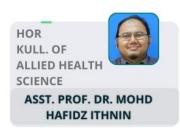
### **SECRETARIAT**







### **AUDIO VISUAL & TECHNICAL**







HOSPITALITY









ASSOC. PROF. DR. **ROSLINA ABDUL RAHIM** 



**DENTISTRY** 



**ASST. PROF. DR. SOBRINA** MOHAMED KHAZIN



**ASST. PROF. DR. SUSI** SUKMASARI



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### PRID 2022- List of Judges

Grand Hall, Office of the Campus Director, 99UM Kuantan Thursday, 15th September 2022 @ 18 Safar 1444H 8.15 a.m. - 4.30 p.m



PROF. DR. SUZANAH **ABDUL RAHMAN** Kulliyyah of Allied Health Sciences, IIUM

[Head of Judges]



ASST. PROF. DR. **MOHAMED HASSAN ABDELAZIZ ELNAEM** Kulliyyah of Pharmacy, IIUM



ASST. PROF. DR. FIRDAUS ISMAIL Kulliyyah of Nursing, IIUM





ASST. PROF. DR. **ISKANDAR BAHARI** Kulliyyah of Sciences, IIUM



**ASSOC. PROF.** DR. ADLINA HJ **ARIFFIN** Research Management Centre, IIUM





**ASSOC. PROF.** DR. AHMAD **FAISAL ISMAIL** Kulliyyah of Dentistry, IIUM



ASST. PROF. DR. **AWIS SUKARNI** MOHMAD SABERE Kulliyyah of Pharmacy, IIUM



ASST. PROF. DR. **NURANIZA** AZAHARI Kulliyyah of Allied Health Sciences, IIUM





ASSOC. PROF. DR. NIZA **SAMSUDDIN** Kulliyyah of Allied Health Sciences, IIUM





STRIVING TOGETHER TOWARDS **IMPACTFUL** INNOVATION





# International Islamic University Malaysia IIUM Research and Innovation Day (IRID) 2022 Agenda and Program

"Striving Cogether Cowards Smpactful Research"

### 14th September 2022 | Wednesday

09.00 a.m. - 05:00 p.m. Registration and putting up poster

**Note to participant:** Please put up your poster directly after registration and please take it down at the end of the program to guarantee most interactive discussion on your results. Please come to our registration table if you need assistance with putting up your poster.

### 15<sup>th</sup> September 2022 | Thursday

08:15 a.m 08:45 a.m.	Registration of all participants and breakfast
	Arrival of VIPs and Invited Guests
08:45 a.m 09:00 a.m.	National Anthem "Negaraku"
	Do'a Recitation
	Welcoming Remarks by Prof. Dr. Nazri Mohd Yusof,
	Deputy Director Research Management Centre Kuantan
	Cum Chairman of IRID 2022
09:00 a.m 09:30 a.m.	Opening Ceremony and Speech By Prof. Dr. Amir Akramin Shafie,
	Director of Research Management Centre IIUM
	Cum Advisor of IRID 2022
	Token of Appreciation to VIP
	Performance of Traditional Dance: The Overture and Zapin Beradat by
	Gong Mas Production
09:30 a.m 09:45 a.m.	Visit to the poster exhibition area
	Refreshment for VIPs and Invited Guests
09:45 a.m 10:00 a.m.	Briefing Session with Judges
10:00 a.m 12:30 noon	Poster Presentation and Evaluation
12.30 noon 02.15 p.m.	Luncheon/Break/Dhuhr Prayer
02.15 p.m 03:15 p.m.	Poster Presentation and Evaluation (continued)
03:15 p.m 04:00 p.m.	Judges Meeting
	Endorsement of Results
	Video Presentation
04:00 p.m 04:30 p.m.	Prize Giving Ceremony and Closing Remarks
	Photo session with the Award Winners
	IIUM song "Leading The Way"
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<u>Bakar</u><sup>2</sup>, Basma Ezzat Muscafa<sup>3</sup>, Kna

Idah Mokhtar<sup>4</sup>

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Department of Orthodorics, K Dentistry, International Islamic Malaysia

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Authors' affiliation







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<sup>1</sup>Kulliyyah of Medicine, International Islamic University Malaysia, Malaysia

<sup>2</sup>Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia

<sup>3</sup>Institute of Health Sciences, University Brunei Darussalam, Brunei

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<sup>1</sup>Department of Fundamental Dental and Medical Sciences, Kulliyyah of Dentistry, International Islamic University Malaysia.

<sup>2</sup>Kulliyyah of Dentistry, International Islamic University Malaysia.

<sup>3</sup>Department of Oral Maxillofacial Surgery and Oral Diagnosis, Kulliyyah of Dentistry, International Islamic University Malaysia.

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<sup>1</sup> Hospital Port Dickson, Orthopaedic department, Negeri Sembilan, Malaysia.

