Second International Conference and School on Radiation Imaging and Nuclear Medicine
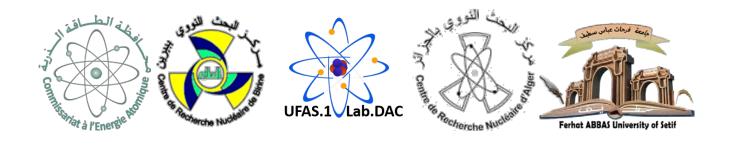
Ferhat Abbas-Setif1 University-UFAS1
Faculty of Sciences
In partnership with the Atomic Energy Commission-COMENA
ALGERIA

Setif, June 11-15, 2023

Conference Scientific Program

Scientific Program of the Conference

Sunday, June 11, 2023	
08h00 08h30	**Registration**
08h30 09h00	**Welcome and Opening Ceremony** **Pr. Fayçal Kharfi and Dr. Layachi Boukerdja**
Oral Session 1 : Medical Imaging, Molecular Imaging, and Nuclear Medicine	

09h00 09h30	**Plenary Talk 1 :** **Pr. Habib ZAIDI** PET Instrumentation & Neuroimaging Laboratory, Geneva University Hospital, Switzerland *The promise of artificial intelligence in multimodality medical imaging*	**Chairman : Pr. Hacene Azizi**
09h30 09h50	**I. Rekik** Department of Physics, Ferhat Abbas-Setif1 University, Setif, Algeria *Locoregional Recurrence Prediction in Head & Neck Cancer: A Comparative Study*	
09h50 10h10	**I. Meddeb** Salah Azaïez Institute, Tunis, Tunisia *Primary location of a neuroendocrine tumor identified by PET-CT or 18F-FD G*	

10h10 10h30	**Coffee Break**
10h10 11h30	**Poster Session : All Topics** **Dr. Seif Eddine Allah Chouaba, Dr. Abderrahim Betka, and Dr. Bilal Sari**
1	**N. Mekroud** Department of Computer Science, Ferhat Abbas-Setif1 University, Setif, Algeria *Knowledge extraction from gene expression images: Adaptation of association rules mining for theory of evidence*
2	**L. Boumedine** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Simulation of Target Material Choice on Laser proton Dose Distribution for Biomedical Imaging*
3	**K. Nasri** Department of Computer Science, Ferhat Abbas-Setif1 University, Setif, Algeria *Very Deep Learning Approach for MGMT Detection*
4	**F. Lahrache** Department of Mathematics and Computer Science, Faculty of Science and Technology, University of Ghardaia, Ghardaia, Algeria *Medical Images Semantic Segmentation Using Deep Learning: A Survey*
5	**N. Ait Ali Braham** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Renal Time activity curves (TACs) modelling and comparison to images-based and clinical dynamic scintigraphy results*
6	**K. Benkahila** Fighting against Cancer Medical Centre of Setif, Algeria *Dimensions, positioning and Hounsfield unit verification of 3D printed radiotherapy bolus using X-ray CT-scanning*

