

International Conference on Physics in Medicine (ICPM-2020)

6-7 February 2020

Dhaka, Bangladesh

Venue : *Nabab Nawab Ali Chowdhury Senate Bhaban, University of Dhaka (6 February 2020)*
: *Atomic Energy Center, 4, Kazi Nazrul Islam Avenue, Dhaka (7 February 2020)*

Registration	:	Lobby of Seminar Room (1 st floor), Senate Bhaban, DU
Inauguration	:	Main Auditorium, 2 nd floor, Senate Bhaban, DU
Plenary Session	:	Main Auditorium, 2 nd floor, Senate Bhaban, DU
Scientific Session (1A, 2A)	:	Main Auditorium, 2 nd floor, Senate Bhaban, DU
Scientific Session (1B, 2B)	:	Conference Room, 1 st floor, Senate Bhaban, DU
Scientific Session (3A, 4A, 5A)	:	Auditorium, 1 st floor, Atomic Energy Center
Scientific Session (3B, 4B, 5B)	:	Class Room, 1 st floor, Atomic Energy Center
Poster Session	:	Ground floor premises, Atomic Energy Center (AEC)
AGM (BMPA)	:	Auditorium, 1 st floor, Atomic Energy Center

February 6, 2020

Registration	:	08:30 – 09: 25
Inauguration Ceremony	:	09:30 – 11: 30
Refreshment	:	11:30 – 12: 00
Plenary Session	:	12:00 – 01: 00
Lunch and Prayer break	:	01:00 – 02: 00
Scientific Session 1(A, B)	:	02:00 – 03: 20
Tea	:	03:20 – 03: 30
Scientific Session 2(A, B)	:	03:30 – 05: 00

February 7, 2020

Scientific Session 3(A, B)	:	09:00 – 10: 30
Tea	:	10:30 – 11: 00
Scientific Session 4(A, B)	:	11:00 – 12: 30
Lunch and Prayer break	:	12:30 – 02: 00
Scientific Session 5(A, B)	:	02:00 – 03: 30
Poster Session	:	02:00 – 04: 30
Tea	:	03:30 – 04: 00
AGM (BMPA)	:	04:30 – 05: 00

Inaugural Ceremony

Inaugural Ceremony

6 February 2020,

Time:10:00-12:00

Venue: Nabab Nawab Ali Chowdhury Senate Bhaban Main Hall,
University of Dhaka

- 10-00: Welcome Address
Prof. Kamila Afroj Quadir, Conference Co-Chair & Vice-President,
BMPA
- 10-05: Address by Special Guests
- Prof. Dr. Qazi Mushtaq Hussain
Director, National Institute of Cancer Research and Hospital, Bangladesh
 - Prof. Dr. Md Sanowar Hossain
Chairman, Bangladesh Atomic Energy Commission
- 10-25: Lifetime Achievement Award for Pioneering Research in the Field
of Physics and Engineering in Medicine in Bangladesh to Prof. Dr. K
Siddique-e Rabbani
- 10-35: Invited Talk
- Prof. Dr. Salahuddin Ahmad
Department of Radiation Oncology & Director, Medical Physics and
Dosimetry,
The University of Oklahoma, USA
 - Prof. Dr. K Siddique-e Rabbani
Honorary Professor, Dept of Biomedical Physics &
Technology, University of Dhaka
- 1 1-25: Address by Conference Chairperson
Prof. Dr. M Aminul Islam, President, BMPA
- 1 1-35: Address by Chief Guest
Architect Yeafesh Osman, Honorable Minister, Ministry of Science and
Technology
People's Republic of Bangladesh
- 1 1-50: Address by President
Prof. Dr. Md. Akhtaruzzaman
Vice-Chancellor, University of Dhaka
- 12-00: Vote of Thanks
Dr. Md. Shakilur Rahman, Conference Secretary and GS, BMPA
- Refreshment

Details of venues:

Venue-1: Auditorium, Nabab Nawab Ali Chowdhury Senate Bhaban, University of Dhaka

Venue-2: Conference Room, Nabab Nawab Ali Chowdhury Senate Bhaban, University of Dhaka

Venue-3: Auditorium, 1st Floor, Atomic Energy Center (AEC), 4/Kazi Nazrul Islam Avenue, Dhaka