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<sup>1</sup>Department of Basic Medical Sciences, Kulliyyah of Medicine, International Islamic University Malaysia (IIUM), Kuantan, Pahang, Malaysia

<sup>2</sup>Department of Biotechnology, Kulliyyah of Sciences, International Islamic University Malaysia (IIUM), Kuantan, Pahang, Malaysia <sup>3</sup>Department of Physiology, Faculty of Medicine, UKM Medical Centre (UKMMC), Kuala Lumpur, Malaysia

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<sup>1</sup>Department of Family Medicine, Kulliyyah of Medicine, IIUM Kuantan, Malaysia <sup>2</sup>Department of Public Health, Kulliyyah of Medicine, IIUM Kuantan, Malaysia <sup>3</sup>Department of Radiology, Kulliyyah of Medicine, IIUM Kuantan, Malaysia

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<sup>1</sup>Department of Orthodontics, Kuliyyah of Dentistry, International Islamic University of Malaysia

<sup>2</sup>Centre for Paediatric Dentistry and Orthodontic Studies, Faculty of Dentistry, Universiti Teknologi MARA Selangor, Sungai Buloh, Selangor, Malaysia

<sup>3</sup>Department of Medical Education, School of Medical Sciences, Universiti Sains Malaysia

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<sup>1</sup>Department of Orthodontics, Kulliyyah of Dentistry, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia <sup>2</sup>Department of Fundamental Dental and Medical Sciences, Kulliyyah of Dentistry, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia <sup>3</sup>Cluster of Cancer Research Initiative IIUM (COCRII), Kulliyyah of Dentistry, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia









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<sup>1,2,3</sup>Hospital Port Dickson, Malaysia

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<sup>1</sup>Orthodontic postgraduate student, Kulliyyah of Dentistry (KOD), International Islamic University Malaysia (IIUM), Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

<sup>2</sup>Department of Orthodontics, KOD, IIUM, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

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<sup>1</sup>Orthodontic postgraduate student, Kulliyyah of Dentistry (KOD), IIUM, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia <sup>2</sup>Lecturer, Department of Orthodontics, KOD, IIUM, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

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<sup>1</sup>Department of Oral Maxillofacial Surgery & Oral Diagnosis, Kulliyyah of Dentistry, IIUM Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

<sup>2</sup>Department of Restorative Dentistry, Kulliyyah of Dentistry, IIUM Kuantan Campus, 25200 Kuantan, Pahang, Malaysia <sup>3</sup>Kulliyyah of Dentistry, IIUM Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

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<sup>1</sup>Dental Public Health Unit, Kulliyyah of Dentistry, International Islamic University Malaysia

<sup>2</sup>Kulliyyah of Dentistry, International Islamic University Malaysia













### LIST OF PARTICIPANTS

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<sup>1</sup>Faculty Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia <sup>2</sup>Kulliyyah of Dentistry, International Islamic University Malaysia

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<sup>1</sup>Centre of Population Oral Health and Clinical Prevention Studies, Faculty of Dentistry, Universiti Teknologi MARA, 47000 Sungai Buloh, Selangor, Malaysia.

<sup>2</sup>Department of Pediatric Dentistry and Dental Public Health, Kulliyyah of Dentistry, International Islamic University Malaysia, 25200 Kuantan, Pahang.

<sup>3</sup>Training Management Division, Ministry of Health, Level 6,

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<sup>1,2,3</sup>International Islamic University Malaysia, Department of Computational and Theoretical Sciences Kulliyyah of Science, Jalan Sultan Ahmad Shah, 25200 Kuantan, Pahang, Malaysia

<sup>4</sup>Faculty of Industrial Management, Universiti Malaysia Pahang, Gambang, Pahang, Malaysia











<sup>5</sup>Faculty of Computer & Mathematical Sciences, Universiti Teknologi MARA Pulau Pinang, 13500 Permatang Pauh, Pulau Pinang, Malaysia

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<sup>1</sup>Department of Pharmaceutical Technology, Kulliyyah of Pharmacy, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, 25200 Kuantan, Pahang, Malaysia <sup>2</sup>Oral Biology Unit, Fundamental Dental and Sciences Department. Kulliyyah of Dentistry, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, 25200 Kuantan, Pahang, Malaysia

<sup>3</sup>IKOP Pharma Sdn. Bhd., Jalan Sultan Ahmad Shah, 25200 Kuantan, Pahang, Malaysia.

<sup>4</sup>Borneo Marine Research Institute, Universiti Malaysia Sabah, Jalan UMS,88400, Kota Kinabalu, Sabah.

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<sup>1</sup>Student, Kulliyyah of Science, International Islamic University Malaysia

<sup>2</sup>Department of Orthodontics, Kulliyyah of Dentistry, International Islamic University Malaysia

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<sup>1,4,5</sup>Program of Estate Management, Department of Built Environment Studies and Technology, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA Perak Branch, 32610 Seri Iskandar, Perak, Malaysia

<sup>2</sup>Program of Town Planning, Department of Built Environment Studies and Technology, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA Perak Branch, 32610 Seri Iskandar, Perak, Malaysia <sup>3</sup>Faculty of Business and Management, Universiti Teknologi MARA Melaka Branch, KM 26 Jalan Lendu, 78000 Alor Gajah, Melaka, Malaysia













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<sup>1</sup>Department of Orthodontics, Kulliyyah of Dentistry (KOD), International Islamic University Malaysia (IIUM), Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

<sup>2</sup>Department of Paediatric Dentistry & Dental Public Health, KOD, IIUM, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

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<sup>1</sup>Department of Physical Rehabilitation Sciences, Kulliyyah of Allied Health Science, International Islamic University Malaysia, Kuantan Campus, 25200 Kuantan, Pahang, Malaysia.

<sup>2</sup>Cluster of Cancer Research Initiative IIUM (COCRII), International Islamic University Malaysia, Kuantan Campus, 25200, Kuantan, Pahang, Malaysia.

