

57TH TRAINING PROGRAMME OF NITUB



A WORKSHOP ON THE USE, MAINTENANCE AND TROUBLE-SHOOTING OF COMMON LABORATORY EQUIPMENT

14-19 February 2015

Organized by

Network of Instrument Technical Personnel and User Scientists of Bangladesh (NITUB)

&

Jessore University of Science & Technology (JUST), Jessore 7408.

Venue

Jessore University of Science and Technology, Jessore 7408

Local Organizing Committee

Dr. Shaibur Rahman Molla Director, Center for Sophisticated Instrumentation and Research Laboratory (CSIRL) Assistant Professor, Dept. of Environmental Science & Technology, JUST	Convener
Dr. Md. Sherazul Islam Assistant Professor, Dept. of Fisheries and Marine Bioscience, JUST	Member
Dr. Md. Mashiar Rahman Assistant Professor, Dept. of Genetic Engineering and Biotechnology, JUST	Member
Dr. Gopal Chandra Ghosh Assistant Professor, Dept. of Environmental Science & Technology, JUST	Member
Dr. Md. Mer Mosharraf Hossain Assistant Professor, Dept. of Fisheries and Marine Bio-Science, JUST	Member
K. M. Anis-Ul-Haque Lecturer, Dept. of Chemistry, JUST	Member (co-opt)
Dr. Selina Akter Deputy Director, Center for Sophisticated Instrumentation and Research Laboratory (CSIRL) Assistant Professor, Dept. of Microbiology, JUST	Member Secretary

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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 of scientific equipment properly.

NITUB is regularly conducting training programme on the use and maintenance of specific groups of instruments such as HPLC, AAS, GC, UV-VIS & IR and X-ray etc. Other than specific groups of instruments, NITUB also conducts training programme on common laboratory equipment for Technical Personnel, college teachers and common medical equipment for medical professionals. So far, NITUB has conducted more than 55 training programmes on various groups of instrument. NITUB is also conducting Instrument Repair Programme through which non-functioning scientific instruments are being repaired.

The last training programme on the use, maintenance and trouble-shooting of Common Laboratory Equipment was held at Professor Muhammed Hussain Central Laboratory (PMHCL), Bangladesh Agricultural University (BAU), Mymensingh in 2013. NITUB has already organized eight such training programmes on the use, maintenance and trouble-shooting of Common Laboratory Equipment since its inception. The EC of NITUB, decided to organize the 57th training programme of NITUB on Common Laboratory Equipment for technical personnel and user scientists of Bangladesh at Jessore University of Science and Technology.

Workshop Programme

There will be theoretical lecture and also intensive practical training (please see the tentative programme) on operation, maintenance and

trouble shooting of common laboratory equipment like Spectrophotometers, Balance, Oven, Furnace, Microscope, Conductivity meter, pH-meter, Colorimeter, Flame Photometer etc. **University professors, technical experts and engineers will conduct the workshop.**

Participants

Persons working in universities and research organizations can apply for participation in the training programme. A maximum of 20 (Twenty) participants will be selected from among the applications of scientists and technical personnel of educational and research institutes of Bangladesh.

Participants may bring one/two of their non-functioning portable instruments and try to repair the instruments during the practical sessions of the training programme.

Registration

Applications to participate in the 57th training programme on the use, maintenance and trouble-shooting of common laboratory equipment should reach the **General Secretary of NITUB** on or **before 08 February 2015** in the proforma 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 or pay order in the name of NITUB (Sonali Bank Ltd., Dhaka University branch, Account No. 34255099)**. Training fee will include registration, training materials, lunch and refreshment.

Selected participants will be informed by **10 February 2015** and the training fee of the applicants who could not be accommodated will be refunded.

Tentative Programme

14 February-2015 (Saturday)

- 0900-1000 - Registration of the participants
- 1000-1100 - Inauguration
- 1100-1130 - Refreshment break
- 1130-1300 - *Lecture 1: Laboratory Safety & Maintenance*
- 1300-1400 - Lunch and prayer break
- 1400-1630 - Practical session -I

Group – I, Lab.-A: Environmental Sci. Laboratory (room 108)
pH-Meter, Conductivity Meter, Hot plate, Melting point apparatus, Rotary evaporator, Magnetic Stirrer, Electric Balance, Polarimeter etc.

Group – II, Lab. – B: Microbiology Laboratory (room 107)
Autoclave, Ultra Low Temperature Freeze, DO meter, Oven, Incubator, Water bath, Distillation plant, Microscope, Vacuum Filtration Unit, UV-Vis spectrophotometer etc

Group – III, Lab. – C: Geochemistry Laboratory (room 114B)
Atomic Absorption Spectrophotometer, Muffle furnace, Centrifuge, Dryer, Shaker, MQ water plant, Microwave Combustion Unit, Micropipette etc.

- 1630-1700 - Refreshment break

15 February-2015 (Sunday)

- 1000-1100 - *Lecture 2: Fabrication of Commonly Used Laboratory Equipment.*
- 1100-1130 - Refreshment break
- 1130-1300 - Practical session - II
- Group - I; Lab. - A**
- Group - II; Lab. - B**
- Group - III; Lab. - C**
- 1300-1400 - Lunch and prayer break
- 1400-1630 - Practical session -II (Continuation)
- 1630-1700 - Refreshment break

16 February-2015 (Monday)

- 1000-1100 - *Lecture 3: Basic principles of common laboratory equipment.*
- 1100-1130 - Refreshment break
- 1130-1300 - Practical session - III
- Group - I; Lab. - B**
- Group - II; Lab. - C**
- Group - III; Lab. - A**

- 1300-1400 - Lunch and prayer break
- 1400-1630 - Practical session -III (Continuation)
- 1630-1700 - Refreshment break

17 February January-2015 (Tuesday)

- 1000-1100 - *Lecture 4: Working with Biological material (Animal model, Human Volunteer)*
- 1100-1130 - Refreshment break
- 1130-1300 - Practical session - IV
- Group - I; Lab. - B**
- Group - II; Lab. - C**
- Group - III; Lab. - A**
- 1300-1400 - Lunch and prayer break
- 1400-1630 - Practical session -IV (Continuation)
- 1630-1700 - Refreshment break

18 February-2015 (Wednesday)

- 1000-1100 - *Lecture 5: Basic Electronics/ Basic Principles of AAS (JUST Participants only)*
- 1100-1130 - Refreshment break
- 1130-1300 - Practical session -V
- Group - I; Lab. - C**
- Group - II; Lab. - A**
- Group - III; Lab. - B**
- 1300-1400 - Lunch and prayer break
- 1400-1630 - Practical session -V (Continuation)
- 1630-1700 - Refreshment break

19 February-2015 (Thursday)

- 1000-1100 - *Lecture 6: Trouble-shooting, Methods, Techniques and Procedures (Analog and Digital Equipment)/ Trouble-shooting, Methods, Techniques and Procedures of AAS (JUST Participants only)*
- 1100-1130 - Refreshment break
- 1130 -1300 - Practical session –VI
- Group - I; Lab. - C**
- Group - II; Lab. - A**
- Group - III; Lab. - B**
- 1300-1400 - Lunch and prayer break
- 1400-1500 - Open Discussion
- 1500-1600 - Closing Ceremony & Certificate Distribution
- 1600 - Refreshment break