## 74th TRAINING PROGRAMME OF NITUB





### TRAINING PROGRAMME ON THE USE, MAINTENANCE AND TROUBLE-SHOOTING OF COMMON MEDICAL INSTRUMENTS

19 -24 October 2019

#### Organized by

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

#### Venue

Bangladesh University of Health Sciences (BUHS), 125/1, Darus Salam, Mirpur, Dhaka.

#### Organizing Committee

Professor Begum Rokeya Department of Pharmacology BUHS, Dhaka. Convener

Professor SM Muraduzzaman Member Department of Biomedical Engineering & Medical Physics BUHS, Dhaka

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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 to improve the capability of scientists and technical personnel to use, maintain and repair of scientific equipment properly.

NITUB is regularly conducting training programmes on the use and maintenance of specific groups of instruments such as AAS, HPLC, GC, UV-VIS, IR and X-ray etc. Other than specific groups of instruments, NITUB also conducts training programme on common laboratory equipment and also on common medical instruments. NITUB has already trained more than 1107 scientists and technical personnel through its training programmes. Other than training programmes, NITUB is also conducting Instrument Repair Programme through which non-functioning scientific instruments are being repaired. So far, NITUB has repaired 1757 scientific equipment of different educational and research organizations of Bangladesh

NITUB already has organized nine training programmes on common medical instruments and the last one was organized in 2018. NITUB is getting requests from the user scientists and medical technologists from different hospitals and laboratories to organize training programme on common medical instruments on a regular basis. Therefore, NITUB plans to organize its 74<sup>th</sup> training programme on the use and maintenance of common medical instruments.

#### Training Programme

The 74<sup>th</sup> training programme of NITUB will include theoretical lectures and practical training sessions on operation, maintenance and trouble-shooting of common medical instruments, such as Microscope, Incubator, pH Meter, Colorimeter, Semiauto and Autoanalyzer, ELISA Reader Hematology analyzer, Digital Balance, X-ray and on other routine diagnostic laboratory equipment. The training will be conducted by professors, senior scientists and NITUB technical experts.

#### **Participants**

A maximum of 20 (Twenty) participants will be selected from among the applicants of various public/private hospitals and health centers. The detailed programme will be sent later to the selected participants. Selected participants may bring one/two of their non-functioning portable medical equipment and try to repair the instruments during the practical sessions of the training programme.

#### Registration

Applications for the 74<sup>th</sup> training programme on common medical instruments should reach the General Secretary of NITUB on or before 10 October 2019 in the form given in the circular. Application must be sent through proper channel along with a training fee of Tk. 5000/- (Taka Five 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, instruction materials, lunch, and tea.

Selected participants will be informed by 16 October 2019 and the training fee of the applicants who could not be accommodated will be refunded.

Tentative I	Programme_		
19 October 2019 (Saturday)			
09.00 - 10.00	Inaugural Session		
10.00 - 10.30	Tea / Coffee		
10.30 - 11.30	Lecture-1: Common Medical Equipment-		
	microscope: maintenance & troubleshooting		
11.30 - 13.15	Practical Session:		
	Group-A & Group-B: Microscope		
13.15-1400	Lunch		
14.00 - 16.00	Practical: Group A and B Microscope contd.		
16.00 - 16.30	Tea / Coffee		
20 October 2019	O (Sunday)		
09.00 - 10.00	Lecture-2: Quality Sample Collection,		
	Handling, and Preservation of sample for an		
	Effective Microbial testing		
10.00 - 11.00	Lecture-3: Automated Blood Cell Counter		
11.00 - 11.30	Tea / Coffee		
11.30 - 13.00	Practical Session:		
	Group -A: Microbiology Practical		
	Group -B Automated Blood Cell Counter		
13.00 - 14.00	Lunch		
14.00 - 16.00	Practical: Rotation of Group A and B		
16.00 - 16.30	Tea / Coffee		
21 October 2019 (Monday)			
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09.00 - 10.00	<b>Lecture-4:</b> Biochemistry auto analyzer maintenance and on-site troubleshooting		
10.00 - 11.00	Lecture-5: Photometric techniques in		
	clinical laboratory		
11.00 - 11.30	Tea / Coffee		
11.30 - 13.00	Practical Session:		
	Group -A: Biochemistry auto analyzer		
	Group -B: Spectrophotometer, colorimeter		
13.00 - 14.00	Lunch		
14.00 - 16.00	Practical: Rotation of Group A and B		
16.00 - 16.30	Tea / Coffee		

22 October 2019	(Tuesday)
09.00 - 10.00	Lecture-6: ELISA General guideline and
	Troubleshooting
10.00 - 11.00	Lecture-7: Maintenance & troubleshooting
	of Dimension, and other machines
11.00 – 11.30	Tea / Coffee
11.30 – 13.00	Practical Session:
11.50 15.00	Group –A: ELISA
	Group –B Dimension, and other machines
13.00 – 14.00	Lunch
13.00 – 14.00 14.00 – 16.00	
	Practical: Rotation of Group A and B Tea / Coffee
16.00 - 16.30	rea / Corree
23 October 2019	(Wednesday)
09.00 - 10.00	Lecture-8: Genetic polymorphism in the
	disease pathogenesis & its complications
10.00 - 11.00	Lecture-9: Microtome, a useful tool in
	Histopathology Laboratory
11.00 – 11.30	Tea / Coffee
11.30 - 13.00	Practical Session:
	Group -A: Common troubleshoots in Gel
	Electrophoresis in DNA lab
	Group –B: Microtome
13.00 - 14.00	Lunch
14.00 - 16.00	Practical: Rotation of Group A and B
16.00 - 16.30	Tea / Coffee

#### 24 October 2019 (Thursday)

09.00 - 10.00	<b>Lecture-10:</b> Safety in a clinical laboratory		
10.00 - 11.00	Lecture-11: Use & maintainence of small		
	lab instruments: Digital Balance, Ph Meter,		
	Dessicator, Sonicator, etc.		
11.00-11.30	Tea / Coffee		
11.30 - 13.00	Practical Session:		
	Digital Balance, Ph Meter, Sonicator etc		
13.00 - 14.00	Lunch		
14.00 - 16.00	Open discussion, Concluding Session and		
	Certificate distribution		

# 74<sup>TH</sup> TRAINING PROGRAMME ON THE USE AND MAINTENANCE OF COMMON MEDICAL INSTRUMENTS.

#### 19 -24 October 2019

#### APPLICATION FORM

Name of the applicant

Date of birth

Academic qualification	:	
Designation	:	
Institution/Organization with address	:	
Phone and Cell number	:	
E-mail Address	:	
Any previous training, If yes, please specify	:	
Date:	Signature of the applicant	
Recommendation from the Head Institution / Organization.	of	
Date:	Signature	:
	Name	:
	Designation	:

