SCIENTIFIC PROGRAM

SCIENTIFIC SESSION 1A: Meeting Room 1

RADIOTHERAPY SS1A

1. THE DOSIMETRIC EVALUATION ON PHOTON ENERGY EFFECT FOR CERVICAL CANCER IN 3D-CRT, IMRT AND VMAT PLANS
   Vanida Poolnapol, Sivalee Suriyapee, Taweap Sanghangthum
   Medical Imaging, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

2. MEDICAL PHYSICS REVIEWS OF 4DCT SCANS FOR STEREOTACTIC ABLATIVE BODY RADIOTHERAPY (SABR)
   Rachitha Antony, Elena Ungureanu, Peta Lonski, Nicholas Hardcastle, Shankar Siva, Tomas Kron
   Peter MacCallum Cancer Centre, Melbourne, Victoria, Australia

3. IMAGING PARAMETER OPTIMIZATION ON MRI-BASED BRACHYTHERAPY OF CERVICAL CANCER: PILOT STUDY
   Chanida Sathitwatthanawirot, Sawwanee Asavaphatiboon, Puangpen Tangboonduangjit and Siwaporn Sakulsingharot
   Master of Science Program in Medical Physics, Department of Radiology, Faculty of Medicine, Ramathibodi Hospital,Mahidol University, Thailand

4. BEAM ARRANGEMENT OPTIMIZATION IN A SIMPLE PHANTOM WITH STEREOTACTIC BODY RADIATION THERAPY PROCEDURE
   Restu Lestari[1] and Freddy Haryanto[2]
   [1]institute Technology of Bandung, Indonesia [2] Institute Technology Of Bandung, Indonesia

5. DOSIMETRIC EFFECT OF IN-HOUSE RESPIRATORY IMMOBILIZATION DEVICE USING 6MV PHOTON BEAMS IN LUNG OHANTOM
   Utumporn Duanganan, B.Sc., Poompis Pataranutraporn M.D., Puangpen Tangboonduangjit Ph.D., Siwaporn Sakulsingharo, M.Sc. and Supaporn Srisuwan, M.Sc.
   Master of Sciences Program in Medical Physics, Department of Diagnostic and Therapeutic Radiology, Faculty of Medicine, Ramathibodi Hospital,Mahidol university, Thailand

SCIENTIFIC SESSION 1B: Meeting Room 2

IMAGING SS1B

1. DOSE AND IMAGE QUALITY OPTIMIZATION ON DIGITAL THORAX PLANAR IMAGING FOR PEDIATRIC PATIENTS: A FIGURE OF MERIT (FOM) APPROACH
   Ade R. Setiadi*, Lukmanda E. Lubis, Nurlely, and Djarwani S. Soejoko
   Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Indonesia, 16424, Depok, Indonesia

2. RADIATION DOSE AND IMAGE QUALITY IN CHEST REGION USING SINGLE- AND DUAL- ENERGY CT; PHANTOM STUDY
   Taninchai Jutawiriya, Anchali Krisanachinda
   Medical Imaging, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

3. IMAGE FUSION DUAL ENERGY MICRO CT FOR DETERMINING COMPOSITION OF KIDNEY STONE
   Fadhila Ulfa Jhora[1], Leni Aziyus Fitri[1], Fourier Dzar Eljabbar Latief[2], Freddy Haryanto[1]

[1]*Nuclear Physics and Biophysics Research Division, Institut Teknologi Bandung, Indonesia*
[2]*Physics of Earth and Complex Systems Research Division, Institut Teknologi Bandung, Indonesia*

4. THE DETERMINATION OF OPTIMAL PROTOCOL FOR DIGITAL CHEST TOMOSYNTHESIS

Sarawut Tongkum[1], Petchaleeya Suwanapradit[2], Surachate Siripongsakun[3], Sirachat Vidhyarkorn[3],Yothin Rakvongthai[1] and Kitiwat Khamwan[1]
[1]*Medical Imaging Program, Department of Radiology, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand*
[2]*Department of Radiology, King Chulalongkorn Memorial Hospital, Bangkok 10330, Thailand*
[3]*Diagnostic Radiology Department, Chulabhorn Hospital, Bangkok 10210, Thailand*