Venue-4: Class Room, 1st Floor, Atomic Energy Center (AEC), 4/Kazi Nazrul Islam Avenue, Dhaka

Venue-5: Ground floor premises, Atomic Energy Center (AEC), 4/Kazi Nazrul Islam Avenue, Dhaka

Abbreviations: **IP** – Invited Paper, **KP**- Keynote Paper, **CP**- Contributory Paper, **PP**- Poster Paper

Plenary Session

Date: 06 February 2020, Thursday

Time: 12:00 – 1:00 pm

Venue-1: Auditorium, Senate Building, University of Dhaka

Session Chair: Professor Dr. Salahuddin Ahmad *Co-Chair:* Professor Dr. Kamila Afroj Quadir**Invited Talk**Speaker: **Dr. Pradip Deb**

Title: Public Understanding of Medical Radiations: Education is the Key (25 minutes + 5 minutes Q&A)

Invited TalkSpeaker: **Professor Dr. Guinyun Kim**

Title: Production of Medical and Industrial Radioisotopes from Accelerator based Facilities in Korea (25 minutes + 5 minutes Q&A)

ICPM-2020**Session-1A**

Date: 06 February 2020, Thursday

Time: 2:00 – 3:20 pm

Track: Radiotherapy and Dosimetry

Venue-1: Auditorium, Senate Building, University of Dhaka

Session Chair: Professor Dr. Qazi Mushtaq Hussain *Co-Chair:* Dr. Md. Shakilur RahmanKeynote Speaker: **Professor Dr. Salahuddin Ahmad**

Title: Medical Physics: Education, Research and Clinical Profession (15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-1	Stereotactic Radiosurgery for Multiple Brain Metastases –A Treatment Planning Study	Emily Nancy Yu Xuan Caluraud, John Ryan, Prabhakar Ramachandran, Pradip Deb

CP-2	Calibration and Effective Point of Measurement (EPOM) of some Ionization Chambers for High Energy Photon Beam Dosimetry used in Radiotherapy for the Treatment of Cancer Patient	Nadia Akter Mokta, Md. Shakilur Rahman, Tanjim Siddiqua, Santunu Purohit, Md. Kawchar Ahmed Patwary, A.K.M. Moinul Haque Meaze
CP-3	The use of Electronic Compensator in External Beam Radiation Therapy	Yan Ru Chia, John Ryan, Prabhakar Ramachandran, Pradip Deb
CP-4	Monte Carlo Simulation and Experimental Determination of Beam Quality Index R_{50} for High Energy Electron Beam Dosimetry Using Plane-Parallel Ion Chamber	M. Y. Ali, F. N. Islam, M. S. Rahman, T. Siddiqua
CP-5	Design and Fabrication of a Heterogeneous Phantom for the Quality Assurance (QA) of a Radiotherapy Treatment Planning System (RTPS)	M. A. Rahman, H. M. Jamil, M.M. Rahman, A. H. A. N. Khan, R. Khatun, M. A. Islam
CP-6	Development of hypofractionated treatment protocols for the palliation of the metastatic patients	M. F. Rabby, M. J. Alam, M. M. Haque

ICPM-2020**Session-1B**

Date: 06 February 2020, Thursday

Time: 2:00 – 3:20 pm

Track: Biomedical Devices and Engineering

Venue-2: Conference Room, Senate Building, University of Dhaka

Session Chair: Dr. Khondaker Abdullah Al Mamun *Co-Chair:* A S M Shamsul ArefinKeynote Speaker: **Professor Dr. Md. Adnan Kiber**

Title: Medical Devices in Biomedical Engineering and Healthcare: Recent advances and Trends (15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-7	Driver drowsiness detection by heart rate variability (HRV) analysis using machine-learning algorithm	A.N.M. Tawsifur Rahman, Muhammad E. H. Chowdhury, Zaid Bin Mahub, Muhammad Abdul Kadir
CP-8	Development of a noninvasive probe for bioimpedance spectroscopic measurements: A novel approach for oral cancer diagnosis	Shekh Emran, Reijo Lappalainen, Arja M. Kullaa, Sami Myllymaa

