

PERSONAL INFORMATION Ervis TELHAJ

📍 Tele Ndini street, Pallati Giron , Nr 35, Tirane (Albania)

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✉ e_telhaj@yahoo.com

Sex Male | Date of birth 06 April 1976 | Status Married | Nationality Albanian

ACADEMIC CAREER

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| 2014 | Doctorate Degree in Physics, PhD
University of Tirana, Faculty of Natural Sciences, Tirana – Albania |
| 2007 | Master Degree in Physics, M.Sc.
University of Tirana, Faculty of Natural Sciences, Tirana – Albania |
| 2004 | Fellowship on Radiation Metrology
Fellowship on Ionization Radiation Metrology and Dosimetry, International Atomic Energy Agency, Greek Atomic Energy Commission, Demokritos Laboratories, Athens - Greece, |
| 2003 | Post Graduate Educational Course
Radiation Protection and the Safety of Radiation Sources, International Atomic Energy Agency, Greek Atomic Energy Commission, Demokritos Laboratories, Polytechnic University of Athens, Athens - Greece |
| 2002 | Post Graduate Educational Course
New Sensor on Radiation and Environmental Detection, University of Ferrara – Italy, TEMPUS Project, No 15028 – 2000 |
| 1996 –2001 | Degree in Physics, Physicist,
University of Tirana, Faculty of Natural Sciences, Tirana - Albania |

PROFESSIONAL LICENCE

EXPERT OF MEDICAL PHYSICS

LICENSE NR.56, Albanian Radiation Protection Commission

PROFESSIONAL MEDICAL PHYSICIST LICENCE

LICENSE NR.6, Albanian Radiation Protection Commission

QUALIFIED EXPERT ON RADIATION PROTECTION LICENCE

Radiation Protection and the Safety of Radiation Sources

LICENCE NR. 2358, Albanian Radiation Protection Commission

PROFESIONAL SKILLS

- Highly skilled career professional with practical experience in hospital
- Multi-tasking capabilities with strong ability to plan prioritize and manage complex projects under aggressive timelines
- Extensive experience and in-depth knowledge in Medical Exposure in Radiotherapy, Nuclear Medicine, Diagnostic Radiology etc.
- Extensive experience and in depth knowledge in radiation metrology and dosimetry
- In-depth knowledge with IAEA protocols for radiotherapy
- Administration of Radiotherapy services systems, XiO, Focal, Monaco Sim, Monaco, Aria, Eclipse
- Extensive experience and in-depth knowledge with dosimetry verification systems such as PTW, IBA and Sun Nuclear dosimetry systems.

Curriculum Vitae

- Commissioning and data collection of Linear Accelerator Treatment Planning System and Beam Modelling
- Configuration and Administration MOSAIQ Record & Verify System, ARIA etc.
- Implementation of Dosimetry IAEA TRS 398, TRS 483 Protocols
- Implementation of Quality Control IPEM Report 81 recommendations
- Implementation of Patient In-Vivo Dosimetry with Semiconductors for Radiotherapy
- Experience in the management of the project's expansions of Radiotherapy, PETCT and new installation of equipment
- Leading project for construction and Set-Up of PET/CT Department
- PET/CT - QA&QC
- Leading project for construction and follow-Up of Radio Metabolic Therapy Rooms for I131 isotope
- Gamma Camera - QA&QC
- QA & QC Radiology Equipment's
- Nuclear Medicine Waste Management
- Extensive experience and in-depth knowledge in the field of Radiation Protection and the Safety of Radiation Sources
- Extensive experience in Radiological Emergency Management
- Extensive working experience Waste Management
- In-depth knowledge of the detection equipment
- Extensive experience of ALARA concept implementation
- Extensive experience in emergency response and investigation and follow – up
- Extensive knowledge in authorization and inspection of radiation sources in nuclear medicine, radiotherapy, brachytherapy, industrial radiography etc
- Extensive experience and in-depth knowledge on searching and recovering of radioactive sources
- Education & Training
- Extensive experience and very good knowledge in Calibration of ionizing chamber and equipment
- Extensive experience and very good knowledge in Radiation Metrology and Dosimetry
- Shielding Calculation Design for Radiotherapy Centres, NM and Radiology

