

22NRM07 GuideRadPROS

Harmonisation, update and implementation of standards related to radiation protection dosimeters for photon radiation

May 20th - 22nd 2025

Greek Atomic Energy Commission (EEAE), Athens

Workshop

**on calibrating photon dosimeters to ISO 4037 standards
and preparing for new radiation protection quantities**

The aim of this workshop is to provide the practical skills for the implementation of ISO 4037 standard series and ICRU Report 95. Three days of lectures and discussions, including hands-on sessions where participants will be divided into basic and advanced groups.

Topics to be covered

Requirements of ISO 4037:2019 and ISO 29661
Setting up X-ray and gamma reference fields
Good practices for spectrometry of X-ray fields
Monitor chambers
High voltages dividers
HVL measurements
Field homogeneity measurements
Performing calibrations, type testing
Evaluations of measurement uncertainty
Requirements for new ICRU 95 quantities

Trainers: Lectures & Hands-on

Amra Sabeta, IMBiH
Argiro Boziari, EEAE
Hayo Zutz, PTB
Joonas Tikkanen, STUK
Liviu-Cristian Mihailescu, SCK CEN
Margarida Isabel Camacho Caldeira, IST
Milos Zivanovic, VINS
Nikola Krzanovic, VINS
Oliver Hupe, PTB
Paz Avilés Lucas, CIEMAT
Siarhei Saroka, INM
Steffen Ketelhut, PTB

Important information

Registration form: <https://forms.gle/JeQVubTkbX8K6RFN6>

Deadline: 15th of February 2025.

Enrollment is limited to 40 participants and will be allocated on a first-come, first-served basis.

Fee: No registration fee.

A certificate of attendance will be issued to all participants.

Venue:

Greek Atomic Energy Commission (EEAE)

Patriarchou Grigoriou & Neapoleos

153 41 Agia Paraskevi, Athens, Greece

Contact person: Eirini Trifylli, email: eirini.trifylli@eeae.gr

Preliminary program

Training Course on Implementation of ISO 4037 20th to 22nd May 2025, EEAE in Athens, Greece

	Tuesday, 20th May	Wednesday, 21th May	Thursday, 22nd May
09:00 - 09:15	Registration (9:00-9:15)	Wrap-up of last day	Wrap-up of last day
09:15 - 09:30	Welcome & Opening	HVL Measurements by dosimetry	New RP quantities
09:30 - 09:45	Introduction: EEAE	EEAE	Concept and Impact of ICRU 95
09:45 - 10:00	Scope of TC	AB	Discussion on ICRU 95 implementations
10:00 - 10:15	Introduction of lecturers	All	System of Intercomparison
10:15 - 10:30	Standardization landscape	OH	CMC and Interlaboratory
10:30 - 10:45	ISO & IEC	Groups HZ	Coffee Break
10:45 - 11:00	Coffee Break	SK	
11:00 - 11:15			
11:15 - 11:30	ISO 4037	Field Homogeneity	Spectrometry- Part I
11:30 - 11:45	Concept & Requirements	HZ	LCM
11:45 - 12:00	Setting up Reference Fields	Performing Calibrations	Spectrometry - Part II
12:00 - 12:15	X-ray and gamma-ray units	Traceability	LCM
12:15 - 12:30	"Ice Breaker" - Part I	Type Testing	Determination of Response function
12:30 - 12:45	Short presentations by participants	NK	Groups
12:45 - 13:00	Lunch		LCM
13:00 - 13:15			
13:15 - 13:30			
13:30 - 13:45	"Ice Breaker" - Part II	Round Table	Round Table
13:45 - 14:00	Short presentations by participants	Discussion with all lecturers	Discussion with all lecturers
14:00 - 14:15	High Voltage Dividers	Uncertainties in Measurements	Spectrometry - Part III
14:15 - 14:30		Theoretical concepts	JT
14:30 - 14:45	Tea break	Training Session Uncertainty	Unfolding, tube voltage, calculation
14:45 - 15:00	Training Session	Uncertainty calculation (laptop)	conversion coefficients
15:00 - 15:15	Setting up Reference Fields	Uncertainty - using MC (laptop)	Tea break
15:15 - 15:30		Tea break	Feedback form
15:30 - 15:45			
15:45 - 16:00		Training Session Uncertainty	Spectrometry- Part IV
16:00 - 16:15		(laptop)	Uncertainty
16:15 - 16:30	Round Table	Example Type testing	Training Session
16:30 - 16:45	Discussion with all lecturers	defining tests and result interpretation	Work at Computer
16:45 - 17:00		NK	Groups
			JT
			LCM
			Closure