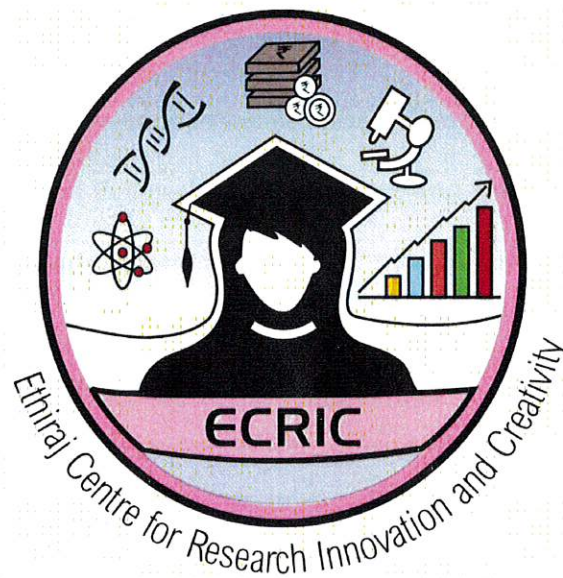


ETHIRAJ COLLEGE FOR WOMEN

(Autonomous)

Chennai – 600 008

ETHIRAJ CENTRE FOR RESEARCH, INNOVATION  
AND CREATIVITY (ECRIC)



**RESEARCH MANUAL**

**2020**

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## **ETHIRAJ CENTRE FOR RESEARCH INNOVATION AND CREATIVITY (ECRIC)**

ECRIC was formed in the month of 16<sup>th</sup> April 2019 and was inaugurated on 14<sup>th</sup> September 2019 by Thiru. Peer Mohideen Sathikh, Associate Professor and Associate Chair (Academic), School of Art, Design and Creativity, Nanyang Technological University, Singapore, during the Faculty Development Program on Research, Innovation and Creativity.

### **ECRIC FRAMEWORK**

The ECRIC has three Committees at different levels for easy flow of information. The **First level** is the **ECRIC Apex Committee** consisting of –

**Chairperson of the Board-** Tmt. CHANDRA DEVI THANIKACHALAM

**Financial Trustee -** Thiru, S. SRIDHARAN

#### **Members of the Board-**

Prof. S. VITTAL

Dr. M. SEKAR

Dr. D. KRUPA SHANKAR

**University representative -** Prof. E. MURUGAN

**Principal and Secretary -** Dr. S. KOTHAI

The **Second level** is the **ECRIC Advisory Committee (2020-2021)** consisting of -

**President -** Tmt. CHANDRA DEVI THANIKACHALAM, Chairperson

**Secretary -** Prof. E. MURUGAN, University representative

**Members -** Thiru, S. SRIDHARAN, Financial Trustee

Prof. S. VITTAL, Member

Dr. S. KOTHAI, Principal and Secretary

Dr D.B. USHARANI, Vice-Principal (Aided)

Dr. T. USHA PRIYA, Vice- Principal (Self-Supporting)

Dr. A.S. SARANYA, Dean of Research (Aided)- 2019-2020

Dr. S. UMA GOWRIE, Dean of Research (Aided)- **2020 onwards**

Dr. K. KRISHNA PREMA, Dean of Research (Self-Supporting)- 2019-2020

Dr. K. EZHILARASI HILDA STANLEY, Dean of Research (Self- Supporting)-  
**2020 onwards**

The frequency of meeting is once in two months. The progress report will be sent to the ECRIC Advisory Committee from ECRIC Committee every month.

The **Third level** is the **ECRIC Committee (2020-2021)** consisting of the Deans of research and the Faculty members from different disciplines of the college.

The members are:

1. Dr. S. UMA GOWRIE, Dean of Research (Aided)
2. Dr. K. EZHILARASI HILDA STANLEY, Dean of Research (Self- Supporting)
3. Dr. A.S. SARANYA (Commerce – Aided)
4. Dr. S. SUDHA PARIMALA (Chemistry – Aided)
5. Dr. K. KRISHNA PREMA (Micro Biology – Self Supporting)
6. Dr. M. MENAKA (CND – Self Supporting)
7. Dr. C.N. DEEPA (Bio-Chemistry – Self Supporting)
8. Dr. M.B. PAVITHRA (HRDE – Self Supporting)
9. Dr. T. SUDESHNA (Commerce – Self Supporting)
10. Ms. C. JAYASHREE (Economics – Aided)

### **ECRIC POLICY**

- a. Sanction of a total of twenty lakhs per annum to promote various aspects of research.
- b. Formation of a three tier ECRIC committee for easy governance and to monitor progress.
- c. Sanction of Funds for 2 to 3 ECRIC Major Research Projects (up to 5 lakhs), 2 to 3 ECRIC Minor Projects (up to 1 lakh) and ECRIC 15 to 20 Mini Projects (up to 25,000/-) every year for Faculty members.
- d. Sanction of Funds for Students Summer Projects (up to 12,000/-) for students of all UG and PG Departments.
- e. Five ECRIC Fellowships every year for PhD Fulltime Scholars (for Second and Third year of Research).
- f. Celebration of Research Day –
  - Release of ECRIC Journal.
  - "Innovative idea/ product/service Idea Contest" to be conducted by each department for their students during their department association activity. The winner of each department of the contest to be awarded on Research Day Sponsored by the management
  - "Research paper presentation" contest to be conducted by each department during their department association activities. The first two prize winners of each department to be awarded on Research Day Sponsored by the management and the papers can be published in ECRIC journal.
  - All departments having compulsory project work as part of their syllabus, should select a minimum of 5 best projects for publication in ECRIC journal in a research article format.
- g. During orientation program for freshers, one slot to be given for talk about Innovation, patents, and Research Club.

- h. Workshop for teachers to encourage students to think out of the box with respect to all activities of their department and to identify students asking very innovative questions in class. One student per department to be awarded on Research Day The system of giving 3 Increments for a staff who has completed Ph. D in the Self-Supporting stream to be revived again to motivate SS Faculty as it is the decision of the Management for SS.
- i. The names of winners of various contests can be uploaded on ECRIC webpage in college website to make these students popular.
- j. Formation of research club by the students. To organize effective short programs which will have a take home message.
- k. Research environment has to be created where the faculty and students can be given more freedom to work.

## **RESEARCH POLICY**

### **PREAMBLE**

The Research Policy aims to foster ambient research environment, motivate faculty and students to undertake basic, applied, interdisciplinary research in physical sciences, arts and social sciences of societal relevance leading to quality publications, encourage presentations of research outcomes in reputed National / International Conferences, promote transfer of ideas/ technology and claim Intellectual Property rights with impetus for commercialization.

### **OBJECTIVES**

The research policy of the College aims to provide guidelines for research activities with following objectives

- i) To promote quality research at the Post graduate levels, and higher research programmes with innovation and creativity in the institution.
- ii) To ensure due importance to original / novel ideas embedded with integrity and ethics in research
- iii) To encourage the design of the scientific research outputs into simple working models relevant to society in terms of cost and environment.
- iv) To nurture relevant research in the areas of social and economic issues that affect women in particular.
- v) To promote research consultancy and collaborations with National and International research institutions and industries.

### **PROMOTION OF RESEARCH**

- i) By creating a conducive environment to foster research culture in the college with the provision of infrastructure, laboratory, data computing and processing tools.
- ii) By the creation of an exclusive research centre called ECRIC (Ethiraj Centre for Research, Innovation and Creativity) consisting of ECRIC Apex Body (Ethiraj Trust Board) ECRIC Advisory Committee (Chairperson, Financial Trustee, Two Board members, Principal, Vice-Principals and Deans of Research) which will provide a forum, space, facility and funding (to an extent of 20 lacs p.a) and other required resources for nurturing research.

- iii) By encouraging publications in quality journals recognized by the UGC- CARE and indexed in Scopus / Web of Science and / or with a good Impact Factor.

**Allocation of Funds for the promotion of quality research in the Institution**

**I Funds for the best research projects carried out by the Faculty**

- i) Minor Research Project (1 lac – 2 lacs)
- ii) Major Research Project (2 lacs – 5 lacs)
- iii) Collaborative Research Project
  - Industry Collaboration
  - Interdisciplinary Collaboration

**II Funds for Workshops, National and International Conferences and quality publications**

**III Funds for technology transfer, Intellectual Property Rights / Filing of Patents**

**IV Recognition** for outstanding research by Aided and Self-Supporting Faculty members to be given separately for faculty belonging to the three disciplines of Humanities, Science and Arts (Six awards per annum).

**V. Recognition** of outstanding research department belonging to Aided and Self-Supporting Streams (six awards per annum) - Humanities, Science and Arts.

**VI ECRIC** fellowships to be awarded to Full time Ph.D. scholars who are in their second year of Ph.D. tenure – Five Fellowships.

**VII** Celebration of Research Day every year to motivate Young Researchers and Faculty with research aptitude.

## ETHICAL POLICY

### **Ethical guidelines for the conduct of quality research in the institution**

**Preamble:** The set of guidelines aims to provide a moral code for setting higher standards in research and its adherence leads to credibility in the qualitative and quantitative research methodologies and their results/findings.

These guidelines are to be accepted as a general practice by all researchers of the institution and deviation shall be considered as Research misconduct that will be dealt with sanctions imposed by the institution.

### **Areas of ethical concerns in Research**

- 1. Plagiarism/ Malpractices:** It is an offence that results in the misuse of someone's original ideas, results and findings. It is applicable to publication, citation, research proposals and grants.  
Preventive, Corrective and Punitive action shall be taken by the research council to bring transparency in research.
- 2. Usage of data:** There should be integrity in the acquisition, reporting and application of research data.
- 3. Ownership of data:** Research data generated by the research groups of the institution belong to the institution at any point of time as the funds/ awards/ patents received are associated with the institutional identity of the researcher. However, genuine accessibility/ sharing of the research findings shall be available to all the research groups of the institution.
- 4. Research publication:** There should be strict adherence to the publication ethics by the researchers with due regard to affiliation to the institution without conflict of interest.
- 5. Responsibility of the Research Investigator:** Faculty members who are principal research investigators/ mentors/ supervisors should take the responsibility of leading the group or students towards set goals in a highly intellectual and professional way.
- 6. Responsibility towards funded projects:** Faculty members who carry out institutional or Governmental funded projects should follow the ethical guidelines, submit periodical progress reports, with due importance to institutional claim on finance and patents.

