

# **PCSIR Training Schedule 2024**

## **1. Training Offered at PCSIR Laboratories Complex, Karachi (KLC)**

(Address: Shahrah-e-Dr. Salimuzzman Siddiqui, Off University Road, Karachi-75280  
Phone: 021-99261922, 021-99261939).

Sr. No.	Training Title	Duration	Scheduled on
1.	Use, Care & Maintenance of Scientific Instruments	02 Days (4 hours per day)	24.01.2024 to 25.01.2024
2.	Air Emission and Noise Level Measurement	02 Days	15.02.2024 to 16.02.2024
3.	Use, Care & Maintenance of Scientific Instruments	02 Days (4 hours per day)	21.02.2024 to 22.02.2024
4.	Operation Maintenance of Laboratory Equipment <ul style="list-style-type: none"> <li>• Furnace</li> <li>• Drying Oven</li> <li>• Hot Plate</li> <li>• Centrifuge</li> <li>• pH Meter</li> <li>• Cool Incubator</li> <li>• Conductivity</li> </ul>	04 Days	20.02.2024 to 23.02.2024
5.	CAD/CAM using Pro-E/ CREO Parametric Software for CNC Machines	02 Months (three days a week)	01.03.2024 to 30.04.2024
6.	Operation Maintenance of Electro Medical Equipment <ul style="list-style-type: none"> <li>• Surgical Diathermy</li> <li>• ECG</li> <li>• Patent Monitor</li> <li>• Defibrillation</li> <li>• Infant Incubator</li> </ul>	05 Days	04.03.2024 to 08.03.2024
7.	Estimation of Metals in Ores and Minerals	05 Days	11.03.2024 to 15.03.2024
8.	Physico-Mechanical Characterization of Composite Materials	03 Days	25.03.2024 to 27.03.2024
9.	Textile Training for Industrial Workers and Academia	05 Days	04.03.2024 to 08.03.2024
10.	How Artificial Intelligence Will Change People's Lives in the Future	01 Day	05.04.2024
11.	Introduction to CNC Lathe Programming and Operations	01 Month 03 days a week (03 Hrs/ day)	15.03.2024 to 14.04.2024

12.	UI/UX • UI Fundamentals • UX Design Concepts	15 Days	01.04.2024 to 15.04.2024
13.	ISO-17025:2017 Technical Aspects: Implementation and Improvement of LQMS	03 Days	04.04.2023 to 06.04.2023
14.	Hands-On Training on HPLC and TLC	02 Days	17.04.2024 to 18.04.2024
15.	Utilization of PLC and HMI	03 Days (4 hours daily)	15.04.2024 to 17.04.2024
16.	Use, Care & Maintenance of Scientific Instruments	02 Days (4 hours per day)	24.04.2024 to 25.04.2024
17.	WS-PCSIR-23-2 Industrial Application of Analytical Instruments (HPLC & GC)	01 Day	25.04.2024
18.	Training on measurement of Uncertainty (ISO-17025)	03 Days	01.05.2024 to 03.05.2024
19.	Hands on Training for the Analysis of Organic Compounds using Gas Chromatography	05 Days	04.05.2024 to 08.05.2024
20.	Pesticide MRL Testing	05 Days	06.05.2024 to 10.05.2024
21.	Good Laboratory Practices for Food Processing Quality Labs	03 Days	06.05.2024 to 08.05.2024
22.	One Day training Program on UV Spectrophotometer	01 Day	14.05.2024
23.	Utilization of Raspberry Pi Hardware and Software Platform	04 Days (4 hours daily)/ Day	13.05.2024 to 16.05.2024
24.	Overview of In-vitro Bioavailability of Pharmaceutical Preparations	03 Days	14.05.2024 to 16.05.2024
25.	Hands on training on Gas Chromatography-Mass Spectrometry (GCMS-QP2020 NX)	05 Days	13.05.2024 to 17.05.2024
26.	Quality Control Testing of Edible Oils and Fats	05 Days	13.05.2024 to 17.05.2024
27.	Polymerase Chain Reaction (PCR) & GEL Electrophoresis (Using Thermal Cycler for PCR and Electrophoresis)	02 Weeks	06.05.2024 to 20.05.2024
28.	Rapid Desktop Application Development	01 Month	01.06.2024 to 03.06.2024
29.	Quality Assurance in Feed/Meal Industry	05 Days	03.06.2024 to 07.06.2024
30.	Digital Marketing	02 Months (03 Hrs/day)	03.06.2024 to 31.07.2024
31.	Microbiological Handling and Techniques for Beginners	02 Days	04.06.2024 to 05.06.2024

