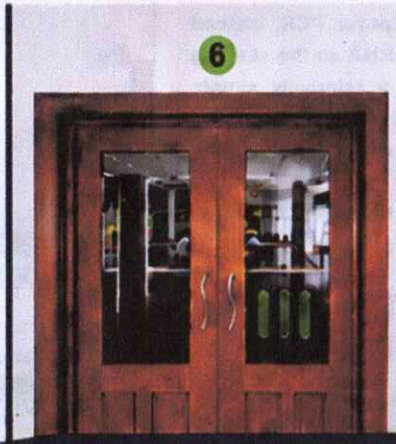
Marudhar Kesari Jain College for Women (Autonomous), Vaniyambadi

33 Years of Educational Excellence...

Recognised Under sec 2(f) & 12 (B) of UGC Act, 1956 || Accredited with "A" Grade by NAAC (4th cycle) Permanently Affiliated to Thiruvalluvar University ||
Supported by DST-FIST || DBT Star College Scheme||
Marudhar Nagar, Chinnakallupalli, Vaniyambadi - 635 751.

Website: http://www.mkjc.in Tel: +91 4174 225300; 224300

DST-FIST Supported SSR Training



DST-FIST INSTRUMENTATION LAB	
S.No.	Facilities Available
01	HPLC
02	Mass Spectometry
03	Gas Chromatography
04	RT-PCR
05	HPLC
06	GCMS

Marudhar Kesari Jain College for Women, Vaniyambadi is proud to be one of the recipient of the DST-FIST, a scheme that provides basic infrastructure and enabling facilities for promoting R&D activities in new and emerging areas.

MKJC has received a grant worth Rs. 95L and has established the DST-FIST lab worth Rs 1.2 Crore with high-end instrumentation facility.

These facilities are made available for Faculty, Scholars and Students of any Academic Institutions and Research Personnels from Research Labs/Industries in and around Vaniyambadi and also from other places for their research purposes.

DST-FIST Instrumentation Lab facilities @ MKJC

- Gas Chromatography-Mass Spectrometer
- High Performance Liquid Chromatography
- RT-PCR
- Fully Automatic Biochemistry Analyser
- Biocomputation facility
- Auto Ignition Flame Photometer





Services provided through MKJC's DST-FIST Facility (DFIF)

In addition to sample analysis, we offer several programs through our DST-FIST that includes but not limited to

- Hands-On-Training
- Workshop
- Internship
- Short-Term Programs
- Faculty Development Program
- Assistance to UG, PG and High-End Research Projects
- Doctoral Research Studies

All DST-FIST supported programs will accompany kit and certificate

Samples along with the requisition form can be sent by courier or in person to

DST-FIST Instrumentation Facility
Marudhar Kesari Jain College for Women
Marudhar Nagar
Chinnakallupalli
Vaniyambadi
Tirupattur District - 635 751

To obtain requisition forms to avail the facilities scan the QR code or use the URL
https://www.mkjc.in/research/research/19

DST - FIST INCHARGE :
DR. C. ASOKAN
Assistant Professor - Dept of Biochemistry
Marudhar Kesari Jain College for Women,
Vaniyambadi - 635 751
Mail to : dfifmkjc@gmail.com
Contact No : +91 96292 05571

