

# 69TH TRAINING PROGRAMME OF NITUB



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

**08–13 September 2018**

## *Organized by*

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

**&**

**Bangladesh Council of Scientific and Industrial Research (BCSIR)**

## *Venue*

**Bangladesh Council of Scientific and Industrial Research (BCSIR),  
Dr. Qudrat-I-Khuda Road, Dhanmondi, Dhaka-1205**

## *Programme Committee*

Md. Aminul Ahsan Director (Addl. Charge) INARS, BCSIR, Dhaka	Convener
Shamim Ahmed SSO INARS, BCSIR, Dhaka	Member
A.H.M. Shofiul Islam Molla Jamal SO INARS, BCSIR, Dhaka	Member
Md. Abul Kalam Chowdhury Instrument Engineer, NITUB	Member Secretary

All correspondence should be addressed to

**Professor Dr. Altaf Hussain**

General Secretary, NITUB

Cell: +880 1552-421909, Email: [altaf@du.ac.bd](mailto:altaf@du.ac.bd)

Tel: +880-2-9673136

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NITUB Office: 300, Elephant Road, Alishan Complex (2nd Floor, Room No.  
309) Dhaka-1205, Bangladesh  
Tel: +880-2-9673136, Cell: 01711-984234,  
Email: [nitub@bangla.net](mailto:nitub@bangla.net), [md.akchowdhury@gmail.com](mailto:md.akchowdhury@gmail.com)  
Web: [www.nitub.org](http://www.nitub.org)

## *Background*

Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB) is a voluntary, non-profitable, non-political learned society dedicated to scientific education and research. NITUB is functioning since 1994 with the aim to improve the capability of scientists and technical personnel of Bangladesh to use, maintain and trouble-shoot scientific equipment.

NITUB is regularly conducting training programme on the use and maintenance of specific groups of instruments such as AAS, GC, HPLC, UV-VIS, IR and X-ray etc. So far, NITUB has conducted 68 training programmes. NITUB is also conducting Instrument Repair Programme throughout the year since 1996 through which more than 1600 non-functioning scientific instruments of different public and private organizations of Bangladesh have already been repaired.

Since its inception, NITUB already has organized eight training programmes on the use, maintenance and trouble-shooting of UV-VIS & IR Spectrophotometer and the last one was held in 2017. NITUB plans to organize another training programme on the use, maintenance and trouble-shooting of UV-VIS & IR Spectrophotometer. Young faculties / scientists/ graduate students of Bangladesh may apply to participate in this UV-VIS & IR Spectrophotometer training programme.

## *Training Programme*

The 69<sup>th</sup> 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, pharmaceuticals and research organizations. Applicants having UV-VIS & IR Spectrophotometer facilities at his/her working place will get preference to participate in the training programme.

## *Registration*

Applications to participate in the 69<sup>th</sup> training programme on UV-VIS & IR Spectrophotometer should reach the General Secretary of NITUB on or **before 03 September 2018** in the form given in the circular. 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 **05 September 2018** and the training fee of the applicants who could not be accommodated will be refunded.

## ***Tentative Programme***

### **08-09-2018 (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

### **09-09-2018 (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

### **10-09-2018 (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

### **11-09-2018 (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

### **12-09-2018 (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

### **13-09-2018 (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



## 69<sup>th</sup> Training Programme of NITUB

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

08-13 September 2018

### 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