32.	Analysis and Treatment of Wastewater	05 Days	10.06.2024 to 14.06.2024
33.	Utilization of Arduino Hardware and Software platform	03 Days (4 hours daily)	17.06.2024 to 19.06.2024
34.	Training on Delta PLC and HMI for Engineering Students and Professionals	01 Month (2 Hrs /day)	01.07.2024 to 31.07.2024
35.	Training on Plant Tissue Culture Techniques	15 Days	01.07.2024 to 15.07.2024
36.	Utilization of Arduino, ESP-23/Nod32 Hardware and Software platform	02 Days (4 hours per day)	02.07.2024 to 03.07.2024
37.	Paper and Paper Board Testing	03 Days	02.07.2024 to 04.07.2024
38.	POPs Testing	05 Days	08.07.2024 to 12.07.2024
39.	Hands-on Training on Amino Acid Analyzer	05 Days	08.07.2024 to 12.07.2024
40.	Heavy Metals in Food	05 Days	15.07.2024 to 19.07.2024
41.	Analytical Techniques for Testing of Drinking Water	05 Days	15.07.2024 to 19.07.2024
42.	Use of Basic Biotechnology Tools in Enzymology, Assays with one Example	02 Days	16.07.2024 to 17.07.2024
43.	General Electronics Components Testing with Repair and Maintenance Techniques	02 Days (4 hours daily)	22.07.2024 to 23.07.2024
44.	Food Safety	05 Days	22.07.2024 to 26.07.2024
45.	Risk Management as per ISO-31000	02 Days	06.08.2024 to 07.08.2024
46.	Animal handling Techniques & Toxicological Studies	02 Days	06.08.2024 to 07.08.2024
47.	Utilization of Lab View Software Platform	02 Days (4 hours daily)	19.08.2024 to 20.08.2024
48.	Detection, identification of microorganisms in food (Conventional & Rapid Methods)	05 Days	19.08.2024 to 23.08.2024
49.	Microbiological Analysis	05 Days	26.08.2024 to 30.08.2024
50.	Synthesis of Nano-materials	02 Weeks	02.09.2024 to 16.09.2024
51.	Internal Audit as per ISO- 19011	02 Days	03.09.2024 to 04.09.2024

52.	Extraction and Chromatographic Techniques	05 Days	16.09.2024 to 20.09.2024
53.	Food Additive Analysis	05 Days	23.09.2024 to 27.09.2024
54.	Use of Basic Biotechnology Tools in Enzymology, Assays with one Example	02 Days	01.10.2024 to 02.10.2024
55.	Hands-on Training on Fatty Acid Profile using Gas Chromatography	03 Days	29.10.2024 to 31.10.2024
56.	Introduction to CNC Lathe Programming and Operations	01 Month (03 days/week)	01.11.2024 to 30.11.2024
57.	Species Identification/ Halal Identification using ELISA Based Kits	03 Days	12.11.2024 to 14.11.2024
58.	UIUX <ul style="list-style-type: none"> <li>• User Interface and User Experience</li> <li>• UI Fundamentals, UX Design Concepts</li> </ul>	01 Month (03 Hrs/ per day)	02.12.2024 to 31.12.2024
59.	Heavy Metals in Food	05 Days	16.12.2024 to 20.12.2024

**Detail of Resource Person, PCSIR Labs Complex, Karachi (KLC):**

- Mr. Rehan Ahmed, Assistant, PCSIR Laboratories Complex, Karachi (Phone: 021-99261939)

## 2. Training Offered at PCSIR Laboratories Complex, Lahore (LLC)

(Address: Laboratories Complex, Ferozepur Road Lahore-54600, Phone: 042-9231579)

Sr.#	Training / Course Title	Duration	Scheduled On	Details of Resource person
1.	Energy Efficiency & Performance Evaluation of Refrigerating Appliances Organizer:EMTL	05 days (10 persons Min.)	April 2024	<b>Organizer:</b> Refrigerator Testing Lab <b>Contact:</b> M. Azhar <b>Cell No.</b> 03104944127 <b>Email:</b> <a href="mailto:emtlpcsir@gmail.com">emtlpcsir@gmail.com</a>
2.	Chemical Quality of water Organizer: FBRC	10 days	April 2024	<b>Organizer:</b> Bio-resource Utilization Lab <b>Contact:</b> Mrs. ShabanaKausar <b>Cell No.</b> +92 334 0422721 <b>Email:</b> <a href="mailto:shabanakosar2022@gmail.com">shabanakosar2022@gmail.com</a>
3.	Mineral contents of food / food products and drinking water using flame photometer Organizer: FBRC	10 days	April 2024	<b>Organizer:</b> Bio-resource Utilization Lab <b>Contact:</b> Mrs. ShabanaKausar <b>Cell No.</b> +92 334 0422721 <b>Email:</b> <a href="mailto:shabanakosar2022@gmail.com">shabanakosar2022@gmail.com</a>
4.	Training Title "Status of GMO Foods in Pakistan and Laboratories Consideration" Organizer: Biotechnology Lab	03 days	May 2024	<b>Organizer:</b> Gene Editing Lab <b>Contact:</b> Dr. YasarSaleem and Dr. SaniaMazhar <b>Cell no.</b> +92333 4151548 +92 331 1070888 <b>Email:</b> <a href="mailto:ysaleem73@gmail.com">ysaleem73@gmail.com</a> , <a href="mailto:saniamazharr@gmail.com">saniamazharr@gmail.com</a>
5.	Training Title "Determination of Adulteration in Milk and Milk Products Organizer: FBRC	02 days	May 2024	<b>Organizer:</b> Dairy Lab, FBRC <b>Contact:</b> Dr. Salman Saeed <b>Cell No.</b> +92 333 4319844 <b>Email:</b> <a href="mailto:salmaansaeed@gmail.com">salmaansaeed@gmail.com</a>
6.	Spectroscopic techniques for determination of antioxidants and bioactive compounds etc. Organizer: FBRC	05 days	May 2024	<b>Organizer:</b> Aflatoxin Lab <b>Contact:</b> Dr. Muhammad Khalid Saeed <b>Cell No.</b> +92 345 7615910 <b>E MAIL:</b> <a href="mailto:rosefbrc1@gmail.com">rosefbrc1@gmail.com</a>
7.	Training on "Awareness on Implementation of ISO/IEC 17025: 2017 Standard" Organizer: ACRC	02 days	May 2024	<b>Organizer:</b> Quality office <b>Contact:</b> Ehsanulhaq <b>Cell No.</b> 0333 8602408 <b>Email:</b> <a href="mailto:ehsanpcsir@gmail.com">ehsanpcsir@gmail.com</a>
8.	Fat soluble vitamins profile using High Performance Liquid Chromatography (HPLC) Organizer: FBRC	15 days	May 2024	<b>Organizer:</b> Bio-resource Utilization Lab <b>Contact:</b> Mrs. ShabanaKausar <b>Cell No.</b> +92 334 0422721 <b>Email:</b> <a href="mailto:shabanakosar2022@gmail.com">shabanakosar2022@gmail.com</a>