SCIENTIFIC SESSION 2A: Meeting Room 1

RADIOTHERAPY SS2A

1. THE INFLUENCE OF LEA-CACTHESIDE TIME FACTOR IN FRACTIONATED RADIOTHERAPY

Hasto Arief N, Rena Widita
Institut Teknologi Bandung (ITB), Indonesia

2. ABSOLUTE DOSE CALCULATION METHOD IN SIMULATION MONTE CARLO FOR 6 MV LINAC PHOTON BEAM

Luong Thi Oanh[1], Dang Thanh Luong[1], and Duong Thanh Tai[2,3]
[1]*Faculty of Biomedical Physics, Nguyen Tat Thanh University, Ho Chi Minh, Vietnam*
[2]*Faculty of Physics & Engineering Physics, University of Science, Ho Chi Minh, Vietnam*
[3]*Department of Radiation Oncology, Dong Nai General Hospital, Bien Hoa, Vietnam*

3. A STUDY OF THE CONTOURING VARIATION OF THE LEFT PAROTID USING STRUCTSURE METHOD AND DICE COEFFICIENT IN PROKNOW PROGRAM

Angelina M. Bacala, PhD [1], Andelson Berondo, MS[2], Catherine Therese Quinones, PhD[1], Elaine Loraine P. Rivera[1]*, Gracely Kate N. Caracut[1]*,
[1]*Mindanao Radiation Center, Physics Department, Mindanao State University - Iligan Institute of Technology, Andres Bonifacio Ave., Iligan City, Philippines.*
[2]*Radiation Oncology Department, Davao Doctors Hospital, E. Quirino Ave., Davao City, Philippines*

4. DEVELOPMENT OF AN ASYMMETRIC DOUBLE GAUSSIAN MODEL FOR LATERAL DOSE PROFILES IN 1.5 TESLA MRI GUIDED PROTON THERAPY

Thanadol Chaiyasen[1], Thiansin Liamsuwan[2], and Puangpen Tangboonduangjit[1]
[1] *Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand*
[2] *Nuclear Research and Development Division, Thailand Institute of Nuclear Technology (Public Organization), Ongkharak, Nakorn Nayok, Thailand*

5. VERIFICATION OF THE JAWS ONLY IMRT DOSE DISTRIBUTIONS USING BEAMNRC WITH DOSXYZNRC FOR HEAD AND NECK CANCER

Duong Thanh Tai[1,2], Luong Thi Oanh[2], Truong Thi Hong Loan[2], and Nguyen Dong Son[3]
[1]*Department of Radiation Oncology, Dong Nai General Hospital, Bien Hoa, Vietnam*
[2]*Faculty of Physics & Engineering physics, University of Science, Ho Chi Minh, Vietnam*
[3]*Chi Anh Medical Technology Co.,Ltd., Ho Chi Minh, Vietnam*

SCIENTIFIC SESSION 2B: Meeting Room 2

MRI and NUCLEAR MEDICINE SS2B

1. ASSESSMENT OF MR IMAGES IN THE PRESENCE OF IRON IN BONE MARROW PHANTOMS

Umi Nabilah Ismail[1], Che Ahmad Azlan[1], Raja,Rizal Azman[1,] Mohammad Nazri Md Shah[1], NicholasJackson[2], and Kwan Hoong Ng[1]

[1]Department of Biomedical Imaging, Faculty of Medicine, University of Malaya, Malaysia

[2]Department of Pathology, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia

2. STUDY OF QUALITY CONTROL MAGNETIC RESONANCE ANGIOGRAPHY (MRA) IMAGES FOR TREATMENT PLANNING SYSTEM (TPS) GAMMA KNIFE RADIOSURGERY

Irhas[1], Freddy Haryanto[1] and Elia Soediatmoko[2]

[1]Institut Teknologi Bandung, Indonesia

[2] Gamma Knife Center Indonesia, Indonesia

3. PERFORMANCE TEST OF MAGNETIC RESONANCE IMAGING (MRI) SYSTEMS IN THE PHILIPPINES (2015-2017)

Marlon Raul Z. Tecson[1, 2], Manuel M. Ramirez[1], Jacob L. Mata[1], Christine Marie T. Ceblano[1]

[1]Medical Physics & Health Physics Services, Inc., Manila, Philippines

[2]University of Santo Tomas Graduate School, Manila, Philippines

4. EFFECT OF MEMBRANE DENSITY IN Gd^{3+} DIFFUSION AS CONTRAST AGENT OF MRI: A COMPARISON BETWEEN MONTE CARLO CELL SIMULATION AND EXPERIMENT RESULT

Adita Sutresno[1,2,*] Freddy Haryanto[1], Sparisoma Viridi[1], Idam Arif[1]

[1]Nuclear Physics and Biophysics Research Group, Physics Department, Institut Teknologi Bandung, Jalan Ganesha 10 Bandung 40132, Indonesia,