PROFESIONAL EXPERIENCE

February 2010 on Present

AMERIKAN HOSPITAL
HYEGIA HOSPITAL TIRANA
Supervisor Medical Physics

- Radiotherapy Planning 3D, IMRT, VMAT, Electrons etc
- Performing Dosimetry and QA/QC for Linear Accelerators
- Portal Dosimetry
- Acceptance and Commissioning of Linear Accelerators: Elekta Synergies, Varian True Beam
- Calibration of Linear Accelerators, Elekta Synergies, True Beam
- QC for the IMRT, VMAT, SBRT Treatment Planning
- Administrator for MOSAIQ Record & Verify Dosimetry System, ARIA
- Implementation of In-Vivo Dosimetry with Semiconductors for Radiotherapy Patient Treatment
- Developing and implementing a quality assurance program for Radiotherapy
- Participation on IAEA Dosimetry Audit for Radiotherapies Centre
- Calibration of dose calibrator - Nuclear Medicine
- QA for Nuclear Medicine – Gamma Camera
- QA for PET CT
- QA & QC Radiology Equipment's
- Leading project for construction and Set-Up of PET/CT Department
- PET/CT - QA&QC

Curriculum Vitae

- Leading project for construction and follow-Up of Radio Metabolic Therapy Rooms for I131 isotope
- Dose administration for Nuclear Medicine and PET CT patient
- Shielding Design for Radiology, Nuclear Medicine and Radiotherapy
- Design and operation of nuclear medicine Department
- Shielding & security of Radioactive sources
- Quality Assurance Program for X-Ray Diagnostic Devices
- QC for X-Ray Diagnostic Devices
- Hospital Radiation Safety Officer
- Shielding Calculation
- Supervising program for Personnel Radiation Protection Monitoring
- Preparing documentation for use of Ionizing Radiation - Hospital License
- Supervising program for medical physicist clinical training
- Support for Kaiser permanent HVA tools for hospital Hazardous Materials and Radioactive Waste Plan
- Supervising program for hospital staff in the field of radiation protection
- Supervising Radiation Emergency Program
- Member of Hospital Emergency Commission
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- Lecturer for Programs:
 - Biophysics;
 - Radiobiology;
 - Medical Device and Imaging;
 - Bioelectromagnetism;
 - Biomechanics;
 - General Physics;
 - Radiation Protection;
 - Nuclear Medicine;
 - Internal and External Radiation Therapy
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- Invited lecturer for modules of Medical Physics Program:
 - Biophysics;
 - Physics of Radiation Oncology;
 - Dosimetry of Radiation
 - Radiation Metrology
- Head of Medical Physics Curricula Commission
- Mentor for Master Thesis
- Clinical Supervisor for Medical Physics Students
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- Head of Secondary Standard Dosimetry Laboratory
- Support for construction of Secondary Standard Dosimetry Laboratory
- Acceptance and Commissioning of Cs-137 Calibration Devices

September 2023 on Present

WESTER BALKAN UNIVERSITY

September 2002 - 2022

**POLITECHNIC UNIVERSITY OF
TIRANA**

Physics Engineering Department,
Medical Physics Section

September 2001– February 2010

**INSTITUTE OF APPLIED
NUCLEAR PHYSICS**

Curriculum Vitae

October 2008 – February 2010

*Head of National Secondary
Standard Dosimetry
Laboratory,*

- Acceptance and Commissioning of X-Ray Calibration Devices
- Responsible for traceability system from A-SSDL to IAEA laboratory
- Calibration of Ionizing Chamber used in Radiotherapy, Brachytherapy, Radiology
- Calibration of TLD's for different energies
- Calibration of dosimeters in different radiation fields
- Calibration of survey meters
- Supervising Quality Control program for X-Ray Diagnostic Hospital Devices
- Implementation of IAEA TRS 398, 469,457, SRS 16 etc
- Implementation Program for Accreditation of Laboratory
- Participation on IAEA Audit for SSDL-s
- Support for Customs Offices for Calibration of Radiation Portal Monitor