CP-9	Effectiveness of a low cost portable USG scanner in performing pregnancy profile scans	Afroza Naznin, Muhammad Abdul Kadir, Fatima Begum, K Siddique-e-Rabbani
CP-10	Effect of stretching on myelinated nerves-observed through changes in conduction velocity and other variables associated with compound muscle action potential	Sabrina Sharmin, Zaid Bin Mahbub, Mohammad Abu Sayem Karal, Muhammad Abdul Kadir, Khondkar Siddique-e Rabbani
CP-11	Bangla Sign Language Interpretation Using Convolutional Neural Network	Kanchon Kanti Podder, Muhammad Abdul Kadir
CP-12	A novel electrode configuration for characterization of cervical tissue using impedance spectroscopy	Umme Marium Mim, Muhammad Abdul Kadir, K Siddique-e Rabbani

ICPM-2020**Session- 2A**

Date: 06 February 2020, Thursday

Time: 3:30 – 5:00 pm

Track: Radiology, Imaging and Radiobiology

Venue-1: Auditorium, Senate Building, University of Dhaka

Session Chair: Dr. Pradip Deb *Co-Chair:* Dr. Rowson Ara Begum**Keynote Speaker: Dr. Mohammad Kamruzzaman**

Title: Application of Translational Radiobiology and establishment of laboratory should be considered as priority basis for coping with upcoming technology in radiation therapy

*(15 minutes + 5 minutes Q&A)**Contributory papers:* 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-13	Measurement of Entrance Surface Dose and Effective Dose in Diagnostic Radiography	Sadeka Sultana Rubai 1, Md Shakilur Rahman, Santunu Purohit, Md Kawchar Ahmed Patwary, AKM Moinul Haque Meaze
CP-14	Quality control of CT image using System Performance Phantom in Bangladesh	R. Ahmed, H. M. Jamil, M. M. Ahasan, M. A. Rahman, M. M. Rahman, F. N. Islam
CP-15	Radiotherapy Gap Correction Methods for Missed Treatment Days: A Radiobiological Study	Md Khairul Islam, Chowdhury Md. Ibrahim Naser, Md Mahmudul Hasan Manna
CP-16	Calculation of Standardized Uptake Value (SUV) from PET-CT image by using in-house developed MATLAB software	Muntakim Mahmud Khan, Tanima Sharif, Nahid Farzana Mim Abdus Sattar Mollah, M Mahfuza Khatun
CP-17	Measurement of Correct CT Value: Experimental Comparison of Ultra-High Resolution CT and High Resolution CT by a Handmade Phantom	Chawdhury M, Tsujioka K, Azhari H A, Yamada K, Nakano Y, Zakaria G A

CP-18	Clinical and Image Parameters Associated with the Total Absorbed Dose Assessed by Iodine Scan Based Dosimetry in Differentiated Thyroid Cancer Patients	Zeenat Jabin, Seong Young Kwon, Su Woong Yoo, Hee Seung Bom
CP-19	Analysis of quality control of Gamma Camera SPECT System by using bar phantom	Fahum Nufikha Jahan, Tasnim Ahmed, Abu Sayed Muhammad Faisal, Abdus Sattar Mollah, M Mahfuza Khatun