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<sup>1</sup>Department of Mathematics, Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru

<sup>2</sup>International Islamic University Malaysia, Department of Computational and Theoretical Sciences Kulliyyah of Science, Jalan Sultan Ahmad Shah, 25200 Kuantan, Pahang, Malaysia

# 260 | REVISIT OF ROOT AMPUTATION PROCEDURES IN PERIODONTICS: A LITERATURE REVIEW.

Juzaily Husain<sup>1</sup>, Muhammad Afiq Ahmad<sup>2</sup>, Mohamad Adib Jaafar<sup>3</sup>, Wan Nor Hayati Wan Abd. Manan<sup>4</sup>

<sup>1</sup>Department of Restorative Dentistry, Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia.

<sup>2</sup>Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia.

<sup>3</sup>Ministry of Health, Malaysia.

<sup>4</sup>Department of Prosthodontics, Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia.













### 262 | BONE GRAFTING MATERIALS IN **PERIODONTAL REGENERATION:** NARRATIVE REVIEW.

Wan Nor Hayati Wan Abd. Manan<sup>1</sup>, Nor Amirah Mohd Naim<sup>2</sup>, Juzaily Husain<sup>3</sup>

<sup>1</sup>Department of Prosthodontics, Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia.

<sup>2</sup> Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia.

<sup>3</sup> Department of Restorative Dentistry, Kulliyyah of Dentistry, International Islamic University Malaysia, Malaysia.

263 | THE STUDY ON PATIENT CLINICAL AND FUNCTIONAL OUTCOME AND **QUALITY** OF LIFE **AFTER NEUROTISATION SURGERY FOR** BRACHIAL PLEXUS INJURY.

Lim Wei Khang

Kulliyyah of Medicine, International Islamic University Malaysia, Malaysia

265 | ASSESSMENT OF **FASTING GALLBLADDER VOLUME USING** ULTRASOUND IMAGING IN RELATION TO WEIGHT AND BODY MASS INDEX AMONG FEMALE **STUDENTS DETECTION** OF **ASYMPTOMATIC** GALLSTONES.

Inayatullah Shah Sayed<sup>1</sup>, Najihah Binti Shaik Nurudin<sup>1</sup>

<sup>1</sup>Department of Diagnostic Imaging and Radiotherapy, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

267 | IMPACT OF THE RADIOLOGY **TOWARDS** STAFF'S **ATTITUDE** UNDERGRADUATE MEDICAL IMAGING STUDENTS: STUDENTS' PERSPECTIVE.

Inayatullah Shah Sayed<sup>1</sup>, Nur Hanisah Binti Hamdan<sup>1</sup>, Najihah Binti Shaik Nurudin<sup>1</sup>

<sup>1</sup>Department of Diagnostic Imaging and Radiotherapy, Kulliyyah of Allied Sciences, International Islamic University Malaysia, Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

269 | OUTCOME OF CROSS AND **LATERAL PINNING DIVERGENT** PINNING FOR THE TREATMENT OF THE SUPRACONDYLAR **HUMERUS** FRACTURE GARTLAND TYPE-III (SCHF III) FRACTURE.

Ahmad Hud Mahfoodz<sup>1</sup>

<sup>1</sup>Department of Orthopedics, Traumatology and Rehabilitation, Sultan Ahmad Shah Medical Centre, IIUM

270 | OSTEOMYELYTIS IN GRADE I OPEN FRACTURE TIBIA TREATED WITH EXTERNAL FIXATOR.

Ahmad Hud Mahfoodz<sup>1</sup>, Nazri Mohd Yusof<sup>1</sup>

<sup>1</sup>Department of Orthopedics, Traumatology and Rehabilitation, Sultan Ahmad Shah Medical Centre, IIUM











### 271 | TOTAL FLAVONOID CONTENT, TOTAL PHENOLIC CONTENT AND THE ANTIOXIDANT ACTIVITY OF HURREM TITISEMAS LIQUID.

**Azlini Ismail<sup>1</sup>**, Tuan Ashraf Faiz Tuan Anuar<sup>2</sup>, Basma Ezzat Mustafa Alahmad<sup>1</sup>, Widya Lestari<sup>1</sup>, Deny Susanti Darnis<sup>2</sup>

<sup>1</sup>Department of Fundamental Dental and Medical Sciences, Kulliyyah of Dentistry, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia <sup>2</sup>Department of Chemistry, Kulliyyah of Science, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia

273 | KNOWLEDGE, PERCEPTION AND PRACTICE OF PROPER COLLIMATION IN PAEDIATRIC CHEST X-RAY AMONG IIUM UNDERGRADUATE MEDICAL IMAGING STUDENTS.

Inayatullah Shah Sayed, Amira Syazwani Binti Misri, Najihah Binti Shaik Nurudin

Department of Diagnostic Imaging and Radiotherapy, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

# 275 | HAND GESTURE RECOGNITION USING SOFT, ELECTRONIC, STRAIN SENSORS.

Sajjad Hossen<sup>1</sup>, Anis Nurashikin Nordin<sup>1</sup>, Norsinnira Zainul Azlan<sup>2</sup>, Muhammad Irsyad Suhaimi<sup>3</sup>, Lim Lai Ming<sup>3</sup>, Rosminazuin Ab Rahim<sup>1</sup>, Mohd Saiful Riza<sup>1</sup>, Zambri Samsudin<sup>3</sup>

<sup>1</sup>VLSI-MEMS Research Unit, Kulliyah of Engineering, International Islamic University Malaysia, Malaysia