[2]Physics Department, Faculty of Science and Mathematics, Satya Wacana Christian University, Jalan Diponegoro 52-60, Salatiga 50711, Indonesia

5. RADIATION DOSES EVALUATION FOR PEDIATRIC ^{18}F-FDG: COMPARISON OF CRISTY-ECKERMAN VS. UF/NCI COMPUTATIONAL PHANTOMS

Kitiwat Khamwan[1], Shannon E. O'Reilly[2], Donika Plyku[3], Alison Goodkind[4], Anders Josefsson[3], Xinhua Cao[4], Frederic H. Fahey[4], S. Ted Treves[5], Wesley E. Bolch[2], George Sgouros[3]

[1]Department of Radiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

[2]J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, USA

[3]The Russell H. Morgan Department of Radiology and Radiological Science, Johns Hopkins University, USA

[4]Division of Nuclear Medicine and Molecular Imaging, Boston Children's Hospital, Harvard Medical School, USA

[5]Division of Nuclear Medicine and Molecular imaging, Department of Radiology, Brigham and Women's Hospital, Harvard Medical School, USA

SCIENTIFIC SESSION 3A: Meeting Room 1

MONTE CARLO APPLICATIONS SS3A

1. MONTE CARLO SIMULATIONS OF A 6MV VARIAN CLINAC 2100 USING PRIMO AND COMPARISON WITH EXPERIMENTAL MEASUREMENTS

Elaine Loraine P. Rivera[1], Gracely Kate N. Caracut, Andelson L. Berondo, MS[2], Catherine Therese J. Quiñones, PhD[1], Angelina M. Bacala, PhD [1]

[1]*Mindanao Radiation Physics Center, Physics Department, Mindanao State University - Iligan*

Institute of Technology, Andres Bonifacio Ave., Iligan City, Philippines.
[2]Radiation Oncology Department, Davao Doctors Hospital, E. Quirino Ave., Davao City, Philippines

2. MONTE CARLO CALCULATED OUTPUT FACTORS OF THE GAMMA KNIFE PERFEXION™

Junios, Su'ud. Z, and Haryanto. F
Institut Teknologi Bandung, Bandung, Indonesia

3. MONTE CARLO CALCULATION OF THE RADIAL DOSE FUNCTION OF IODINE-125 and CESIUM-137 SOURCE USING THE GATE TOOLKIT

Prence Khan Abubacar[1*], Angelina Bacala[1], PhD, Andelson Berondo[2], MSc,
Jan Mickelle Maratas[1], PhD, and Catherine Therese Quiñones[1], PhD
[1]Mindanao Radiation Physics Center, Department of Physics, Mindanao State University - Iligan Institute of Technology, A. Bonifacio Avenue, 9200 Iligan City, Philippines
[2]Department of Radiation Oncology, Davao Doctors Hospital - Cancer Center, 118, E. Quirino Avenue, Poblacion District, Davao City, 8000 Davao Del Sur, Philippines

4. OPTIMIZATION OF SIMULATION TRANSPORT PARAMETERS IN EGS++

Sitti Yani, Freddy Haryanto, and Idam Arif
Institut Teknologi Bandung, Indonesia

5. MONTE CARLO STUDY OF THE ABSORBED DOSE AND KINETIC ENERGY OF THE PARTICLE OF PHOTON SOURCE IN WATER AND BIOLOGICAL TISSUE MEDIA

Oscar A. Arasid[1,*], Andelson L. Berondo, MSc[2], Angelina M. Bacala, PhD[1] and Catherine Therese J. Quiñones, PhD[1]
[1]Mindanao Radiation Physics Center, Physics Department, Mindanao State University - Iligan Institute of Technology, A. Bonifacio Avenue, Tibanga, 9200 Iligan City, Philippines
[2]Radiation Oncology Department, Davao Doctors Hospital, E. Quirino Ave., Davao City, Philippines

6. CALCULATION OF PERCENT DEPTH DOSE OF A HUMAN HEAD PHANTOM USING GEANT4 MONTECARLO CODES

Hermogenes C. Gooc, Jr.[1], Salasa A. Nawang[1], Angelina M. Bacala[1] and Akinori Kimura[2]
[1]Department of Physics, MSU-Iligan Institute of Technology, Philippines
[2]Ashikaga Institute of Technology, Japan