SCHOOL NAME:
TAKSHILA GLOBAL SCHOOL
DATE: 13.08.2026

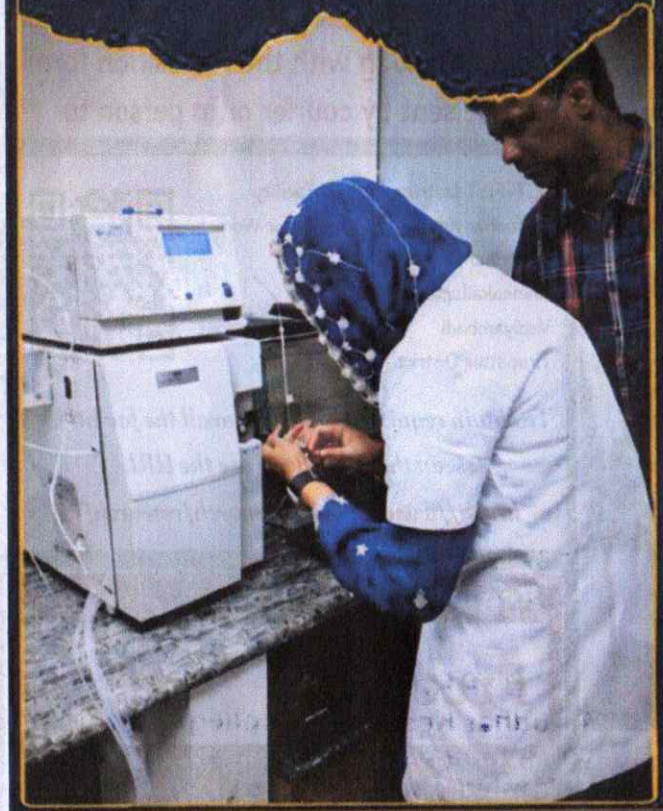
Registration Fees:
Free

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Choose your slots

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

HPLC is a technique that separates analytes which are dissolved in a liquid. It can separate, identify, purify, and quantify the compounds that are present in any liquid sample. HPLC is optimum for the separation of chemical and biological compounds that are non-volatile. It is also used to provide information on the composition of Drug-related samples.



RT-PCR

Reverse transcriptase PCR, instead of DNA, uses mRNA as the starting template. It is a relatively simple and inexpensive technique to determine the expression level of target genes. It helps in detecting and comparing the levels of mRNA and the surface proteins



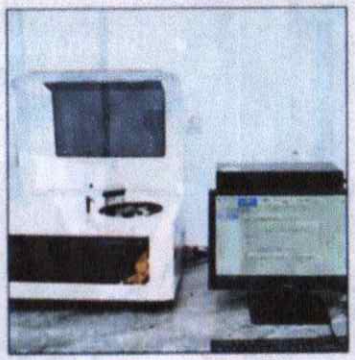
BIOCHEMISTRY COMPUTATIONAL LAB

High-end workstations of the computational lab will support the performance of computational research such as molecular structure prediction, molecular docking, molecular simulations, molecular interaction studies, cheminformatics & drug designing, mutational studies etc.



FULLY AUTOMATIC BIOCHEMISTRY ANALYSER

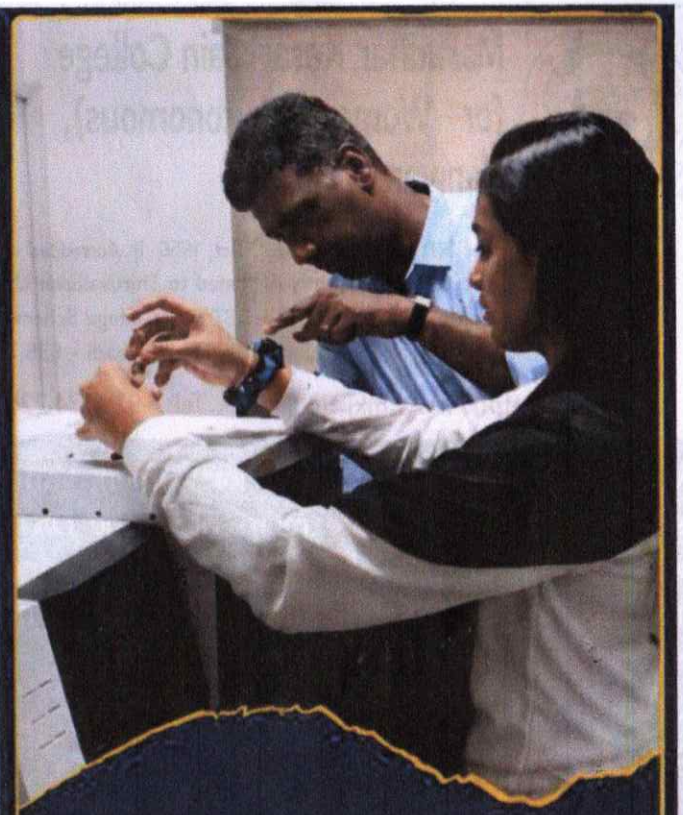
An automated analyser is a medical laboratory instrument designed to measure various substances and other characteristics in a number of biological samples quickly, with minimal human assistance. A fully automatic analyser uses serum or urine sample, and measures various components, such as sugar, cholesterol, protein, etc.



AUTO IGNITION FLAME PHOTOMETER

Flame Photometer is an instrument used to analyse inorganic chemicals to determine the concentration of certain metal ions (mainly are sodium, potassium, calcium, lithium, Barium). Metal concentration in any liquid like blood, urine or any other sample can be detected and quantified.





