Southeast Asia Federation of Organizations for Medical Physics

Thai Medical Physicist Society & Mae Fa Luang University

The 23rd SEACOMP & 16th TMPS Annual Scientific Meeting,

23 -26 January 2025

The Heritage Chiang Rai Hotel and Convention, Chiang Rai, Thailand

Theme: "Inspiring the Next Generation of Medical Physicists"

Room *Grand Ballroom (Opening & Radiotherapy)*

Heritage 1 (Diagnostic Imaging, Business Meeting)

Heritage 2 (Nuclear Medicine)

Lanna 2 (SEAFOMP EXCOM Meeting, Council Meeting),

In front of Grand Ballroom (Commercial Exhibition & Coffee Break)

MEETING PROGRAM

THURSDAY, 23 JANUARY 2025

08:00-09:00 **REGISTRATION – Pre-congress Workshop**

Room *Lanna 2*

Chair: *Anchali Krisanachinda*

09:00-10:30 **IAEA Regional Project: Integrating AI-Driven Bridge in Postgraduate Medical Physics Education and Training**

Anchali Krisanachinda, Chirasak Khamfongkhruea, Puangpen Tangboonduangjit, Suphalak Khachonkham, Massoud Malek

Room *Lanna 2*

Chair: *Kitiwat Khamwan*

10:30-12:00 **Hands-on experience with the latest CT technology**

-Performance Evaluation and New Research Trends-

Katsumi Tsujioka

12:00-13:00 **LUNCH**

Room *Lanna 2*

Chair: *Kosuke Matsubara*

13:00-14:30 **ACOMP-ASEAN Dose Reference Level**

Vannyat Ath (CAM), Rini Shintawati (IND), Nurmazaina Ariffin (MAL), Thinn Thinn Myint (MYM), Agnette Peralta (PHI), Somanesan S (SIN), Anchali Krisanachinda (THA), Shiwani Shayal (FIJ), Ikunanoa Tohotoa (TON), Amos Toka (VAN)

Chair:	*Chai Hong Yeong*
14:30-16:00	**Women in Medical Physics**
	Rini Shintawati (IND), Chai Hong Yeong (MAL), Agnette Peralta (PHI), Anchali Krisanachinda (THA)
Room	*Lanna 4*
Chair:	*Chirasak Khamfongkhruea*
13:00-14:30	**Automation in Medical Physics Task**
	Nat Sirirutbunkajorn, Wisawa Phongprapan, Todsaporn Fuangrod
Room	*Lanna 5*
Chair:	*Keerakarn Somsuan*
13:00-16:00	**Point of Care Ultrasound (POCUS) Workshop**
	John Owen Gibson
Room	*Heritage 1*
18:00-21:00	**PRESIDENTIAL DINNER (for invited speaker and committee)**
	Sponsor by United Imaging

FRIDAY, 24 JANUARY 2025

08:00-08:30	REGISTRATION
Room	*Grand Ballroom*
MC:	*Kitiwat Khamwan, Thititip Tippayamontri*
08:30-09:00	OPENING CEREMONY
	Vanchai Sirichana, Chai Hong Yeong, Anchali Krisanachinda
09:00-09:30	**John Cameron Memorial Lecture**
	Smart Ideas Are Not Enough – The Role of Technological Innovations in Physics Applications for Medicine
	Martin Handschin Grossmann
09:30-10:30	**OPENING COMMERCIAL EXHIBITION & COFFEE BREAK**

