

64TH TRAINING PROGRAMME OF NITUB



**TRAINING PROGRAMME ON THE USE,
MAINTENANCE AND TROUBLE-SHOOTING OF
ULTRA-VIOLET, VISIBLE AND INFRARED
SPECTROPHOTOMETER (UV-VIS & IR
Spectrophotometer).**

08-13 April 2017

Organized by

Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB)

Venue

Centre for Advanced Research in Sciences, University of Dhaka, Dhaka-1000

Programme Committee

Dr. Md. Zakir Sultan Principal Scientist Centre for Advanced Research in sciences, DU	- Convener
Dr. Rumana Akther Jahan Principal Scientist Centre for Advanced Research in sciences, DU	- Member
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Background

The Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB), a voluntary non-profit, non-political learned society, is functioning since 1994 with the aim of improving the capability of scientists and technical personnel to use, maintain and repair scientific equipment.

NITUB is regularly conducting training programmes on the use and maintenance of specific groups of instruments such as UV-VIS & IR, HPLC, AAS, GC and X-ray etc. Other than the training programmes on specific groups of instruments, NITUB also conducts training programme on common laboratory equipment for university college teachers and technical personnel. NITUB has also been conducting training programme on common medical equipment for medical professionals. So far, NITUB has conducted 63 such training programmes. NITUB is also conducting Instrument Repair Programme through which non-functioning scientific instruments are being repaired throughout the year.

Since its inception, NITUB already has organized seven training programmes on the use, maintenance and trouble-shooting of UV-VIS & IR Spectrophotometer and the last one was held in 2014. NITUB has decided to organize another training programme on UV-VIS & IR Spectrophotometer.

Programme

The 64th training programme of NITUB will consist of theoretical lectures and practical laboratory sessions on operation, analytical applications, maintenance and trouble-shooting of UV-VIS & IR. A tentative time-table for the training programme is given, however the final programme will be sent to the selected participants only. The

training programme will be conducted by university Professors, senior scientists and NITUB technical experts.

Participants

A maximum of 15 (fifteen) participants will be selected from among the applications of scientists and technical personnel of public and private educational institutes and research organizations. Young faculties, scientists and postgraduate students will get preference to participate in the training programme.

Registration

Applications to participate in the 64th training programme on UV-VIS & IR Spectrophotometer should reach the General Secretary of NITUB on or **before 03 April 2017**. Application must be sent through proper channel **along with a training fee of Tk. 7,000/- (taka seven thousand) in the form of a bank draft or pay order in the name of NITUB (Sonali Bank Limited, Dhaka University Branch, Account No. 34255099)**. Training fee will include registration, teaching materials, lunch and tea.

Selected participants will be informed by **06 April 2017**. The training fee of the applicants who could not be accommodated will be refunded.

Tentative Programme

08-04-2017 (Saturday)

0930-1030 - Registration

1030-1130 - Inauguration

1130-1200 - Tea

1200-1300 - **Lecture 1:** Fundamentals of UV-VIS spectroscopy

1300-1400 - Lunch

1400-1700 - **Laboratory session -1**

Group A: *Quantitative analysis with UV-VIS spectrophotometer*

Group B: *Sample handling of IR spectrophotometer*

Group C: *Determination of Iron spectrophotometrically*

1630-1700 - Tea & Discussion

09-04-2017 (Sunday)

1000-1100 - **Lecture 2:** Fundamentals of IR spectroscopy

1100-1130 - Tea

1130-1230 - **Lecture 3:** Quality Control & Quality Assurance of Analytical Laboratory

1230-1400 - Lunch

1400-1630 - **Laboratory session -2**

Group B: *Quantitative analysis with UV-VIS spectrophotometer*

Group C: *Sample handling of IR spectrophotometer*

Group A: *Determination of Iron spectrophotometrically*

1630-1700 - Tea & Discussion

10-04-2017 (Monday)

1000-1100 - **Lecture 4:** Application of UV-VIS Spectrophotometer

1100-1130 - Tea

1130-1230 - **Lecture 5:** Application of IR Spectrophotometer

1230-1400 - Lunch

1400-1630 - **Laboratory session -3**

Group C: *Quantitative analysis with UV-VIS spectrophotometer*

Group A: *Sample handling of IR spectrophotometer*

Group B: *Determination of Iron spectrophotometrically*

1630-1700 - Tea & Discussion

11-04-2017 (Tuesday)

1000-1100 - **Lecture 6:** Instrumentation & Maintenance of UV-VIS spectrophotometer

1100-1130 - Tea

1130-1230 - **Lecture 7:** Development of Analytical Method & Validation as per ISO/IEC 17025

1230-1400 - Lunch

1400-1630 - **Laboratory session -4**

Group A: *Study of IR of selected solid compounds*

Group B: *Study of IR of selected liquid compounds*

Group C: *Kinetic study of hydrolysis of crystal violet spectrophotometrically*

1630-1700 - Tea & Discussion

12-04-2017 (Wednesday)

1000-1100 - **Lecture 8:** Study of organic functional groups spectrophotometrically

1100-1130 - Tea

1130-1300 - **Laboratory session -5**

Group B: *Study of IR of selected solid compounds*

Group C: *Study of IR of selected liquid compounds*

Group A: *Kinetic study of hydrolysis of crystal violet spectrophotometrically*

1300-1400 - Lunch

1400-1630 - Presentation by Participants on UV-VIS & IR Spectroscopy

1630-1700 - Tea & Discussion

13-04-2017 (Thursday)

0930-1130 - **Laboratory session -6**

Group C: *Study of IR of selected solid compounds*

Group A: *Study of IR of selected liquid compounds*

Group B: *Kinetic study of hydrolysis of crystal violet spectrophotometrically*

1230-1330 - Closing ceremony & certificate distribution

1330 - Closing Lunch



64th Training Programme of NITUB

**Training Programme of NITUB on the use, maintenance and
trouble-shooting of UV-VIS & IR Spectrophotometer**

08-13 April 2017

APPLICATION FORM

Name of the applicant (Block Letter)	
Date of birth	
Academic qualification	
Designation	
Institute/Organization with address	
Phone / cell phone number	
E-mail Address	
Any previous training ? If yes, please specify	
Date:	Signature of the applicant

Recommendation from the Head of Institution / Organization

Date:	Signature
	Name & Seal