## ECRIC MINI RESEARCH PROJECT GUIDELINES

Mini Research Project guidelines: (Permanent Faculty & Trust Faculty)

- a. Eligibility to apply; not more than two Permanent faculty or one Permanent Faculty and one trust faculty with minimum 1 year experience.
- b. Grant Amount (Humanities & Arts) – Rs.15,000/-  
Grant Amount (Science) – Rs. 20, 000/-
- c. Period of project – 1 year
- d. Sanction letter to be given by Principal to the Individual Faculty.
- e. Plagiarism check / Report from Ethiraj Library to be attached with Report
- f. Amount to be released only after submission of Project and bills to Deans of Research to be signed by Principal and forwarded to COE/Trust office.
- g. Evaluation by a Panel consisting two External subjects, one ECRIC Advisory member and Principal along with Deans of Research. Experts will be selected from a list consisting of qualified examiners from each subject. The feedback will be provided to the Faculty.
- h. Paper publication is recommended in journals recognized as per NAAC guidelines.
- i. Research Proposals to be mailed to [deanofresearch2018@gmail.com](mailto:deanofresearch2018@gmail.com) every year.



*ETHIRAJ CENTRE FOR RESEARCH,  
INNOVATION AND CREATIVITY  
(ECRIC)*

*Minor Research Project for Faculty*

*Guidelines (2020)*

*Ethiraj College for Women  
(Autonomous),  
Chennai-600 008*

**ETHIRAJ CENTRE FOR RESEARCH, INNOVATION AND CREATIVITY  
(ECRIC)**

**GUIDELINES FOR PROVIDING GRANTS TO FACULTY  
FOR MINOR RESEARCH PROJECT**

**1. INTRODUCTION**

The ECRIC strives to promote teaching and research in Humanities, Social Sciences, Languages, Literature, Life Science and Pure Science.

**2. OBJECTIVES**

To provide financial support to departmental/individual research in specialized areas to Faculty members.

**3. ELIGIBILITY/TARGET GROUP:**

- The ECRIC will provide financial support to permanent teachers of Aided and Self-Supporting stream of the college.
- A working teacher can avail of only one project/ scheme of ECRIC at any given time. The next project can be accepted only after the completion of the sanctioned one.
- The Principal Investigator should publish two papers in a reputed journal in the form of the books/article/presentation in seminar etc. From the said project completed.
- The age of the Faculty member must be not more than 55 years as on 30<sup>th</sup> May of the year of application.
- The teaching faculty of Library Science, Physical Education will also be eligible to participate in the scheme.

#### **4. NATURE OF ASSISTANCE:**

The maximum assistance for one research project will be from **Rs. 1 lakh to Rs. 3 lakhs.**

The **ECRIC** Minor grant will provide financial support for items like Equipment, Books and Journals, Hiring Services, Contingency, Chemicals and Consumables, Travel and Field work.

##### **Recurring Grant**

##### **(a) Hiring Services**

This is meant for specialized technical work, such as sample analysis, for which the College either has no infrastructure or such services are available on payment basis.

##### **(b) Contingency**

The admissible contingency grant may be utilized on spares for apparatus, photo-stat copies and microfilms, typing, stationery, postage, telephone calls, internet, fax, computation and printing needed for the project. Expenditure towards the audit fee may also be claimed under contingency head.

##### **(c) Special Needs**

Assistance may be provided for any other special requirement in connection with the project which is not covered under any other 'Head' of assistance under the scheme.

##### **(d) Chemicals and Consumables**

To meet expenditure on chemicals, glassware and other consumable items.

**(e) Books and Journals**

Books and Journals purchased must be returned to the Department after the completion of the project.

**(f) Equipment**

Equipment purchased must be returned to the Department after the completion of the project. A maximum of 20% of the grant can be used for Equipment.

**(g) Travel and Field Work**

The amount allocated under the head travel/field work is to be utilized for data collection and collection of other information such as documents and visit to libraries within the general scope and sphere of the ongoing project. **This should not be used for attending conferences, seminars, workshops and training courses etc.**

**(h) Re-Appropriation**

The Principal Investigator may re-appropriate maximum 20 per cent of the **recurring** grant allocated under each head with the permission of the Principal by intimating to ECRIC with justifications.

**5. Tenure and Implementation**

**1½ years with 6 months extension**

**The effective date of implementation of the project will be mentioned in approval-cum-sanction letter given by the Principal.**

**6. PROCEDURE FOR APPLYING**

All eligible teachers in colleges may submit their Minor Research Proposal applications by 31<sup>th</sup> of May every year in the prescribed pro-forma to the concerned **Dean of Research, Ethiraj College for Women.**

## **7. PROCEDURE FOR APPROVAL**

The received proposals duly forwarded by the Principal will be assessed with the help of subject expert committee. The final decision will be taken on the basis of recommendations made by the Committee and the availability of funds under the scheme.

## **8. PROCEDURE FOR RELEASE OF GRANTS**

The first instalment of the grant shall comprise of 50% of the grant approved by the committee for the total duration of the project. The grant will be released to the Principal Investigator.

On receipt of Annual Progress Report, Statement of Expenditure and Utilization certificate of 1<sup>st</sup> instalment of grant, 40% of the total recurring grant will be released as second instalment. Remaining 10% will be released on receipt of the following completion documents as final reimbursement:

- a) A Copy of the final report of project along with soft copy.
- b) A consolidated item wise detailed Statement of expenditure incurred during the complete project period in the prescribed proforma duly signed and sealed by the Principal and the Principal Investigator.
- c) A consolidated Utilization Certificate for the amount actually utilized towards the project duly signed and sealed by the College Auditor, Principal as well as the Principal Investigator in the prescribed pro-forma.
- d) An unutilized grant if any, may be refunded immediately through demand draft drawn in favour of The Principal, Ethiraj College for Women, Chennai.
- e) The Principal Investigators/Institutions are expected to settle the accounts immediately on completion of the project.

## 9. GENERAL

a) After finalization of the selection procedure of the Minor Research projects, the Principal and the Deans of Research will send the approval/sanction letter to the selected Principal Investigators, who will send their acceptance letter to the Principal in the prescribed format.

b) Project is not transferable in any case.

**c) If a Principal Investigator fails to complete the project, she has to refund the entire amount.**

*ETHIRAJ CENTRE FOR RESEARCH,  
INNOVATION AND CREATIVITY  
(ECRIC)*

*Major Research Project for Faculty*

*Guidelines (2020)*

*Ethiraj College for Women  
(Autonomous),  
Chennai-600 008*

**ETHIRAJ CENTRE FOR RESEARCH, INNOVATION AND CREATIVITY  
(ECRIC)**

**GUIDELINES FOR PROVIDING GRANTS TO FACULTY  
FOR MAJOR RESEARCH PROJECT**

**1. INTRODUCTION**

The ECRIC strives to promote research in Humanities, Social Sciences, Languages, Literature, Life Science and Pure Science.

**2. OBJECTIVES**

To provide financial support to Departmental/Individual Research in specialized areas to Faculty members.

**3. ELIGIBILITY**

- The ECRIC will provide financial support to permanent Faculty members of Aided and Self-Supporting stream of the college.
- A Faculty member can avail of only one project of ECRIC at any given time. The next project can be accepted only after the completion of the sanctioned one.
- The Principal Investigator should publish a minimum of two papers in a reputed journal/ in the form of the books/article/presentation in seminar etc from the said project completed.
- The age of the Faculty member must be not more than 55 years as on 30<sup>th</sup> May of the year of application.
- The Teaching faculty of Library Science, Physical Education will also be



eligible to participate in the scheme.

#### **4. NATURE OF ASSISTANCE**

The maximum assistance for one research project will be from **Rs. 2 lakhs to Rs. 5 lakhs.**

The ECRIC Major grant will provide financial support for items like Equipment, Books and Journals, Project Fellow, Hiring, Services, Contingency, Chemicals and Consumables, Travel and Field work.

**The grant can be on the following headings:**

##### **a) Project Fellow**

Project Fellow may be appointed with a consolidated fellowship of:

**M. Phil** - Rs. 5,000/- p.m. or **PG** - Rs. 4,000/- p.m.

The person to be considered for appointment as Project Fellow must have first class master's degree with a minimum of 60% marks or M.Phil., with minimum of 60% marks in the subject concerned or a related subject. The candidate to be appointed as Project Fellow should be below the age of 40 years at the time of appointment. The Project Fellow should work full time in the project and get the fellowship from one source only.

##### **b) Hiring Services**

This is meant for specialized technical work, such as sample analysis, for which the College either has no infrastructure or such services are available on payment basis.

##### **c) Contingency**

The admissible contingency grant may be utilized on spares for apparatus, photo copies and microfilms, typing, stationery, postage, telephone calls, internet, fax, computation and printing needed for the project. Expenditure towards

advertisement for post of Project Fellow and audit fee may also be claimed under contingency head.

**d) Special Needs**

Assistance may be provided for any other special requirement in connection with the project which is not covered under any other 'Head' of assistance under the scheme.

**e) Chemicals and Consumables**

To meet expenditure on chemicals, glassware and other consumable items.

**f) Books and Journals**

Books and Journals purchased must be returned to the Department Library after the completion of the project.

**g) Equipment**

Equipment purchased must be returned to the Department after the completion of the project. A maximum of 20% of the grant can be used for Equipment.

**h) Travel and Field Work**

The amount allocated under the head travel/fieldwork is to be utilized for data collection and collection of other information such as documents and visit to libraries within the general scope and sphere of the ongoing project. **This should not be used for attending conferences, seminars, workshops and training courses etc.**

**Foreign travel is strictly prohibited in this scheme.**

**i) Re-Appropriation**

The Principal Investigator may re-appropriate maximum 20 per cent of the grant allocated under each head with the permission of the Principal by

intimating to ECRIC with justification.

