82nd TRAINING PROGRAMME OF NITUB

TRAINING PROGRAMME ON THE USE, MAINTENANCE AND TROUBLE-SHOOTING OF ULTRA-VIOLET, VISIBLE AND INFRARED SPECTROPHOTOMETER

06–11 May 2023

Organized by

Network of Instrument Technical personnel and User scientists of Bangladesh (NITUB)
&
Department of Chemistry, University of Dhaka

Venue

Department of Chemistry, University of Dhaka,
Dhaka-1000, Bangladesh

Programme Committee

Professor Dr. Md. Qamrul Ehsan Chairman Department of Chemistry University of Dhaka, Dhaka-1000	Convener
Professor Dr. Md. Abdul Jabbar Department of Chemistry University of Dhaka, Dhaka-1000	Member
Professor Dr. Mohammad Shoeb Department of Chemistry University of Dhaka, Dhaka-1000	Member
Md. Abul Kalam Chowdhury Instrument Engineer, NITUB Dhaka-1205	Member Secretary

All correspondence should be addressed to
Professor Dr. Altaf Hussain
General Secretary, NITUB
&
Academic Advisor
Bangabandhu Sheikh Mujibur Rahman Maritime University,
Bangladesh (BSMRMU), Mirpur, Section-12, Dhaka-1216
Cell: +880 1552-421909, Email: altaf@du.ac.bd

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, md.akchowdhury@gmail.com
Web: 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 regularly conducts training programmes on the use, maintenance and trouble-shooting of specific groups of instruments such as AAS, GC, HPLC, UV-VIS&IR, X-ray, NMR etc. NITUB also conducts training programmes on Common Laboratory Equipment and Common Medical Instruments. So far, NITUB has conducted 81 training programmes through which more than 1144 scientists and technical personnel have been trained. NITUB conducts a very important programme, Instrument Repair Programme, throughout the year since 1996 through which more than 1900 non-functioning scientific instruments of different public and private organizations of Bangladesh have already been repaired.

Since its inception, NITUB already has organized nine training programmes on the use, maintenance and trouble-shooting of UV-VIS & IR Spectrophotometer and the last one was held in 2019. 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 82nd 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 young faculties / scientists/ graduate students 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 82nd training programme on UV-VIS & IR Spectrophotometer should reach the General Secretary of NITUB on or **before 20 April 2023** 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, pay order or on-line pay in the name of "NITUB" (Sonali Bank Limited, Dhaka University Branch, Account No. 4405734255099)**. Training fee will include registration, teaching materials, lunch and tea.

Selected participants will be informed (i.e. soft copies of acceptance letters) on or before **03 May 2023** and the training fee of the applicants who could not be accommodated will be refunded within a week.

Tentative Programme

06 May 2023 (Saturday)
0930-1030 - Registration
1030-1130 - Inauguration
1130-1200 - Tea
1200-1300 - ***Lecture 1*****:** Fundamentals of Spectroscopy
1300-1400 - Lunch
1400-1700 - **Laboratory session -1**
Demonstration of UV-VIS Spectrophotometer and IR Spectrophotometer
1630-1700 - Tea & Discussion

07 May 2023 **(Sunday)**
1000-1100 - ***Lecture 2*****:** Principles of UV-VIS and IR spectroscopy
1100-1130 - Tea
1130-1300 - **Laboratory session -2**
Group A: Quantitative Analysis of Inorganic ions by UV-Vis Spectrophotometer
Group B: Analysis of Solid and Liquid Samples by IR Spectrophotometer
Group C: Verification of Beer-Lambert Law and Study of the Kinetics of the Alkaline Hydrolysis of Crystal Violet
1300-1400 - Lunch
1400-1630 - **Laboratory session -2 (Continuation)**
1630-1700 - Tea & Discussion

08 May 2023 **(Monday)**
1000-1100 - ***Lecture 3:*** Application of UV-VIS Spectrophotometer
1100-1130 - Tea
1130-1300 - **Laboratory session -3**
Group B: Quantitative Analysis of Inorganic ions by UV-Vis Spectrophotometer
Group C: Analysis of Solid and Liquid Samples by IR Spectrophotometer
Group A: Verification of Beer-Lambert Law and Study of the Kinetics of the Alkaline Hydrolysis of Crystal Violet
1300-1400 - Lunch
1400-1630 - **Laboratory session -3 (Continuation)**
1630-1700 - Tea & Discussion

09 May 2023 **(Tuesday)**
1000-1100 - ***Lecture 4:*** Application of IR Spectrophotometer
1100-1130 - Tea
1130-1300 - **Laboratory session -4**
Group C: Quantitative Analysis of Inorganic ions by UV-Vis Spectrophotometer
Group A: Analysis of Solid and Liquid Samples by IR Spectrophotometer
Group B: Verification of Beer-Lambert Law and Study of the Kinetics of the Alkaline Hydrolysis of Crystal Violet
1300-1400 - Lunch
1400-1630 - **Laboratory session -4 (Continuation)**
1630-1700 - Tea & Discussion

10 May 2023 **(Wednesday)**
1000-1100 - ***Lecture 5:*** Quality Control and Quality Assurance of UV-VIS and IR Analysis
1100-1130 - Tea
1130-1300 - **Laboratory session -5**
Group A: Characterization of Pharmaceutical Drugs by UV-VIS and IR Spectrophotometers
Group B: Determination of Concentration of a Substance from a Mixture in Aqueous Solution
1300-1400 - Lunch
1400-1630 - **Laboratory session -5 (Continuation)**
1630-1700 - Tea & Discussion

11 May 2023 **(Thursday)**
1000-1100 - ***Lecture 6:*** Trouble-shooting and Maintenance of UV-VIS and IR Spectrophotometers
1100-1130 - Tea
1130-1300 - **Laboratory session -6**
Group B: Characterization of Pharmaceutical Drugs by UV-VIS and IR spectrophotometers
Group A: Determination of Concentration of a Substance from a Mixture in Aqueous Solution
1300-1400 - Lunch
1400-1500 - Closing ceremony & certificate distribution

82nd Training Programme of NITUB

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

06-11 May 2023

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