

AIMING FOR EXCELLENCE: Pathways to Excellence in Research through Advanced Research computing and Analytical facility (ARCAF) at college

One of the ambitious vision of the college is to aim for excellence in Research, as Research directly impacts the quality of teaching and helps learners learn the content in participative way, however research is not merely an activity supplementary to teaching. Instructors can integrate their experience in the laboratories and classrooms and can put challenges before students to grapple them with fundamental questions.

College had infrastructural support from DST-FIST, some of the sophisticated equipments were purchased from DST-FIST grant. College also is beneficiary of RUSA 1 in component 7 where infrastructural equipment support of the value of 60, 00,000/- is provided. College also is selected in category A colleges by Department of higher education Govt. of M.P. to get financial & infrastructural support under world bank funded MPHEQIP (Madhya Pradesh Higher Education Quality Improvement Project). Equipment support worth Rs. 9, 00,000/- in the form of Endowments is extended by Sh. Ashish Tiwari from PG TECH Research Institute a proud alumnus of the college,

Clubbing all these Resources state of the art sophisticated Advanced Research computing and Analytical facility (ARCAF) is created in the college. However the facility is fondly known as Advanced Research Instrumentation Laboratory (AIRL). AIRL is taken care of by a senior professor of Chemistry working in the full-fledged capacity of Director AIRL. Right now Dr. Kalpana Singh is the director AIRL.

AIRL extends analytical and simulation support to in-house as well as external students, and promotes interdisciplinary participation in all activities. Laboratory extends full time Technician support to researchers coming for analysis in the college. Facility is totally free for in house students across the programmes, however outsider students and researchers' need to pay nominal fees for chemical support. Instrumentation trainings are also organized by AIRL for UG Final Year and PG final year students to equip them for equipment based knowledge. Following trainings were organized in the near past. AIRL is a green laboratory and works on the concept of zero waste generation, minimum chemical hazard and energy conservation rules. Laboratory has neutralization chambers to neutralize acidic and alkaline waste before discharge. Water discharged during distillation processes is recycled and used.

HPLC TRAININGS (Year 2017 to 2020)

INSTRUMENTATION AND CHEMINFORMATICS (Year 2017 to 2020)

IR & UV Training workshops (Year 2017 to 2020)

Equipment available in the Laboratory

Microwave assisted Organic Synthesis System (MOS) from CEM

HPLC (Younglin)

FTIR (Brooker Alpha)

Sophisticated Double beam UV Spectrophotometers

With computer and printer support

MERCK Water solution systems for HPLC grade water

Rotary Evaporators

Potentiometer

Conductivity meters

ph Systems

High Precision electronic weighing machines

Computer Systems for simulative and in silico studies.

Sample Evaporation Concentration System

Electrophoresis System

Computer systems for simulations

Software support extended to Researchers in the laboratory:

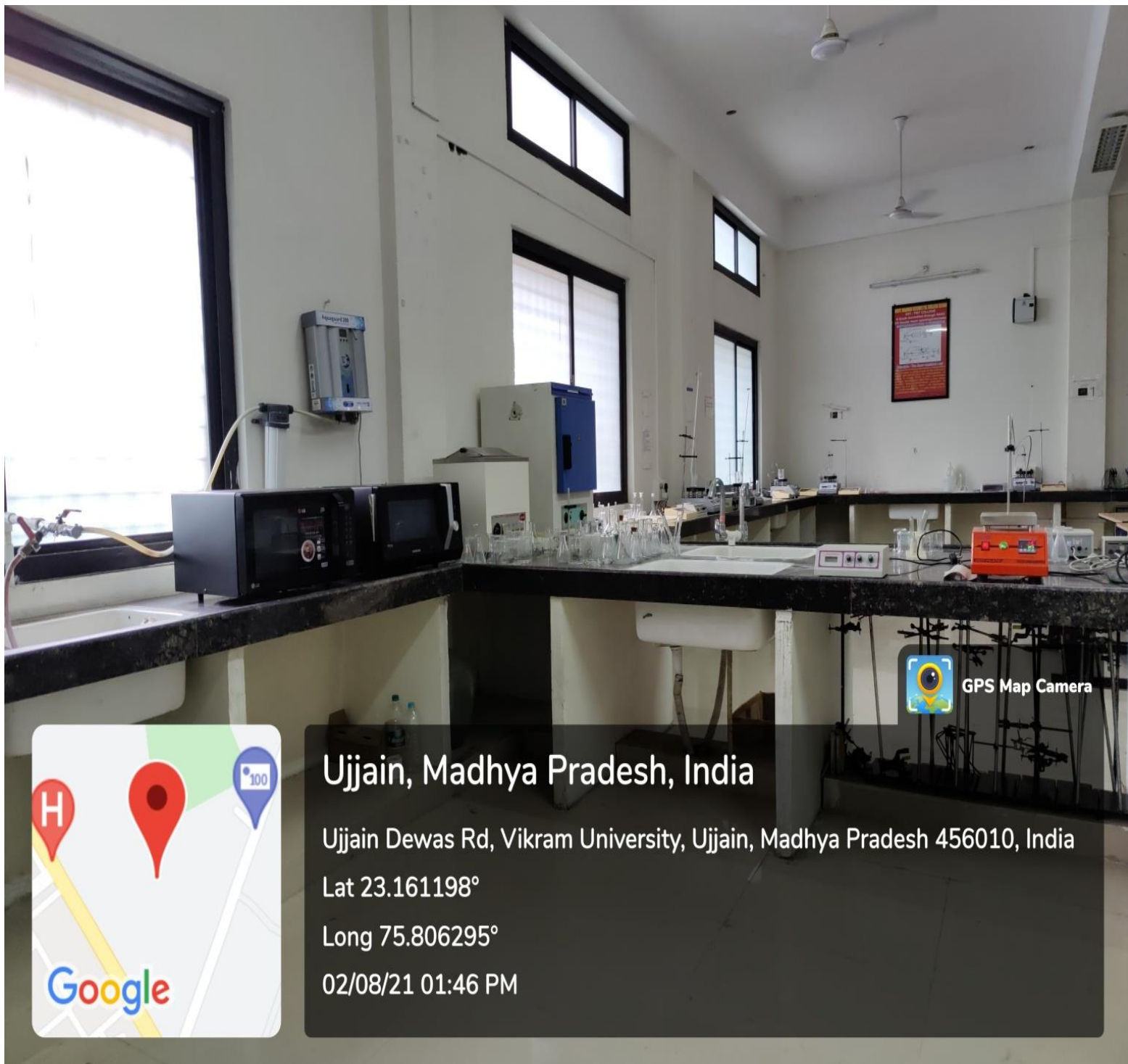
MD Simulations using MVD (Licensed)

Hyperchem (Licensed)

Blast tool for sequence Alignment (Licensed)

Sequence Alignment through Clustal W(Licensed)

Prosite & Pframe for secondary database(Licensed)