ICPM-2020**Session-2B**

Date: 06 February 2020, Thursday

Time: 3:30 – 5:00 pm

Track: Emerging Techniques in Medicine

Venue-2: Conference Room, Senate Building, University of Dhaka

Session Chair: Professor Dr. A A Mamun Co-Chair: Dr. Mohammad Abu Sayem Karal

Keynote Speaker: **Dr. A K M Abdul Hakim**

Title: Nanotechnology for Biomedical Application (15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-20	Study on the Rate Constant of Irreversible Electroporation (IRE)-Induced Pore Formation in the Lipid Membranes of Giant Unilamellar Vesicles	Md. Kabir Ahamed, Marzuk Ahmed, Mohammad Abu Sayem Karal
CP-21	The Influence of the Membrane Bending Modulus on the Average Size of Self-Assembled Giant Unilamellar Vesicles	Marzuk Ahmed, Md. Kabir Ahamed, Mohammad Abu Sayem Karal
CP-22	Estimation of Bending and Elastic Modulus of Cholesterol Containing Membranes using Size Distribution of Self-Assemble Vesicles	Nadia Akter Mokta, Marzuk Ahmed, Md. Kabir Ahamed, Shareef Ahammed, Malay Kumar Sarkar, Mohammad Abu Sayem Karal
CP-23	Development of a Low-cost Android Controlled Syringe Infusion Pump	Md Al-Amin, Mohammad Moniruzzaman, K Siddique-e Rabbani
CP-24	Estimation of Patient Effective Dose from Whole Body ¹⁸ F-FDG PET/CT Examination in Malignant Cell Screening	Mumu M, Paul K C, Reza M S, Zakaria G A
CP-25	Suitable Sensor Location and Finger Combinations for Classification of Finger Movements from Acoustic Myogram	Amirul Karim Tanim, K M Talha Nahiyen, Md Atiqur Rahman Ahad
CP-26	Design and Fabrication of Human Bone by using 3D Printer	Soma JF, Amin RA, Azhari HA, Zakaria GA

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Session- 3A

Date: 07 February 2020, Friday

Time: 9:00 – 10:30 am

Track: Nuclear Medicine

Venue-3: Auditorium, 1st Floor, Atomic Energy Center (AEC), Dhaka

Session Chair: Professor Dr. Kamila Afroj Quadir Co-Chair: Md. Nahid Hossain

Keynote Speaker: **Professor Dr. Shamim Momtaz Ferdousi Begum**Title: Importance of PET-CT in Cancer Management - A Further Step in Patient Care at NINMAS
(15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-27	Screening and Identification of low grade gamma tolerant contaminating microbes from ⁹⁹ Mo/ ^{99m} Tc generator eluates	S. M. M. Mouna, M. M. Rahman, M. Anwar Hossain, Momtaz F. Waheed, R. Akhter, M. R. Ali, M.M. Rahman, F. T. Jahura, M. S. Reza, M. J. Uddin, D. Chowdhury
CP-28	An iterative projection based motion correction for Single Photon Emission Computed Tomography (SPECT)	Md. Nahid Hossain, Adnan Kiber, Kamila Afroj Quadir, Roger Fulton
CP-29	Performance Measurements of Nuclear Medicine Imaging Modalities at NINMAS	Md. Nahid Hossain, Tanvir Ahmed Biman, Ferdoushi Begum, Khokon Kumar Nath, Md. Saiful Islam
CP-30	Studies on novel routes for production of medical radioisotopes ⁶¹ Cu and ⁶⁴ Cu	M.S. Uddin, M.A. Shariff, A.K. Chakraborty, G.N. Kim, S. Sudár, S.M. Qaim
CP-31	Estimation of Internal Doses from ⁶⁴ Cu Theranostic in accordance with ICRP 2007 Recommendations: A Monte-Carlo based PHITS Study with Voxel Phantom JM and JF	M. K. A.Patwary, T. Kin, K. Aoki, K. Yoshinami, M. Yamaguchi, Y. Watanabe
CP-32	Imaged based dosimetry in renal scintigraphy using MAG ₃ , DMSA, DTPA and correlation with MIRD equations	Alvina Tanvin Bidhu, Dr Suranjan Kumar Das, Md. Nahid Hossain, Dr. Tanvir Ahmed Biman

