

# HANDS ON TRAINING ON GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GCMS- QP2020 NX)

13<sup>th</sup> -15<sup>th</sup> June, 2023. Time: 09:30 -15:00



Organized By

## Pharmaceutical Research Center PCSIR Laboratories Complex, Karachi

Gas Chromatography Mass Spectrometry is one of the most sophisticated instruments that is used for identifying the volatile and semi-volatile organic compounds in a complex mixture quantitatively. We provide a full knowledge about this instrument, its theory and method for using their accessories by organizing such training programs. GC-MS provides significant and reliable results and it has become the tool for tracking organic pollutants in our environment.



The program is best suited for the candidates seeking for advanced GC-MS training. We offer hands-on practice on **GC-MS with Head Space**. The training is conducted in accordance with the specified procedures and fundamental principles of GC. The Theory of Single/Triple Quadrupole, Data quantification and Data acquisition, General Software and Hardware, System Evaluation and Method building all are explained in detail.

### Advantages

GC-MS finds application in fields like Medicine, criminal forensics, environmental monitoring and cleaning, explosives detection, etc. Thus the training is beneficial for the people who are willing to enter the industries which relates to chemicals, pharmaceuticals, food, oils, agriculture, cosmetics, analytical testing laboratories and many others.

### You will learn:

- Tuning and Calibration, Calibration report generation, MS Tune File, Explanation of MS Method and GC Method.
- System and method Parameter setup, Set up method for Full Scan and Single Ion Monitoring Operation, On-column injection, Split/Split less injection.
- Library search Concepts, integration, report generation.
- Sample preparation techniques/ Extraction techniques with an interactive demonstration.
- Maintaining the GC-MS instrument and troubleshooting the problems related to gas supply, inlet, auto-sampler, column and detector.

Registration Fee Rs. 25000/-

Number of Seats: 20

Last Date of Registration: 10.06.2023

Mode of Payment: Pay order only  
Account Name: PCSIR NIDA-16-3

### Contact Information:

**Dr. Shazia Yasmeen**

Cell No. 03343244668; Email: [shazrasheed@yahoo.com](mailto:shazrasheed@yahoo.com)

**Dr. Ghulam Fareed**

Cell No. 03002522698; Email: [fareedchm@yahoo.com](mailto:fareedchm@yahoo.com)



**PROGRAMME FOR THREE DAYS HANDS ON TRAINING ON  
GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GCMS- QP2020 NX)**

**Day-1: 13.06.2023; Tuesday**

09:30-09:40	Recitation of Holy Quran
09:40-09:50	Welcome Note by Director General
09:50-09:55	Introduction of Participants
09:55-10:15	Role and use of gas chromatographic technique in industry by Dr. Rashid Ali Khan, Head of Centre, PRC
10:15-10:45	Basic understanding and fundamentals of GCMS by Dr. Shazia Yasmeen, PSO
10:45-11:15	Ionization Techniques and Head Space by Dr. Amir Ahmed, PSO
11:15-11:30	Tea Break
11:30-13:00	Detailed overview about instrumentation and software operation by Dr. Ghulam Fareed, SSO
13:00-14:00	Prayer and Lunch
14:00-15:00	Column selection and installation

**Day 2: 14.06.2023; Wednesday**

09:30-10:30	Sample preparation techniques
10:30-11:15	Sample derivatization techniques
11:15-11:30	Tea Break
11:30-13:00	Pre-Acquisition software operation, tuning and calibration, sample acquisition in single mode and batch mode, qualitative and quantitative Analysis, SIM and Scan Mode
13:00-14:00	Prayer and Lunch
14:00-15:00	Basic understanding of head space and conversion of liquid injection mode to head Space

**Day 3: 15.06.2023; Thursday**

09:30-10:30	Sample Preparation for head space
10:30-10:45	Running of Samples for head space
10:45-11:15	Results Interpretation and library search results analysis
11:15-11:30	Tea Break
11:30-12:00	Question answers
12:00-12:30	Closing ceremony & certificate distribution

---