9.	Water soluble vitamins profile using High Performance Liquid Chromatography (HPLC) Organizer: FBRC	15 days	May 2024	<b>Organizer:</b> Bio-resource Utilization Lab <b>Contact:</b> Mrs. ShabanaKausar <b>Cell No.</b> +92 334 0422721 <b>Email:</b> <a href="mailto:shabanakosar2022@gmail.com">shabanakosar2022@gmail.com</a>
10.	Performance Evaluation of Lighting Products Organizer: EMTL	05 days (10 persons Min.)	June 2024	<b>Organizer:</b> Lighting Testing Lab <b>Contact:</b> M. Azhar <b>Cell No.</b> 03104944127 <b>Email:</b> <a href="mailto:emtlpcsir@gmail.com">emtlpcsir@gmail.com</a>
11.	Training Title "Instrument and Techniques for Air Quality Monitoring" Organizer: CEPS	01 day	June 2024	<b>Organizer:</b> Environmental Science <b>Contact:</b> M. Tariq <b>Email:</b> <a href="mailto:cepsspcsir@gmail.com">cepsspcsir@gmail.com</a> <b>Cell No.</b> 0334 9817251
12.	Training Title "Beverage Production Technology" Organizer: FBRC	02 days	July 2024	<b>Organizer:</b> Fruit and Vegetables Processing Lab <b>Contact:</b> Dr. ShahidMasood <b>Cell no.</b> +92 300 7160719 <b>Email:</b> <a href="mailto:shahidmasoodft@gmail.com">shahidmasoodft@gmail.com</a>
13.	Training Title "Halal Portfolio in Pakistan, Mandate Current Situations and Lab Analysis" Organizer: Biotechnology Lab	03 days	July 2024	<b>Organizer:</b> Molecular Biotechnology Lab <b>Contact:</b> Dr. YasarSaleem and Dr. SaniaMazhar <b>Cellno.</b> +92333 4151548 +92 331 1070888 <b>Email:</b> <a href="mailto:ysaleem73@gmail.com">ysaleem73@gmail.com</a> , <a href="mailto:saniamazharr@gmail.com">saniamazharr@gmail.com</a>
14.	Training Title "Design & Fabrication of Scientific Laboratory Equipment" Organizer: CDLE	02 days	July 2024	<b>Organizer:</b> Design & Fabrication Lab <b>Contact:</b> Mr. Peer Bukhsh <b>Cell No.</b> 04299230788 <b>Email:</b> <a href="mailto:cdlepcsir@gmail.com">cdlepcsir@gmail.com</a>
15.	Performance & Safety Compliance Evaluation of Electric Fans Organizer:EMTL	05 days (10 persons Min.)	August 2024	<b>Organizer:</b> Fan Testing Lab <b>Contact:</b> M. Azhar <b>Cell No.</b> 03104944127 <b>Email:</b> <a href="mailto:emtlpcsir@gmail.com">emtlpcsir@gmail.com</a>
16.	Training Title "Electropolishing/ Passivation Process for Surgical Instruments" Organizer: PITMAEM	02 days	September 2024	<b>Organizer:</b> Analytica lab <b>Contact:</b> FarzanaHabib <b>Cell No.</b> 04299231798 <b>Email:</b> <a href="mailto:pitmaem.lhr@gmail.com">pitmaem.lhr@gmail.com</a>
17.	Determination of Mycotoxin in Food and Feed commodities by various methods Organizer: FBRC	05 days	September 2024	<b>Organizer:</b> Aflatoxin Lab, FBRC <b>Contact:</b> Dr. Naseem Zahra <b>Cell No.</b> +92 333 4087889 <b>Email:</b> <a href="mailto:drnaseemzahra@gmail.com">drnaseemzahra@gmail.com</a>

18.	Training Title “Role of Micronutrients in Human Nutrition” Organizer: FBRC	02 days	October 2024	<b>Organizer:</b> Nutrition Lab, FBRC <b>Contact:</b> Dr. SaimaNazir <b>Cellno.</b> +92 300 4256686 <b>Email:</b> <a href="mailto:saim-starz@yahoo.com">saim-starz@yahoo.com</a>
19.	Training Title “Electrical Safety of the Appliances” Organizer:EMTL	02 days	October 2024	Organizer: EMTL lab Contact: M. Azhar Cell No. 03104944127 Email: <a href="mailto:emtlpcsir@gmail.com">emtlpcsir@gmail.com</a>
20.	Training Title “Flame Atomic Absorption Spectrophotometric (FAAS) Technique for Determination of Different Heavy Metals, Minerals and Micro Minerals in Water and Food Items” Organizer: FBRC	02 days	November 2024	<b>Organizer:</b> Bio-resource Utilization Lab <b>Contact:</b> Mrs. ShabanaKauser <b>Cell No.</b> +92 334 0422721 <b>Email:</b> <a href="mailto:shabanakosar2022@gmail.com">shabanakosar2022@gmail.com</a>
21.	Training Title “Analytical Instruments IR, HPLC, GC MS, Atomic Absorption Spectrophotometer etc.” Organizer: ACRC	02 days	December 2024	<b>Organizer:</b> ACRC <b>Contact:</b> Dr. Muhammad Zia ur Rehman <b>Cell No.</b> +92 333 4571977 <b>Email:</b> <a href="mailto:rehman_pcsir@hotmail.com">rehman_pcsir@hotmail.com</a> <a href="mailto:headacrc@gmail.com">headacrc@gmail.com</a>
22.	Training Title “CRISPR/Cas Targets Designing; Application in Genome Editing and Beyond” Organizer: Biotechnology Labs	03 days	December 2024	<b>Organizer:</b> Data Processing Lab <b>Contact:</b> Dr. YasarSaleem and Dr. SaniaMazhar <b>Cell no.</b> +92333 4151548 +92 331 1070888 <b>Email:</b> <a href="mailto:ysaleem73@gmail.com">ysaleem73@gmail.com</a> , <a href="mailto:saniamazharr@gmail.com">saniamazharr@gmail.com</a>
23.	Estimation of Food grade color and Sudan dyes in various Food commodities Organizer: FBRC	05 days	December 2024	<b>Organizer:</b> Aflatoxin Lab <b>Contact:</b> Dr. Naseem Zahra <b>Cell No.</b> +92 333 4087889 <b>Email:</b> <a href="mailto:drnaseemzahra@gmail.com">drnaseemzahra@gmail.com</a>

## Training Offered at PCSIR Laboratories Complex, Peshawar (PLC)

(Address: University Road, Peshawar – 25120, Phone: 091-9221398, 99)

Sr. No.	Training Title	Duration	Scheduled on
1.	Fruits and vegetables preservation techniques	5 days	January to March
2.	Water analysis by atomic absorption	5 days	January to March
3.	Microbiological/ Mycotoxin analysis in food	5 days	January to March
4.	Chemical composition of food items (proximate/ nutritional analysis)	5 days	January to March
5.	Food processing and product development (Jam, Jellies, Squashes, Nectars, tomato paste, tomato ketchup and pickles)	5 days	January to March
6.	Training on Herbarium Techniques, Plant Identification and Digitilization	05 Days	January to March
7.	Training on Antimicrobial Activities	05 Days	January to March
8.	Fundamental Lab. Techniques in Phytochemistry	05 Days	January to March
9.	Training on In-vivo Pharmacological activity	05 Days	January to March
10.	Training on Spectroscopic Techniques (HPLC, FTIR, UV)	05 Days	January to March
11.	Training on GCMS	05 Days	January to March
12.	Training at Pharmaceutical Pilot Plant	05 Days	January to March
13.	Practical training on the operation and maintenance of industrial crushers and grinders	05 days	January to March
14.	Training on Construction materials testing	2 Weeks	January to March
15.	Practical training on the Production of household chemicals	05 days	January to March
16.	CAD/CAM	4 Week	January to March
17.	CNC Machining (Milling)	4 Week	January to March
18.	CNC Machining (Turning)	4 Week	January to March
19.	Laser Engraving & Plasma Cutting	4 Week	January to March



20.	ISO/IEC-17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories	03 days	January to March
21.	Documentation Requirements of ISO/IEC 17025:2017 Standard	03 days	January to March
22.	Uncertainty Measurement in Calibration	02 days	January to March
23.	Calibration Techniques of Mass / Balances	03 days	January to March
24.	Calibration Techniques of Volumetric Glass wares	03 days	January to March
25.	Calibration Techniques of Temperature Sources/Meters/Gauges/ Liquid in Glass Thermometer	03 days	January to March
26.	Calibration Techniques of Pressure Devices	03 days	January to March
27.	Calibration Techniques of Electrical Equipment	03 days	January to March
28.	Marble Mosaic Orientation	05 Days	January to March
29.	Stone engraving	05 Days	January to March
30.	Stone Designing	05 Days	January to March
31.	Presentation of Stone Products	05 Days	January to March
32.	Fruits and vegetables preservation techniques	5 days	April to June
33.	Water analysis by atomic absorption	5 days	April to June
34.	Microbiological/ Mycotoxin analysis in food	5 days	April to June
35.	Chemical composition of food items (proximate/ nutritional analysis)	5 days	April to June
36.	Food processing and product development (am, Jellies, Squashes, Nectars, tomato paste, tomato ketchup and pickles)	5 days	April to June
37.	Training on Herbarium Techniques, Plant Identification and Digitilization	05 Days	April to June
38.	Training on Antimicrobial Activities	05 Days	April to June
39.	Fundamental Lab. Techniques in Phytochemistry	05 Days	April to June
40.	Training on In-vivo Pharmacological activity	05 Days	April to June
41.	Training on Spectroscopic Techniques (HPLC, FTIR, UV)	05 Days	April to June
42.	Training on GCMS	05 Days	April to June
43.	Training at Pharmaceutical Pilot Plant	05 Days	April to June

44.	Practical training on the operation and maintenance of industrial crushers and grinders	05 days	April to June
45.	Training on Construction materials testing	2 Weeks	April to June
46.	Practical training on the Production of household chemicals	05 days	April to June
47.	CAD/CAM	4 Week	April to June
48.	CNC Machining (Milling)	4 Week	April to June
49.	CNC Machining (Turning)	4 Week	April to June
50.	Laser Engraving & Plasma Cutting	4 Week	April to June
51.	ISO/IEC-17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories	03 days	April to June
52.	Documentation Requirements of ISO/IEC 17025:2017 Standard	03 days	April to June
53.	Uncertainty Measurement in Calibration	02 days	April to June
54.	Calibration Techniques of Mass / Balances	03 days	April to June
55.	Calibration Techniques of Volumetric Glass wares	03 days	April to June
56.	Calibration Techniques of Temperature Sources/Meters/Gauges/ Liquid in Glass Thermometer	03 days	April to June
57.	Calibration Techniques of Pressure Devices	03 days	April to June
58.	Calibration Techniques of Electrical Equipment	03 days	April to June
59.	Marble Mosaic Orientation	05 days	April to June
60.	Stone engraving	05 days	April to June
61.	Stone Designing	05 days	April to June
62.	Presentation of Stone Products	05 days	April to June
63.	Fruits and vegetables preservation techniques	5 days	July to September
64.	Water analysis by atomic absorption	5 days	July to September
65.	Microbiological/ Mycotoxin analysis in food	5 days	July to September
66.	Chemical composition of food items (proximate/ nutritional analysis)	5 days	July to September
67.	Food processing and product development (Jam, Jellies, Squashes, Nectars, tomato paste, tomato ketchup and pickles)	5 days	July to September

68.	Training on Herbarium Techniques, Plant Identification and Digitilization	05 Days	July to September
69.	Training on Antimicrobial Activities	05 Days	July to September
70.	Fundamental Lab. Techniques in Phytochemistry	05 Days	July to September
71.	Training on In-vivo Pharmacological activity	05 Days	July to September
72.	Training on Spectroscopic Techniques (HPLC, FTIR, UV)	05 Days	July to September
73.	Training on GCMS	05 Days	July to September
74.	Training at Pharmaceutical Pilot Plant	05 Days	July to September
75.	Practical training on the operation and maintenance of industrial crushers and grinders	05 days	July to September
76.	Training on Construction materials testing	2 Weeks	July to September
77.	Practical training on the Production of household chemicals	05 days	July to September
78.	CAD/CAM	4 Week	July to September
79.	CNC Machining (Milling)	4 Week	July to September
80.	CNC Machining (Turning)	4 Week	July to September
81.	Laser Engraving & Plasma Cutting	4 Week	July to September
82.	ISO/IEC-17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories	03 days	July to September
83.	Documentation Requirements of ISO/IEC 17025:2017 Standard	03 days	July to September
84.	Uncertainty Measurement in Calibration	02 days	July to September
85.	Calibration Techniques of Mass / Balances	03 days	July to September
86.	Calibration Techniques of Volumetric Glass wares	03 days	July to September
87.	Calibration Techniques of Temperature Sources/ Meters/ Gauges/ Liquid in Glass Thermometer	03 days	July to September
88.	Calibration Techniques of Pressure Devices	03 days	July to September
89.	Calibration Techniques of Electrical Equipment	03 days	July to September
90.	Marble Mosaic Orientation	05 days	July to September
91.	Stone engraving	05 days	July to September
92.	Stone Designing	05 days	July to September