SCIENTIFIC SESSION 3B: Meeting Room 2

DOSIMETRY SS3B

1. EVALUATION OF A STARTRACK™ ARRAY DETECTOR FOR DAILY OUTPUT CHECKS OF A LINEAR ACCELERATOR UNIT

Einreb Gabrielle Nadonga[1], Julius Cezar Rojales[1], Katheen Jane Cortez[1], Fredison Ruiz[1], Audrey Recibe[1], Janet Martinez[2], Jensher Cabasag[2], Joelle Nuqui[2], Noreen Tan[2] and Lilian Rodriguez[2]
[1]St Luke's Medical Center Global City, Philippines
[2]St Luke's Medical Center Quezon City, Philippines

2. CROSS CALIBRATION OF PLANE-PARALLEL IONIZATION CHAMBER FOR USE IN ELECTRON BEAM BASED ON IAEA TRS-398

Prence Khan Abubacar[1*], Vanessa Destura[1], Oscar Arasid[1], Gracely Kate Caracut[1], Jay Galgo[1] Elaine Rivera[1], Angelina Bacala, PhD[1], Catherine Therese Quiñones, PhD[1], Andelson Berondo, MSc[2]
[1]Mindanao Radiation Physics Center, Department of Physics, Mindanao State University - Iligan Institute of Technology, A. Bonifacio Avenue, 9200 Iligan City, Philippines
[2]Department of Radiation Oncology, Davao Doctors Hospital – Cancer Center, 118, E. Quirino Avenue, Poblacion District, Davao City, 8000 Davao Del Sur Philippines

3. DEVELOPMENT OF TLD $CaSO_4$ FOR RADIATION DOSIMETER
Nunung Nuraeni[1], Freddy Haryanto[1], Eri Hiswara[2], Ferry Iskandar[1] and Abdul Waris[1]
[1]Institut Teknologi Bandung, Indonesia
[2]Pusat Teknologi Keselamatan dan Metrologi Radiasi, Indonesia

4. DETERMINATION OF THE DOSIMETRIC LEAF GAP VARIATION OF AN 80-LEAF MULTILEAF COLLIMATOR USING DIFFERENT RADIATION DETECTORS
Julia Rebecca D. Posadas[1], Julius Cezar P. Rojales[2], Kathleen Jane U. Cortez[3], Audrey Recibe[4]
[1]Jecsons Medical Center, Tarlac City, Republic of the Philippines
[2, 3, 4]St. Luke's Medical Center-Global City, Republic of the Philippines

5. A STUDY ON THE DOSIMETRIC PROPERTIES OF AN EPID DOSIMETRY SYSTEM FOR PRE-TREATMENT DYNAMIC IMRT QUALITY ASSURANCE
Sandy D. Villaruz[1], Teofilo M. Hermoso[1], and Jake John P. Galingana[2]
[1]Perpetual Help Medical Center – Las Piñas, Philippines
[2]Jose R. Reyes Memorial Medical Center, Philippines

SCIENTIFIC SESSION 4A: Meeting Room 1

SMALL FIELD DOSIMETRY SS4A

1. DEVELOPMENT AND EVALUATION OF COMPLEXITY METRICS BASED ON STATIC MLC OPENINGS OF LINEAR ACCELERATOR
Ridwan, Supriyanto Arjo Pawiro, and Djarwani S. Soejoko
University of Indonesia, Indonesia

2. MONITOR UNIT (MU) VALIDATION USING VARIOUS TYPES OF DOSIMETERS FOR COMMISSIONING SMALL FIELD IN ECLIPSE™TREATMENT PLANNING SYSTEM
Sammuel Mamesa[1], Sivalee Suriyapee[1], Taweap Sanghangthum[1], Sornjarod Oonsiri[2]
[1]Medical Imaging, Faculty of Medicine Chulalongkorn University, Bangkok, Thailand
[2]Division of Radiation Oncology King Chulalongkorn Memorial Hospital, Bangkok, Thailand

3. INTERCOMPARISON OF THE SMALL FIELD OUTPUT FACTOR MEASUREMENTS OF THREE AVAILABLE DETECTORS USING THE DAISY-CHAIN METHOD
Kathleen Jane U. Cortez[1], Julius Cezar P. Rojales[1], Fredison O. Ruiz[1], Audrey N. Recibe[1], Einreb Gabrielle C. Nadonga[1], Janet M. Martinez[2], Jensher Frances A. Cabasag[2], Lilian V. Rodriguez[3], Julia Rebecca D. Posadas[4]
[1]St. Luke's Medical Center – Global City, Philippines,

[2]*St. Luke's Medical Center – Quezon City, Philippines*
[3]*Jose R. Reyes Memorial Medical Center, Philippines,*
[4]*Jecsons Medical Center, Philippines*