GPS Map Camera

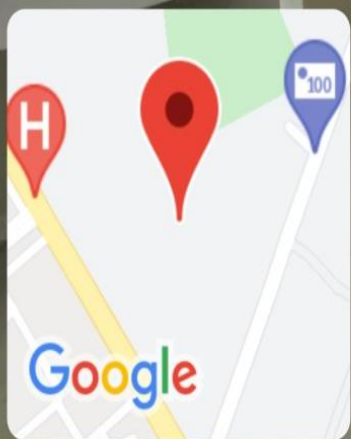
Ujjain, Madhya Pradesh, India

Ujjain Dewas Rd, Vikram University, Ujjain, Madhya Pradesh 456010, India

Lat 23.161198°

Long 75.806295°

02/08/21 01:46 PM

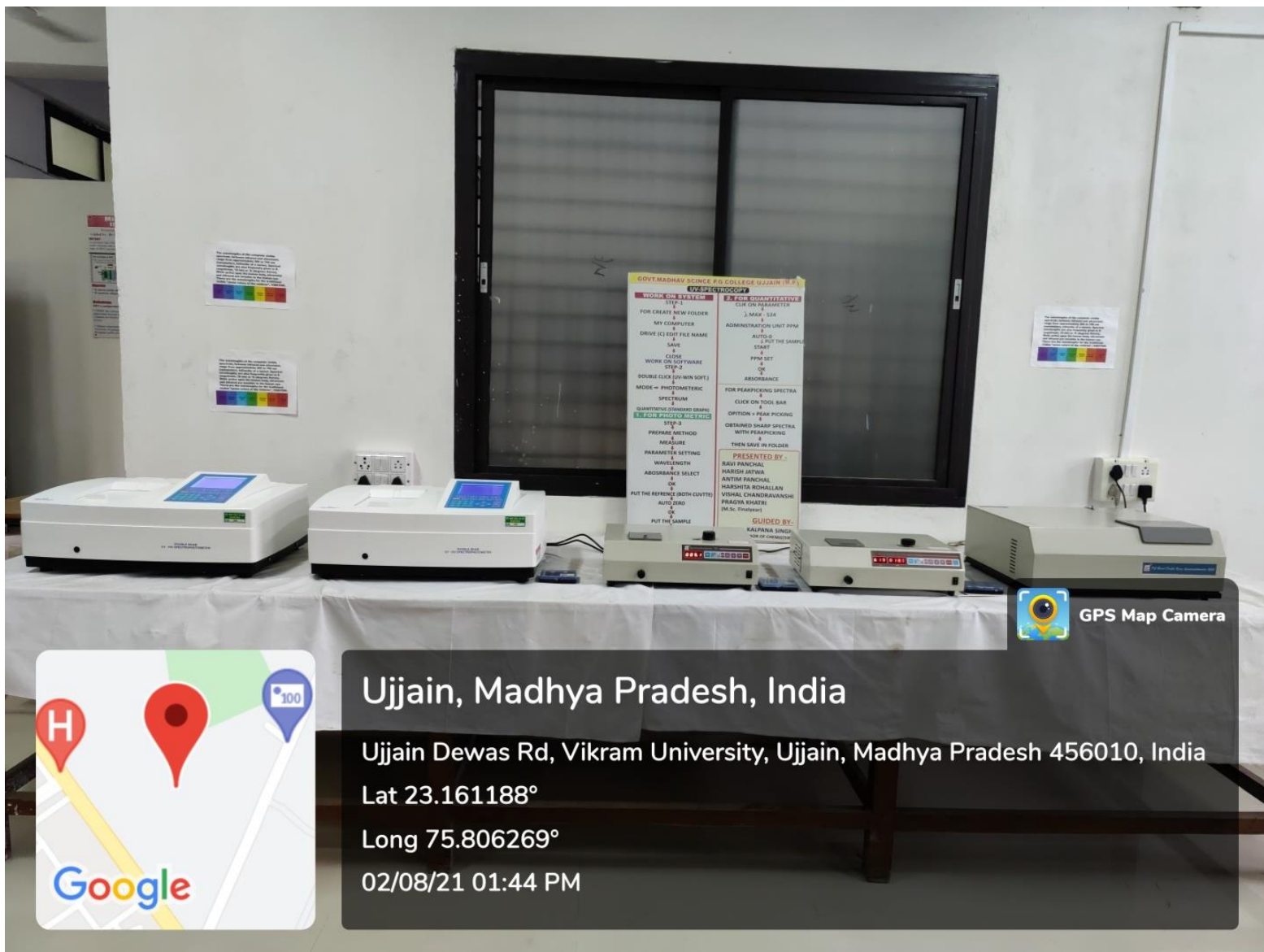




GPS Map Camera



Ujjain, Madhya Pradesh, India
Ujjain Dewas Rd, Vikram University, Ujjain, Madhya Pradesh
456010, India
Lat 23.161198°
Long 75.806268°
02/08/21 01:41 PM