September 2001 – October 2008

*Human and Environmental
Radiological Protection
Department*

- Scientific Research
- Radiation Protection Officer of Institute
- Radiation Protection Specialist
- Radioactive Waste Management
- Transport of Radioactive Materials (category I – V)
- Trainers in Radiation Protection and the Use of Radiation Sources for employees which working with ionizing radiation
- TLD measurement for Personal Dosimetry
- Collection and Preparation of Environmental Samples for Radioactive Analyses
- Member of National Radioactive Emergency Team
- Inspection of radiation sources in nuclear medicine and radiotherapy, industrial radiography, nuclear gauges and well logging
- Emergency response and investigation and follow-up

September 2001 – December 2010

TIRANA UNIVERSITY
Faculty of Natural Science
Physics Department

- Invited Lecturer for:
- Biophysics Module
- General Physics
- Mentor for Diploma Thesis
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EDUCATION TRAINING CONFERENCES

January 2025	EFOMP, Enhancing Dental CBCT Imaging: QA, Patient Dosimetry, and Virtual Imaging
January 2025	EFOMP, QA for SIG_FRID basic dosimetry
October 2024	EFOMP, EBAMP Webinars, DRLs and QA in Dental Imaging,
October 2021	EFOMP, SMPE, Hybrid Approaches in Radiation Therapy
May 2021	EFOMP, SMPE, MRI in Radiation Therapy Planning
December 2020	EFOMP, Webinars, Particle Therapy: State of the art and future developments
September 2020	IAEA, on-Line, e-learning course, Radiobiology

Curriculum Vitae

March 2020	ArcCheck, SRS MapCheck and DailyQA3 Training, Sun Nuclear Corporation, Tirana, Albania
March 2020	Portal Dosimetry, Varian, Tirana, Albania
February 2020	True Beam Platform, Varian, Tirana, Albania, 2020
February 2020	Oncology Information System, Varian, Tirana, Albania, 2020
January 2020	Eclipse Operation, Varian, Tirana, Albania, 2020
December 2019	True Beam Platform Physics & Administration, Varian, Steinhausen, Switzerland, 2019
September 2019	Eclipse Administration and Physics, Varian, Steinhausen, Switzerland, 2019
November 2018	4th International Multidisciplinary Medical Congress in Albania, IMCA4, Tirana 2018
November 2017	3 rd International Multidisciplinary Medical Congress in Albania, IMCA3, Tirana 2017
June 2016	5th Balkan Congress of Nuclear Medicine & 13th National Congress of Nuclear Medicine, Thessaloniki 2016
June 2016	International Workshop on Medical Physics and Biomedical Engineering, Medical Imagery and Radiotherapy, Elbasan – Albania
November 2014	Training course for Medical physicist on Quality Control for Imagery, Tirana – Albania
March 2013	Physics for Radiotherapy; Izmir – Turkey; ESTRO/EFOMP
October 2012	IMRT procedures for Radiotherapy treatment Freiburg – Germany; CMS – ELEKTA
December 2010	Mosaiq Imaging Training, In-site Training, Tirana, Albania
September 2010	TPS XiO Operation and Physics, In-Site Training, Tirana , Albania
August 2010	Mosaiq Administration Training, In-Site Training, Tirana, Albania
March – June 2010	Radio Oncology Centre, Hygeia Hospital Athens, Athens - Greece
February 2010	Elekta Synergy Platform Operation and Calibration, In Site Training, Tirana, Albania
September 2009	TSO role on Optimisation for Ionising Radiation Protection. Determination of QA & QC during use of ionising radiation in Hospital; Almaty – Kazakhstan; RECAN; IAEA
April 2009	Safety and Management of Radioactive Waste in Hospitals, Regional Workshop, Karlsruhe – Germany, IAEA
March 2009	WMD – Crisis Management during Radioactive Incident; Tirana – Albania;

