

Radioisotope Techniques Laboratory

1. s Laboratory was established to conduct researches using Radiotracer and Sealed Source Techniques in industrial applications at Department of Atomic Energy (YanWith the purpose to improve the production efficiency and to assist in more effective exploration, extraction and processing of natural resources beneficially in industries in Myanmar, Radioisotope Techniquegon branch) in February 2013.



Figure(1) Radioisotope Techniques Laboratory

2. By using radioisotope and sealed source techniques in industries, improve efficiency and save money reducing production down-time, make the worker's performance easier and reduce the industrial pollution.

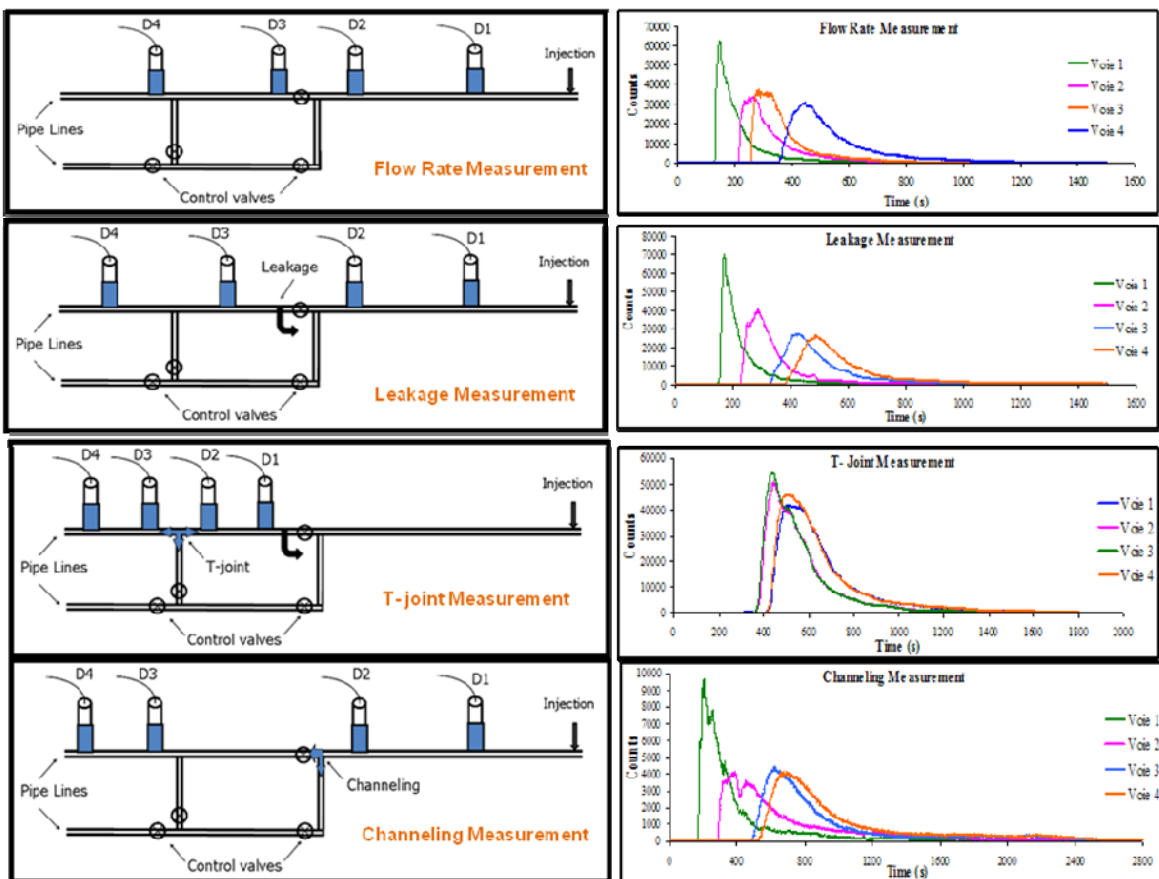
(1)Gamma column scanning technique can investigate the internal structure as well as the process condition inside the distillation columns of petroleum and petrochemical industries.

