

NCRRT as Collaborating Centre in Industrial Radiation Processing and Cultural Heritage Preservation

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The National Centre for Radiation Research and Technology (NCRRT) is one of the four centres affiliated to the Egyptian Atomic Energy Authority (EAEA). It was established in 1972 to enable the nation to exploit the radiation processing technology for peaceful purposes in medical, industrial, environmental, basic sciences, engineering and agricultural fields and to keep up with scientific progress in these fields.

The centre contributes to providing irradiation services to various parties by sterilizing medical products, biological tissues, and preserving food by radiation, in addition to conducting experiments at the semi-industrial level to improve the properties of polymeric materials, textiles, rubber, wood and paints, which improve their economic value added. The irradiation facilities at the NCRRT are Mega Gamma 1 Irradiator (MISR I) at Cairo, Gamma Irradiation Facility (MISR II) at Alexandria, Research Gamma Sources and Electron Beam Accelerator Facility 3 MeV with X-ray unit.

NCRRT participates in several regional activities under AFRA, e.g. providing advice to other AFRA Member states, hosting topical meetings, training courses and workshops. It has been selected as Regional Designated Centre (RDC) in order to play a leading role in AFRA and TC-IAEA projects as well as in the field of Irradiation Processing. NCRRT is a permanent partner in performing inter-comparison exercise in the field of dosimetry and has a Practical Arrangements with IAEA on "Enhancing Technical Cooperation Among Developing Countries (TCDC). The NCRRT Central Laboratory Facility (NCRRT-CL) provides access to state-of-the-art instrumentation for both research and training purposes. The facility offers scientific analysis, technical advice, tailored hands-on training programs for researchers, faculty staff and students, and graduate students as well as for industry from all over Egypt. The provided instrumentation covers both basic and applied sciences. This core facility is considered one of the pillars to achieve excellent science and as a venue to enhance capacity building at NCRRT, it is expected to contribute directly to the quality and quantity of international publications and collaborative research projects. NCRRT The center was selected as a collaborating center by the IAEA for 4years (2021-2025) inthe field of Industrial Radiation Processing and Cultural Heritage Preservation.

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