93.	Presentation of Stone Products	05 days	July to September
94.	Fruits and vegetables preservation techniques	5 days	October to December
95.	Water analysis by atomic absorption	5 days	October to December
96.	Microbiological/ Mycotoxin analysis in food	5 days	October to December
97.	Chemical composition of food items (proximate/ nutritional analysis)	5 days	October to December
98.	Food processing and product development (Jam, Jellies, Squashes, Nectars, tomato paste, tomato ketchup and pickles)	5 days	October to December
99.	Training on Herbarium Techniques, Plant Identification and Digitization	05 Days	October to December
100.	Training on Antimicrobial Activities	05 Days	October to December
101.	Fundamental Lab. Techniques in Phytochemistry	05 Days	October to December
102.	Training on In-vivo Pharmacological activity	05 Days	October to December
103.	Training on Spectroscopic Techniques (HPLC, FTIR, UV)	05 Days	October to December
104.	Training on GCMS	05 Days	October to December
105.	Training at Pharmaceutical Pilot Plant	05 Days	October to December
106.	Practical training on the operation and maintenance of industrial crushers and grinders	05 days	October to December
107.	Training on Construction materials testing	2 Weeks	October to December
108.	Practical training on the Production of household chemicals	05 days	October to December
109.	CAD/CAM	4 Week	October to December
110.	CNC Machining (Milling)	4 Week	October to December
111.	CNC Machining (Turning)	4 Week	October to December
112.	Laser Engraving & Plasma Cutting	4 Week	October to December
113.	ISO/IEC-17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories	03 days	October to December

114.	Documentation Requirements of ISO/IEC 17025:2017 Standard	03 days	October to December
115.	Uncertainty Measurement in Calibration	02 days	October to December
116.	Calibration Techniques of Mass / Balances	03 days	October to December
117.	Calibration Techniques of Volumetric Glass wares	03 days	October to December
118.	Calibration Techniques of Temperature Sources/Meters/Gauges/ Liquid in Glass Thermometer	03 days	October to December
119.	Calibration Techniques of Pressure Devices	03 days	October to December
120.	Calibration Techniques of Electrical Equipment	03 days	October to December
121.	Marble Mosaic Orientation	05 days	October to December
122.	Stone engraving	05 days	October to December
123.	Stone Designing	05 days	October to December
124.	Presentation of Stone Products	05 days	October to December

**Details of Resource Persons, PCSIR Labs Complex, Peshawar (PLC):**

- 1- Engr. Ahmad Ali, CSO (0333-9111911) Dimension Stone Centre.
- 2- Dr. Arshad Hussain, PSO (0300-5990839) Food Technology Centre.
- 3- Mr. Amin Ur Rehman, PSO (0333-9140925) Materials Science Centre.
- 4- Engr. Muhammad Younas, PE (0333-9216241) Engineering Services Centre.
- 5- Mrs. Farina Kanwal, PSO (0321-9071722) Medicinal Botanic Centre.
- 6- Dr. Mushtaq-Ur-Rehman Khattak, SSO (0300-9062087) Calibration Centre.

### 3. Training Offered at PCSIR Laboratories, Quetta (QL)

(Address: Mastung Road, Near Mian Ghundi, P.O.Box No. 387, Quetta, Phone: 0304-9910276)

Sr. No.	Training Title	Duration	Scheduled on
1.	Water analysis/ waste water	05 days	22 <sup>nd</sup> April to 26 <sup>th</sup> April 2024
2.	Shaking Table Technique	5 days	22 April to 26 April 2024
3.	Proximate Analysis Coal/ Coke	5 days	06May to 10May 2024
4.	Chemical Analysis of Metallic Mineral	5 days	13May to 17May 2024
5.	Tea analysis	05 days	13 <sup>th</sup> May to 17 <sup>th</sup> May 2024
6.	Chemical Analysis of Non-Metallic Mineral	5 days	20May to 24May 2024
7.	Crushing and grinding and sample preparation	3 days	27May to 29May 2024
8.	Sieve Analysis	4 days	03June to 06June 2024
9.	Shaking Table Technique	5 days	10June to 14June 2024
10.	Wheat and Wheat Flour	05 days	10 <sup>th</sup> June to 14 <sup>th</sup> June 2023
11.	Water analysis/ waste water	05 days	6 <sup>th</sup> May to 10 <sup>th</sup> May 2024
12.	Proximate Analysis Coal/ Coke	5 days	17June to 21June 2024
13.	Chemical Analysis of Metallic Mineral/ Nonmetallic Mineral	5 days	24June to 28June 2024
14.	Proximate analysis of food	08 days	15 <sup>th</sup> July to 19 <sup>th</sup> July 2024
15.	Food Microbiology	05 days	16-20 September 2024
16.	Food processing	02 weeks	06 <sup>th</sup> October to 10 <sup>th</sup> 2024