**The fellowship/Honorarium cannot be re-appropriated.**

## **5. TENURE AND IMPLEMENTATION**

**The project will be for a maximum period of Three years.**

The effective date of implementation of the project will be given by ECRIC in approval- cum-sanction letter.

## **6. PROCEDURES**

### **a) PROCEDURE FOR APPLYING**

All eligible teachers in colleges may submit their Major Research Proposal applications by 31<sup>st</sup> May in the prescribed proforma to the concerned **Dean of Research, Ethiraj College for Women.**

### **b) PROCEDURE FOR APPROVAL**

The proposals received duly forwarded by the Principal to ECRIC, will be assessed with the help of a subject expert committee. The final decision will be taken by ECRIC on the basis of recommendations made by the Committee and availability of funds.

### **c) PROCEDURE FOR RELEASE OF GRANTS**

The first instalment of the grant shall comprise of 50% of grant approved by the Committee for the total duration of the project. The grant will be released to the Principal Investigator.

The amount released may be spent according to the approved heads/items within the approved allocation mentioned in the sanction letter.

**After one and a half year** from the date of implementation of the project,

ECRIC will organize **Mid-term evaluation interface meeting** wherein PI will present the progress of the project before the subject experts. On the basis of recommendations of the experts, Progress Report, Expenditure Statement and Utilization Certificate, ECRIC will release 40% of the total recurring grant as second instalment. Remaining 10% will be released on receipt of the following completion documents as final reimbursement.

- a) A copy of the final report of project along with softcopy.
- b) A consolidated item-wise detailed Statement of Expenditure incurred during the complete project period in the prescribed proforma duly signed and sealed by Principal Investigator and the Principal.
- c) A consolidated Audited Utilization Certificate for the amount actually utilized towards the project duly signed and sealed by the Auditor/Trust office, Ethiraj College for Women, Principal Investigator as well as the Principal in the prescribed proforma.
- d) The unutilized grant if any, may be refunded immediately through demand draft drawn in favour of ECRIC.
- e) The Principal Investigators are expected to **settle the accounts immediately** on completion of the project.

## **7. MONITORING AND EVALUATION**

- a) ECRIC will invite fresh proposals from 1<sup>st</sup> April to 31<sup>st</sup> May every year and final selection committee meetings will be organized subsequently by the COE.
- b) Mid-term evaluation meetings for ongoing projects will be organized by ECRIC after completion of minimum of one and a half year.

**ECRIC would decide the continuance of the project on the recommendations of the Mid-Term Evaluation Committee. If Principal Investigator fails to attend mid-term review meetings, the Committee may discontinue/ cancel the project in normal circumstances and entire amount**

**to be refunded by the Principal Investigator to ECRIC.**

c) After the completion of project tenure i.e. 3 years, ECRIC will arrange to make the final assessment/evaluation of the project minimum by one expert member not belonging to the institution. A copy of the expert committee report will be given to the Principal Investigator.

## **8. GENERAL**

a) After finalization of the selection procedure of the Major Research projects, the names of the selected PI will be posted on the College notice board/Website. The PI should send their acceptance certificate duly forwarded by the Principal on receipt of approval/sanction letters from ECRIC.

**b) The Project is not transferable in any case.**

c) PI may publish the results of the study on the project acknowledging the contribution made by the staff appointed for the project and the support received from ECRIC.

d) Project Fellow engaged in the project may register for Ph.D. The data generated and the results obtained out of the Project may be incorporated by the Project Fellow in his/her thesis with the concurrence of the Principal Investigator.

e) If a Principal Investigator fails to complete the project, she has to refund the entire amount sanctioned with interest.

f) No extension in tenure is permissible in any circumstances.

g) Failure to abide by this rule shall make the Principal Investigator/Co-investigator liable to refund the entire amount paid by ECRIC. It would be the responsibility of the Principal Investigator/Co-Investigator for total accountability of the project.

h) After completion of one project (date of finalization of accounts of the project), **if a faculty member desires to undertake another ECRIC project, a gap of one year will be necessary.**

**ETHIRAJ COLLEGE FOR WOMEN**  
**CENTRAL INSTRUMENTATION CENTRE**  
**ROOM NO – 138**

**LIST OF INSTRUMENTS IN ROOM NO – 138**

- 1. HPLC**
- 2. Weighing machine**
- 3. Mercury lamp**
- 4. Ultra Sonicator**
- 5. UV – Trans illuminator**
- 6. Fourier-transform infrared spectroscopy**
- 7. UV – spectroscopy**
- 8. Cooling Centrifuge**
- 9. Gas Chromatography**



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063858°  
Long 80.258351°  
28/06/22 11:17 AM



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063844°  
Long 80.258326°  
28/06/22 11:17 AM

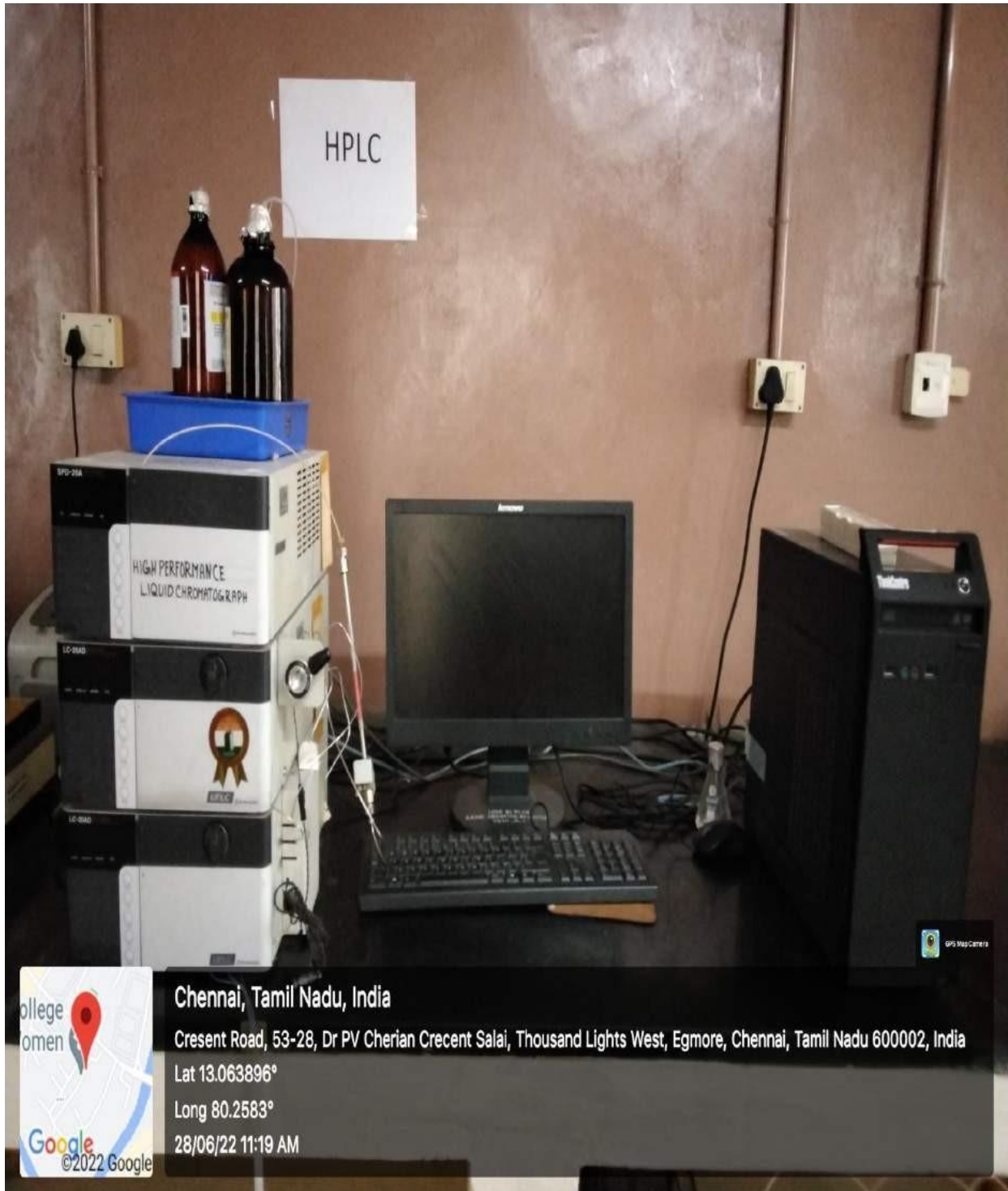




Chennai, Tamil Nadu, India  
Block-2, Crescent Salai Rd, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.06369°  
Long 80.258422°  
28/06/22 11:28 AM



# 1. HPLC



## 2. Weighing Machine



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.06384°  
Long 80.258422°  
28/06/22 11:20 AM