GAS CHROMATOGRAPHY-MASS SPECTROMETER

Gas Chromatography - Mass Spectrometer (GC-MS) is an instrumentation facility used to identify individual components of a mixture. Gas chromatography (GC) is used to separate volatile components while mass spectrometer (MS) detects and measures the vaporized compounds separated in the GC for phytochemical, environmental samples, soil samples, food etc.

Analytical services with report for all these instruments are provided for students, scholars, faculty, researchers and industry personnels

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R&D Cell, DST - FIST SUPPORTED ONE-DAY TRAINING ON SSR ACTIVITY FOR ST. TAKSHILA GLOBAL SCHOOL ,AMMBUR STUDENTS ON GC-MS, RP-HPLC, RT-PCR, AUTOMATIC BIOCHEMISTRY ANALYZER, AUTO IGNITION FLAME PHOTOMETER, AND COMPUTATIONAL WORK STATION.

AGENDA

DATE AND TIME : 13.08.2026,Tursday,10am to 1.30pm Venue :Sri Guru Mishri Seminar H

S.NO	PROGRAM DETAILS	TIME	
1	Registration	11.20 am to 11.30am	
2	MCby		Ms.nisha katwal, IIIBSc BT
3	Prayer	10.30 am to 11.35am	
4	Welcome address	11.40 am to 11.45am	Dr.C.Asoken, In-charge,R&D cell DST-FIST LAB
5	Special Address	11.45 am to 12.15pm	Dr.M.Inbavalli,Principal
6	Display videos 1. MKJC 2. Instruments(6) opreration in DST-FIST Lab 3.Science 4.DST Scholarship	11.45 am to 12.15pm	Dr.C.Asokan
7	MKJ Campus Tour 1. CS&CA Lab 2. library 3.Chemisry Lab 4.Biochemistry Lab 5.Nutrition and Dietetics Lab 6.Biotecnology Lab 7. Physics Lab 8.CD&ID Lab	12.15 am to 12.45pm	R&D Cell, DST-FIST LAB Members
8	R&D Cell,DST-FIST Lab Insrumentation facility Demonstration at R&D cell,DST-FIST lab		1.Dr.C.Ashokan-RP-HPLC 2.Dr.K. Priy-CWS(Server} 3.Dr.V.Sabari-AIFPM 4.Dr.M Punithvathi-ABA 5.Dr.S.Kavi karunya-GC-MS 6.Dr.R. Ravi-CWS(CADD)
9	Feadback(teacher&student)	1.15 pm to 1.20 pm	R&D Cell,DST-FIST Lab members
10	Vote of thanks		Dr.C.Asoken,in-charge,R&D Cell
11	National anthem		

RESEARCH & DEVELOPMENT

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College for Women (Autonomous), Vaniyambadi

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Activity Report

Topic / Subject Of The Activity

R&D Cell, DST - FIST Supported One-Day Training Programme as part of SSR Activity for **Takshila Global School** Students on **13.08.2026** GC-MS, RP-HPLC, RT -PCR , Automatic Biochemistry Analyzer, Auto Ignition Flame Photometer, and Computational Workstations **Training programme conducted in R&D cell DST-FIST Lab.**

Objectives (Input)

- To introduce students to modern laboratory instruments and scientific technologies.
- To provide basic knowledge of GC-MS, RP-HPLC, RT-PCR, biochemical analysis, flame photometry and computational facilities.
- To relate classroom science concepts with their applications in research laboratories.
- To develop students' interest, curiosity, and awareness of science and technology.
- To create awareness about higher education, research, and career opportunities in scientific fields

Methodology (Process)

- The programme was conducted through PowerPoint presentations simple theoretical explanations instrument demonstrations and interactive discussions.
- The resource persons introduced the basic principles, functions, and applications of GC-MS, RP-HPLC, RT-PCR, Automatic Biochemistry Analyzer, Auto Ignition Flame Photometer, and Computational Workstations. Students were encouraged to interact with the trainers, ask questions, and understand the relevance of these technologies in research, healthcare, biotechnology and industry.

Output

The students received basic exposure to advanced scientific instruments and computational TechnologiesThey learned about the purpose and applications of different laboratory facilities and understood how these instruments support scientific analysis and research. The demonstrations helped students relate their academic knowledge to real laboratory practices and increased their awareness of modern scientific technologies.

