

XXXVIIITH WORKSHOP

"PHYSICS IN HUMAN AND ENVIRONMENT PROTECTION"

“50 years BSMPE – history and future in the health service”

22 – 23 October 2021

(virtual meeting)

PROGRAMME

22 October, Friday, 16.00h

Main topic: *History of the BSMPE. Postgraduate in the field of medical physics and engineering. The Bulgarian science and European programme HORIZON 2020*

Chairman: M. Israel

Presentations:

In memory of Robert Popitz: *The Bulgarian Society of Biomedical Physics and Engineering*
- R. Popitz, V. Todorov

Colloquium “Gyulechitsa” – V. Todorov

Postgraduate education and training in medical radiological physics – J. Vassileva, V. Todorov, P. Trindev, D. Kostova-Lefterova

Medical sanitary physics – the postgraduate education for physicists and engineers engaged with all physical factors except ionizing radiation – M. Israel, Hr. Petkova, M. Ivanova, Ts. Shalamanova

Speciality “Sanitary engineering” – providing key specialists in human prevention and protection - P. Ivanova, Hr. Petkova, M. Israel

Transformation of scientific results into educational materials - added value to the project outcomes - Y. Chernogorova, Z. Bliznakov, N. Dukov, K. Bliznakova

Project management office – a key instrument for successful project activities – Y. Chernogorova

18.00h – Discussion

23 October, Saturday, 9.30h

Main topic: *Biomedical Engineering*

Chairman: J. Bliznakov

Presentations:

Anthropomorphic breast phantoms based on inkjet technology – T. Georgiev, Kr. Bliznakova

Adding Noise in Computer Simulation of Contrast Enhanced Dual Energy Subtraction – T. Georgiev, Kr. Bliznakova, Y. Baneva

Patient-specific physical breast phantom using 3D printing technology for imaging and dosimetry – N. Okkalidis, I. Dyakov, Kr. Bliznakova

Assessment of fine motor skills acquired during simulation training during laparoscopic cholecystectomy - T. Kalinov, D. Grancharov, Kr. Bliznakova, A. Zlatarov, N. Kolev

10.30h – Discussion

11.00h Main topic: *Non-Ionizing Radiation and Other Physical Factors*

Chairman: M. Ivanova

Presentations:

Application of bactericidal lamps for disinfection purposes – exposure assessment and health risks – M. Ivanova, Hr. Petkova, P. Ivanova, Ts. Shalamanova, M. Israel

Optical Coherence Tomography - advantages and perspectives - Todorka L. Dimitrova, Mitko Tonev

Case study of exposure of the general public to noise and vibration from railway transport - P. Ivanova, M. Ivanova

Knowledge management and internet of things towards society 5.0 in healthcare domain - T. Bakardjieva, A. Dimova, Kr. Bliznakova

Determination of RF field strength and safety zone, regarding the specificity of the 5G technology - Ts. Shalamanova, M. Israel, Hr. Petkova, M. Ivanova, V. Zaryabova

12.00h – Discussion

12.30h Main topic: *Medical Imaging, Nuclear Medicine and Radiotherapy*

Chairman: M. Stoeva

Criteria for evaluating the treatment plans of a single brain metastasis with linac based stereotactic radiosurgery. Comparing of three different techniques - volumetric modulated arc therapy, dynamic conformal arcs, arcs with conical collimator – G. Stoyanov, E. Encheva

Accuracy of Dose Calibrator Type Curiementor 3 as a part of Multicentre Clinical Assessment in Bulgaria - M. Dimcheva, P. Trindev

Impact of calculation method on patient cumulative effective dose estimation from recurrent CT examinations – Il. Dyakov, S. Avramova-Cholakova, J. O’Sullivan

Implementation of electronic system for quality control in radiation therapy “QATrackplus” according to National law in Bulgaria – St. Bozhikov

13.30h – Discussion

14.00h – Closure of the meeting Colloquium