

Introduction:

Nuclear technology:

Nuclear technology is the technology involving ionizing radiation. It is one of the most modern and advance scientific fields that has hundreds of unique applications. Such as,

- Power generation
- Medicine
- Food processing
- Material processing
- Agriculture
- Hydrology
- Non-destructive testing
- Environmental monitoring
- Safety and security



In Sri Lanka, nuclear technology is a rapidly emerging sector which will be highly instrumental in economic and social development.

It is a necessity to acquire theoretical and practical knowledge on nuclear technology to yield the maximum output of it.

An experienced and skilled workforce will be essential for the future endeavors of nuclear technology in Sri Lanka.

For example:

*The Ceylon Electricity Board has estimated that by 2032, nuclear power has to be introduced to meet the ever-rising energy demand of the country. ***

In such a scenario, it is essential to have an educated, knowledgeable community to handle the novel opportunities of the technology. **RADI-Count** will be instrumental in conveying the practical knowledge in nuclear technology.

Sri Lanka Atomic Energy Board:

The Sri Lanka Atomic Energy Board (SLAEB) is a statutory body, functioning under the Ministry of Power and Energy which was established by the Sri Lanka Atomic Energy Act No. 40 of 2014.

Its mission is to promote, encourage peaceful applications of nuclear technology and utilize its benefits for socio-economic development of the country while ensuring safety, security and quality and to provide radiation protection services to meet the regulatory requirements.

What is RADI-Count?

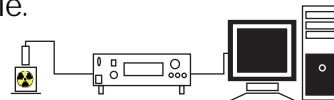
RADI-Count is a specifically designed nuclear detection and measuring instrument for educational demonstrations.

It is a product of years long instrumentation researches at the Nuclear Instrumentation Laboratory (NIL) of SLAEB. It is the first nuclear electronic instrument ever developed in the country.

It is presented as a complete educational tool for tertiary and advance educational institutes to perform a number of experiments in nuclear physics.

It is consisted of a digital scalar unit, a GM probe, a source chamber and a PC software module. The system can count the number of radiation bursts appear in a sample within a given time period.

Each device is calibrated for low-energy gamma at the accredited secondary standard dosimetry laboratory of SLAEB. Hence, the device is ISO/IEC compatible.



Why RADI-Count?

Unlike the traditional manual GM counter units, RADI-Count is a user-friendly, digital device. It is comparatively inexpensive than the imported systems and the repairing and maintenance is easier.

The convenient user-interface offers a flexible, highly simplified operation without secondary mathematical calculations.

In order to enhance the exposure to the practical nuclear physics, RADI-Count offers a set of internationally formulated demonstrations and experiments.

Since the SLAEB is a local institute, after sale services, operator training and transport will be rapid and highly cost effective.

RADI-Count; For Whom?

RADI-Count is designed for the people who are in the initial/moderate steps of physics education. Especially for undergraduates and secondary level students, to enhance their exposure in practical nuclear physics.

It is also for the institutes and teachers, who are engaged in science education. Ultimately, it is for the country with advance human beings.

Future of RADI-Count:

RADI-Count is the first born in a family of advance multipurpose nuclear instruments. With the expertise gathered through research and innovations, SLAEB has planned to introduce several nuclear instruments to the country. Future coming products will extend the capabilities of RADI-Count to a numerous contexts from area monitoring to portable nuclear instrumentation.