Room	*Grand Ballroom*
Chair:	*Anchali Krisanachinda*
10:30-11:00	**Pradub Atthakorn Memorial Lecture** **Reviewing Your High Dose Rate Brachytherapy Quality Assurance Program: Back to the Basics** *Allan Wilkinson*
11:00-11:30	**The current and emerging revolution in ultrasound imaging technology** *John Owen Gibson*
11:30-12:00	**Beyond Boundaries: Inspiring the Next Generation of Medical Physicists** Kwan Hoong Ng
Chair:	***Puangpen Tangboonduangjit***
12:00-13:00	**GE LUNCH SYMPOSIUM: Imaging in Radiotherapy** *Taweap Sanghangthum*
Room	*Grand Ballroom*
Chair:	*Sivalee Suriyapee*
13:00-13:30	**Vendor Talk (Siemens): Optimizing Radiotherapy Outcomes with PET/CT and Artificial Intelligence** *Ferdinand Lipps*
13:30-14:10	**3-Year Experience in Proton Therapy in Thailand** *Chonlakiet Khorprasert, Napapat Amornwichet*
Chair:	*Puangpen Tangboonduangjit*
14:10-14:30	**Vendor Talk (Business Alignment):** **RapidArc Dynamic – A Turning Point of Arc Therapy** *Roman Wicha*
14:30-15:00	**Vendor Talk (Med-I):** **Unlocking the Potential of Astatine-211 as a Promising Alternative to Actinium-225 in Theranostics** *Shuichi Shiratori*
15:00-15:30	COFFEE BREAK
Room	*Grand Ballroom*
Chair:	*Chonlakiet Khorprasert*
15:30-16:00	**Proton Therapy in Breast Cancer** *Kanjana Shotelersuk*

16:00-16:30 **Dose Verification in Organ Motion Radiotherapy**

Supriyanto Pawiro

Room Heritage 1

Chair: ***Kitiwat Khamwan***

15:30-16:00 **Implementing a QM System in Diagnostic Radiology: The Roles of Clinical Medical Physicists**

Napapong Pongnapang

16:00-16:30 **Applied Physics in Thai Biomedical Inventions**

Sittiporn Punyanitya

Room ***Heritage 2***

Chair: ***Anchali Krisanachinda***

15:30-16:00 **Trends in AI for MRI: An Introduction to the Latest Technologies**

Yasuo Takatsu

16:00-16:30 **Risk Control: Role of a Medical Physicist Not Only Optimization in Diagnostic Medical Activities**

Franco Milano

Room ***Heritage 1***

16:30-17:00 **TMPS BUSINESS MEETING**

Room ***Grand Ballroom***

18:00-21:00 **GALA DINNER – Sponsor by Med-I**

SATURDAY 25 JANUARY 2025

Room ***Grand Ballroom***

Chair: ***Wannapha Nobnop***

08:00-08:30 **Fundamental Principles of AI Relevant to Medical Physicists**

Chanon Puttanawarut

08:30-09:00 **Medical Physics in THAI-QUATRO**

Chumpot Kakanaporn

09:00-09:30 **Development of End-to-End 3D Dosimetry Audit for Advanced Radiotherapy**

Ahmad Taufek Abdul Rahman

09:30-10:00 **MRGRT: Clinical Implementation and Challenges**

Chanida Sathitwathanawirot

Room	***Heritage 1***
Chair:	**Lukmanda Evan Lubis**
08:30-09:00	**CT Technology and Dosimetry** *Katsumi Tsujioka*
09:00-09:30	**3D C-arms with Volumetric Imaging Capability for Fluoroscopically-guided Interventions** *Lukmanda Evan Lubis*
09:30-10:00	**Patient Dosimetry in Pedriatic CT** *Kosuke Matsubara*
Room	***Heritage 2***
Chair:	***Chai Hong Yeong***
08:30-09:00	**Emerging Trends and Technologies in Nuclear Medicine Imaging: What Medical Physicists Must Know?** *Krisanat Chuamsaamarkkee*
09:00-09:30	**Implementation of population PK modeling in molecular radiotherapy** *Deni Hardiansyah*
09:30-10:00	**Radionuclide Imaging and Therapy in Oncology** *Polawat Angsulajit*
10:00-10:30	COFFEE BREAK
Room	***Grand Ballroom***
Chair:	***Supriyanto Pawiro***
10:30-11:00	**Gel Dosimetry for Radiotherapy** *Akihiro Takemura*
11:00-11:30	**AAPM TG 267: A Joint AAPM GEC-ESTRO Report on Biophysical Models and Tools for the Planning and Evaluation of Brachytherapy** *Pitchayut Nakkrasae*
11:30-12:00	**TMPS-Varian RapidPlan Project** *Taweap Sanghangthum*
Room	***Heritage 1***
Chair:	***Thititip Tippayamontri***
10:30-11:00	**AI in Breast Cancer Screening** *Todsaporn Fuangrod*