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Session- 3B

Date: 07 February 2020, Friday

Time: 9:00 – 10:30 am

Track: Biomedical Devices and Engineering

Venue-4: Class Room, 1st Floor, Atomic Energy Center (AEC), Dhaka

Session Chair: Dr. Muhammad Abdul Kadir Co-Chair: Dr. Humayra Ferdous

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-33	Prediction and Analysis of Nerve Fiber Diameter Distribution using Single Fiber Action Potential Model: An approach to analyze the nerve conduction using inverse problem	Zakaria Shams Siam, Rubyat Tasnuva Hasan, M.A. Masud, Zaid Bin Mahbub
CP-34	Estimation of Blood Pressure from PPG: Towards Cuff-less Measurement	Sadia Afrin, Muhammad Abdul Kadir
CP-35	Development of a functional electrical stimulation device for Foot-drop – a neuromuscular disorder of lower limb	Istaqur Rahman, Hridi Prova Debnath, AKM Bodiuzzaman, K Siddique-e-Rabbani
CP-36	Evaluation of a locally developed Iontophoresis device for the treatment of Primary Focal Hyperhidrosis	Md Al-Amin, Faiza Ahmed, Abdulla Mahbub, A K M Bodiuzzaman, K Siddique-e Rabbani
CP-37	An Electrical Impedance based system for monitoring Gastric Emptying in Intensive Care Units	Md. Maruful Islam, Mohammad Moniruzzaman, Mannu Bardhan Paul, Ariful Basher, Ehsan Alam Chowdhury, Md. Iqbal Hossain Chowdhury, AKM Akhtaruzzaman, K Siddique-e Rabbani
CP-38	Effect of Speed of Movement on an Optical Sensor Based Dynamic Foot Pressure Measurement System	Anila Pasha, K Siddique-e Rabbani
CP-39	Improved Electrical Impedance Measurement (EIM) Method for Lung Disease Detection	Md. Shariful Alam, S.M. Mostafa Al Mamun, Md. Adnan Kiber
CP-40	Deployment experience of an indigenously developed telemedicine system through Dhaka University Telemedicine Programme (DUTP)	Md. Abu Yousuf, Shahed Md. Abu Sufian, Zihad Tarafdar, K Siddique-e Rabbani
CP-41	Effectiveness of Pulsed Electromagnetic Field (PEMF) Therapy for the Treatment of different kinds of Pain	Md Al-Amin, Faiza Ahmed, Md. Wadud Rahman, Dr. Ehsan Alam Chowdhury, K Siddique-e Rabbani

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Session- 4A

Date: 07 February 2020, Friday

Time: 11:00 am – 12:30 pm

Track: Radiotherapy and Dosimetry

Venue-3: Auditorium, 1st Floor, Atomic Energy Center (AEC), Dhaka

Session Chair: Dr. Fatema Nasreen Co-Chair: Dr. Tanvir Ahmed Biman

Keynote Speaker: **Dr. Murugan Appasamy**

Title: An Overview of Frameless Stereotactic Radiosurgery (15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-42	Dosimetric study of EPID and 2D array matrix detector in the quality assurance and verification of IMRT neck cancer treatment plan	M. S. Siraj, M. A. Rahman, M. M. Haque
CP-43	Radiotherapy Beam Standardization in a Treatment Planning System	Shudeb Kumar Roy, Rajada Khatun, Pretam Kumar Das, Md. Ashikur Rahman, M Monjur Ahasan, Shirin Akter, Md Fakhar Uddin, Hossen Mohammad Jamil, Ashrafun Nahar Monika, Rahima Akter Sharmin, Md Mahfuzur Rahman, Tusher Kumer
CP-44	Verification of Treatment Time in Interstitial Brachytherapy using Paris System	Mahamud S, Rahman M, H.A.Azhari, G.A. Zakaria, Ahmed S
CP-45	Positron-Emitting Nuclei Yield in Proton Therapy: a Simulation Study with PHITS Monte Carlo Code	M.Rafiqul Islam, Hiroshi Watabe
CP-46	Consistency of Output Dose/MU and Beam Quality for Photon Beam of Energy 6 MV and 15 MV of ClinacX Used for Radiotherapy at Institute of Nuclear Medical Physics, AERE, Savar	M.A. Hasnat, Nazneen Sultana, M.F. Uddin, Mannu Bardhan Paul, Juwel Hosen, Rayhan Alam, JakirHosen, SamiulAlim, K.M.Mahabub Morshed, Motiur Rahman, M.M. Ahasan
CP-47	Absolute Dosimetry Study of Newly Installed Clinac Ix Machine using Water phantom and Easy Slab Phantom	N Sultana, M A Hasnat, M F Uddin, S Alim, M M Ahasan
CP-69	Radiation Emergencies and Preparedness in a RadiationOncology: Achieving Safe Care in Practice	Rana K. M. Masud, Murugan Apassamy, Narendra Kumar, Bishwajit Bhattacharjee, Taohida Yasmin, R Arun Kumar, Taslima Afrin