### 3. Mercury Lamp



#### 4. UV - Transilluminator



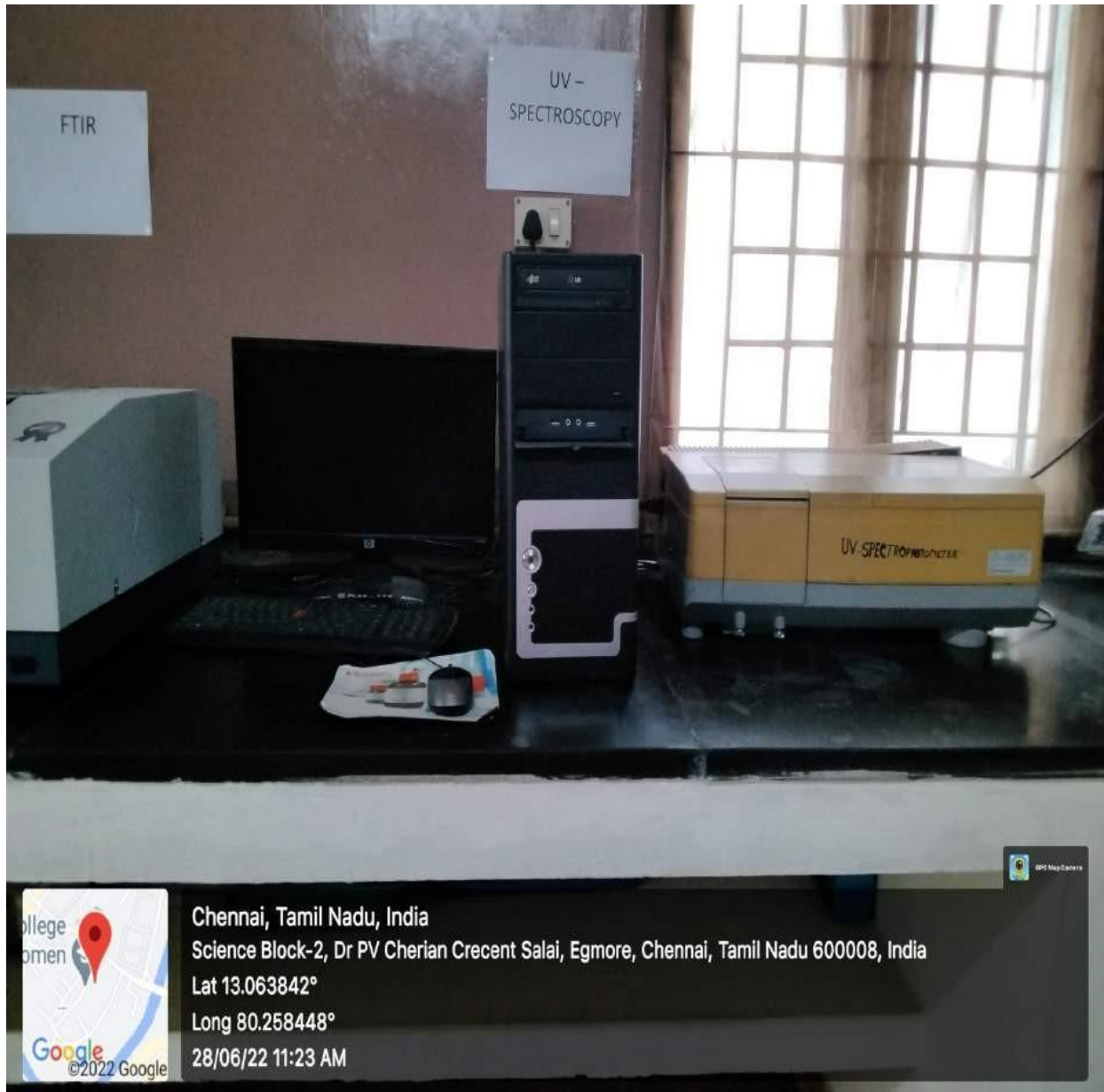
## 5. Ultra Sonicator



## 6. Fourier-transform infrared spectroscopy

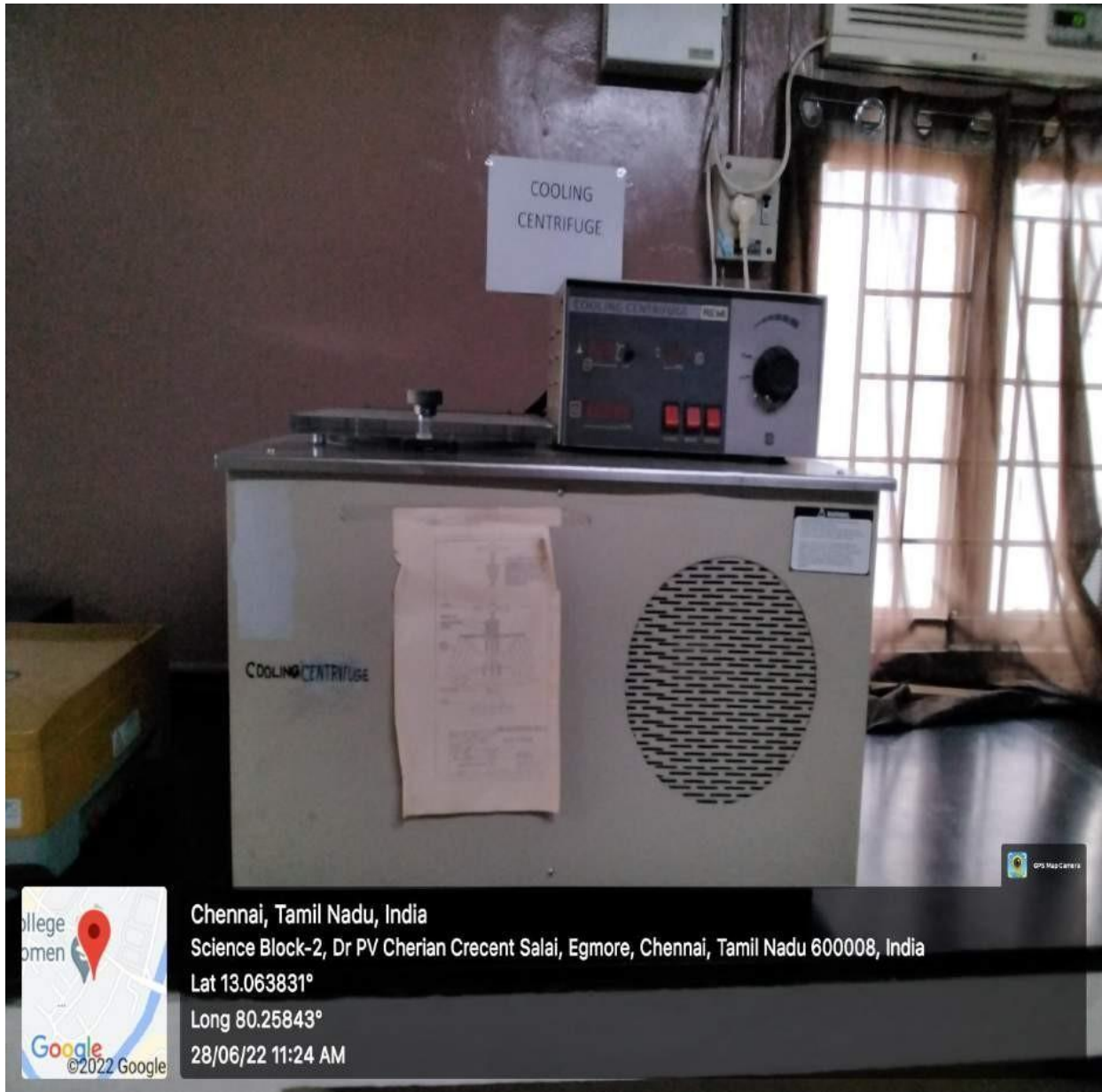


## 7. UV - Spectroscopy





## 8. Cooling Centrifuge



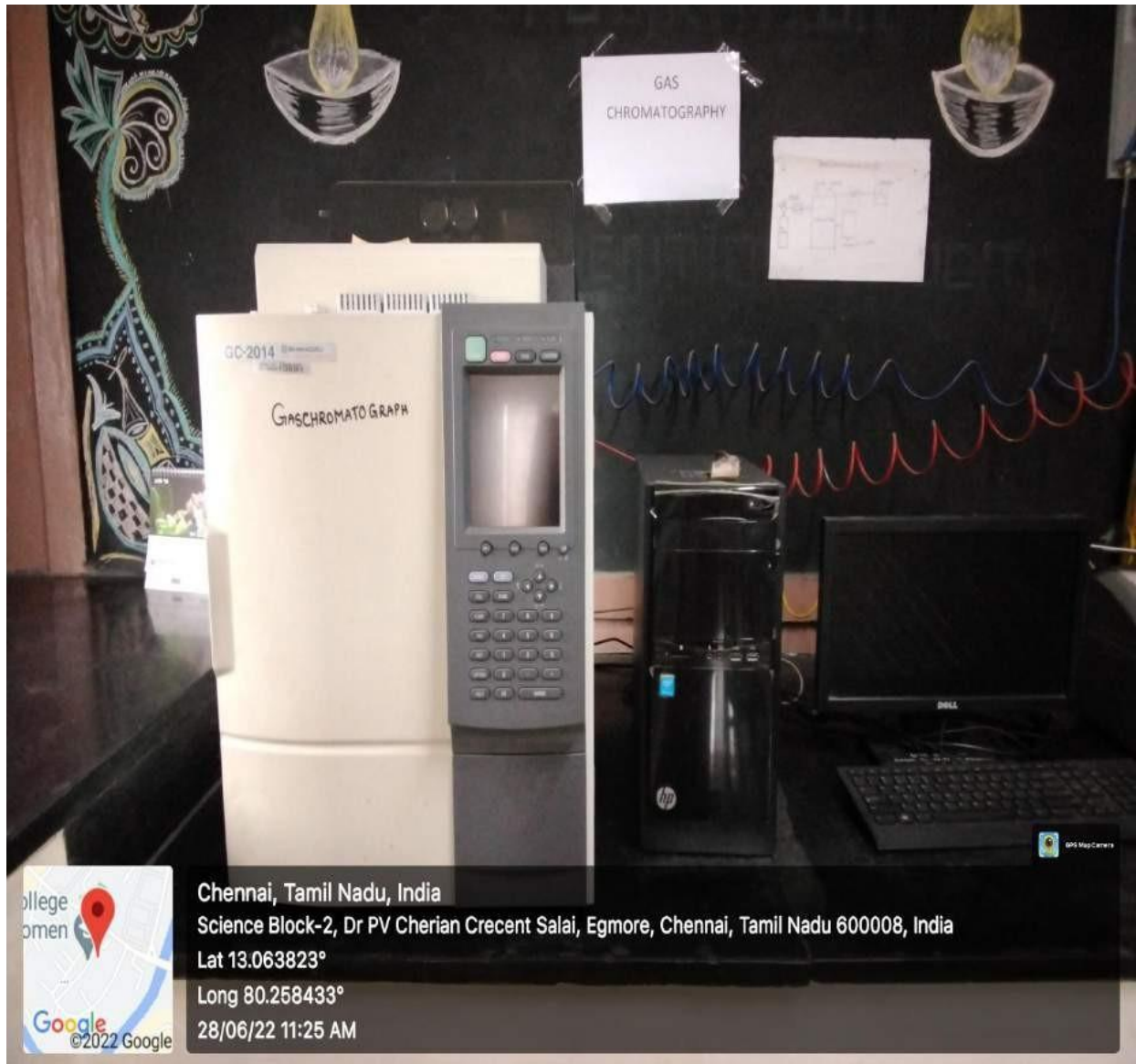


Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crescent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063817°  
Long 80.258432°  
30/06/22 10:24 AM