<sup>2</sup>Department of Mechatronics, Kulliyah of Engineering, International Islamic University Malaysia, Malaysia

<sup>3</sup>Manufacturing Technology & Innovation (MTI), Jabil Circuit Sdn Bhd, Bayan Lepas Industrial Park, 11900 Bayan Lepas, Pulau Pinang









### LIST OF PARTICIPANTS

### INNOVATION

230 THE **SYNTHESIS** OF **HYDROPHOBIC MAGNETIC** ADSORBENT FOR THE REMOVAL OF PLASTIC WASTE.

Siti Nursyamsulbahria Che Nan<sup>1</sup>, Mohd Fuad Miskon<sup>2,3</sup>, Wan Hazman Danial<sup>1</sup>, Shafida Abd Hamid<sup>1</sup>, Rosliza Mohd Salim<sup>1</sup>, Azaima Razali<sup>1</sup>

<sup>1</sup>Department of Chemistry, Kulliyyah of Science, International Islamic University Malaysia.

<sup>2</sup>Department of Marine Science, Kulliyyah of Science, International Islamic University Malaysia.

<sup>3</sup>Institute of Oceanography and Maritime Studies (INOCEM), Kulliyyah of Science, International Islamic University Malaysia.

231 | NAM™ChromPATCH: INNOVATIVE Chromolaena odorata LOADED HYBRID HYDROGEL WOUND DRESSING WITH ANTIBACTERIAL ACTION.

'Ainun Mokhtar<sup>1,2</sup>, Nur Fatahiya Mohamed Tap<sup>3</sup>, Nurul Bahiyah Ahmad Khairudin<sup>2,</sup> Roshafima Rasit Ali<sup>2</sup>, Zatil Izzah Ahmad Tarmizi<sup>2</sup>, Siti Zalita Ab Talip<sup>2</sup> and Shahira Yusnina Yahya<sup>2</sup>

<sup>1</sup>Faculty of Pharmacy, Universiti Teknologi MARA Cawangan Pulau Pinang, Kampus Bertam, 13200 Kepala Batas, Pulau Pinang, Malaysia,

<sup>2</sup>Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, International Campus, Jalan Sultan Yahaya Petra, 54100 Kuala Lumpur, Malaysia

<sup>3</sup>School of Chemical Engineering, Faculty of Engineering, Universiti Teknologi MARA

Cawangan Terengganu, Kampus Bukit Besi, 23000 Dungun, Terengganu, Malaysia

238 | ANTIMICROBIAL POTENTIAL OF **ACTIVE PHARMACEUTICAL INGREDIENT HYDROPHOBIC DEEP** EUTECTIC SOLVENTS (DESS).

Engku Normi Engku Ismail<sup>1</sup>, Elgharbawy Amal A.M.<sup>2\*</sup>,

<sup>1,2</sup> International Institute Halal Research and Training (INHART)

241 | DEVELOPMENT OF SICK BOAT SYNDROME (SBoS) QUESTIONNAIRE FOR THE ROYAL MALAYSIAN NAVY (RMN).

Nur Alyaa Tasnim Mohammad Zin<sup>1</sup>, Amirul Faiz Kamaruddin<sup>2 3</sup>, Nur Sarah Fatihah Tamsi<sup>1</sup>, Muhammad Firdaus Zamri<sup>1</sup>, Noor Artika Hassan<sup>4</sup>, Arman Ariffin<sup>5</sup>, Maryam Zahaba<sup>1</sup>

<sup>1</sup>Department of Chemistry, Kulliyyah of Science, International Islamic University Malaysia, 25200 Kuantan, Malaysia

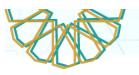
<sup>2</sup>Department of Biotechnology Engineering, Kulliyyah of Engineering, International Islamic University Malaysia, 53100 Gombak, Malaysia 3KD LAKSAMANA MUHAMMAD AMIN, Royal Malaysian Navy Naval Base, 32000, Lumut, Malaysia

<sup>4</sup>Department of Community Medicine, Kulliyyah of Medicine, International Islamic University Malaysia, 25200 Kuantan, Malaysia 5Eastern Maintenance Overseer Unit - Royal Malaysian Navy, RMN Naval Base, Tg Purun, 87000 W.P. Labuan, Malaysia











# 242 | ADVANCED VISUALIZATION USING GEPHI FOR FINANCIAL NETWORK.

Muhammad Farhan Bin Mohd Nazir<sup>1</sup>, Hafizah Binti Bahaludin<sup>1</sup>

<sup>1</sup>Department of Computational and Theoretical Sciences, Kulliyyah of Science, International Islamic University Malaysia, Bandar Indera Mahkota Campus, Jalan Sultan Ahmad Shah, 25200 Kuantan, Pahang, Malaysia.