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Session- 4B

Date: 07 February 2020, Friday

Time: 11:00 am – 12:30 pm

Track: Radiation Protection and Health

Venue-4: Class Room, 1st Floor, Atomic Energy Center (AEC), Dhaka

Session Chair: Dr. Meherun Nahar Co-Chair: Dr. Rajada Khatun

Keynote Speaker: **Dr. Debasish Paul**

Title: Radiation Protection for Occupational Workers and Public (15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-48	Assessment of environmental radiation hazard on public health around BSMMU campus by In-Situ method using Gamma-Scout detector	Faria Hassan, M. S. Rahman, Shafi M Tareq, S. Yeasmin
CP-49	A Study on Impact of Natural Background Radiation and Physical Environment on Health of the Slum People in Khulna City	J. Sultana, A. Chowdhury
CP-50	Validation of Shield Design Parameters of a Semi-Industrial Cobalt-60 Gamma-Irradiation Facility at Gamma Source Division of Institute of Food and Radiation Biology	M. J. H. Khan, S Ahmed, M B Shohag, M J Hasan, A Nahar, M F Mortuza M A Motalab, S M Shauddin, M H Altaf and M I Hosan
CP-51	Comparative study of radiation shielding properties of W-glasses	Md. Shivly Mahmood, Antu Biswas
CP-52	Five Year Effective Dose of Worker in Radiotherapy Practice of Bangladesh	M. S. Rahman, M.M.M. Siraz, S. Pervin, S. Yeasmin
CP-53	Annual Effective Dose to the People due to the Presence of Radionuclides in Wood and Wood Products	K. M. Mahabub Morshed, M.A. Hasnat, Dr. A.K.M. Rezaur Rahman, Dr. Md. Idris Ali

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Session- 5A

Date: 07 February 2020, Friday

Time: 02:00 – 3:30 pm

Track: Radiotherapy and Dosimetry

Venue-3: Auditorium, 1st Floor, Atomic Energy Center (AEC), Dhaka

Session Chair: Dr. Karthick Raj Mani Co-Chair: Mr. Md. Motiur Rahman

Keynote Speaker: **Dr. M. Jahangir Alam**

Title: Radiotherapy and Dosimetry practices in Bangladesh: past and present (15 minutes + 5 minutes Q&A)

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-54	Comparison between CT Images and CT-MRI Fusion Images of Planning Target Volume Delineation in Radiotherapy Treatment Planning for Brain cases	Akhter R, Kausar A, Islam A M, Zakaria G A
CP-55	Acceptance Testing and Commissioning of Co-60 Teletherapy Machine	Parvin S, Kausar A, Zaman S, Zakaria G A
CP-56	Implementation of the IAEA-AAPM Code of Practice (TRS-483) for the dosimetry of small static fields used in external beam radiotherapy	M. M. H. Manna, M. A. Islam, G. A. Zakaria
CP-57	Analysis of percentage depth dose for 6 and 15 MV photon energies of medical linear accelerator with CC13 ionization chamber	Md. Ahad Mia, Md. Shakilur Rahman, Santunu Purohit, SM Enamul Kabir, AKM Moinul Haque Meaze
CP-58	The influence of photon beam quality index variations on tissue inhomogeneity correction factors	Md Akhtaruzzaman, Pawel Kukolowicz
CP-59	Physical modeling of flattening filter free medical linear accelerator beam	Md. Imran Hossain, Md. Saif Ishtiaque, Md. Khorshed Alam, Md. Shakilur Rahman, Kartick Raj Mani