#### Detail of Resource Person, PCSIR Labs, Quetta (QL):

- Mrs. Hiba Amanat Ali, Scientific Officer, PCSIR Labs Quetta (0321-8007643, Office# 0304-9910276)

#### 4. Training Offered at PCSIR Laboratories, Hyderabad (HL)

(Address: Gulshan-e-Shahbaz, Near New Toll Plaza, Hyderabad-Karachi Motorway  
Location 129 M-9(N), District Jamshoro Sindh, Phone: 022-30189990)

Sr. No.	Training Title	Duration	Scheduled on
1.	Introduction to Water Analysis Techniques	One Day	29 <sup>th</sup> April 2024
2.	Laboratory Procedures for Water quality monitoring and analysis	One Week	<ul style="list-style-type: none"><li>• 10<sup>th</sup> -15<sup>th</sup> June 2024</li><li>• 18<sup>th</sup> – 22<sup>nd</sup> November 2024</li></ul>
3.	Fundamentals of Snack Quality Testing	Three Days	<ul style="list-style-type: none"><li>• 9<sup>th</sup> -11<sup>th</sup> Sep. 2024</li></ul>
4.	Lab. Waste Management and Safe Disposal	Two Days	<ul style="list-style-type: none"><li>• 14<sup>th</sup> October 2024 to 15<sup>th</sup> October 2024</li></ul>
5.	Good Microbiology Practices.	Three Days	<ul style="list-style-type: none"><li>• 18<sup>th</sup> November 2024 to 20<sup>th</sup> November 2024</li></ul>

#### Details of Resource Persons, PCSIR Labs, Hyderabad (HL):

- 1- Mr. Ammarah Kanwal, SSO, (022-3018990) Analysis / Environmental Science/ Food Science
- 2- Mr. Faheem Haider Jamali, SO, (0331-3505814,022-3018990) Analysis/ Environmental Science
- 3- Mrs. Saniya Soomro, SO, (022-3018990) Microbiology

## 6. Training Offered at PCSIR Laboratories, Skardu (SL)

(Address: PCSIR Labs, Sadpara Road Skardu, Phone: 05815-920305)

Sr. No.	Training Title	Duration	Scheduled on
1.	Fruits Handling, Dehydration, Processing and Preservation	01 Week	May 20-24, 2024
2.	Gemstone and Minerals Cutting and Polishing	03 Months	June 05-Sep. 05, 2024
3.	Fruits Handling, Dehydration, Processing and Preservation	03 Days	June 25-27, 2024
4.	Apricot Handling and Dehydration Techniques	03 Days	July 24-26, 2024
5.	Dried Cherry and Apricot Reprocessing Techniques	03 Days	Aug 20-22, 2024
6.	Gemstone Cutting and Polishing	03 Months	Sep. – Nov. 2024
7.	Sea buckthorn Harvesting and Processing Training	03 Days	Nov 27-29, 2024

### Details of Resource Persons, PCSIR Labs, Skardu (SL):

- 1- Mr. Tariq Umar Khan, Director, (0331-8581551, Office: 058-15920305) Agriculture/ Food Technology
- 2- Mr. Muhammad Iqbal Khan, SSO, (0346-9556405, Office: 058-15920305), Food Technology



## 7. Training Offered at PCSIR Laboratories, Islamabad (IL)

(Address: Plot # 16, Sector H-9, Islamabad, Phone: 051-9265165-67)

Sr. No.	Training Title	Training course Details	Duration	Scheduled on	Resource person
1.	<b>Water &amp; Waste water Analysis</b> Water Chemistry Water Microbiology Heavy Metals in water & Waste Water	i Chemical Characteristics of Drinking water ii Total plate count, total coliform E coli, salmonella etc. iii Analysis of trace & Heavy metals like Lead, Cadmium, Chromium, Nickle, Iron, Copper, Zinc etc. iv COD, BOD, Oil & Grease, Organic matter, TSS, TVS, Color etc.	05 Days	22-26 April 2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO Dr. Uzma Rashid SSO Fozia Hussain SSO Mr. Abdullah JTO  Mr. M. Afzal Tahir JEO
2.	An overview of ISO/IEC 17025:2017 Uncertainty Measurement	Documentation and implementation of ISO/IEC 17025:2017 system in Testing Laboratory. Calculations for uncertainty measurement related to ISO 17025: 2017	05 Days	03-07 June 2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO Dr. Uzma Rashid SSO Mr. M. Afzal Tahir JEO
3.	Food Analysis	Proximate Analysis Food Microbiology/Aflatoxins (HPLC) Heavy Metals	05 Days	05-09 Aug 2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO Mrs. Razia Kulsoom SSO Mr. Yousif Ali JE Fozia Hussain SSO Mr. Abdullah JTO
4.	Hands on training on advanced analytical instruments	Atomic absorption Spectrophotometer	03 Days	9-11 Oct 2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO  Dr. Uzma Rashid SSO Mrs. Razia Kulsoom SSO
		UV- Visible Spectrophotometer			
		High-performance liquid chromatography	03 Days	5-7 Nov 2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO

					Mrs. Razia Kulsoom SSO Mrs. Fozia Hussain SSO
		FT-NIR Spectrometers	03 Days	26-28 Nov 2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO Mrs. Razia Kulsoom SSO Mrs. Fozia Hussain SSO
		X-Ray Fluorescence Spectrometer	03 Days	5-7 Dec.2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO Dr. Uzma Rashid SSO Mrs. Razia Kulsoom SSO
		Optical Emission Spectrometer	03 Days	27-29 Dec.2024	Dr. Ahmad Bilal PSO/ Director IL Dr. Fouzia Noreen SSO Dr. Uzma Rashid SSO Mrs. Razia Kulsoom SSO

## 8. Training Offered at Leather Research Centre, Karachi (LRC)

(Address: D-102, S.I.T.E., South Avenue, Karachi, Phone: 021-99333372-76)

Sr. No.	Training Title	Duration	Scheduled on
1.	Leather Processing and QA/QC on Leather.	Four Weeks	13 <sup>th</sup> May to 7 <sup>th</sup> June, 2024
2.	Measurement of Uncertainty ISO/IEC 17025:2017	Two Days	7 <sup>th</sup> to 8 <sup>th</sup> August, to 20 <sup>th</sup> & 21 November, 2024
3.	Clean Leather Technology	Two Weeks	7 <sup>th</sup> to 18 <sup>th</sup> October, 2024
4.	Leather Processing (Raw to Finish)	Two Weeks	2 <sup>nd</sup> to 13 September, 9 <sup>th</sup> to 20 <sup>th</sup> December, 2024
5.	QA/QC on Leather.	Two Weeks	4 <sup>th</sup> to 15 <sup>th</sup> November, 2024
6.	Laboratory Management System ISO/IEC 1705:2017	Five Days	23 <sup>th</sup> December to 27 <sup>th</sup> December, 2024

### **Detail of Resource Person Leather Research Centre, Karachi (LRC):**

- Mrs. Uzma Nadeem, Sr. Experimental Officer, (0333-3876063, 021-99333374)

## 9. Training Offered at Fuel Research Centre, Karachi (FRC)

(Address: Off University Road, Karachi-75280, Phone: 021-99261963)

Sr. No.	Training Title	Duration	Scheduled on
1.	Internship Training/training for Professionals 'Analysis of Fuels and related Materials: <ul style="list-style-type: none"> <li>• Coal Preparation</li> <li>• Proximate analysis</li> <li>• Total Sulphur</li> <li>• Heating Value (GCV)</li> <li>• Hardgrove Grindability Index</li> <li>• Elemental analysis by AAS</li> <li>• Flash, Cloud, and Pour points of Petroleum products</li> </ul>	Two Weeks	<ul style="list-style-type: none"> <li>• 1<sup>st</sup> to 15<sup>th</sup> March 2024</li> <li>• 2<sup>nd</sup> to 16<sup>th</sup> Sep. 2024</li> </ul>
2.	Internship Training/training for Professionals 'Fuel processing and analysis of finished products'	Two Weeks	-do-
3.	Workshop on 'Quantitative analysis of heavy metals utilizing Atomic Absorption Spectroscopy (AAS)'	Three Days	<ul style="list-style-type: none"> <li>• 10<sup>th</sup> June to 12<sup>th</sup> June 2024</li> <li>• 21<sup>st</sup> to 23<sup>rd</sup> October 2024</li> </ul>
4.	Workshop on Quantitative analysis of Total Sulphur in Coals'	Three Days	<ul style="list-style-type: none"> <li>• 16<sup>th</sup> to 18<sup>th</sup> April 2024</li> <li>• 1<sup>st</sup> to 3<sup>rd</sup> October 2024</li> </ul>
5.	Workshop on Determination of Flash Point, Cloud Pont, and Pour Point of Petroleum Products, Identification of combustible and flammable fuels	Three Days	<ul style="list-style-type: none"> <li>• 13<sup>th</sup> -15<sup>th</sup> February 2024</li> <li>• 22<sup>nd</sup> to 24<sup>th</sup> July 2024</li> </ul>
6.	Work on 'Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products'	One Day	<ul style="list-style-type: none"> <li>• 13<sup>th</sup> May 2024</li> <li>• 4<sup>th</sup> November 2024</li> </ul>
7.	Workshop on Industrial flue gas analysis	One Day	<ul style="list-style-type: none"> <li>• 26<sup>th</sup> August 2024</li> <li>• 3rd December 2024</li> </ul>
8.	Training for Professionals: 'Pilot Scale Production of Chemical/Product and Quality Control'	Three Days	17 <sup>th</sup> to 19 <sup>th</sup> Sep 2024

### Detail of Resource Person Fuel Research Centre, Karachi (FRC):

- Dr. Anila Sarwar, Sr. Scientific Officer, (021-99261962-63, 021-9926165-66)