# 248 | BLACK SOLDIER FLY LARVAE AS POTENTIAL FEED, COSMETIC AND SKINCARE COMPONENTS.

Aina Munirah Mohamad Asri<sup>1</sup>, Nur Saadah Zulkifli<sup>2</sup>, Mohamad Huzaifilyasir Kamal Bashah<sup>3</sup>, Siti Fairuz Othman<sup>4</sup>, Deny Susanti Darnis<sup>5</sup>, **Suhaila Mohd** Omar<sup>6</sup>

1,2,3,4,6 Department of Biotechnology, Kulliyyah of Science, IIUM Kuantan, Malaysia
5 Department of Chemistry, Kulliyyah of Science, IIUM Kuantan, Malaysia
6 Environmental Biology & Biotechnology Research Unit (EBBRU), Kulliyyah of Science, International Islamic University of Malaysia, Jln. Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang

### 266 | ORGANIZATIONAL CROSS-CULTURE ADJUSTMENT - MOULDING LEADERSHIP.

Rozina Muzaffar<sup>1</sup>, Dr. Putri Rozita Tahir<sup>2</sup>

<sup>1</sup>DRB-HICOM University of Automotive Malaysia

### 272 | TUFF : DISHWASHING SOAP FROM WASTE COOKING OIL.

Noor Artika Hassan<sup>1</sup>, Norul Hernani Binti Abd Latif<sup>2</sup>, Hamizah Binti Zorkepeli<sup>2</sup>, Muhammad Afif Bin Musa<sup>2</sup>, Puteri Amirah Adib Binti Kamaruzzaman<sup>3</sup>, Siti Rusianti Binti Tomin<sup>4</sup>

<sup>1</sup>Department of Community Medicine, Kulliyyah of Medicine, International Islamic University Malaysia, Kuantan, Malaysia <sup>2</sup>Department of Biomedical Science, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan, Malaysia <sup>3</sup>Central Research and Animal Facility, International Islamic University Malaysia, Kuantan, Malaysia <sup>4</sup>Department of Basic Medical Sciences,

Kulliyyah of Pharmacy, International Islamic

University Malaysia, Kuantan, Malaysia







### 274 | EFFECTS OF FERMENTATION PARAMETERS ON THE PRODUCTION OF MYCO-COAGULANT FROM LOCAL FUNGI FOR WATER TREATMENT.

M. Fellah<sup>1</sup>, Abdullah. Al. Mamun<sup>2</sup>, M. Z. Alam<sup>1</sup>, N. A. Kabbashi<sup>1</sup> and N. S. B. Engliman<sup>1</sup>

<sup>1</sup>Bioenvironmental Engineering Research (BERC), Department Biotechnology Engineering, Kulliyyah of Engineering, International Islamic University Malaysia, Gombak, 53100 Kuala Lumpur, Malaysia

<sup>2</sup>Cataclysmic Management and Sustainable Development Research Group (CAMSDE), Department of Civil Engineering, Kulliyyah of Engineering, International Islamic University Malaysia, Gombak, 53100 Kuala Lumpur, Malaysia

### TWO-SOLITON 275 **MOLECULE** SCATTERING BY EXTERNAL DELTA POTENTIAL.

Nor Amirah Busul Aklan<sup>1</sup>, Nur Fatin Ikhwani Muhammad Husairi<sup>2</sup>, Bakhram Umarov<sup>3</sup>

<sup>1,2</sup>Department of Computational Theoretical Sciences, Kulliyyah of Science, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia. <sup>3</sup>Department of Physics, Kulliyyah of Science, International Islamic University Malaysia, 25200 Kuantan, Pahang, Malaysia.











### **BASIC HEALTH SCIENCES CATEGORY**

Poster Judging Time:

Poster Judging Time:

10.00 a.m. - 12.00 p.m. 12.00 p.m. - 3.15 p.m.

Judges: Judges:

Assoc. Prof. Dr. Zunariah Buyong (KOM) Prof. Dr. Sirajudeen Kuttulebbai Naina

Asst. Prof. Dr. Nuraniza Azahari (KAHS) Mohamed Salam (KOM)

Asst. Prof. Dr. Mohamed Hassan

Abdelaziz Elnaem (KOP)

NO	SUGGESTED	ID	TITLE	PRESENTER
	TIME			
1	10.00 a.m	219	ASSSOCIATION BETWEEN FINESS	SUHANA MAMAT
	10.15 a.m.		LEVEL AND MENTAL HEALTH AMONG	
			UNERGRADUATE FEMALE STUDENTS:	
			A STUDY IN IIUM KUANTAN CAMPUS	
2	10.15 a.m	220	70% ETHANOLIC FLAXSEED EXTRACT	SAMA NAZIYAH
	10.30 a.m.		ENHANCES SAOS-2 CELL	SHABAN
			PROLIFERATION IN BONE WOUND-	
			HEALING MODEL (IN-VITRO)	
3	10.30 a.m	221	ANTIMICROBIAL EFFECTIVENESS OF	NURUL FATIHAH
	10.45 <mark>a</mark> .m.		FLAXSEED AND NIGELLA SATIVA	BINTI MOHAMED
			EXTRACT AGAINST SELECTED	YUSOFF
			ENDODONTIC PATHOGEN	
4	10.45 a.m	223	REVIEW OF FEMORAL NECK SYSTEM,	MUHAMMAD
	11.00 a.m.		HOSPITAL PORT DICKSON	ESHAM BIN
			EXPERIENCE IN STRESS FRACTURE	SAMSUDIN
			NECK OF FEMUR: A CASE REPORT.	
5	11.00 a.m	224	HEMATOMA MIMICKING SOFT TISSUE	MUHAMMAD
	11.15 a.m.		SARCOMA	FAIRUZ BIN
				ZAKARIA
6	11.15 a.m	233	MPTP NEUROTOXIN INDUCES	KHAIRIAH RAZAL
	11.30 a.m.		LOCOMOTOR IMPAIRMENTS AND	
			UPREGULATES MITOCHONDRIAL	
			DYSFUNCTION ASSOCIATED GENES IN	
			ZEBRAFISH MODEL OF PARKINSON'S	
			DISEASE	









