

### Program Content & Tentative Agenda

GCNEP's mandate to promote safe, secure and sustainable nuclear energy for the service of mankind through global partnership also envisages the non-power applications of nuclear energy for sustainable development of the society. Social benefits of radiation and radioisotope technology are well established by now. Application of radiation technology, and radioisotopes for material processing and trouble shooting in industry demands good insight and understanding of fundamentals of these topics as well as trained manpower to run plants and carry out trouble shooting on industrial scale. Thus, development of human resource thus becomes an important component for these activities. In-view of these facts SARRT has proposed the said course which will have participants from neighboring countries, African countries and India. The course will be online under the aegis of GCNEP and will be conducted from GCNEP, Bahadurgarh. The lectures will be delivered by practicing scientists and technologists in the field. It is also proposed to bring- in industry partners to share their hands-on experience with participants.

	<b>Lecture</b>	<b>Topic</b>	<b>Duration</b>	
<b>Day 1</b>	Inauguration & Introduction		1 hr	
	Lecture 1	Basics of radioisotopes and radiation technology	1 hr	
	Lecture 2	Dosimetry & Radiolysis of Water	1 hr	
	<b>Lunch Break</b>			
	Lecture 3	Radiation for material modification	1 hr	
	Lecture 4	Sterilization of medical products	1 hr	
<b>Day 2</b>	Lecture 5	Radiation for environmental applications	1 hr	
	Lecture 6	Radioisotopes for trouble shooting in Oil & Chemical industry	1 hr	
	<b>Lunch Break</b>			
	Lecture 7	Radioisotopes for Quality control, Process Optimization and monitoring sediment transport	1 hr	
	Lecture 8	NDT in Industry (Fundamentals)	1 hr	
	Lecture 9	NDT in Industry (Applications)	1 hr	