Training workshop on
"Rapid Detection Techniques for Biological & Chemical Contaminants in Food"

(For Scientists from outside India)

October 10 - 22, 2011

At

Shriram Institute for Industrial Research,
19, University Road, Delhi-110007

Course Contents:

- Why do we need Rapid Techniques
- Where do we need rapid techniques
- Various rapid techniques being used at present

Chemical Instrumental Techniques:

- Chromatographic Techniques
- TLC/HPTCL
- HPLC

(For pesticides, drugs, antibiotics, dyes, Mycotoxins, Steroids, Harmones, Toxic Chemicals etc.)

- LC-MS/MS
- Gas Chromatography with specific detectors
- GC-MS

(For PAH, PCBs, Pesticides, Monomers, Additives, Toxic Volatiles, Antioxidants Stabilizers etc.)

Spectroscopic Techniques:

- Atomic absorption spectroscopy with graphite thermal analyzers and vapour generation techniques
- Inductively couple plasma atomic emissions spectroscopy
- Inductively coupled plasma-mass spectrometry (For residual heavy metals)

Biological Techniques

- ELISA:For pathogens, pesticides, vitamins drugs, antibiotics, mycotoxins
- DNA Hybridization and PCR based techniques: For food borne pathogens, genetical modified foods
- PCR and Bacteriophaging: for food borne pathogens
- Use of Bio-sensors
- Radio-immunoassay Techniques
- Immunomagnetic Separation