7	11.30 a.m 11.45 a.m.	237	BREAST CANCER AWARENESS AND MAMMOGRAM SCREENING UPTAKE AMONG FEMALE STAFF IN IIUM KUANTAN CAMPUS AND SASMEC @ IIUM	NUR SHAIRAH BINTI MOHD SHAARI
8	11.45 a.m 12.00 p.m.	244	VALIDITY EVIDENCE OF CAT-LC SCALE IN EVALUATING CLINICAL COMPETENCY ATTAINMENT AND TEACHING-LEARNING CHANGES DURING COVID-19 PANDEMIC	NOR FATIHAH AZHAR
9	12.00 p.m 12.15 p.m.	245	DETERMINATION ON THE SUSCEPTIBILITY OF STREPTOCOCCUS MUTANS TOWARDS CHLORHEXIDINE OR THEOBROMA CACAO COATED NICKEL-TITANIUM ORTHODONTIC ARCHWIRES	SINDHU SINNASAMY
10	12.15 p.m 12.30 p.m.	250	A CASE REPORT OF DELAYED RADIAL NERVE INJURY FOLLOWING MIDSHAFT HUMERUS FRACTURE	DHINESHKUMAR
11	12.30 p.m 12.4 <mark>5 p</mark> .m.	251	AN AUDIT OF QUALITY OF IN-HOUSE ORTHODONTIC STUDY MODELS IN IIUM DENTAL POSTGRADUATE CENTRE	SALMA SHAKIRAH SAID
12	2.15 p.m2.30 p.m.	253	CORRELATION OF ANTEROPOSTERIOR SKELETAL AND SOFT TISSUE CEPHALOMETRIC MEASUREMENTS IN KUANTAN MALAY POPULATION: A PILOT STUDY	MANGAIYARKARA SI A/P SIVAGNANAM
13	2.30 p.m2.45 p.m.	255	AN UNFORTUNATE CASE OF SQUAMOUS CELL CARCINOMA IN CHRONIC TIBIA OSTEOMYELITIS	FIRDAUS
14	2.45 p.m3.00 p.m.	258	AWARENESS OF GENERAL DENTAL PRACTITIONERS TOWARDS ORAL BIOPSY PROCEDURE	NURUL RUZIANTEE IBRAHIM
15	3.00 p.m3.15 p.m.	268	ORAL HEALTH ATTITUDES AND BEHAVIORS AMONG UNDERGRADUATE HEALTH SCIENCE STUDENTS IN IIUM KUANTAN CAMPUS	ZURAINIE ABLLAH









### APPLIED HEALTH SCIENCES I CATEGORY

Poster Judging Time: 10.00 a.m. – 3.00 p.m.

Judges: Asst. Prof. Dr. Firdaus Ismail (KON) | Assoc. Prof. Dr. Niza Samsuddin (KAHS)

NO	SUGGESTED TIME	ID	TITLE	PRESENTER
1	10.00 a.m	225	CLASSIFICATION OF QURANIC	AKRAM M ZEKI
	10.15 a.m.		THEMES: HEALTH CASE OF STUDY	
2	10.15 a.m	257	EXPLORING AN R PACKAGE TO	MUHAMMAD
	10.30 a.m.		ANALYSE THE STRUCTURE OF	ZULHAKIMI BIN
			ECOLOGICAL NETWORKS:	INCHE
			ECONULLNETR.	MUHAMMAD
				ZULFIKRI
3	10.30 a.m	235	A REVIEW OF DEPRESSION IN	NURUL HUSNA
	10.4 <mark>5 a.m</mark> .		PREGNANCY AND ITS ASSOCIATED	BINTI AZMI
			FACTORS	
4	10.45 a.m	236	CAREER SATISFACTION AND	AZIZI BINTI AB
	11.00 a.m.	200	BARRIERS PERCEIVED AMONG	MALEK
	11.00 a.m.		MALAYSIAN DENTISTS WITH	WITCH
			EXPANDED ROLES AT SPECIALIST	
			CLINIC	
5	11.00 a.m	239	A FINANCIAL NETWORK FOR	HAFIZAH
	11.15 a.m.		ENERGY SECTOR OF BURSA	BAHALUDIN
			MALAYSIA DURING COVID-19 BY	
			USING TRIANGULAR MAXIMALLY	
			FILTERED GRAPH APPROACH	
6	11.15 a.m	240	A SCOPING STUDY OF SEA	NURSHAZWANI
	11.30 a.m.		CUCUMBER AS A NEW	BINTI AZMI
			THERAPEUTIC AGENT IN WOUNDS	
			HEALING TREATMENT	