Curriculum Vitae

International Counter Proliferation Program, DOE - USA

June 2008	Data Network, Online Monitoring and Support with Devices for Ionization Radiation Detection at the Frontier; Athens - Greece, IAEA
September 2006	Nuclear Techniques for Study and Preservation of Cultural Heritage Facilities; Tirana - Albania, MTKRS, IFB, IAEA
June 2006	Authorization and Inspection for Regulatory Body for Ionizing Radiation Sources; Prague - Czechia, IAEA
May 2006	Quality System according to ISO / IEC 17025; Tirana - Albania, European Commission - DG Joint Research Center
January 2006	Vulnerability Exposure Assessment due to External Resource Resources; Madrid-Spain, IAEA
June 2005	Searching Equipment and Methods for Missing and Orphaned Resources; Bucharest - Romania; The US National Security Agency for Nuclear Safety
May 2005	Quality Control / Control Security during Use of Ionized Radiation Resources, Tirana - Albania, IAEA
October – December 2004	Fellowship - Ionization Radiation Metrology And Dosimetry, Athens - Greece, IAEA
October 2004	Searching, Identifying, Localizing and Nature of Radioactive Sources; Vienna – Austria, IAEA
May 2004	RAIS-3 Informative Regulatory System; Ankara - Turkey; IAEA
April 2004	Searching, Identifying and Reactivating Radioactive Resources; Moscow - Russia, IAEA
December 2003	Practical Response During Malpractice Acts Including Radioactive Materials; Ljubljana - Slovenia, IAEA
February – June 2003	PGEC - Ionizing Radiation Protection and Safety of Ionizing Radiation Resources; Athens-Greece, IAEA
September – December 2002	September - December 2002 PGEC - New Sensor on Radiation and Environmental Detection, University of Ferrara – Italy, TEMPUS Project, No 15028 – 2000
June 2002	Protection against Ionizing Radiation and Safety in Nuclear Medicine; Tirana - Albania, IAEA

PUBLICATION

- Algorithmically Applications in the XiO Treatment Plan Based on Dosimetry Measurements, International Journal of Biomedicine 15(1) (2025) 162-166, [http://dx.doi.org/10.21103/Article15\(1\)_OA18](http://dx.doi.org/10.21103/Article15(1)_OA18),
- The Transport of Electrons in Matter Through the Superposition Algorithm and their Dosimetry, JNS 36/2024, pg 187 - 196, ISSN 2305-882X, Tirana
- Gafchromic film EBT3 Calibration for QA in Radiotherapy, JNS 36/2024, pg 176 - 186, ISSN 2305-882X, Tirana

Curriculum Vitae

- Dosimetry of Medical Linac and its use in the Treatment Planning System, International Conference on Medical, Pharmaceutical and Health, Ankara, Turkey, December 2024,
- Determination of the Dependence of TLD on the Radiation Energy, International Conference on Global Society for research and Development, Istanbul, December 2024
- Utilizing the VMAT Technique for Treating Head and Neck Cancer with Fixed Collimator Jaws, International Journal of Biomedicine, 14(3) 2024 474-477, USA, New York, [http://dx.doi.org/10.21103/Article14\(3\)_OA14](http://dx.doi.org/10.21103/Article14(3)_OA14)
- Evaluation of Calibration of In Vivo Dosimeters for Assessing Dose in Radiotherapy, JNS 35/2024, pg 170, ISSN 2305-882X, Tirana
- Academy of Science of Albania, Symposium, Perspective of Medical Physics in Albania, Vleresimi dhe Shprehndarja e fotoneve ne lende nepermjet dy teknikave IMRT dhe VMAT ne planet e trajtimit Eclipse dhe XiO/Monaco, 22 October 2021
- IMRT Quality Control for Head and Neck treatment, International Multidisciplinary Medical Congress in Albania, IMCA3, Tirana, 15 -17 November 2018
- Comparison between EBT3 Gafchromic film and EPID in IMRT QA; 10th Jubilee Conference of the Balkan Physical Union Sofia, Bulgaria, 26 – 30 August 2018
- Implementation of IMRT for Head and Neck Treatment Patient in Albania; 3rd International Multidisciplinary Medical Congress in Albania, IMCA3, Tirana 2017
- Evaluation of Parameters of Radiological Diagnostic Equipment, Instituti ALB Shkenca, Takimi i 11 Vjetor i ALBShkences, Shtator 2016
- In vivo Diode of Beam Related Response for Radiotherapy, The Smithsonian/ NASA Astrophysics Data System, DOI:10.1063/11.4944210, 2016
- Brachytherapy Dosimetry Systems, Medical Physics & Biomedical Engineering Workshop devoted to Modern Techniques for Medical Application of US, RT & BT, Conference Proceedings 2016, 2016
- Silicon Diode Signal Dependence on Temperature in High Energy Photon Radiotherapy, International Scientific Journal, ISSN 2367-8380 1/2016
- Beam Related Response of in Vivo Diode Detectors for External Radiotherapy, 9th International Physics Conference of the Balkan Physical Union, Vo 1722, 180002, Conference Proceedings 2016
- Calculation Methods in Radiotherapy Using MATLAB, J. Int. Environmental Application and Science, Vol 2, pg 205-210, 2014/5
- Comparison Between Different Dosimetry Tools Applications in Radiotherapy, Anglisticum International Journal, Vol 2, No5, 2013
- Measuring Condition for Elekta Linear Accelerator