11:00-12:00 **3D Cellular Arrangement Modeling: Trend for the Future**

Arunothai Wanta, Harit Boonyaputthikul

Room *Heritage 2*

Chair: *Anchali Krisanachinda*

10:30-11:00 **Personalised Dosimetry in Theranostic Nuclear Medicine: Lessons Learnt**

Chai Hong Yeong

11:00-11:30 **New Trends for Lu-177 Personalized Dosimetry using a Ring-shaped CZT-based Camera: the Game Changes?**

Kitiwat Khamwan

11:30-12:00 **Implementation Dosimetry for Molecular Radiotherapy in SE Asia Region: What Are We Up To?**

Nur Rahmah Hidayati

Room *Grand Ballroom*

Chair: *Thititip Tippayamontri*

12:00-13:00 **Saint Med LUNCH SYMPOSIUM**

On-line Adaptive RT bases on CT-linac

Wenzhao Sun

Room *Grand Ballroom 1*

Chair: *Lakkana Apipanyasopon*

13:00-13:30 **Physics of Proton Therapy and Future Direction**

Wei Yang Calvin KOH

Room *Heritage 1*

Chair: *Picha Shunhavanich*

13:00-13:30 **AAPM TG 368: Methodology for Establishing Exam-Specific Target Exposure Indices in General Radiography**

Anzi Zhao

Room *Heritage 2*

Chair: *Somanesan S.*

13:00-13:30 **AI in medical imaging and NM**

Yothin Rakvongthai

Proffered Paper in Radiotherapy (non-AI): **Grand Ballroom 1**

Proffered Paper in Radiotherapy (AI, MC, Proton, and Other): **Grand Ballroom 2**

Proffered Paper in Diagnostic Radiology: **Heritage 1**

Proffered Paper in Nuclear Medicine & Others: **Heritage 2**

Proffered Paper in Radiotherapy (non-AI)

Room ***Grand Ballroom 1***

Chair: ***Puangpen Tangboonduangjit***

Co-Chair: ***Taweap Sanghangthum***

13:30-13:40 **RT 1_Development and characterization of customizable carrageenan bolus for superficial radiation therapy**

Cruzet Rhodesa, Calma J, Dadol G

13:40-13:50 **RT 2_Measurement of photoneutron dose rate from high energy photon beams in medical linear accelerator using a neutron survey meter**

Hmwe Aye T, Damrongkijudom N, Kakanaporn C, Ekjeen T, Suwannarat A, Kittipayak S

13:50-14:00 **RT 3_Determination of neutrons in a photon radiotherapy treatment room using CR-39 dosimeters**

Rattanarungruangchai Natch, Suwanbut P, Thongsawad S, Liamsuwan T

14:00-14:10 **RT 4_Sensitivity of error detection in EPID for patient-specific QA in head and neck VMAT plans**

Thaiwattana Chanchakorn, Udee N, Khamfongkhruea C, Donmoon T, Yabsantia S

14:10-14:20 **RT 5_Implementation of an EPID for patient-specific VMAT quality assurance: Experience at Surin Hospital**

Pischom Narueporn, Songsri S, Tangboonduangjit P, Khachonkham S

14:20-14:30 **RT 6_Investigation of in vivo EPID-based software for detecting dosimetric errors: A phantom studies**

Suksawang Penpisuth, Limpichotikul N, Sahachjesdakul P, Kakanaporn C, Khachonkham S

14:30-15:00 COFFEE BREAK

Proffered Paper in Radiotherapy (non-AI) (Cont.)