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crescent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.06382°  
Long 80.258424°  
30/06/22 10:26 AM

## 9. Gas Chromatography



**ROOM NO – 139**

**LIST OF INSTRUMENTS IN ROOM NO – 139**

- 1. VISCOMETER**
- 2. MICROSCOPE**
- 3. TRILOCULAR MICROSCOPE**
- 4. DEEP FREEZER**
- 5. WATER BATH**
- 6. SPIN COATING**
- 7. ROTARY EVAPORATOR**
- 8. FLUORESCENCE SPECTROSCOPY**
- 9. LYOPHILIZER**



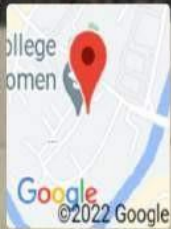
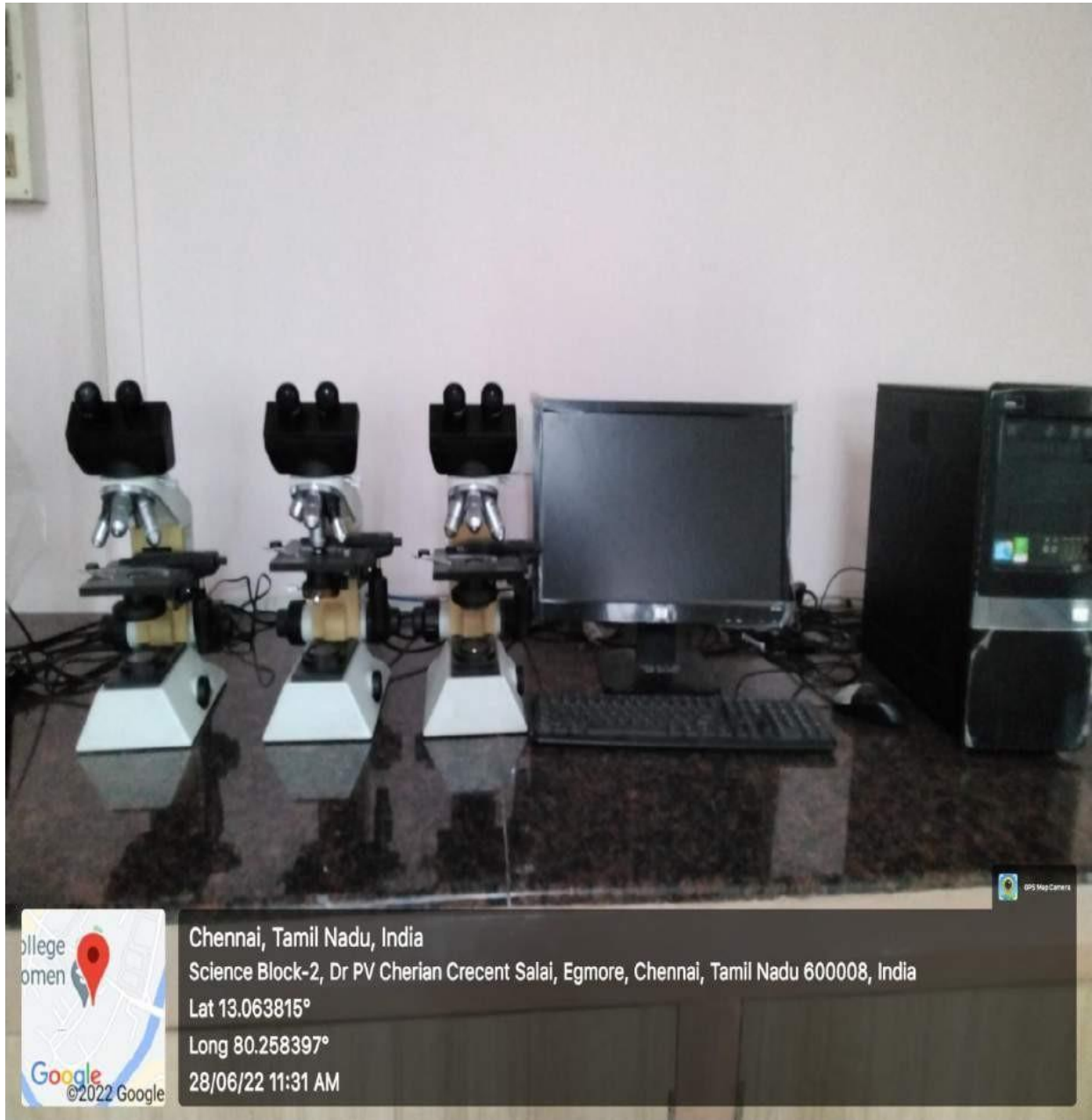
Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063813°  
Long 80.258385°  
28/06/22 11:28 AM

# 1. Viscometer



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crescent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063819°  
Long 80.258398°  
28/06/22 11:30 AM

