

72ND TRAINING PROGRAMME OF NITUB



TRAINING PROGRAMME ON THE USE, MAINTENANCE AND TROUBLE-SHOOTING OF GAS CHROMATOGRAPHY (GC)

24-29 January 2019

Organized by

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

Venue

Department of Chemistry & Centre for Advanced
Research in Sciences (CARS), University of Dhaka

Programme Committee

Professor Dr. Nilufar Nahar Professor (Retired) Department of Chemistry, University of Dhaka	Convener
Professor Dr. Mohammad Shoeb Department of Chemistry, University of Dhaka	Member
Dr. Md. Zakir Sultan Principal Scientists, CARS, University of Dhaka	Member
Dr. Abida Sultana Assistant Professor, Department of Chemistry, University of Dhaka	Member

All correspondence should be addressed to

Professor Dr. Altaf Hussain
General Secretary, NITUB
&

Academic Advisor

Bangabandhu Sheikh Mujibur Rahman
Maritime University, Bangladesh
Mirpur-12, Dhaka-1216

Cell: +880 1552-421909, Tel: +880-2-9673136

Email: altaf@du.ac.bd

NITUB Office: 300, Elephant Road, Alishan Complex
(2nd Floor, Room No. 309) Dhaka-1205, Bangladesh
Tel: +880-2-9673136, Email: nitub@bangla.net
Web: www.nitub.org

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 of Bangladesh 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 GC, HPLC, AAS, UV-VIS, IR and X-ray etc. So far, NITUB has conducted 71 training programmes. NITUB is also conducting Instrument Repair Programme throughout the year through which non-functioning scientific instruments are being repaired.

Since its inception, NITUB already has organized eight training programmes on the use and maintenance of Gas Chromatography (GC) and the last one was held in 2016. User scientists were requesting NITUB to organize another training programme on GC. The Executive Committee of NITUB, therefore, decided to organize its 72nd training programme on GC.

Training Programme

The GC training programme will include theoretical lectures and practical sessions on the use, maintenance and trouble-shooting of GC. A tentative time-table for the training programme is given, however the final programme will be sent to the selected participants later. The training programme will be conducted by university professors, senior scientists and NITUB technical experts.

Participants

A maximum of 12 (Twelve) participants will be selected from among the applications of scientists and technical personnel of public and private educational institutes and research organizations. Applicants having GC facilities at their institutes will get preference to participate in the training programme.

Registration

Applications to participate in the 72nd training programme on GC should reach the General Secretary of NITUB on or before 20 January 2019 in the form given in the circular. Application must be sent through proper channel along with a training fee of Tk. 10,000/- (taka ten thousand) in the form of a bank draft or pay order 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 by 22 January 2019 and the training fee of the applicants who could not be accommodated will be refunded.

Tentative Programme

24 January 2019 (Thursday)

- 09.00-10.00 - Registration
- 10.00-11.00 - Inauguration
- 11.00-11.30 - Tea
- 11.30-13.00 - *Lecture 1: Basic principles of gas chromatography*
Dr. Nilufar Nahar, Professor (Retired),
Department of Chemistry, DU
- 13.00-14.00 - Lunch & Prayer
- 14.00-16.30 - *Practical Sessions 1: Instrumentation & Installation of GC-TBC*
- 16.30-17.00 - Tea & Discussion

25 January 2019 (Friday)

- 09.00-10.00 - *Lecture 2: Introduction to gas chromatograph*
Dr. Nilufar Nahar, Professor (Retired),
Department of Chemistry, DU
- 10.00-10.30 - Tea
- 10.30-13.00 - *Practical Session: 2*
Group-A: Organochlorine pesticide residue analysis in fish samples by GC-ECD
Group-B: Pesticide residue analysis in vegetable/water samples by GC-ECD
Group-C: Fatty acid analysis of by GC- FID
- 13.00-14.00 - Lunch & Prayer
- 14.00-16.30 - **Practical Session: 2** continuations
- 16.30-17.00 - Tea & Discussion

26 January 2019 (Saturday)

- 09.00-10.00 - *Practical Session: 3*
Group-B: Organochlorine pesticide residue analysis in fish samples by GC-ECD
Group-C: Pesticide residue analysis in vegetable/water samples by GC-ECD
Group-A: Analysis of fatty acid by GC- FID
- 10.00-10.30 - Tea
- 10.30-13.00 - *Practical Session: 3* continuations
- 13.00-14.00 - Lunch & Prayer
- 14.00-16.30 - *Practical Session: 3* continuations
- 16.30-17.00 - Tea & Discussion

27 January 2019 (Sunday)

- 09.00 -10.00 - *Lecture 3: Analysis of Sugar by GC*
Dr. Tofial Ahmed, Professor, Department of Chemistry, DU
- 10.00-10.30 - Tea
- 10.30-11.30 - *Lecture 4: Method development and validation for analysis of organic pollutants*
Dr. Mohammad Shueb, Professor, Department of Chemistry, DU
- 11.30-13.00 - *Practical Sessions: 4*
Group-C: Organochlorine pesticide residue analysis in fish samples by GC-ECD
Group-A: Pesticide residue analysis in vegetable/water samples by GC-ECD
Group-B: Analysis of fatty acid by GC- FID
- 13.00-14.00 - Lunch & Prayer
- 14.00-16.30 - *Practical Sessions: 4* continuations
- 16.30-17.00 - Tea & Discussion

28 January 2019 (Monday)

- 09.00 -10.00 - *Lecture 5: Analysis of fatty acid in different samples*
Dr. Md. Zakir Sultan, Principal Scientist, CARS, DU
- 10.00-10.30 - Tea
- 10.30-13.00 - *Practical Sessions: 5*
Group-A/B/C: Self exercise for analysis of any experiment by GC-ECD/FID
- 13.00-14.00 - Lunch & Prayer
- 14.00-16.30 - *Practical Sessions: 5* continuations
- 16.30-17.00 - Tea & Discussion

29 January 2019 (Tuesday)

- 09.00-10.00 - *Lecture 6: Maintenance and Trouble Shooting of GC*
Dr. Mohammad Shueb, Professor, Department of Chemistry, DU
- 10.00-10.30 - Tea
- 11.00-11.30 - Discussion about use of different detectors for different matrices
- 11.30-13.00 - Individual problem solving session
- 13.00-14.00 - Lunch & Prayer
- 14.00-15.00 - Open discussion
- 15.00-16.00 - Closing ceremony & certificate distribution
- 16.00- - Tea



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ON THE USE, MAINTENANCE AND
TROUBLE-SHOOTING OF GAS
CHROMATOGRAPHY (GC)

24-29 January 2019

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

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Professor Dr. Altaf Hussain
General Secretary, NITUB