Room *Grand Ballroom 1*

Chair: *Supriyanto Pawiro*

Co-Chair: *Anirut Watcharawipha*

15:00-15:10 **RT 7_Investigated radiation dose at surrounding area in real-time motion tracking system of tomotherapy: A phantom study**

Kititharakun Phairot, Watcharawipha A, Nopnob W, Kongsa A

15:10-15:20 **RT 8_Investigated performance of real-time motion tracking system in tomotherapy**

Messuwan Jiraphat, Watcharawipha A, Nopnob W, Kongsa A

15:20-15:30 **RT 9_Comparison of normal tissue integral dose between VMAT and helical tomotherapy for post-mastectomy radiation therapy with regional nodal irradiation**

Tananchai Kamonwan, Watcharawipha A, Onchan W, Nobnop W

15:30-15:40 **RT 10_Assessment of imaging dose delivered to patients throughout the treatment course in tomotherapy systems**

Hompeng Pratchayakan, Nobnop W, Donmoon T, Chusin T

15:40-15:50 **RT 11_Dosimetric comparison between images with and without contrast agent using intensity modulated arc therapy in head and neck cancer**

Wantongsuk Wilasinee, Watcharawipha A, Nopnob W, Chakrabandhu S, Thongsuk W

15:50-16:00 **RT 12_Dosimetric comparison between the original and revised TRS-398 code of practice for photon beam reference dosimetry**

Kyaw WLL, Sanghangthum T, Lin SS, Huq MS

Proffered Paper in Radiotherapy (non-AI) (Cont.)

Room *Grand Ballroom 1*

Chair: *Chumpot Kakanaporn*

Co-Chair: *Tanawat Tawonwong*

16:00-16:10 **RT 13_Evaluating dosimetric accuracy of AAA and AXB algorithms in free-breath and deep inspiration breath hold DIBH for lung SBRT**

Htet May Thu, Tawonwong T, Sanghangthum T

16:10-16:20 **RT 14_Interfraction motion and dosimetric comparison between wing board and breast board immobilization devices during postmastectomy 3D-CRT for breast cancer**

Coronel Michael Ben Joseph, Zerrudo JI, Caballar RC, Balete MJ, Mones E, Cereno RE

16:20-16:30 **RT 15_Impact of multi-leaf collimator (MLC) width and normal tissue objective (NTO) on radiation dose distributions in stereotactic radiosurgery using hyperarc for single brain lesions**

Oh Se An, Kim SY, Park JW, Yea JW, Park J, Jo YJ

16:30-16:40 **RT 16_Evaluation of patient-specific quality assurance for beam-matching in SRS/SRT**

Boujamrat Thanuch, Oonsiri S, Oonsiri P, Kingkaew S, Vimolnoch M, Plangpleng N, Chatchumnan N, Yabsantia S

16:40-16:50 **RT 17_Dosimetric comparison between volumetric modulated arc therapy on TrueBeam and Halcyon of total body irradiation**

Jaihow Wanwanut, Tawonwong T, Sanghangthum T

16:50-17:00 **RT_18 Design and fabrication of a dedicated phantom for geometric verification in single-isocenter multiple-target (SIMT) stereotactic radiosurgery**

Montreemanorom Warisara, Khamfongkhruea C, Mundee T, Chanpanya T, Suwanbut P, Polee C, Wonglee S, Thongsawad S

17:00-17:10 **RT_19 Eclipse scripting application programming interface validation for breast cancer in flattening filter free photon beams**

Tansangworn Prasit, Chatchumnan N, Saksornchai K, Kingkaew S, Vimolnoch M, Oonsiri P, Oonsiri S

17:10-17:20 **RT_20 Assessment of Bladder and Rectal Dose Distributions Using Three-Channel Vaginal Applicators in HDR Electronic Brachytherapy**

Md Mokhlesur Rahman, Rahman Md H, Nath NK

Proffered Paper in Radiotherapy (AI, MC, Proton, and Other)