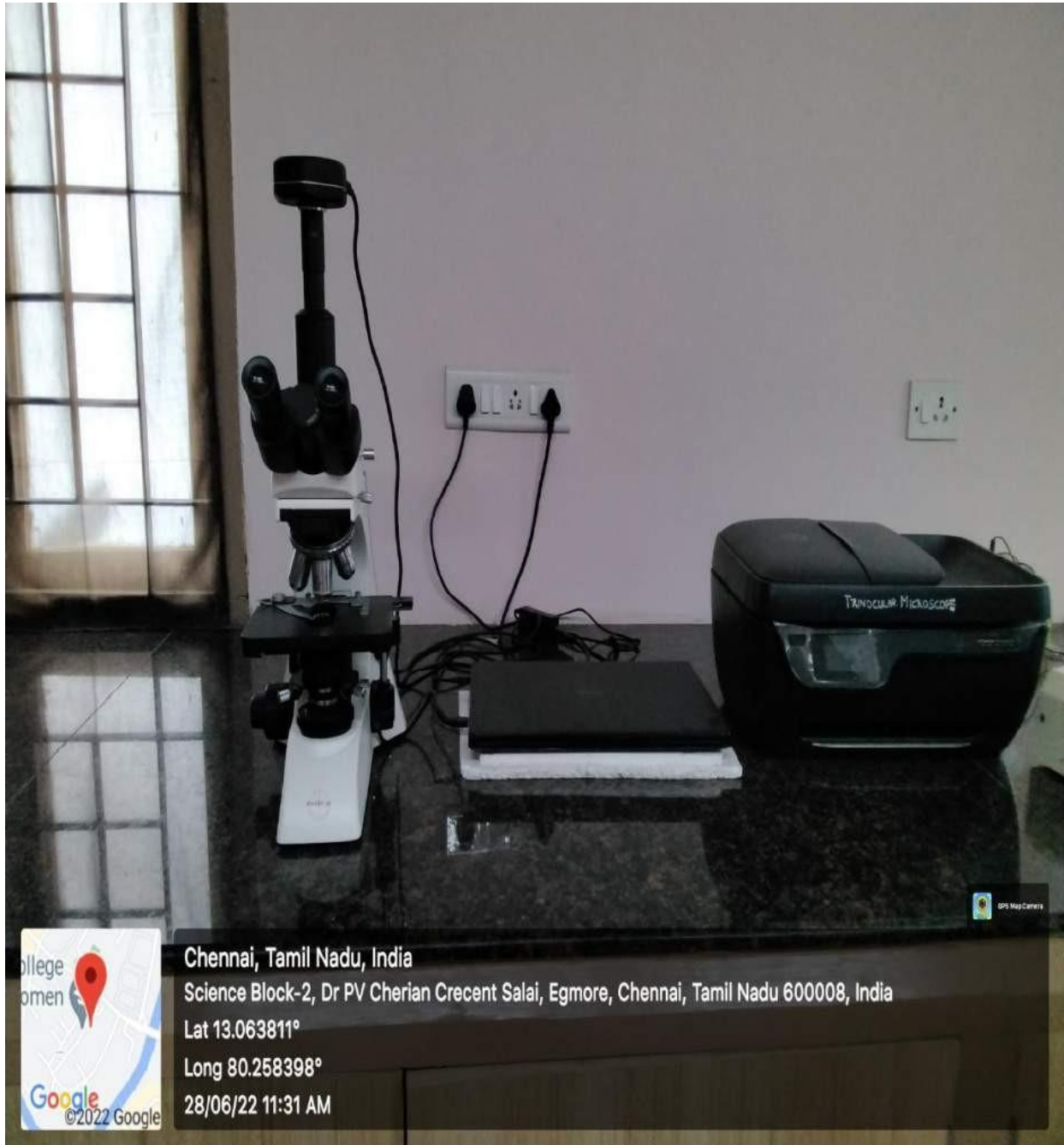
## 2. Microscope

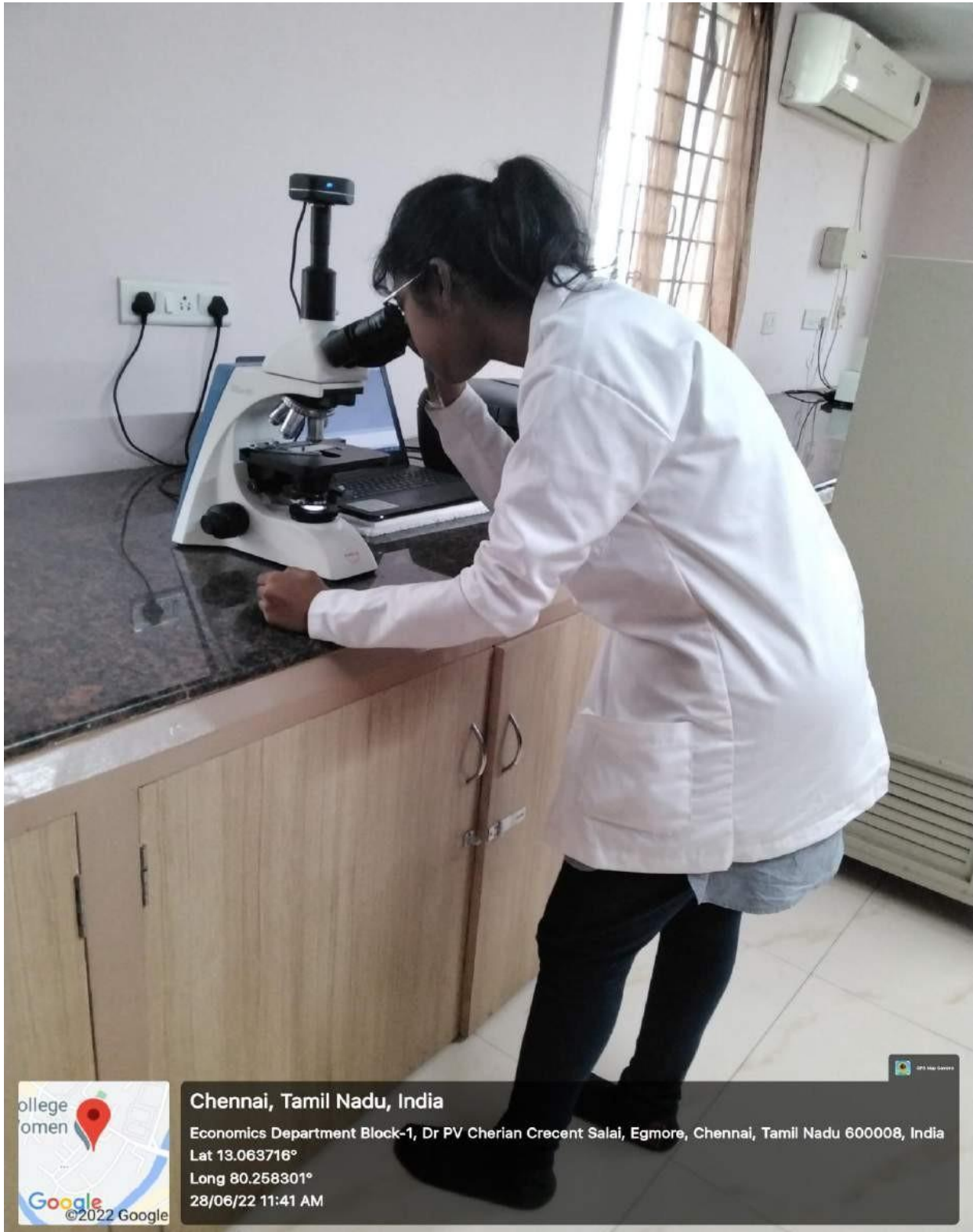


Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063815°  
Long 80.258397°  
28/06/22 11:31 AM



### 3. Trilocular Microscope





**Chennai, Tamil Nadu, India**  
Economics Department Block-1, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063716°  
Long 80.258301°  
28/06/22 11:41 AM

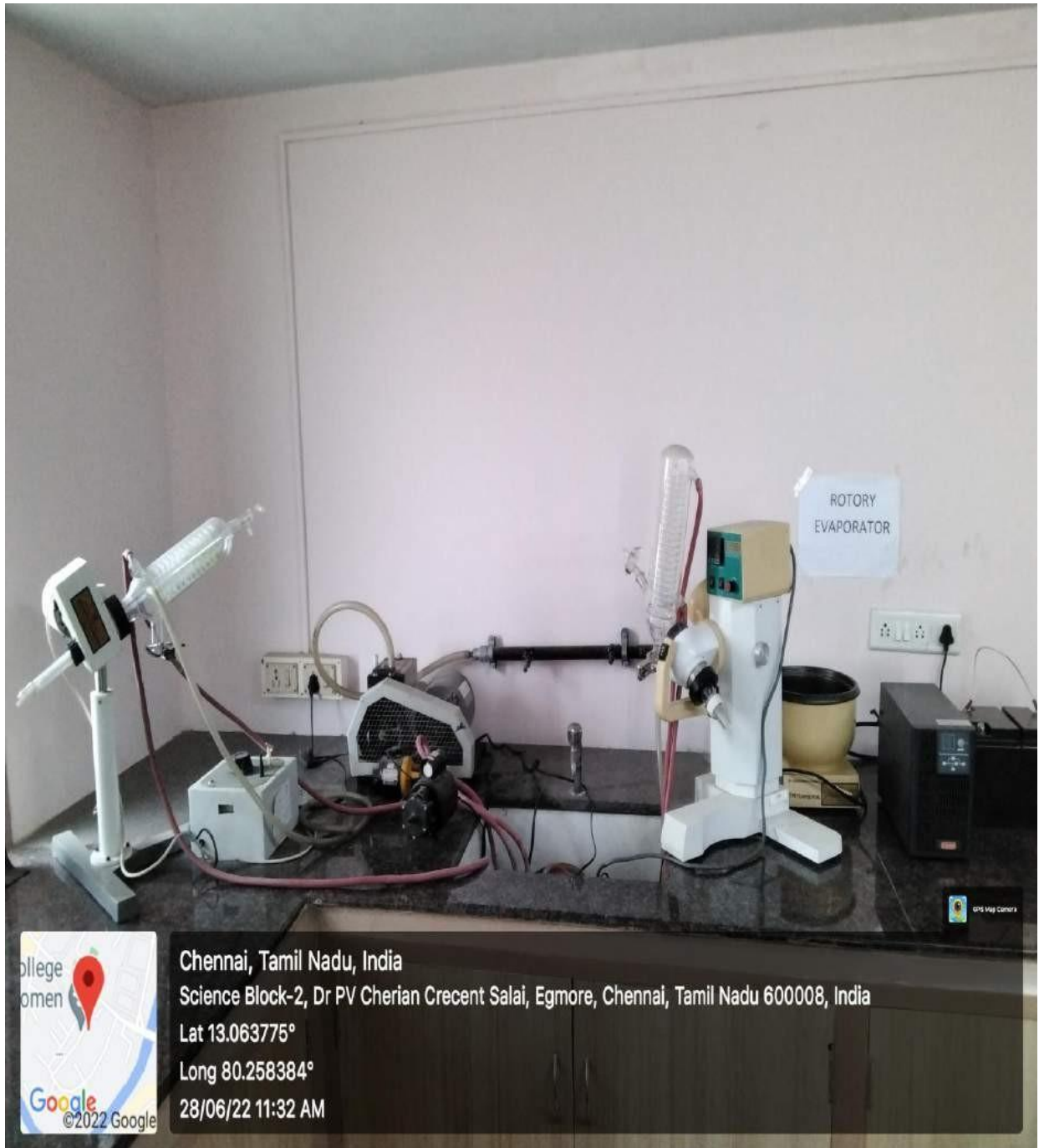
## 4. Water Bath



## 5. Spin Coating



## 6. Rotary Evaporator



## 7. Fluorescence Spectroscopy





Chennai, Tamil Nadu, India  
Block-2, Crescent Salai Rd, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.06373°  
Long 80.258362°  
28/06/22 11:42 AM

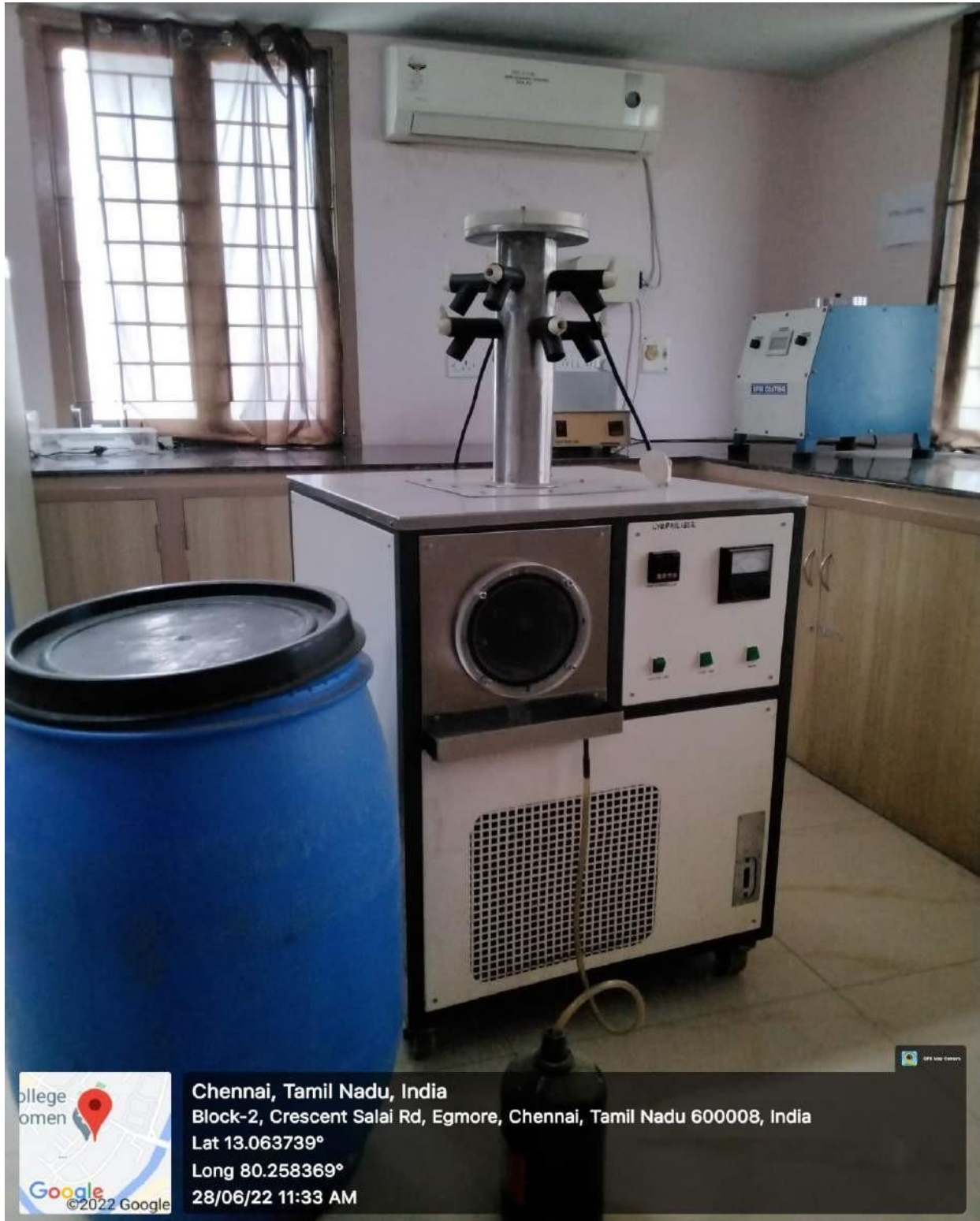
## 8. Deep Freezer



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063808°  
Long 80.258398°  
28/06/22 11:31 AM