7	11.30 a.m	243	CORRELATION BETWEEN	NORAINI ABU
	11.45 a.m.		SALIVARY LEPTIN LEVELS AND	BAKAR
			FACIAL SKELETAL PATTERN: A	
			POSSIBLE FUTURE CLINICAL	
			INDICATOR	
8	11.45 a.m	247	DIALYSIS MANAGEMENT	SITI NADIAH MOHD
	12.00 p.m.		OPERATIONAL FRAMEWORK USING	ALI
			PHILANTHROPY FUNDS WITH	
			STATE ISLAMIC RELIGIOUS	
			COUNCIL AND MINISTRY OF	
			HEALTH COLLABORATION	
9	2.15 p.m2.30	249	THE EFFECTS OF STRUCTURED	CHEONG JOO
	p.m.		TELEPHONE CALL, WHATSAPP	MING
			TEXT MESSAGING AND CHEWING	
			GUM ON ORTHODONTIC ANXIETY	
10	2.30 p.m2.45	254	POTENTIAL COLLAGEN-CHITOSAN	NORA AZIRAH BT
	p.m.		MEMBRANE LOADED WITH	MOHD ZAYI
			METRONIDAZOLE NANOPARTICLE	
			FOR PERIODONTAL DISEASE	
			TREATMENT.	
11	2.45 p.m3.00	226	ANIMAL STUDY OF APPLICATIONS	AHMAD
	p.m.		OF HYALURONIC ACID FOR	BADRUDDIN
			DENTAL IMPLANT: A SYSTEMATIC	GHAZALI
			REVIEW	







### **APPLIED HEALTH SCIENCES II CATEGORY**

Poster Judging Time: 10.00 a.m. -3.00 p.m.

Judges: Assoc. Prof. Dr. Ahmad Faisal Ismail (KOD)

Asst. Prof. Dr. Awis Sukarni Mohmad Sabere (KOP)

NO	TIME	ID	TITLE	PRESENTER
12	10.00 a.m	263	THE STUDY ON PATIENT CLINICAL	LIM WEI KHANG
	10.15 a.m.		AND FUNCTIONAL OUTCOME AND	
			QUALITY OF LIFE AFTER	
			NEUROTISATION SURGERY FOR	
			BRACHIAL PLEXUS INJURY	
13	10.15 a.m	265	ASSESSMENT OF FASTING	INAYATULLAH
	10.30 a.m.		GALLBLADDER VOLUME USING	SHAH SAYED
			ULTRASOUND IMAGING IN RELATION	
			TO WEIGHT AND BODY MASS INDEX	
			AMONG FEMALE STUDENTS FOR	
			DETECTION OF ASYMPTOMATIC	
			GALLSTONES	
14	10.30 a.m	267	IMPACT OF THE RADIOLOGY STAFF'S	INAYATULLAH
	10.45 a.m.		ATTITUDE TOWARDS	SHAH SAYED
			UNDERGRADUATE MEDICAL IMAGING	
			STUDENTS: STUDENTS' PERSPECTIVE	
15	10.45 a.m	269	OUTCOME OF CROSS AND LATERAL	AHMAD HUD BIN
	11.00 a.m.		PINNING DIVERGENT PINNING FOR	MAHFOODZ
			THE TREATMENT OF THE	
			SUPRACONDYLAR HUMERUS	
			FRACTURE GARTLAND TYPE-III (SCHF	
			III) FRACTURE	
16	11.00 a.m	270	OSTEOMYELYTIS IN GRADE I OPEN	AHMAD HUD BIN









17	11.15 a.m	271	TOTAL FLAVONOID CONTENT, TOTAL	AZLINI ISMAIL
	11.30 a.m.		PHENOLIC CONTENT AND THE	
			ANTIOXIDANT ACTIVITY OF HURREM	
			TITISEMAS LIQUID	
18	11.30 p.m	276	HAND GESTURE RECOGNITION USING	SAJJAD HOSSEN
	11.45 a.m.		SOFT, ELECTRONIC, STRAIN	
			SENSORS	
19	2.15 p.m	273	KNOWLEDGE, PERCEPTION AND	INAYATULLAH
	2.30 p.m.		PRACTICE OF PROPER COLLIMATION	SHAH SAYED
			IN PAEDIATRIC CHEST X-RAY AMONG	
			IIUM UNDERGRADUATE MEDICAL	
			IMAGING STUDENTS	
20	2.30 p.m	260	REVISIT OF ROOT AMPUTATION	JUZAILY BINTI
	2.45 p.m.		PROCEDURES IN PERIODONTICS: A	HUSAIN
			LITERATURE REVIEW.	
21	2.45 p.m	262	BONE GRAFTING MATERIALS IN	WAN NOR HAYATI
	3.00 p.m.		PERIODONTAL REGENERATION: A	BINTI WAN ABD.
			NARRATIVE REVIEW	MANAN









### **INNOVATION CATEGORY**

Poster Judging Time: 10.00 a.m. – 12.30 p.m

**Judges:** Assoc. Prof. Dr. Adlina Hj Ariffin (RMC) | Prof. Dr. Suzanah Abdul Rahman (KAHS)
Asst. Prof. Dr. Iskandar Bin Bahari (KOS)