Room ***Grand Ballroom 2 (AI)***

Chair: ***Chirasak Khamfongkhruea***

Co-Chair: ***Suphalak Khachonkham***

13:00-13:10 **RT 21_ Development of deep learning-based auto-segmentation on CT images for prostate radiotherapy**

Pranee Chanaphat, Kummanee P, Deeharing A, Fuangrod T, Khamfongkhruea C

13:10-13:20 **RT 22_The effect of constructing CT images from multiple MR sequences in the treatment planning of a brain tumor**

Pisut Duanghatai, Auethavekiat S, Oonsiri S

13:20-13:30 **RT 23_Machine learning model for predicting radiation-induced xerostomia from head and neck cancer radiotherapy**

Chantarak Kiattiyot, Suntiwong S, Chamchod S, Liamsuwan T

13:30-13:40 **RT 24_Artificial intelligence-based dose prediction for optimizing treatment plans in locally advanced cervical cancer radiation therapy**

Yooyen Nattawut, Thongsawad S, Chamchod S, Kummanee P, Intanin P, Nimjaroen K, Chaipanya T, Khamfongkhruea C

13:40-13:50 **RT 25_Dose Prediction for Cervical Cancer Brachytherapy using Deep Learning**

Rinjan Nawarat, Khamfongkrue C, Chanpanya T, Kummanee, Tannanonta C, Tharavichitkul E, Thongsawad S

13:50-14:00 **RT 26_Auto-segmentation for cervical cancer brachytherapy using deep learning**

Wattanagul Nuttapol, Khamfongkruea C, Kummanee P, Tannanonta C, Tharavichitkul E, Thongsawad S

14:00-14:10 **RT 27_Failed-tolerance detection of EPID in vivo dosimetry using machine learning**

Saiyo Nipon, Kojima H, Noto K, Isomura N, Tsukamoto K, Segawa Y, Yamaguchi S, Kohigashi J, Takemura A

14:10-14:20 **RT 28_Tumor prognosis in nasopharyngeal carcinoma using deep transfer learning with RadImageNet from CT images**

Petiraksakul Parida, Prayongrat A, Kitpanit S, Kannarunimit D, Chakkabat C, Lertbutsayanukul C, Sriswasdi S, Khongwirotphan S, Rakvongthai Y

14:20-14:30 **RT 29_Deep learning for radiation dose distribution prediction in VMAT breast cancer irradiation**

Sukha Thanakorn, Puttanawarut C, Sirirutbunkajorn N, Changkaew P, Stansook N, Khachonkham S

14:30-14:40 **RT 30_Comparative analysis of convolution neural networks (CNNs) for automated organ-at-risk delineation in prostate cancer computed tomography images**

Khuadpudsa Wanitchaya, Kaewlek T

14:40-14:50 **RT 31_Prediction of radiation pneumonitis using artificial intelligence in non-small cell lung cancer patients undergoing volumetric modulated arc therapy**
Chevajarassakul Wasin, Chamchod S, Phonlakrai M, Kummanee P, Masa-nga W, Nimjaroen K, Chaipanya T, Khamfongkhruea C

14:50-15:00 **RT 32_Evaluation of Knowledge-Based Planning Model in Head and Neck Cancer Using Volumetric Modulated Arc Therapy**
Plangpleng Nattha, Suriyapee S, Tawonwong T, Raungchan S, Kanphet J, Sanghangthum T

15:00-15:30 **COFFEE BREAK**

Proffered Paper in Radiotherapy (AI, MC, Proton, and Other) (Cont.)