4. STATIC MLC DEGREE OF COMPLEXITY EVALUATION TOWARD DOSE DELIVERABILITY IN STANDARD AND CLINICAL APERTURE
Armaldy Rafliansyah[1], Yakub A. Bayhaqi[2], Supriyanto A. Pawiro[3], and Brian Ferliano
[1,2,3]*Physics Department, University of Indonesia, Depok, Indonesia*
[4]*Gading Pluit Integrated Cancer Care, Jakarta, Indonesia*

5. TESTING OF FIELD OUTPUT FACTORS FOR SMALL FIELD IN EXTERNAL BEAM RADIOTHERAPY
Taweap Sanghangthum[1], Sivalee Suriyapee[1], Sornjarod Oonsiri[2], Puntiwa Oonsiri[2]
[1] *Division of Radiation Oncology, Department of Radiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand*
[2] *Division of Radiation Oncology, Department of Radiology, King Chulalongkorn Memorial Hospital, , Bangkok, Thailand*

SCIENTIFIC SESSION 4B: Meeting Room 2

COMPUTED TOMOGRAPHY SS4B

1. DIFFERENTIATION OF URINARY STONES COMPOSITION USING DUAL ENERGY MICRO CT
Leni Aziyus Fitri[12], Yuni Warty1, Fadhilla Ulfa Jhora[1], Kamirul[1], Fourier Dzar Eljabbar Latief[1], Freddy Haryanto[1], and Umar Fauzi[1]
[1]*Institut Teknologi Bandung, Indonesia*
[2]*Universitas Baiturrahmah, Indonesia*

2. ACCURACY ASSESSMENT OF COMMERCIAL COMPUTED TOMOGRAPHY DOSE EVALUATION SOFTWARE
Sararas Intarak[1], Sawwanee Asavaphatiboon[1], and Napapong Pongnapang[2]
[1]*Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand.*
[2]*Faculty of Medical Technology, Mahidol University, Thailand*.

3. DEVELOPMENT AND POTENTIAL APPLICATION OF MULTIPLE WINDOWS FOR CT IMAGE REPRESENTATION: A PRELIMINARY STUDY
Choirul Anam[1,*], Wahyu Setia Budi[1], Freddy Haryanto[2], Rena Widita[2], Idam Arif[2], and Geoff Dougherty[3]
[1]*Department of Physics, Faculty of Mathematics and Natural Sciences, Diponegoro University, Jl. Prof. Soedarto SH, Tembalang, Semarang 50275, Central Java, Indonesia*
[2]*Department of Physics, Faculty of Mathematics and Natural Sciences, Bandung Institute of Technology, Ganesha 10, Bandung 40132, West Java, Indonesia*
[3]*Applied Physics and Medical Imaging, California State University Channel Islands, Camarillo, CA 93012, USA.*

4. CT NUMBER AND ELECTRON DENSITY RELATIONSHIP FOR PHOTON DOSE CALCULATION IN HEAD AND NECK, CHEST AND PELVIC REGIONS.
Siriporn Wong[1], Sivalee Suriyapee[1], Sonjarod Oonsiri[2] and Taweap Sanghangthum[1]
[1]*Medical Imaging, Department of Radiology, Faculty of Medicine, Chulalongkorn University,Thailand*

[2]Division of Radiation Oncology, King Chulalongkorn Memorial Hospital, Thailand

5. ACCELERATING MICRO CT SCAN IMAGE RECONSTRUCTION SPEED THROUGH GRAPHICS PROCESSING UNIT
Kamirul, L.A. Fitri, and F. Haryanto
Bandung Institute of Technology, Indonesia

SCIENTIFIC SESSION 5A: Meeting Room 1

MONTE CARLO APPLICATIONS SS5A

1. EFFECT OF ELECTRON BEAM ENERGY AND TARGET MATERIAL TO THE PRODUCTION OF SECONDARY PARTICLES: A MONTE CARLO SIMULATION STUDY
Dainna Recel Pamisa[1], Eulogio Auxtero Jr[1], Andelson Berondo, MSc[2], Angelina Bacala, PhD[1] and Catherine Therese Quiñones, PhD[1]

[1]Mindanao Radiation Physics Center, Physics Department, Mindanao State University – Iligan Institute of Technology, A. Bonifacio Avenue, 9200 Iligan City, Philippines

[2]Department of Radiation Oncology, Davao Doctors Hospital – Cancer Center, 118, E. Quirino Avenue, Poblacion District, Davao City, 8000 Davao Del Sur Philippines