(2) Radiotracer can determine pre-requisite for process optimization and trouble-shooting of the multiphase flow system of pipe line, underground pipe line and heat exchanger in industries.

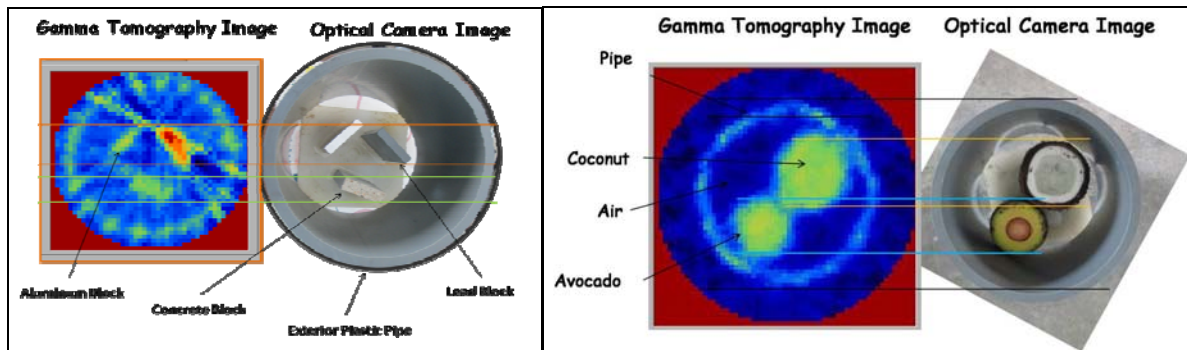
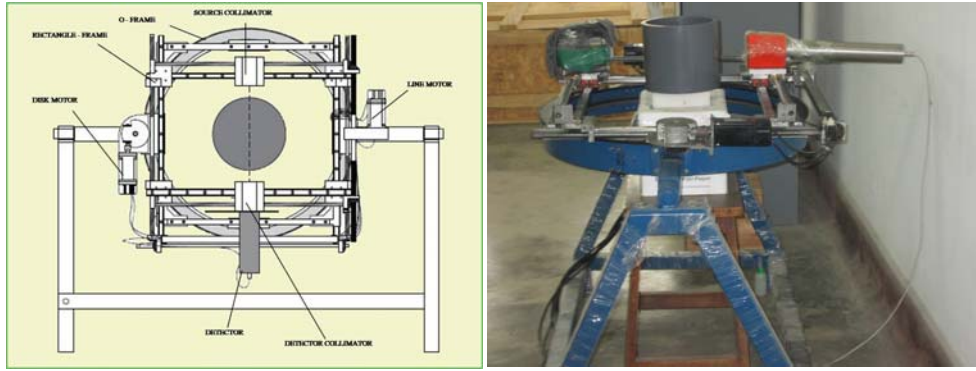
- (3) Computed Gamma Tomography is useful for diagnosing industrial multiphase processes by measuring density distribution inside the pipe line and heat exchanger of industries.
- (4) Radiotracers and sealed source techniques can provide information on the density and amount of the sediments deposited in a channel of navigation or harbour basin, as well as the concentration of sediments circulating in suspension. In addition, the suitability of the selected location for dumping of the dredged material can also be confirmed.



Figure(2) Awareness seminar of radiotracer and sealed sources techniques in industrial application to introduce to end-user



Figure(3) Flow Rate and Leak Detection Experiments using Radiotracer



Figure(4) Experiments using GORBIT First Generation Gamma Computed Tomography System



Figure (5) Experiments using Water Flow-rig for simulation of Chemical Reactor System



Figure (6) Tracer Group participated in Science Fair 2014 at
YANGON
University

3. We are trying for further develop of skills and confidence prior to carrying out field work. After creating a technical infrastructure and build-up strong and ongoing links with industry, we will apply the radioisotope and sealed source techniques for process optimization and trouble-shooting of the pipe line, underground pipe line and heat exchanger in petroleum and petrochemical industries, waste water treatment system and sediments transport studies in ports and harbours in Myanmar.