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Session- 5B

Date: 07 February 2020, Friday

Time: 02:00 – 3:30 pm

Track: Multidisciplinary

Venue-4: Class Room, 1st Floor, Atomic Energy Center (AEC), Dhaka

Session Chair: Dr. Mohammad Abu Sayem Karal Co-Chair: Dr. Zaid Bin Mahbub

Contributory papers: 8 minutes for each paper + 2 minutes Q&A

Paper ID	Title	Authors
CP-60	Determination of Cancer Risks Associated with External Radiation from Medical Diagnostic Computed Tomography (CT) Procedure	I. Jahan, T. Siddiqua, A. A. Mamun, M. S. Rahman, M. M. Ahasan, H. M. Jamil, M. Z. H. Majumder
CP-61	Evaluation of radioactivity of cultured fishes collected from fish market of Dhaka City	Fahmida Jannati Priya, Khandoker Asaduzzaman, Mahfuza Begum, M. Moinul Islam, Kamruzzaman Monshi, Enamul Haque
CP-62	Determination of gross alpha activity concentration in different types of water samples in Bangladesh using zinc sulfide scintillation detector	S. Pervin, M.M.M. Siraz, S. Yeasmin
CP-63	Use of Amorphous Silicon Electronic Portal Imaging Device as A Quality Assurance Tool for Linear Accelerator	S. Alim, M. F. Uddin, A. Hasnat, N. Sultana, R. A Sharmin, J. Hosen, K. Islam, K. R. Mani, M.M Ahasan
CP-64	Dose Comparison between TG-43 and TG-186 behind the small air cavities	Khondakar M. J, Walter R, Azhari H. A, Zakaria G. A
CP-65	Modeling and Dosimetry of Elekta Synergy 6 MV Accelerator with BEAMnrc and DOSXYZnrc Monte Carlo Simulation Code and Validation with Measurements	Md. Anwaul Islam, Md. Abdul Mannan Chowdhury, Golam Abu Zakaria
CP-66	Electric Field Therapy For Glioblastoma Multiforme Brain Cancer	Md. Wadud Rahman, Mohammed Nasir Uddin, Md. Nahid Hasan Shuvo, K Siddique-e Rabbani
CP-67	MARS Spectral Photon-counting CT: A New Biomedical Imaging Technique	M Rayhan Uddin, Sikiru A Adebileje, Steven D Alexander, Maya R Amma, Marzieh Anjomrouz, Fatemeh Asghariomabad, Ali Atharifard, James Atlas et al.
CP-68	Radiotheranostic Tb quadraplet from Gd: production possibilities from a single element	A. K. M. Rezaur Rahman, Abdul Awal

Poster Session

Date: 07 February 2020, Friday

Time: 02:00 – 4:30 pm (Judgement time: 3:30 – 4:30pm)

Track: Multidisciplinary

Venue-5: Ground floor premises, Atomic Energy Center (AEC), Dhaka

Paper ID	Title	Authors
PP-1	Calpain-mediated cleavage of MMPs	Parsha Sanjana Karim, Soni Shaikh
PP-2	Efficacy of Diode chamber in dose measurement of small field for 6 MV X-ray delivered from Clinical Linear Accelerator	Santunu Purohit, SM Enamul Kabir, Md. Shakilur Rahman, Md. Kawchar Ahmed Patwary, AKM Moinul Haque Meaze
PP-3	Measurement of Quality assurance parameters and dosimetric study of different protocols for accelerated photon and electrons delivered from medical LINAC	AKM Moinul Haque Meaze, Santunu Purohit, Md. Shakilur Rahman, Abdus Sattar, SM Enamul Kabir, Md Kawchar Ahmed Patwary
PP-4	A Computational Shield Design Analysis of Teletherapy Facility at Sher-E-Bangla Medical College Hospital of Barisal	M J Hasan, M B Shohag, M J H Khan, and S M T Islam
PP-5	Monte Carlo calculation of tissue phantom ratio (TPR _{20,10}) for megavoltage photon beam using cylindrical ion chambers	N. M. Rasel, M. S. Rahman, S. Purohit, AKM M. H. Meaze
pp-6	Radiation Dose to Technologist Associated with the Performance of Nuclear Medicine Imaging	S. I. Chowdhury, M. S. Ahsan, N. Begum, M. Hossain, P. Ahmed, M. M. A. Hosen
PP-7	Assessment of Five Year Effective Dose of Radiation Worker in Industrial Radiography Practice of Bangladesh	M. S. Rahman, M.M.M. Siraz, S. Pervin, S. Yeasmin
PP-8	Comparison of Absorbed Dose using Different Phantoms	Tusher Kumer, Pretam Kumar Das, Rajada Khatun, Md. Ashikur Rahman, M Monjur Ahasan, Shirin Akter, Md Fakhar Uddin, Hossen Mohammad Jamil, Ashrafun Nahar Monika, Rahima Akter Sharmin, Md Mahfuzur Rahman, Shudeb Kumar Roy
PP-9	Deformation and Poration of Lipid Membranes of Giant Unilamellar Vesicles by Anionic Nanoparticles	Shareef Ahammed, Md. Kabir Ahamed, Marzuk Ahmed, Mohammad Abu Sayem Karal, Zaid Bin Mahbub
Paper ID	Title	Authors
PP-10	Molecular transport through a single nanopore in the membrane of giant unilamellar vesicle using COMSOL simulation	Md. Kamrul Islam, Mohammad Abu Sayem Karal, Zaid Bin Mahbub