Room ***Grand Ballroom 2 (Proton)***

Chair: ***Wei Yang Calvin KOH***

Co-Chair: ***Mintra Keawsamur***

15:30-15:40 **RT 33_Investigation of collimator effects on secondary Bragg peak formation in proton beams based on Monte Carlo simulation**
Azimah Alfia Faizatul, Haryanto F, Widita R, Arif I

15:40-15:50 **RT 34_Comparative dosimetric analysis between volumetric modulated arc therapy and intensity-modulated proton therapy for craniospinal irradiation plans**
Buranavanitvong Nalinpun, Plangpleng N, Ruangchan S, Sanghangthum T

15:50-16:00 **RT 35_Proton beam characteristics through dental materials**
Yamram Nattaporn, Sanghangthum T, Saikaew P, Phaisangittisakul N, Prayongrat A, Israngkul Na Ayuthaya I, Tawonwong T, Ruangchan S

16:00-16:10 **RT 36_Assessing the efficacy of independent calculation-based methods for patient-specific quality assurance in Intensity-Modulated Proton Therapy**
Chatchumnan Nichakan, Suriyapee S, Sanghangthum T

16:10-16:20 **RT 37_Range comparison of Monte Carlo and pencil beam algorithms in treatment planning system for proton therapy**
Monkongsubsin Wiroon, Israngkul Na Ayuthaya I, Sanghangthum T, Keawsamur M

16:20-16:30 **RT 38_Comparison of kinetic repair models for protons induced DNA damage**
Tikamol Natthawat, Nantajit D, Liamsuwan T

Proffered Paper in Radiotherapy (AI, MC, Proton, and Other) (Cont.)

Room *Grand Ballroom 2 (MC & Others)*

Chair: *Wannapha Nobnop*

Co-Chair: *Suphalak Khachonkham*

16:30-16:40 **RT 39_The evaluation of radiotherapy plan complexity using root mean square error based on IMRT linac log-files**

Azzi Akbar, Habyb FE, Ryangga D

16:40-16:50 **RT 40_Dosimetric study of a Co-60 HDR brachytherapy source using PHITS**

Aquino Patrick Vincent

16:50-17:00 **RT 41_ Uncertainty of radiophotoluminescence glass dosimeter in low energy photon beams**

Jittrakool Kantida, Kingkaew S, Chatchumnan N, Oonsiri P, Oonsiri S, Vimolnoch M

17:00-17:10 **RT 42_Unlocking the potential of 3D optical dosimetry in polyvinyl alcohol dosimeters enhanced with silver bromide and zinc oxide nanoparticles for radiotherapy dosimetry applications**

Adenan Mohd Zulfadli, Mahat MM, Jamalludin Z, Min UN, Yaakub NH, Ahmad Taufek Abdul Rahman

17:10-17:20 **RT_43 SafeRT: software for quantitative QA evaluation of IG-IMRT linac performance and treatment delivery**

Zin HM, Lim SY, Abubakar A, Sakaria K, Midi NS, Zamri NAM, Uwais F, Rosli NF

Proffered Paper in Diagnostic Radiology

Room *Heritage 1*

Chair: *Lukmanda Evan Lubis*

Co-Chair: *Kitiwat Khamwan*

13:00-13:10 **Dx 1_Image quality evaluation of ACR CT accreditation phantom using IndoQCT Software**

Chakrapong Apawadee, Krisanachinda A

13:10-13:20 **Dx 2_Optimization of clinical indication DRL of CT protocols**

Kanyakham Kannikar, Kriengkrai I, Krisanachinda A

13:20-13:30 **Dx 3_Real-time staff radiation dose monitoring from neuro-interventional procedures at KCMH**

Prajamchuea Kornkamol, Krisanachinda A

13:30-13:40 **Dx 4_Dosimetry and image quality studies between grid and non-grid fluoroscopy during catheterization in pediatric protocol: a phantom study**

Netprasert Sa-angtip, Krisanachinda A

13:40-13:50 **Dx 5_Comparison of the image quality and dose by using the ACR DM and small ACR mammography phantoms from FFDM systems**
Ruenjit Sakultala, Krisanachinda A

13:50-14:00 **Dx 6_Comparison of Image Quality and Apparent Diffusion Coefficient value in Upper Abdominal MRI: Calculated vs. Acquired Diffusion-Weighted Imaging at high b-value**
Lowong Thanatchaya, Pisuchpen N, Satja M, Krisanachinda A