7	**Dorea Maria Khalal** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Deep learning based automatic segmentation of lungs in CT images*	
8	**S. Malki** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Evaluation of the complexity of a Volumetric Modulated Arc Therapy (VMAT) plan*	
9	**M.O. Mebarki** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Automatic Detection of Anatomical Landmarks for Image Registration in Radiotherapy*	
10	**M. Hebboul** Nuclear Research Centre of Birine, Algeria *Development of a control system for neutron tomography facility*	
11	**N. Osmani** Nuclear Research Centre of Birine, Algeria *SEM and AFM study of radiation damage induced by neutron transmutation doping of Silicon*	
12	**M. Sari** Department of Computer Science, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *An Efficient Convolutional Neural Network Model for Detecting Colorectal Cancer From Histological Images*	
13	**B. SI Tayeb** Department of Physics, Faculty of Sciences, Laboratory of Mechanics, Structures and Energy, Mouloud Mammeri University of Tizi-Ouzou, Tizi-Ouzou, Algeria *Electrons elastic scattering by DNA and/or RNA molecules*	
14	**H. Belloui** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Cerebrovascular segmentation using Deep learning techniques*	
15	**H. Belloui** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Brain vessel segmentation using two deep learning techniques*	
16	**M. Boukabcha** Department of Physics, Faculty of Exacts Sciences and Informatics, Hassiba Benbouali University of Chlef, Chlef, Algeria *Studying the effect of solar ultraviolet radiation on sunflower plants growth in Algeria*	
17	**N.E.H. Boughaba** University of Science and Technology Houari Boumediene, Faculty of Physics, SNIRM Laboratory, Algiers, Algeria *A Scintillation Dosimeter Prototype for Brachytherapy*	
18	**K. Khalal-Kouache** University of Science and Technology Houari Boumediene, Faculty of Physics, SNIRM Laboratory, Algiers, Algeria *Dosimetric benefits of adaptive radiotherapy for head and neck cancer*	
19	**A.O. Meddas** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Influence of the architecture's depth and data size on the model performance for breast cancer classification*	

20	**M.L. Yahiaoui** Nuclear Research Centre of Birine, Djelfa, Algeria *X-ray tomography reconstruction using TIGRE*	
21	**A. Benaidja** Mohammed Seddik Benyahia University of Jijel, Jijel, Algeria *The impact of additional filtration on patient radiation dose in diagnostic radiology*	
22	**I. Mehidi** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Retinal Vessel Segmentation: Overview, Challenges and the Future*	
23	**R. Merghem** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Exploration of Medical Image Registration Methods: CNN and Transformer-based*	
24	**R.A. Boukabouya** Department of Computer Science, Ferhat Abbas-Setif1 University, Algeria *Cross-modality learning for prostate detection*	
🟡	**Videoconference Session 1 : All Topics**	
10h30 10h50	**D. Gayathri** Digital Evidence Based Medicine, United Kingdom *The use of Artificial Intelligence to optimise Pelvic Imaging for Women*	**Chairman:** **Pr. D.E.Chouaib Belkhiat**
10h50 11h10	**Y. Salimi** Geneva University Hospital, Geneva, Switzerland *Fully Automated Multi-Organ Segmentation in CT Images via Deep Neural Networks*	
11h10 11h30	**M. Amini** Division of Nuclear Medicine and Molecular Imaging, Geneva University Hospital, Geneva, Switzerland *Auto-PET-IQA: A Fully Automated Region-Specific PET Image Quality Assessment Tool*	
11h30 11h50	**A. Akhavanallaf** University of Michigan, Ann Arbor, MI, USA *The predictive value of pretherapy 68Ga-DOTATATE PET and clinical biomarkers in 177Lu-PRRT tumor dosimetry*	
12h00 **13h30**	**Lunch Break**	
🔵	**Oral Session 2 : Medical Images Classification and Processing**	
13h30 **14h00**	**Plenary Talk 2 :** **Dr. Adouda ADJIRI** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Algeria *Understanding cancer resistance to therapy*	**Chairman:** **Pr. Habib Zaidi**
14h00 14h20	**Y.R. Haddadi** LTC Laboratory, Faculty of Technology, University of Saida , Saida Algeria *Medical Image Denoising Based on a Novel Bio-Inspired Optimization Algorithm and Total Generalized Variation*	
14h20 14h40	**H. Chellakh** Department of Computer Science, Ferhat Abbas University of Setif 1, Algeria *Rule Based Classifier for MRI Brain Tumor identification and classification*	