Sustainable Development Goals (SDGs)Target 9.a Facilitate sustainable and resilience infrastructure development in developing countries through enhanced financial, technological and technical support to African countries,least developed countries, landlocked developing countries and small island developing state

Outcomes

- ✓ Students gained basic knowledge of modern laboratory instruments.
- ✓ They understood the major applications of GC-MS, RP-HPLC, and RT-PCR.
- ✓ Students became familiar with biochemical and analytical testing facilities.
- ✓ They learned the importance of computational tools in scientific research.

- ✓ The programme improved students' scientific awareness and curiosity.
- ✓ Students developed greater interest in laboratory science and technology.
- ✓ The activity created awareness about research, higher education, and science-related careers.
- ✓ Students gained a better understanding of the practical importance of science in healthcare, biotechnology, and industry

18/9/2026

HOD/Club Coordinator

18/9/2026

IQAC Director

21/9/26

Principal

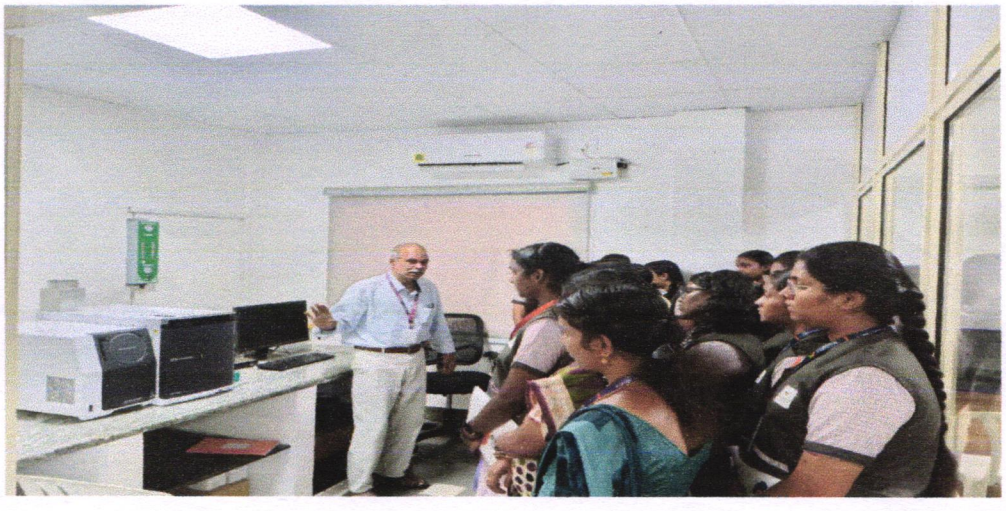
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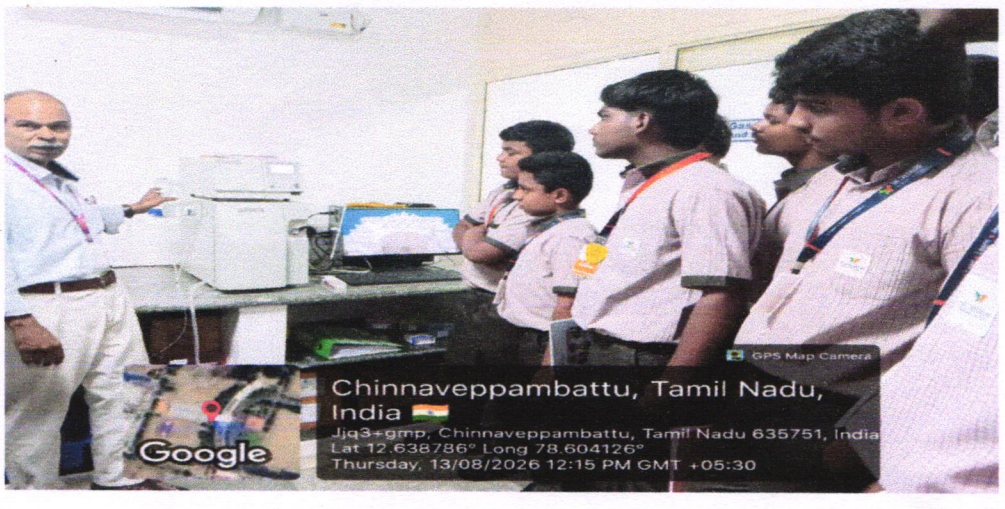
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Topic: Training on SSR activity on GC-MS, RT-PCR, Automatic Biochemistry Analyzer, Auto Ignition Flam Photometer, and Computational Work Station.
Date: 13.08.2026
Organized by: Research Development Cell.
Venu: R & D Cell DST FIST Lab





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