14:00-14:10 **Dx 7_A breast phantom study for mean glandular dose estimation from full field digital mammography and digital breast tomosynthesis**
Thupsuri Suphawat, Singkavongs A, Tuiduang S

14:10-14:20 **Dx 8_Organ absorbed dose estimation for abdomen-pelvis CT based on measurement and Monte Carlo simulation: phantom study**
Nuntue Chatnapa, Matsubara K, Watanabe S

14:20-14:30 **Dx 9_PHITS modelling and simulation of a D-D neutron generator facility for radiation safety assessment**
Dulohan Christine, Egwolf B, Asuncion-Astronomo A

14:30-15:00 COFFEE BREAK

Proffered Paper in Diagnostic Radiology (Cont.)

Room ***Heritage 1***

Chair: ***Yothin Rakvongthai***

Co-Chair: ***Picha Shunhavanich***

15:00-15:10 **Dx 10_Assessment of patient and occupational radiation dose during angiography procedures in interventional radiology**
Muhammad Roslan Abdul Gani, Widya Apriyani S, Endah P

15:10-15:20 **Dx 11_AI-augmented assessment of quantitative parameters in a 3.0 tesla MRI machine at Songklanagarind Hospital**
Chanchayanon Thanakrit, Sakjirapapong S, Wanai A, Saengsurichai S, Ina N, Rojchanaumpawan T, Cheewakul J

15:20-15:30 **Dx 12_Dose mapping of a deuterium-tritium (D-T) neutron generator laboratory using Monte Carlo transport code PHITS**
Alipio Andrea, Egwolf B, Asuncion-Astronomo A

15:30-15:40 **Dx 13_Optimization of energy thresholds in photon counting CT for characterizing renal stone composition: A simulation study**

Wongsirinanon Sangsirin, Shunhavanich P

15:40-15:50 **Dx 14_Organ dose mapping in AP pelvic radiography: Phantom study**

Sayed Inayatullah Shah, Muhamad Jamil NN, Rohayzaad NIA, Kamzaiman AA

15:50-16:00 **Dx 15_A new simulation method for reproducing semiempirical model-based X-ray spectra considering heel effect**

Santo Taiki, Matsubara K

16:00-16:10 **Dx 16_Image quality comparison in computed tomography system using different image reconstruction methods: a phantom study**

Pangsai Teerapong, Sangruang-orn S, Sodkokkruad P, Chaknam K, Asavaphatiboon S

16:10-16:20 **Dx 17_MRI-Based Radiomics model from mesorectal fat to predict pathologic extramural vascular invasion in locally advanced rectal cancer patients**

Swaengdee Yaniga, Khongwirotphan, Lasode J, Kuecharoen P, Phetvilay P, Boonsirikamchai P, Rakvongthai Y

16:20-16:30 **MPED1_ Academic qualifications of medical physicists in Malaysia: Looking back and moving forward**

Zin M Hafiz, Suardi N, Wong JHD, Azlan CA, Yeong CH, Ng AH, Abdul Rahman AT

Proffered Paper in Nuclear Medicine

Room *Heritage 2*

Chair: *Taratip Narawong*

Co-Chair: *Panya Pasawang*

13:30-13:40 **NM 1_Voxel-based dosimetry of ^{177}Lu-DOTATATE peptide receptor radionuclide therapy using SPECT/CT imaging with RT-PHITS simulations**

Tantiwetchayanon Khajonsak, Matsubara K, Wakabayashi H, Konishi T

13:40-13:50 **NM 2_ Proficiency testing program for ^{131}I and ^{99m}Tc radiopharmaceuticals using radionuclide calibrators in Thailand**

Saejia Korawee, Dachviriyakij T, Thongdeelert N, Luansri K, Pungkun V

13:50-14:00 **NM 3_Evaluation of total counts in SIMIND Monte Carlo simulation for SPECT/CT systems using PyTomography**