## 9. Lyophilizer



Chennai, Tamil Nadu, India  
Block-2, Crescent Salai Rd, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063739°  
Long 80.258369°  
28/06/22 11:33 AM









Dr. A Mukhopadhyay  
Head  
R&D Infrastructure Division  
Email: [tsd@nic.in](mailto:tsd@nic.in)  
Tel. + Fax: 011-26602193

19 DEC 2013

भारत सरकार  
विज्ञान और प्रौद्योगिकी मंत्रालय  
विज्ञान और प्रौद्योगिकी विभाग  
टेक्नोलॉजी भवन नया महरौली मार्ग नई दिल्ली - 110016

GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE & TECHNOLOGY  
Department of Science & Technology  
Technology Bhawan, New Mehrauli Road, New Delhi-110016

SR/FST/College – 345/2016

December 2016

Subject: Your Proposal under "FIST Program - 2016"

Dear Sir,

This is in connection with the aforesaid proposal submitted by your College for support under the FIST Program of DST. We are happy to inform you that the aforesaid proposal has been identified for support in Level – 0 category by the DST based on the recommendations of the FIST Advisory Board (FISTAB). The details of the recommendations for 5 years duration of the project are given below:

**To strengthen Teaching and Research Facilities in all Science departments of the College.**

**E – Rs 32 lakh (Items to be identified for Teaching Facilities by the College) and Rs 45 lakh for items to be identified for Research Facilities.**

**NW – Rs 7 lakh (for Setting up Computer Lab)**

**Books – Rs 3 lakh**

**E-Learning Room – Rs 5 lakh**

**Maintenance – Rs 3 lakh**

**Total : Rs 95.0 Lakh**

**It may be noted that the allocations indicated now above with respect to any Equipment or any other budget heads are the upper limit of the budget as they are purely based on recommendations and also tentative. However, College shall now finally firm-up specifications/ configurations of each Equipment, Computational & Networking facility in Computer Lab, Infrastructure Facility as recommended above for acquiring by the College and actual cost of this project shall be firm-ed up based on these inputs from you and finally it may be less than this. The support for the 'Maintenance' will be provided as per norms under FIST Program. The type of equipment and its specifications/ configurations finalized now by the College would not be possible to change during the course of implementation of the said project. For enabling us to process the case further, including the release of 1<sup>st</sup> installment of grant now, you are requested to please submit the following documents **latest by before 10<sup>th</sup> February 2017 (Friday)**:**


- 1) One each Budgetary Quotation from Equipment supplier (all-inclusive i.e. Custom Duty, Bank & other Charges) for all Equipment recommended for support. Please ensure that the budgetary cost is not an inflated one with respect to its specifications given. In case, Equipment list "to be identified & prioritized", please submit quotations of the identified & prioritized Equipment only. Under 'Research Facility support', the College shall only provide the list of equipment whose cost shall be in the range of Rs 10-30 lakh for one single equipment and avoid projecting costing of one single equipment is less or more than that of above range. Under 'Teaching Facility Support' for Colleges, only laboratory equipment to be utilized for experimental purposes shall be proposed. Teaching Aids like LCD Projector, Smart Boards, Consumables etc. are out of scope under FIST support and shall not be projected by the College.
- 2) Details plans for implementation of the 'Networking and Computational Facilities' (NW) under the support as per guidelines mentioned in the *Terms and Conditions* of DST-FIST Program available at the Website: [www.fist-dst.org](http://www.fist-dst.org). Please download 'Terms & Conditions' and submit the same on completion of all formalities along with above-said documents to DST.
- 3) Under 'E-Learning Class Room' details & their cost estimates of Items (one Multi-media Projector with Desktop PC, Microphone, Head-sets, Speakers and related items for this purpose) along with the list of Books, etc.

- 4) For implementation of the project, the College shall constitute an 'Project Implementation Group' who shall be responsible & accountable for its implementation during the project duration of 5 years. The composition of the 'Project Implementation Group' shall be informed to DST by the College.
- 5) The respective College shall handle this project grant through only Saving Bank Account at the University/ Institute/ college level. **Hence, the concerned College shall need to forward a photocopy of a Blank Cheque only for their Institute/ University/College Bank Account which is maintained & operated by the Principal of College to facilitate the transfer of grants through ECS Transfer System. The College shall also ensure the registration of their respective organization under Plan Finance Monitoring Scheme (PFMS) [www.cga.nic.in] for R&D Support (1009) head of A/c and attach the Registration Details of their University/Institute/College along with other documents.**
- 6) In case the College is 'Grant-in-aid' or otherwise, the College shall also be required to submit the 'Grant-in-aid' certificate issued recently by the respective State Government for receiving the support.
- 7) The College is needed to certify that it is not a Non-governmental Organization (NGO), in case the same is managed by a Trust or a Sanastha even though it may either have a 'Grant-in-aid' or 'Private' status. However, in case of NGO status of any College, the College shall register with DARPAN portal of the NITI Ayog, Gol and provide the DARPAN Registration ID to us.

**College are also requested for sending all documents at one stage instead of sending in parts by Post only. Please avoid of sending these documents by Email as well as at the last moment. Incomplete documents submitted by any College would be unable to process for releasing grants and the matter would be kept pending maximum for six months, beyond which recommendations for the College deemed to be forfeited automatically for considering support under DST-FIST Program.**

We look forward for kind cooperation from you in this regard and if any clarifications are needed, please feel free to contact us. **Please submit the following documents before 10<sup>th</sup> February 2017 (Friday). All documents will be required to send by Post. Documents may not be sent by E-mail for releasing fund.**

With best regards.

  
(A. Mukhopadhyay)

To

**Principal,**  
Ethiraj College for Women,  
70, Ethiraj Salai, Egmore, Thousand Lights,  
Chennai-600008  
Tamil Nadu

[Note: E – Equipment, NW – Networking & Computational Facility, IF – Infrastructure facility, M – Maintenance]

**FIST LAB**

**ROOM NO – 140**

**LIST OF INSTRUMENTS IN ROOM NO – 140**

- 1. LAMINAR AIR FLOW CHAMBER**
- 2. HPTLC**
- 3. SHAKER INCUBATOR**
- 4. CO<sub>2</sub> INCUBATOR**
- 5. Ch - INSTRUMENT**
- 6. GEL DOC**
- 7. MICROPLATE ABSORBANCE READER**
- 8. PCR**
- 9. BLOTTING APPARATUS**



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063807°  
Long 80.25833°  
28/06/22 02:49 PM

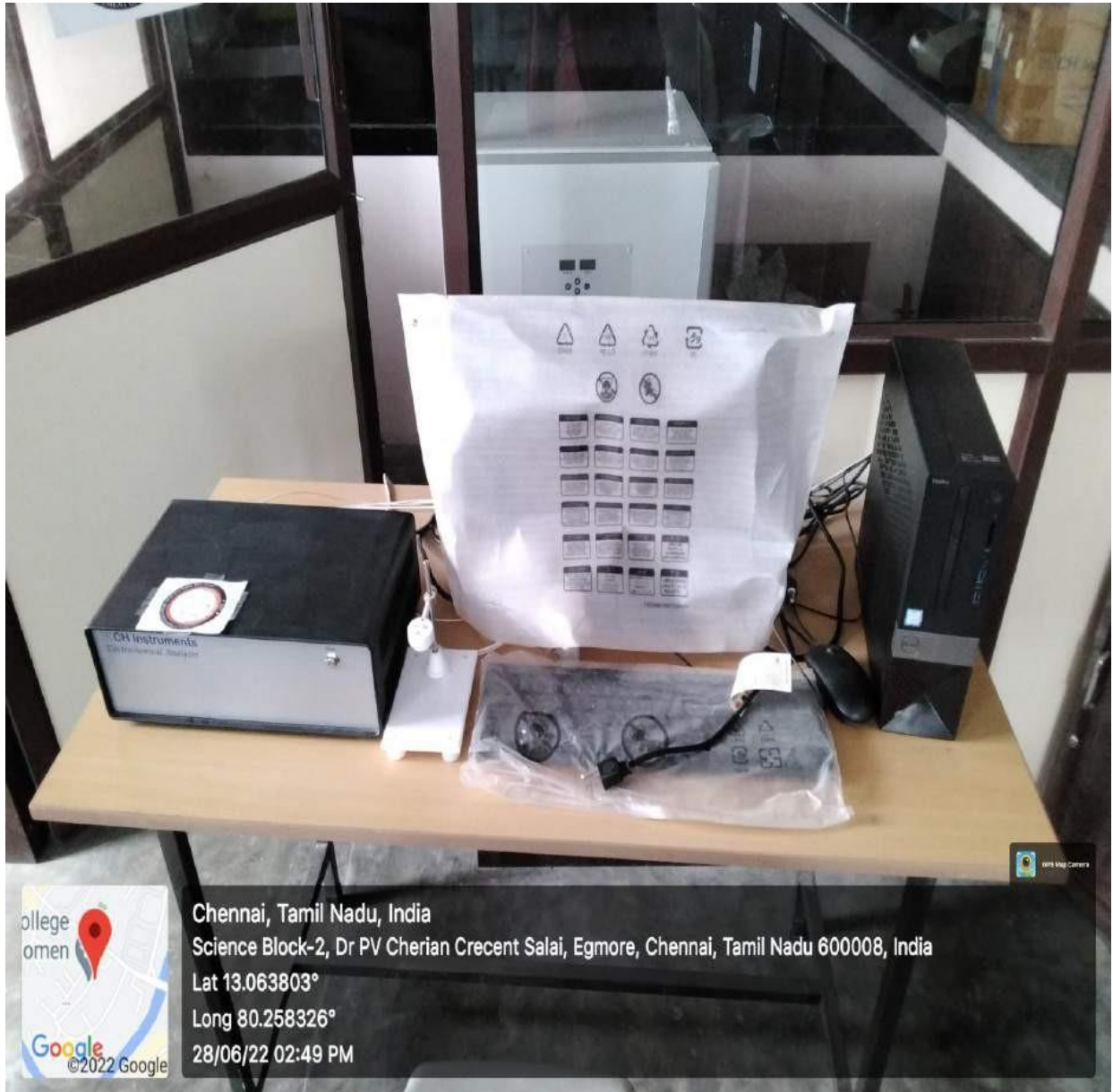


# 1. CO<sub>2</sub> Incubator





## 2. CH - Instrument



### 3. Gel Doc



#### 4. Microplate Absorbance Reader



Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.0638°  
Long 80.258329°  
28/06/22 02:51 PM