2. THE PROTON COMPUTED TOMOGRAPHY WITH VIPMAN PHANTOM: A SIMULATION STUDY
D.Q.Huy[1, 2], D.T.Manh[1], T.C.Chao[2], C.C.Lee[2], C.V.Tao[3]
[1]Oncology Center, 175 Military Hospital, Ho Chi Minh City, Viet Nam.
[2]Department of Medical Imaging and Radiological Sciences, College of Medicine, Chang Gung University, Taiwan
[3]University of Science, National University Ho Chi Minh, Ho Chi Minh City, Viet Nam

3. MONTE CARLO STUDY ON THE DEPTH-DOSE PROFILE OF PRIMARY AND SECONDARY PARTICLES IN WATER AND BIOLOGICAL TISSUE MEDIA USING INCIDENT ELECTRON BEAMS AT VARIOUS ENERGIES
Jay M. Galgo[1*], Andelson L. Berondo, MSc[2], Angelina M. Bacala, PhD[1] and Catherine Therese J. Quiñones, PhD[1]

[1]Mindanao Radiation Physics Center, Department of Physics, Mindanao State University-Iligan Institute of Technology, A. Bonifacio Avenue, 9200 Iligan City Philippines
[2]Radiation Oncology Department, Davao Doctors Hospital, 118, Quirino Avenue, Poblacion District, Davao City, 8000 Davao Del Sur, Philippines

4. STUDY OF BEAM CHARACTERISTICS AND SIZE SPECIFIC DOSE ESTIMATES (SSDE) AT CYLINDRICAL PHANTOM FROM A VARIAN OBI 1.4 CBCT
Hendra Setiawan and Rena Widita
Bandung Institute of Technology (ITB), Indonesia

5. MONTE CARLO STUDY ON SECONDARY PARTICLE PRODUCTION USING VARIABLE TARGET MATERIALS IRRADIATED WITH 5.12 MEV AND 10 MEV PHOTON BEAM
Eulogio S. Auxtero Jr*[1], Dainna Recel S. Pamisa[1], Andelson L. Berondo, MSc[2], Angelina M. Bacala, PhD[1] and Catherine Therese J. Quiñones, PhD[1]

[1]*Mindanao Radiation Physics Center, Physics Department, MSU – Iligan Institute of Technology Andres Bonifacio Avenue, 9200 Iligan City, Philippines*

[2]*Radiation Oncology Department, Davao Doctors Hospital,118, E. Quirino Avenue, Poblacion District, Davao City, 8000 Davao Del Sur, Philippines*

SCIENTIFIC SESSION 5B: Meeting Room 2

RADIATION PROTECTION SS5B

1. ESTIMATION OF FOETAL ABSORBED DOSE FROM SELECTED COMPUTED TOMOGRAPHY (CT) SCAN PROCEDURES: A PHANTOM STUDY
Nurhikmah Azam[1], Kwan Hoong Ng[1, 2], and Jeannie Hsiu Ding Wong[1, 2]
[1]Department of Biomedical Imaging, University of Malaya, Kuala Lumpur, Malaysia
[2]University of Malaya Research Imaging Centre,University of Malaya, Kuala Lumpur, Malaysia

2. DOSE ANALYSIS OF PATIENTS WHO UNDERGONE TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI) PROCEDURE IN ST. LUKE'S MEDICAL CENTER
Joyce N. Melchor, Adrian A. Caraan, Rafael C. Solis, Nathaniel B. De Vera, Janet O. Caraan
St. Luke's Medical Center, Quezon City, Philippines

3. ESTIMATED EYE LENS DOSES OF INTERVENTIONAL RADIOLOGISTS USING OSLDs PHANTOM STUDY
Mananchaya Vimolnoch, Anchali Krisanachinda
Medical Imaging Program, Department of Radiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

4. ESTIMATION OF THE ENTRANCE SURFACE DOSE OF NEONATAL PATIENTS UNDERGOING CHEST X-RAY EXAMINATIONS IN A LARGE GOVERNMENT TERTIARY HOSPITAL IN BATANGAS, PHILIPPINES
Juzzel Ian B. Zerrudo[1,2], Noel Flores[1,2], Leni Mercado[1,2], Danica Rico[2], and Thea Masilang[2]
[1]Radiology Department Batangas Medical Center, Batangas City, Philippines
[2]Department of Radiologic Technology, College of Allied Medical Professions, Lyceum of the Philippines University, Batangas City, Philippines