Ujjain, Madhya Pradesh, India

Ujjain Dewas Rd, Vikram University, Ujjain, Madhya Pradesh 456010, India

Lat 23.161188°

Long 75.806269°

02/08/21 01:44 PM



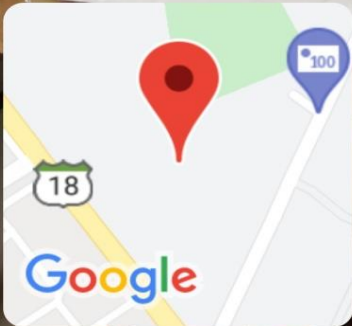
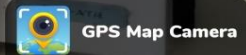
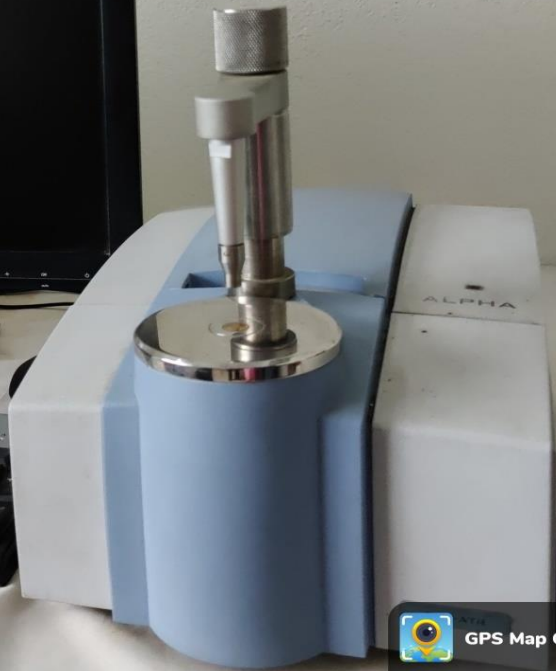
Ujjain, Madhya Pradesh, India

Kothi Rd, Vikram University, Ujjain, Madhya Pradesh 456010, I

Lat 23.161276°

Long 75.80633°

02/08/21 01:53 PM



Ujjain, Madhya Pradesh, India

Ujjain Dewas Rd, Vikram University, Ujjain, Madhya Pradesh

456010, India

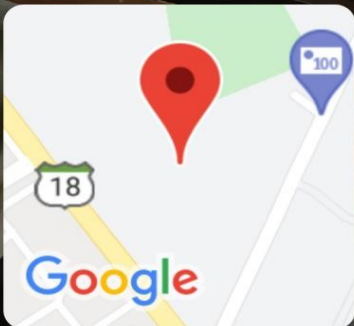
Lat 23.161238°

Long 75.80627°

02/08/21 01:57 PM



GPS Map Camera



Ujjain, Madhya Pradesh, India

Ujjain Dewas Rd, Vikram University, Ujjain, Madhya Pradesh

456010, India

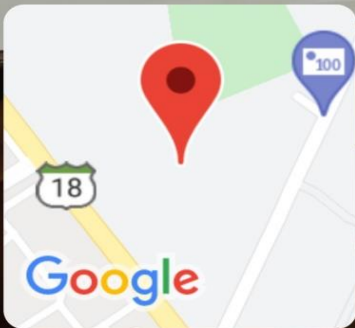
Lat 23.161233°

Long 75.806261°

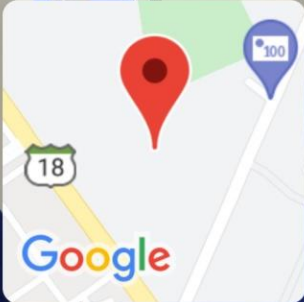
02/08/21 01:57 PM



 GPS Map Camera



Ujjain, Madhya Pradesh, India
Ujjain Dewas Rd, Vikram University, Ujjain, Madhya Pradesh
456010, India
Lat 23.161241°
Long 75.806251°
02/08/21 01:58 PM



Ujjain, Madhya Pradesh, India

Kothi Rd, Vikram University, Ujjain, Madhya Pradesh 456010, India

Lat 23.161182°

Long 75.806346°

02/08/21 02:02 PM



GPS Map Camera