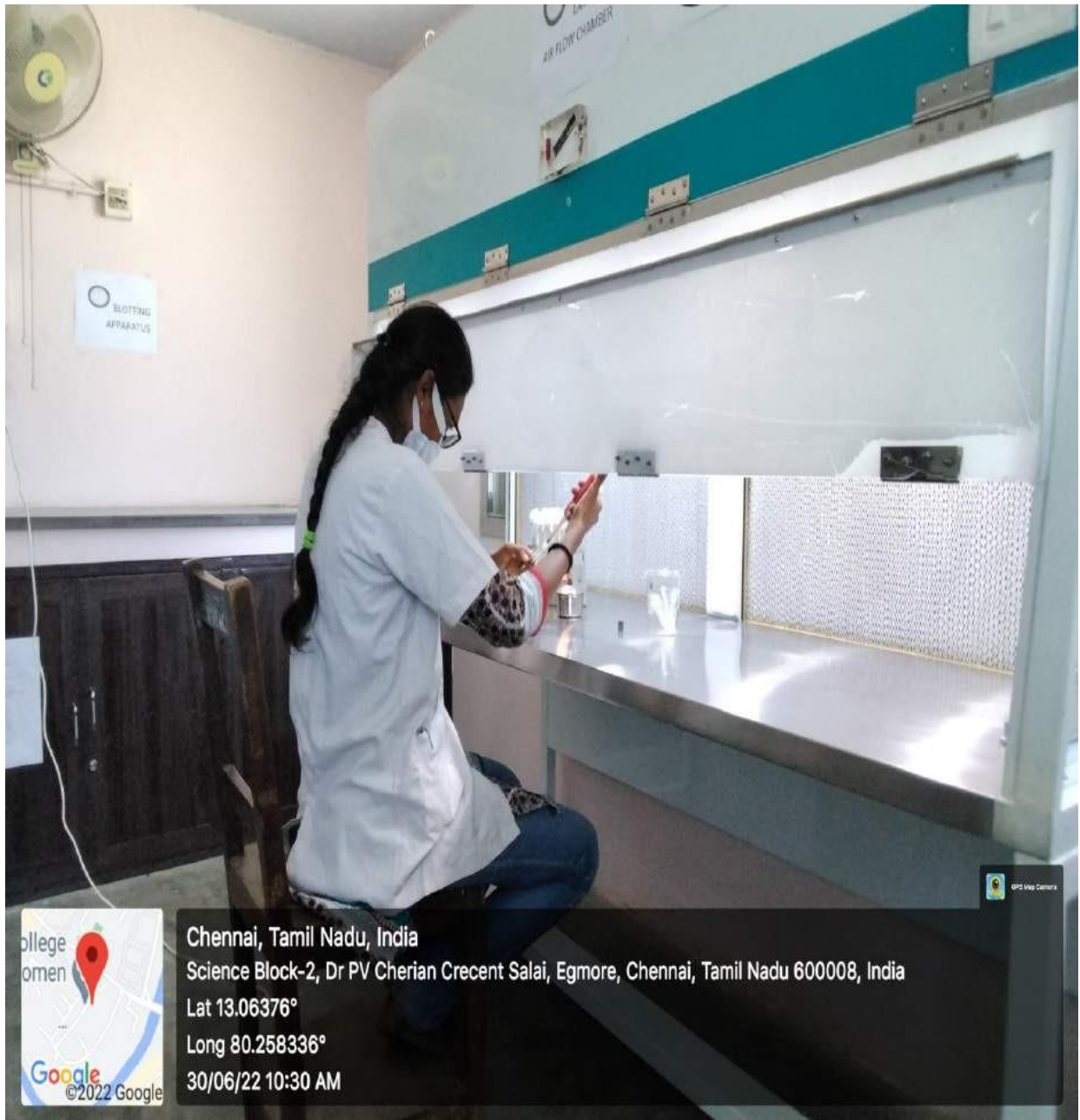


## 5. PCR



## 6. Laminar Air Flow Chamber

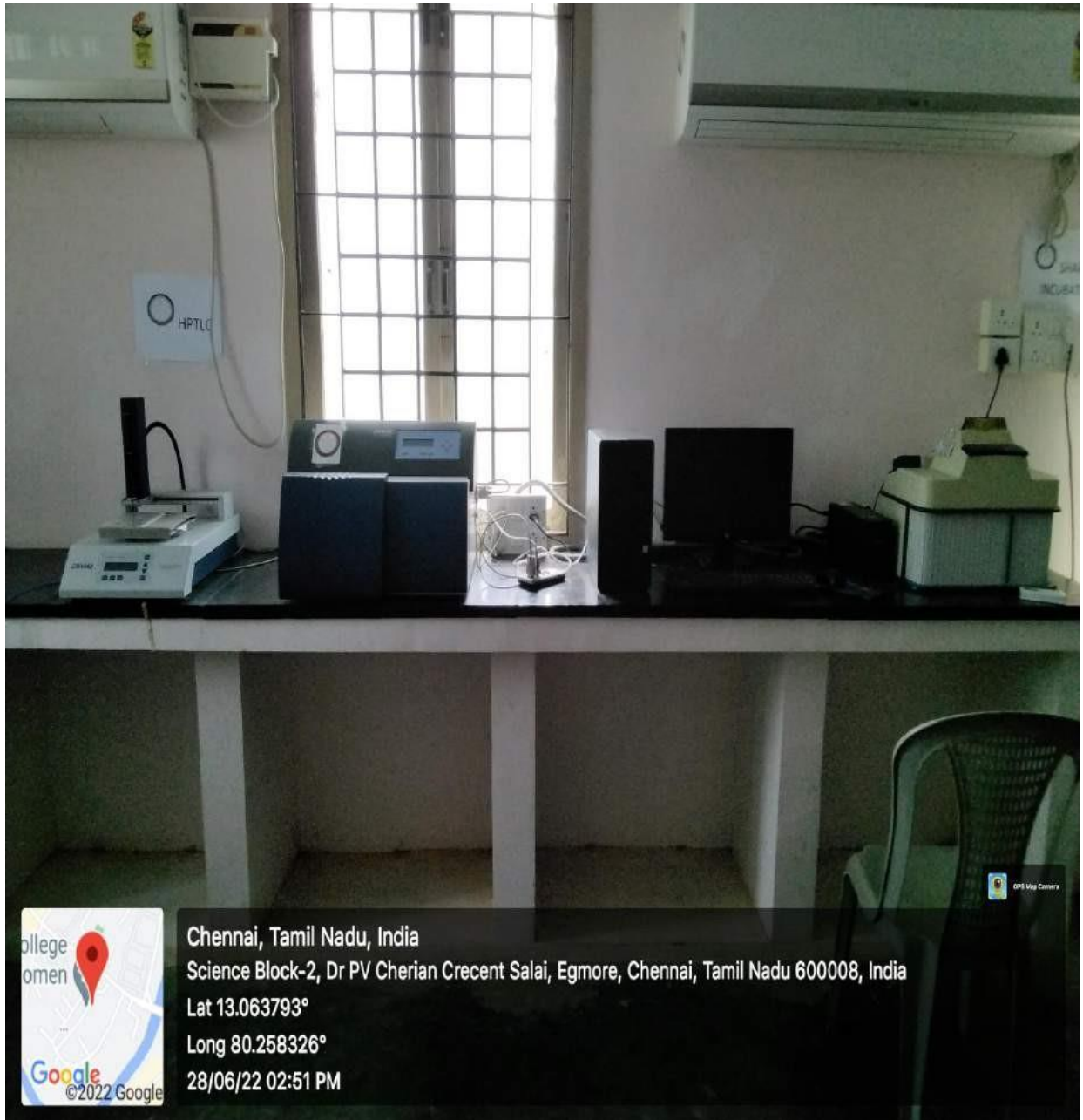




Chennai, Tamil Nadu, India  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.06376°  
Long 80.258336°  
30/06/22 10:30 AM



## 7. HPTLC



## 8. SHAKER INCUBATOR



Chennai, Tamil Nadu, India

Science Block-2, Dr PV Cherian Crescent Salai, Egmore, Chennai, Tamil Nadu 600008, India

Lat 13.063789°

Long 80.258331°

28/06/22 02:53 PM

9.





**Chennai, Tamil Nadu, India**  
Science Block-2, Dr PV Cherian Crecent Salai, Egmore, Chennai, Tamil Nadu 600008, India  
Lat 13.063784°  
Long 80.258362°  
30/06/22 10:32 AM



**INAUGURATION OF FIST FUNDED LAB ON 19.12.2019**











**INTER-COLLEGIATE WORKSHOP CONDUCTOD ON 19/08/2021**

**DEMONSTRATIONS AND LECTURES -**







