

78th TRAINING PROGRAMME OF NITUB



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

27-31 March 2022

Organized by

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

Venues

Department of Chemistry, University of Dhaka,
Dhaka-1000

Programme Committee

Professor Dr. Mohammad Shoeb Department of Chemistry University of Dhaka	Convener
Professor Dr. Nilufar Nahar Professor (Retired) Department of Chemistry University of Dhaka	Member
Professor Dr. Md. Iqbal Rouf Mamun Department of Chemistry University of Dhaka	Member
Dr. Abida Sultana Associate Professor Department of Chemistry University of Dhaka	Member

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&

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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 of Bangladesh to use, maintain and repair 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 77 training programmes through which more than 1000 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 1800 non-functioning scientific instruments of different public and private organizations of Bangladesh have already been repaired.

NITUB has been conducting its activities hands-on so that scientists and technical personnel get direct exposure to instrumentation which help them to use their instruments more effectively. However, due to COVID-19 pandemic NITUB had to arrange its activities virtually for almost last two years. Since the COVID-19 situation has been improved significantly and all education and research organizations in Bangladesh have started functioning off-line, the EC of NITUB decided to start usual hands-on NITUB programmes again. The 78th training programme of NITUB would be on the use, maintenance and trouble-shooting of Gas Chromatography (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 15 (Fifteen) 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 in their institutes will get preference to participate in the training programme.

Registration

Applications to participate in the 78th training programme on GC should reach the General Secretary of NITUB on or **before 20 March 2022** 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 **24 March 2022** and the training fee of the applicants who could not be accommodated will be refunded.

Please note that participants of the training programme must follow WHO's guideline and Bangladesh Government health & safety rules and should have double dose COVID vaccination certificate.

Tentative Programme

27 March 2022 (Sunday)

- 0900-1000 - Registration
1000-1100 - Inauguration
1100-1130 - Tea
1130-1300 - **Lecture 1:** Basic principles of gas chromatography
Dr. Nilufar Nahar, Professor (Retired), Department of Chemistry, DU
1300-1400 - Lunch & Prayer
1400-1630 - **Practical Sessions 1:** Instrumentation & Installation of GC
TBC
1630-1700 - Tea & Discussion

28 March 2022 (Monday)

- 0900-1000 - **Lecture 2:** Introduction to gas chromatograph
Dr. Nilufar Nahar, Professor (Retired), Department of Chemistry, DU
1000-1030 - Tea
1030-1300 - **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
1300-1400 - Lunch & Prayer
1400-1500: **Lecture 3:** Method development and validation for analysis of
organic pollutants
Dr. Md. Iqbal Rouf Mamun, Professor, Department of Chemistry, DU
1500-1630 - **Practical Session: 2** continuations
1630-1700 - Tea & Discussion

29 March 2022 (Tuesday)

- 0900-1000 – **Lecture 4:** Analysis of pesticides by GC
Dr. Mohammad Shoeb, Professor, Department of Chemistry, DU
1000-1030 - Tea
1030-1300 - **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
1300-1400 - Lunch & Prayer

- 1400-1500 - **Lecture 5:** Analysis of fatty acid in different samples by GC
Dr. Md. Iqbal Rouf Mamun, Professor, Department of Chemistry, DU
1500-1630 - **Practical Session: 3** continuations
1630-1700 - Tea & Discussion

30 March 2022 (Wednesday)

- 0900 -1000 - **Lecture 6:** Maintenance and Trouble Shooting of GC
Dr. Mohammad Shoeb, Professor, Department of Chemistry, DU
1000-1030 - Tea
1130-1300 - **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
1300-1400 - Lunch & Prayer
1400-1630 - **Practical Sessions: 4** continuations
1630-1700 - Tea & Discussion

31 March 2022 (Thursday)

- 0900 -1000 - **Lecture 7:** Principle and application to gas chromatography
mass spectrometry
Dr. Mohammad Shoeb, Professor, Department of Chemistry, DU
1000-1030 - Tea
1030-1300 - **Practical Sessions: 5**
Group-A/B/C: Self exercise for analysis of any experiment by GC-ECD/FID
1300-1400 - Lunch & Prayer
1400-1500 - **Practical Sessions: 5** continuations
1500-1530 - Open discussion
1530-1630 - Closing ceremony & certificate distribution
1600- 1700 - Tea



78th Training Programme of NITUB

On the use, maintenance and trouble-shooting of
Gas Chromatography (GC)
27-31 March 2022

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