TIME ID	TITLE	PRESENTER
10.00 a.m 230	THE SYNTHESIS OF HYDROPHOBIC	SITI NURSYAMSUL
10.15 a.m.	MAGNETIC ADSORBENT FOR THE REMOVAL	BAHRIA CHE NAN
	OF PLASTIC WASTE.	
<b>10.15 a.m</b> 231	NAM™CHROMPATCH: INNOVATIVE	NUR 'AINUN
10.30 a.m.	CHROMOLAENA ODORATA LOADED HYBRID	MOKHTAR
	HYDROGEL WOUND DRESSING WITH	
	ANTIBACTERIAL ACTION.	
10.30 a.m 238	ANTIMICROBIAL POTENTIAL OF ACTIVE	ENGKU NORMI BINTI
10.45 a.m.	PHARMACEUTICAL INGREDIENT	ENGKU ISMAIL
	HYDROPHOBIC DEEP EUTECTIC SOLVENTS	
	(DESS)	
<b>10.45 a.m 2</b> 41	DEVELOPMENT OF SICK BOAT SYNDROME	NUR SARAH
11.00 a.m.	(SBOS) QUESTIONNAIRE FOR THE ROYAL	FATIHAH TAMSI
	MALAYSIAN NAVY (RMN)	
11.00 a.m 242	ADVANCED VISUALIZATION USING GEPHI FOR	MUHAMMAD
11.15 a.m.	FINANCIAL NETWORK	FARHAN BIN MOHD
	>// \ Y //////	NAZIR
<b>11.15 a.m</b> 248	BLACK SOLDIER FLY LARVAE AS POTENTIAL	SUHAILA MOHD
11.30 a.m.	FEED, COSMETIC AND SKINCARE	OMAR
	COMPONENTS	
<b>11.30 a.m</b> 266	ORGANIZATIONAL CROSS-CULTURE	ROZINA MUZAFFAR
11.45 a.m.	ADJUSTMENT - MOULDING LEADERSHIP.	
<b>11.45 a.m</b> 272	TUFF: DISHWASHING SOAP FROM WASTE	NOOR ARTIKA
12.00 p.m.	COOKING OIL	HASSAN
<b>12.00</b> p.m 274	EFFECTS OF FERMENTATION PARAMETERS	ABDULLAH AL
12.15 p.m.	ON THE PRODUCTION OF MYCO-COAGULANT	MAMUN
	FROM LOCAL FUNGI FOR WATER TREATMENT	
<b>12.15 p.m</b> 275	TWO-SOLITON MOLECULE SCATTERING BY	NOR AMIRAH BUSUL
12.30 p.m.	EXTERNAL DELTA POTENTIAL	AKLAN





### **ACKNOWLEDGEMENT**

The organizing committee of the IIUM Research and Innovation
Day (IRID) 2022 would like to express our heartfelt appreciation to
the following organizations and individuals including those whom
do not want their names to be mentioned; for their support and
contribution to this event.

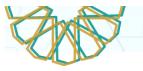
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### Chorus:

Together,
We make the world a better place
Forever,
Expand the culture of Iqra'
IIUM,
Is to realise, the meaning of...
Raḥmatan lil-'ālamīn
Together,
We make the world a better place
Forever,
Expand the culture of Iqra'
IIUM,
Is to realise, the meaning of...
Mercy to all the worlds
For all mankind

Composer: Allahyarham Johan Nawawi
Lyricist: Prof. Emeritus, Tan Sri Dr. Mohd

Lyricist: Prof. Emeritus. Tan Sri Dr. Mohd. Kamal Hasan









### **NOTES**













STRIVING TOGETHER TOWARDS IMPACTFUL RESEARCH AND INNOVATION



### KNOWLEDGE, PERCEPTION AND PRACTICE OF PROPER COLLIMATION IN PAEDIATRIC CHEST X-RAY AMONG IIUM UNDERGRADUATE MEDICAL IMAGING STUDENTS

Inayatullah Shah Sayed<sup>1</sup>, Amira Syazwani Binti Misri<sup>1</sup>, Najihah Binti Shaik Nurudin<sup>1</sup>

<sup>1</sup>Department of Diagnostic Imaging and Radiotherapy, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan Campus, 25200 Kuantan, Pahang, Malaysia

\* Corresponding author email: inayatullah@iium.edu.my

### **ABSTRACT**

Chest X-ray examination is important in diagnosing medical illnesses associated with the lungs, heart, and chest wall. Chest X-ray also has been used as a baseline imaging in Medical Imaging. Thus, a large number of chest X-ray examinations are requested by the clinicians especially in infants. Given this situation, a radiographer plays a vital role in minimizing the patient dose while producing a diagnostically acceptable radiograph. Principle of ALARA and proper beam collimation can be implemented in reducing patient exposure. This is because collimation can control the size of the beam reaching the patient's body part of examination which will affect the amount of scatter radiation produced. Larger collimation will increase the production of scatter radiation, thus increasing the patient dose, and reducing the image quality. Therefore, this study aims to evaluate the knowledge, perception, and practice level of year 3 and year 4 undergraduate students of IIUM Medical Imaging on proper collimation in paediatric chest X-ray. A set of questionnaire was developed and distributed among the respondents via the Google Form. It was comprised on four sections which were respondents' demographic data, knowledge, perception, and practice. There were 9 male and 37 female respondents and all of them fulfilled the inclusion criteria. The level of knowledge related to collimation in Medical Imaging among the respondents obtained was significantly high with a percentage of 91.3%. This indicates that the respondents are well informed with the collimation techniques and terms. Besides, five Likert Scale questions were used in evaluating the perception level of the respondents on the effect of collimation in paediatric imaging. A positive perception of 82.6% (38) was portrayed by the respondents. In addition, the level of practice on proper collimation observed was moderate. This might be due to the respondents' lack of skill and experience in the clinical setting. However, this study has revealed that there is no significant relationship between these three elements as the pvalue obtained was 0.065 which is more than 0.05. Based on this study, the level of knowledge, perception, and practice of the IIUM Medical Imaging undergraduate students on proper collimation in paediatric chest X-ray was determined. Given this data, further initiatives or programmes can be implemented to maintain or enhance the aforementioned level in producing a competent IIUM Medical Imaging fresh graduate. Thus, this can help in improving the overall quality of the health care delivery system.

### **Keywords:**

Chest X-ray, Collimation, Knowledge, Medical Imaging, Infants

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