14h40 15h00	**S. Hamdi** Department of Computer Science, Ferhat Abbas Setif1 University, Setif, Algeria *Ensemble Transfer Learning for Improved Brain Tumor Classification in MRI Images*	
15h00 15h20	**Y. Azzi** Department of Computer Science, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Class Imbalance and Evaluation Metrics for Medical Image Segmentation with Machine Learning Models*	
15h20 15h40	**Coffee Break**	
Oral Session3: Simulation in Radiation Therapy, Medical Imaging, and Dosimetry	
15h40 16h00	**N. Ounoughi** Mohammed Seddik Benyahia University of Jijel, Jijel, Algeria *Ions beam therapy monitoring with the in-beam PET scanning: Monte Carlo simulation*	**Chairman: Pr. Abdelouahab Moussaoui**
16h00 16h20	**N. Charmat** University of Science and Technology Houari Boumediene, Faculty of Physics, SNIRM Laboratory, Algiers, Algeria *Absorbed dose at the interface of two media under γ-rays irradiation: simulation vs experience*	
16h20 16h40	**Z.E. Bouraoui** University of Science and Technology Houari Boumediene, Faculty of Physics, SNIRM Laboratory, Algiers, Algeria *Evaluation of morphological changes based on cone beam CT for adaptive radiotherapy*	
16h40 17h00	**M. Semine** Algerian Institute of Nuclear Engineering, Algiers, Algeria *Virtual reality simulation: A tool for imaging and radiation therapy training*	
Monday, June 12, 2023	
Oral Session 4 : Imaging Techniques and Modalities	
08h00 08h30	<u>**Plenary Talk 3:**</u> **Pr. Nabil MAALEJ** Khalifa University, United Arab Emirates *Development of nanoparticles for X-ray and MRI imaging*	**Chairman: Pr. Yassine Bouchareb**
08h30 08h50	**N. Benmehenni** Department of Mathematics, Faculty of Sciences, University of Sétif 1, Algeria *Watermarking Images Using Virtual Color Models*	
08h50 09h10	**O. Boukhennoufa** SUPMICROTECH, CNRS, Institute FEMTO-ST, Besançon, France *Multistage deep learning benchmarking of OAI imaging: Contribution of ViT in medical imaging*	
09h10 09h30	**A. Lebal** Mathematics and Computer Science Department, Amar Telidji University, Laghouat, Algeria *EEG Signal for Schizophrenia Detection Using Deep Convolutional Neural Networks and Attention Mechanism*	

09h30 **09h40**	**Coffee Break**	
09h40 **10h00**	**O. Al-Kharusi** Department of Physics, College of Science, Sultan Qaboos University, Muscat, Oman *In-vivo Dosimetry using Diodes and MOSFETs in Radiation Therapy*	**Chairman:** **Dr. Adouda Adjiri**
10h00 **10h20**	**E. Şahiner** Earth Sciences Application and Research Centre, Ankara University, Turkey *Luminescence Dosimetry in Radiology and Nuclear Medicine: Advancements and Applications*	
10h20 **10h30**	**Break**	
Oral Session 5 : Artificial Intelligence in Medical Imaging		
10h30 **11h00**	**Plenary Talk 4** **Dr. Yassine BOUCHAREB** Department of Physics, College of Science, Sultan Qaboos University, Muscat, Oman *Artificial Intelligence for Radiation Dose Optimization in Diagnostic Radiology and Molecular Imaging*	**Chairman:** **Pr. Nabil Maalej**
11h00 **11h20**	**S. Atek** Department of Physics, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Deep learning in medical image Segmentation using Multi-Modality fusion*	
11h20 **11h40**	**R. Bencheikh** Department of Computer Science, Faculty of Sciences, Ferhat Abbas-Setif1 University, Setif, Algeria *Innovative Deep Neural Network Models for Multilingual Translation Applied to Dyslexia*	
11h40 **12h00**	**I. Mansour** Department of Computer Science, University of Ferhat Abbas Setif 1, Setif, Algeria *Fully Attention Convolutional Deep Neural Networks for Polyp Segmentation and Classification from Histological and Colonoscopic Image*	
12h00 **12h30**	**Closing Ceremony**	
12h30 **14h00**	**Lunch**	
14h00 **18h00**	**Tour to the Antic Roman City of Djemila**	