PP-11	Bone Scan Image Enhancement by Gamma Correction Using MATLAB	Nourin Arobi, Md. Imran Hossain Showrov, S.M. Amir-Al-Zumahi, Md. Mahbub Alam, Shams Razzak Rothee, Md. Nabul Sardar, Md. Sayeedul Alam
PP-12	Natural radioactivity levels in some medicinal plants commonly used in Bangladesh, and resultant annual effective dose	S. Sultana, J. Ferdous, M. M. Haque
PP-13	Comprehensive Quality Assurance of ^{60}Co Teletherapy	Lutfa Abeda Tonu, Pretam Kumar Das
PP-14	Analysis of NTCP Based Radiobiological Models: A Systematic Review of Literatures	Rahman M, Kausar A, Azhari HA, Zakaria GA
PP-15	Focus on ^{13}N labeled Ammonia Radiopharmaceuticals by Cyclotron Technology at Institute of Nuclear Medical Physics	Rayhan Alam, M. Juwel Hosen, M.A. Hasnat, M.B. Paul, M.M.Ahasan
PP-16	Subsequent of Nanomedicine and Nanodrug delivery system	Md. Ehasanul Haque, Md. Masud Parvez, Rakibul Islam
PP-17	Standardization of Calibration Field for Radiation Protection and Measurement	Md. Sanaullah, Md. Shakilur Rahman, Tanjim Siddiqua, Md. Iqbal Hosan, Md. Mosharraf Hossain Bhuiyan, Shampa Paul
PP-18	Application of Fourier transform infrared (FTIR) spectrometer and UV Visible Spectrometer for determination of biomass burning tracer levoglucosan	Sanchoy Chandra Biswasarma, Dr. Abdus Salam
PP-19	Performance evaluation of the PET/CT System – GE Discovery IQ 5 ring according to the NEMA 2012 standard	Md Shohag Mia, Md. Nahid Hossain, Dr. M F Fazlul Kabir
PP-20	Fabrication and Characterization of a Bio ceramic bone substitute by using Sponge Replica Method	Joye Kundu
PP-21	Installation of Cyclotron at NINMAS: Cooling System	Hasan Mehdi, Md Shohag Mia, Sanchoy Chandra Biswasarma, Md. Ariful Islam, Dr. Tanvir Ahmed Biman, Md. Nahid Hossain, Dr. Md. Anwar-Ul-Azim
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PP-22	Unexpected Lung Metastasis After Left Hemithyroidectomy for Follicular Adenoma: A Case Report	Papia Akhter, Jasmin Ferdous, Fatima Begum, Zeenat Jabin
PP-23	Development of a Pulsed Electro Magnetic Field (PEMF) Device for Relief of Musculo-skeletal Pain	K Siddique-e Rabbani, MannuBardhan Paul, Md. Maruful Islam, AKM Bodiuzzaman, Mohammad Moniruzzaman, Ehsan Alam Chowdhury
PP-24	Development of a Low Cost Smart PEMF based Portable Device for Pain Management	Md Al-Amin, Faiza Ahmed, Mohammad Moniruzzaman, K Siddique-e Rabbani

PP-25	Solar medical sterilizer for rural hospitals	K. A. Khan
PP-26	Assessment of Radiological impact of indigenous fishes available in fish market of Dhaka city	Doni Akter, Khandoker Asaduzzaman, Mahfuza Begum, M. Moinul Islam, Kamruzzaman Monshi, Enamul Haque
PP-27	Design and development of a Electrical Impedance (EI) system using Arduino	M. A. Khaer, M. Z. H. Majumder, M. M. Rahman, S. Saha, M. A. Kiber
PP-28	Development of a Microcontroller based Pulsed Electro Magnetic Field (PEMF) Device with multiple schemes for Relief of Musculo-skeletal Pain	AKM Bodiuzzaman, Mohammad Moniruzzaman, Md. Maruful Islam, K Siddique-e Rabbani