Ohnishi Haruki, Matsubara K, Fujiwara K, Tantiwetchayanon K

14:00-14:10 **NM 4_Feasibility of total-body fast SPECT imaging for optimized image quality and voxel-based dosimetry in ^{177}Lu molecular radiotherapy using ring-shaped CZT SPECT/CT**

Handayani Wuri, Chantadisai M, Pasawang P, Noipinit N, Phromphao B, Damthongsen P, Khamwan K

14:10-14:20 **NM 5_Radiation dose reduction in CT-related radiation exposure for NPC protocols in PET/CT imaging at UMMC**

Mohd Zain Azleen, Ahmad F, Md Shah MN, Jasa MJ

14:20-14:30 **NM 6_Comparing image quality characteristics of different post-filtered Iodine-131 SPECT: A phantom study**

Rattanamongkonkul Pattaravarin, Chuamsaamarkkee K, Krisanachinda A

14:30-15:00 COFFEE BREAK

15:00-15:10 **NM 7_Optimization of shortening acquisition for quantitative 99mTc bone SPECT imaging with ordered subset conjugate gradient minimizer reconstruction: A phantom study**

Songprakhon Rangsee, Chuamsaamarkkee K, Krisanachinda A

15:10-15:20 **NM 8_Estimation of 18F-FDG PET/CT effective dose associated with three different calculating methods**

Myint Thinn Thinn, Krisanachinda A

15:20-15:30 **NM 9_Local DRL at nuclear medicine centers in Thailand and Myanmar**

Aye Yin Moe, Krisanachinda A, Thein MPZ

SUNDAY 26 JANUARY 2025

Room ***Grand Ballroom***

Chair: ***Chirapha Tannanonta***

08:30-09:00 **Commissioning of a clinical pencil beam scanning proton therapy unit for ultra-high dose rates (FLASH)**

Martin Handschin Grossmann

09:00-09:30 **TRS492 on Brachytherapy Dosimetry and the updated TRS398**

Sakchai Buppaungkul

09:30-10:00 **Evolution and Applications of SGRT**

Anirut Watcharawipha, Sithiphong Suphaphong

Room ***Heritage 1***

Chair: ***Anchali Krisanachinda***

08:00-08:30 **Radiation Protection Equipment in Diagnostic and Interventional Radiology**

Kosuke Matsubara

08:30-09:00 **Establishing a Comprehensive MR Safety Program in Clinical Environment**

Anzi Zhao

09:00-09:30 **Reproduction of Processing Steps of EPI Image Reconstruction by MRI Simulation**

Noriyuki Tawara

09:30-10:00 **Photon Counting CT: Principles and Applications**

Picha Shunhavanich

Room ***Heritage 2***

Chair: ***Kitiwat Khamwan***

08:30-09:00 **Administering Targeted Radionuclide Therapy - Safety and Quality Management**

Somanesan S

09:00-09:30 **Advancements in Evaluating Terbium-161 vs Lutetium-171 for Enhanced Theranostic Application**

Shuichi Shiratori

09:30-10:00 **Exploring Novel Combined Therapeutic Strategies: EBRT & Targeted Radionuclide Therapy**

Thititip Tippayamontri

10:00-10:30 COFFEE BREAK

Room ***Grand Ballroom***

Chair: ***Chirasak Khamfongkhruea***

10:30-11:00 **New Generation Long-axis PET System NEMA Performance and Clinical Validation**

Haiqiong Zhang

11:00-11:30 **Medical Physics and AI: Where Do We Start?**

Daniel Carrion

11:30-12:00 **Beyond Language Barriers: Generative AI in Patient Communication**

Mohamed Badawy

12:00-12:30 **The Current IOMP Efforts for International Certification of Medical Physicists**

Allan Wilkinson

12:30-13:00 **PRESENTATION AWARDS AND CLOSING**

13:00-14:00 LUNCH