Curriculum Vitae

Scientific Bulletin: Natural Sciences Series, p.63, pg. 31-38, 2013

- Calibration Control of Elekta Linear Accelerator Photon Beam, a review, AJTNS, XIX, p.34, pg13 – 18, 2013
- Oncor Precision Accelerator Beam Data Commissioning, Equipment and Procedures, The 1st International Conference on Research and Education – Challenges Toward the Future, ICRAE 2013
- Determination of CTV – PTV margin on pelvic area using an electronic portal imaging device, Albanian Journal of Natural and Technical Sciences, p.2, pg 27-44 February 2013
- Linear Accelerator Dosimetry and Its Uses in Treatment Planning System AJTNS, Academy of Science of Albania, 2013
- Modeling of Photon Beam for Radiotherapy Application, Scientific Conference, Faculty of Natural Sciences, Tirana, 2013
- Dosimetric Verification of Radiotherapy Treatment Plan, International Conference on Sustainable Development; Luigj Gurakuqi University, Shkodra, 2012
- Determination of phantom transfer error in the process of image transfer from CT simulator to Linac, National Conference "Advanced Studies in Mathematical, Physical and Chemical Engineering", UPT, Tirana, 2011
- Application of dosimetric data in the treatment plan system (XiO), National Conference "Advanced Studies in Mathematical, Physical and Chemical Engineering, Polytechnic University, Tirana, November 2011
- Dose Determination in water for High-Energy Photon Beam. Data's Implementation on XiO Treatment Planning System' Abstract, Albshkenca – International Conference, Prishtina, September 2011.
- Measurement and Determination of Dose Rate in Base of Network Online System, Abstract, Balkans Physics Conference, Kostandinopolys – Greece
- Determination of Albanian Standard in field of Ionizing Radiation Metrology, National Conference for Quality Control and Standardization, May 2008, Tirana-Albania
- Determination of Radiation Energy Response for Thermo luminescent Dosimeter TL -100. Determination of Organ Dose in Radiology, IUPAP Conference, Korea, October 2008

CLINICAL & RESEARCH INTEREST

- Advanced radiotherapy techniques (IMRT, VMAT, IGRT, Adapted Radiotherapy)
- High dose rate radiation therapy (FFF beams)
- Stereotactic Radiotherapy (intracranial & extra cranial) SRT-SBR
- Oncology Information Systems

Curriculum Vitae

- Brachytherapy Low Dose Rate & High Dose Rate
- Quality & Safety Assurance
- In Vivo Dosimetry with Semi-Conductor and Passive Dosimeters for Radiotherapy Treatment, Nuclear Medicine
- Optimization imaging from PET CT and Gamma Camera.
- Optimization for paediatric imaging in Radiology

PERSONAL SKILLS

- Punctual,
- Committed to completing the job,
- Willing to work overtime and travel if necessary,
- Well-organized and thorough,
- Attentive to details,
- Capable to learn fast,
- Creative,
- Skilled in business and technical diagramming
- Well-trained scientist
- Team Leading abilities
- Excellent with group work
- Excellent problem-solving skills
- Capability to deal with a number of issues
- Capable to respond to all emergencies efficiently and effectively
- Strong ability to plan prioritize and manage complex projects
- Very good command of English (written and spoken),
- Very good command of Italian (written and spoken)
- Intermediate command of German (written and spoken)

MEMBERSHIP

- **EFOMP** – European Federation of Medical Physics, Associate Member
- **BSP** – Balkan Society of Physics
- **AAMP** – Albanian Association of Medical Physics
- **ASP** – Albanian Society of Physics
- **DGMP** – German Society of Medical Physics

PhD. Ervis TELHAJ