5. OCCUPATIONAL EXPOSURE ANALYSIS AND SURVEY IN CARDIAC CATHETERIZATION LABORATORY FACILITY OF SLMC-QC
Joyce N. Melchor, Janet O. Caraan, Rafael C. Solis, Nathaniel B. De Vera, Geraldi Niño Enriquez
St. Luke's Medical Center, Quezon City, Philippines

SCIENTIFIC SESSION 6A: Meeting Room 1

RADIOTHERAPY SS6A

1. EFFICACY OF ACRYLONITRILE BUTADIENE STYRENE (ABS) PLASTIC AS 3D-PRINTING MATERIAL FOR RADIOTHERAPY BOLUS APPLICATION
Shalaine S. Tatu[1], Christina A. Binag[1,2], and Randal Zandro J. Remoto[1,3]

The Graduate School[1]; Research Center for the Natural and Applied Sciences[2],University of Santo Tomas, Manila, Philippines
National Kidney and Transplant Institute, Quezon City, Philippines[3]

2. VERIFICATION OF AN ANALYTICAL PROTON DOSE CALCULATION FOR A MATLAB-BASED PROTON THERAPY TREATMENT PLANNING SYSTEM
Rachawadee Trinate[1], Thiansin Liamsuwan[2], Puangpen Tangboonduangjit[1], and Sawwanee Asavaphatiboon[1]
[1]The School of Medical Physics, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand
[2] Nuclear Research and Development Division, Thailand Institute of Nuclear Technology (Public Organization), Ongkharak, Nakorn Nayok, Thailand

3. EFFECTS OF THERMOPLASTIC MASK ON DOSE DISTRIBUTION IN EXTERNAL BEAM RADIOTHERAPY: A MONTE CARLO STUDY
Vanessa V. Destura[1], Andelson L. Berondo, MSc[2], Angelina M. Bacala, PhD[1], Catherine Therese J. Quiñones, PhD[1]

[1]Mindanao Radiation Physics Center, Physics Department, MSU – Iligan Institute of Technology Andres Bonifacio Avenue, 9200 Iligan City, Philippines
[2]Radiation Oncology Department, Davao Doctors Hospital, 118, E. Quirino Avenue, Poblacion District, Davao City, 8000 Davao Del Sur, Philippines

4. THE COMPARISON of THE PERFORMANCE OF AAA and AXB ALGORITHM in HETEROGENEITY STRUCTURES
M Fadli[1,2], A Nainggolan[2], SA Pawiro[1]
[1]Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Indonesia 16424, Depok, West Java, Indonesia
[2]Department of Radiotherapy, MRCCC Siloam Hospitals Semanggi, 12290, Jakarta, Indonesia

5. A STUDY OF PHOTON BEAM PROFILES FROM 6 MV AND 15 MV VARIAN TYPE MEDICAL LINEAR ACCELERATOR USING THE SIMAC SIMULATOR
Jan Risty L. Marzon, Alber Mae I. Agbalog, Quime B. Ursos, Louie T. Murcia, M.S., Angelina M. Bacala, Ph.D.

Physics Department, Mindanao State University – Iligan Institute of Technology, A. Bonifacio Avenue, 9200 Iligan City, Philippines

SCIENTIFIC SESSION 6B: Meeting Room 2

MEDICAL PHYSICS PRACTICES SS6B

1. MANAGING REJECT DIGITAL RADIOGRAPHY IMAGES IN ST. LUKE'S MEDICAL CENTER-QC
Joyce N. Melchor, Taciana Napa, Erlinda Reglos, Katrina Emillie M. Queroljico, Janet G. Ortiz, Genesis S. Mendez
St. Luke's Medical Center, Quezon City, Philippines

2. PERCEPTION ON RADIATION PROTECTION MEASURES IN CT IMAGING BY RADIOLOGY WORKERS IN DEPARMENT OF RADIOLOGY OF GENERAL HOSPITALS IN EAST JAVA PROVINCE, INDONESIA
Johan AE Noor[1], Meftah Ali Elnari[1], and Yuyun Yuniewati[2]
[1]Dept. of Physics, Faculty of Science, Brawijaya University, Malang 65145, Indonesia
[2]Dep.t of Radiology, Faculty of Medicine, Brawijaya University, Malang 65145, Indonesia

3. ATTAINING TRAINED MEDICAL PHYSICISTS TO CONDUCT PERFORMANCE TEST FOR RADIOGRAPHY/FLOUROSCOPY, MAMMOGRAPHY AND CT

Marlon Raul Z Tecson[1, 2], Manuel M. Ramirez[1], Jacob L. Mata[1], Christine Marie T. Ceblano[1]
[1]Medical Physics & Health Physics Services, Inc., Manila, Philippines
[2]University of Santo Tomas Graduate School, Manila, Philippines

4. DOMESTICATION OF THE GAINS OF MEDICAL PHYSICS PRACTICES IN THE WEST AFRICAN SUB-REGION: THE ROLE OF INTERNATIONAL COMMUNITY.

