

## **Report on Chemical Analysis of Food, Water and Soil at Sri Sakthi Food Testing Laboratory, Thudiyalur, Coimbatore**

### **Objectives:**

- To learn the basic principles of the analytical procedures commonly used to analyze food, water and soil
- To acquire the skill analyzing and interpreting various quality parameters in Food, Water and Soil Samples
- To handle modern instruments like HPLC, Gas Chromatography, Infra red spectroscopy and ICP-OES

Food analysis is the discipline dealing with the development, application and study of analytical procedures for characterizing the properties of foods and their constituents. These analytical procedures are used to provide information about a wide variety of different characteristics of foods, including their composition, structure, physicochemical properties and sensory attributes.

Number of Beneficiaries : **19** III B.Sc chemistry Students

### **List of students underwent the training Programme**

i. From 08.02.2021 to 12.02.2021

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|----------------------|---------------------|
| 1. M. Anitha         | 6. M. Rajathi       |
| 2. R. Imaya Varshini | 7. N. Ranganayaki   |
| 3. S. Kaviya Priya   | 8. R. Rubadharshini |
| 4. S. Kovarshini     | 9. B. Sasirekha     |
| 5. T. Pooja          | 10. M. Vinothini    |

ii. From 15.02.2021 to 19.02.2021

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|---------------------|--------------------------|
| 1.D. Bhavadharani   | 5.D. Pommuthai           |
| 2.B. Divya Bharathi | 6.S. Ponsivaranjani      |
| 3.S. Jeevanandhi    | 7.Pooja Rajagopalan      |
| 4.S. Kiruba Sneka   | 8.S. S. Poorna Chandrika |

9.S. Priyanka



### Sri Shakthi Food Testing Laboratory Training Programme Details -2021

S:N o	Days	Timing	Topics Covered	Trainers
1	Day 1	9.00 to 10.00	1.Introduction & Welcome 2. Laboratory Introduction	Mr.Ganesan Thangavel Mr. V. Paramasivan Mrs. Indhra Gandhi
		10.00 to 11.00	1. Good Laboratory Practice 2. Microbiology Laboratory Introduction 3. Good Documentation Practice	Mr.Ganesan Thangavel Mr. v. Paramasivan / Mr. Karthikeyan
		11.00 to 11.30	Tea Break	
		11.30 to 13.00	1. Handling of Samples (Micro / Chemical) 2.HPLC InstrumentPresentation	Mrs. Vinitha Mrs. Indhra Gandhi Mr. Ganesan Thangavel
		13.00 to 14.00	Lunch break	
		14.00 to 15.30	1. Sample Preparation for Moisture, Total Ash, Food Adulterants for Honey /Ghee/ wheat.	Mrs. Revathi Mr. Sathesh Kumar
		15.30 to 16.00	Tea Break	
		16.00 to 17.00	1. Question & Answer 2. Day 1 Evaluation	Mr.Ganesan Thangavel Mrs. Revathi / Mrs. Indhra Gandhi

2.	Day 2	9.00 to 10.00	1. Day 1 Recap 2. Overview of ISO/IEC 17025 -2017 3. Brief Discussion about Certification Details	Mr. V. Paramasivan Mr. Ganesan Thangavel
		10.00 to 11.00	1. <b>Proximate Analysis</b> a. Fat b. Protein c. Carbohydrate d. Energy	Mrs. Revathi Mr. Naveen Kumar
		11.00 to 11.30	Tea Break	
		11.30 to 13.00	1. Handling of Instrument UV/FTIR/ Moisture Meter	Mr. Ganesan Thangavel Mr. Naveen Kumar
		13.00 to 14.00	Lunch break	
		14.00 to 15.30	1. Instrument Presentation ICP-OES	Mr. Ganesan Thangavel Mrs. Revathi
		15.30 to 16.00	Tea Break	
3.	Day 3	9.00 to 10.00	1. Day-2 Recap 2. Brief Discussion About a. Vitamins b. Amino Acid Profile c. Sugar Profile d. NOTS	Mr. Ganesan Thangavel
		10.00 to 11.00	1. Sample Preparation for Vitamin C 2. Standard Preparation for Vitamins	Mrs. Revathi Mr. Sathesh Kumar
		11.00 to 11.30	Tea Break	
		11.30 to 13.00	1. Mobile phase / Instrument Column and Condition 2. Sample Loading Process	Mr. Ganesan Thangavel
		13.00 to 14.00	Lunch break	
		14.00 to 15.30	1. Data Compilation	Mr. Ganesan Thangavel
		15.30 to 16.00	Tea Break	
		16.00 to 17.00	1. Question & Answer 2. Day 3 Evaluation	Mr. Ganesan Thangavel Mrs. Revathi / Mr. Sathesh Kumar

4.	Day 4	09.00 to 10.00	1. Day -3 Recap 2. Brief Discussion About a. Analysis of FTIR b. Analysis of UV c. Analysis of Moisture Meter	Mr. Ganesan Thangavel
		10.00 to 11.00	1. Usage of Hot Air oven , Muffle Furnace 2. incubator 3. Bio Safety cabinet	Mr. Karthikeyan Mr. Naveen Kumar
		11.00 to 11.30	Tea Break	
		11.30 to 13.00	1. Instrument Presentation for GC	Mr. Ganesan Thangavel
		13.00 to 14.00	Lunch break	
		14.00 to 15.30	1. Metals – Sample Preparation 2. Standard Preparation 3. Instrument -operation	Mr. Sathesh Kumar
		15.30 to 16.00	Tea Break	
		16.00 to 17.00	1. Question & Answer 2. Day 4 Evaluation	Mr. Ganesan Thangavel Mrs. Revathi / Mr. Sathesh Kumar
5.	Day 5	09.00 to 10.00	Day -4 Recap 1. Report Preparation 2. Filing Documentation 3. Sample Forwarding and Storage 4. Sample Disposal	Mrs. Indhra Gandhi Mrs. Vinitha Mrs. Revathi
		10.00 to 11.00	1. GC –Operation	Mr. Ganesan Thangavel
		11.00 to 11.30	Tea Break	
		11.30 to 13.00	1. Solvent Purity Analysis for GC	Mr. Ganesan Thangavel
		13.00 to 14.00	Lunch break	
		14.00 to 17.00	1. Discussion Forum 2. Questionaries' 3. Feed Back	Mr. Ganesan Thangavel
			Tea Break	
			1. Question & Answer 2. Day 5 Evaluation Closing	Mr. Ganesan Thangavel Mr. V. Paramasivan Mrs. Indhra Gandhi