Peter Ali
Department of Physics, Ebonyi State College of Education, Ikwo
Ebonyi State Nigeria

5. DEVELOPMENT OF A SIMULATOR

V. Subranami
Department of Radiation Oncology, All India Institute of Medical Sciences, New Delhi, India

6. CONDUCTING OF PERFORMANCE TEST FOR RADIOTHERAPY X-RAY AND CT SIMULATORS

Marlon Raul Z. Tecson[1, 2], Manuel M. Ramirez[1], Jacob L. Mata[1], Christine Marie T. Ceblano[1]
[1]Medical Physics & Health Physics Services, Inc., Manila, Philippines
[2]University of Santo Tomas Graduate School, Manila, Philippines

SCIENTIFIC SESSION 7A: Meeting Room 1

Workshop

SCIENTIFIC SESSION 7B: Meeting Room 2

HEALTH PHYSICS and BIOPHYSICS SS7B

1. THE OPTICAL PROPERTIES OF BORON NITRIDE NANOTUBE (BNNT) AS A SUNSCREEN COMPOSITION FOR SENSITIVE SKIN TYPE

Riri Jonuarti[1], Freddy Haryanto[1], Wison Agerico Diño[2], and Suprijadi[1]
[1]Institut Teknologi Bandung, Indonesia
[2]Department of Applied Physics Osaka University, Suita, 565-0871, Japan

2. AN ASSESSMENT OF ORIGINAL SHEPARD METHOD IN GENERATING AN INDOOR RADIOFREQUENCY RADIATION (RFR) MAP

John Paul O. Bustillo*, Randy Joseph G. Fernandez, and Herbert B. Domingo
Department of Physical Sciences and Mathematics, College of Arts and Sciences, University of the Philippines Manila, Manila City, Philippines

3. STUDY OF HUMAN BRAIN ACTIVITY IN EARLY ALZHEIMER'S DISEASE USING BRAIN ECVT (ELECTRICAL CAPACITANCE VOLUME TOMOGRAPHY)

Nita Handayani[1,2], Siti Nurul Khotimah[1], Idam Arif[1], Freddy Haryanto[1] and Warsito Purwo Taruno[3]
[1]Physics Department, Institut Teknologi Bandung, Indonesia
[2]Physics Department, Faculty of Science and Technology, UIN Sunan Kalijaga Yogyakarta, Indonesia
[3]Neuroscience Divison, CTech Labs, PT Edwar Technology, Tangerang, Indonesia

4. SHEAR WAVE ELASTOGRAPHY IN THE EVALUATION OF RENAL PARENCHYMAL STIFFNESS IN PATIENTS WITH CHRONIC KIDNEY DISEASE AND NORMAL KIDNEY

Sook Sam Leong[1,4], Jeannie Hsiu Ding Wong[1,2], Mohammad Nazri Md Shah[1,2], Anushya Vijayananthan[1,2], Maisarah Jalalonmuhali[3] and Kwan Hoong Ng[1,2]

[1]Department of Biomedical Imaging, [2]University of Malaya Research Imaging Centre, [3]Department of Medicine, University of Malaya, Kuala Lumpur, Malaysia

[4]Department of Biomedical Imaging, University of Malaya Medical Centre, Kuala Lumpur, Malaysia

5. URINE ANALYSIS AT VISIBLE-LIGHT REGION ABSORBANCE PEAK

Yuni Warty, Leni Aziyus Fitri, Freddy Haryanto, and Herman

Institut Teknologi Bandung, Indonesia

6. MONTE CARLO SIMULATIONS OF THE SHIELDING DESIGN OF A RADIATION THERAPY CENTER USING PHITS, A PRELIMINARY STUDY

Jay Erickson Tio

College of Science, University of Santo Tomas

7. STUDY ON DEVELOPMENT OF ^{137}Cs MONITORING SYSTEM IN SOIL WITH MOBILE MONITOR METHOD

Chomsin S Widodo[1], Pramudya [1], and Syarbaini[2]

[1]Department of Physics, Faculty of Sciences, Brawijaya University, Indonesia

[2]Center for Technology of Radiation Safety and Metrology, National Nuclear Energy Agency, Indonesia