



**Avinashilingam Institute for Home Science and Higher Education for Women**

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

**Bharat Ratna Prof.CNR Rao Research Centre**

Report of the

**Workshop**

**on**

**“Surface and Interface Studies Using  
Surface Energy and Ellipsometry”**

**On 28<sup>th</sup> July 2022, Thursday**

**Time: 10.00am to 4.00pm**

### Objectives of the Workshop:

To enrich the researchers on the basic principles of Ellipsometer, Handling techniques, Instrumentation and applications of Ellipsometer for their research work.

### Report of the workshop

A workshop on "Surface and Interface Studies Using Surface Energy and Ellipsometry" was organized on 28<sup>th</sup> July 2022 Thursday at 10.00 am, at Prof.CNR Rao Research Centre when Dr.S.Kowsalya, Registrar greeted the audience. The workshop was a hands-on-training workshop only for the participants of our Institution. The workshop was organized by Dr.P.Lalitha, Professor of Chemistry and Co-ordinator, Bharat Ratna Prof.C.N.R Rao Research Centre. The resource person Dr.Aruna Dhathathreyan, Research Mentor cum Consultant, delivered a lecture on "Surface and Interface Studies Using Surface Energy and Ellipsometry".

The determination of solid-surface's characteristic surface free energy using contact angle meter and the determination of film thickness and optical constants using Ellipsometer were explained with simple examples. The attendees interacted during the session. The session ended with the feedback of the participants.

### List of Participants

Time stamp	Email id	Name of the Participant	Designation	Mobile.no	Class
7/25/2022 21:41:55	rajeswari_phy@avinuty.ac.in	Dr. N S Rajeswari Assistant Professor	Department of Physics	09944403461	Faculty
7/25/2022 22:54:04	20phphf002@avinuty.ac.in	Mehana P, Ph. D Research Scholar in Physics	Ph.D. Physics	8903842714	Ph.D Research Scholar
7/25/2022 22:55:20	20phchf003@avinuty.ac.in	Dhivya C , Ph.D Research Scholar in Chemistry	Ph.D Chemistry	9843828909	Ph.D Research Scholar
7/26/2022 6:54:57	tharaniphd@gmail.com	Tharani S	Research Scholar	7904627178	Ph.D Research Scholar
7/26/2022 10:38:17	21phchf003@avinuty.ac.in	Thrisha K	Research Scholar	6383199738	Ph.D Research Scholar
7/26/2022 10:42:00	21phchf002@avinuty.ac.in	Sindhu S, PhD in chemistry	PhD	+9195003023 09	Ph.D Research Scholar
7/27/2022	20phchf005@avinuty.ac.in	Pon Nivetha A,	Research	6379849818	Ph.D Research

2 10:09:44		Research Scholar in Chemistry	Scholar		Scholar
7/27/202 2 10:11:47	arunaponnusamy1@gmail.com	Aruna P, Ph.D Research Scholar in Chemistry	Ph.D scholar in Chemistry	9965649719	Ph.D Research Scholar
7/27/202 2 11:58:17	harimathi755@gmail.com	HARINIVASHINI R, Ph.D Research Scholar in Chemistry	Ph.D Research Scholar in Chemistry	7397174997	Ph.D Research Scholar
7/27/202 2 12:14:37	20phchf006@avinuty.ac.in	Vyshnavi.S, Research Scholar, Chemistry	Research Scholar, Chemistry	9786039599	Ph.D Research Scholar
7/27/202 2 12:52:26	20phchf002@avinuty.ac.in	Mrs.Dhanya Sruthi R,PhD in Chemistry	PhD in Chemistry	9894510376	Ph.D Research Scholar
7/27/202 2 19:18:15	raajichemist@gmail.com	Rajalakshmi R, Ph.D Research Scholar in Chemistry	Ph.D Chemistry	9080637431	Ph.D Research Scholar
7/27/202 2 20:29:09	21phfnf010@avinuty.ac.in	Sonika Thoudam, Ph.D Food Science and Nutrition	PhD	7005973396	Ph.D Research Scholar
7/27/202 2 20:29:58	21phfnf008@avinuty.ac.in	A.Geetarani Devi, PhD Research Scholar in Food Science and Nutrition	PhD Scholar	07085469451	Ph.D Research Scholar
7/27/202 2 21:17:16	21phfnf002@avinuty.ac.in	Yasmin B, Ph.D Research scholar in food science and nutrition	PhD research scholar	7200113288	Ph.D Research Scholar
7/28/202 2 7:48:24	21phchf001@avinuty.ac.in	B.Nandini, Ph.D Research Scholar in Chemistry	Ph.D Research Scholar	9095815882	Ph.D Research Scholar
7/28/202 2 9:22:55	21phfnf006@avinuty.ac.in	Tilotama Sougaijam Ph.D Research Scholar in Food science and nutrition	Phd scholar	7005728279	Ph.D Research Scholar
7/28/202 2 9:33:03	20phchf004@avinuty.ac.in	Keerthana.L	Research Scholar	9600260238	Ph.D Research Scholar
7/28/202 2 9:49:25	21phphf004@avinuty.ac.in	Shamli T C	Ph.D Physics 2nd year	7639607772	Ph.D Research Scholar

**No.of Participants: 18**

**Registration Fee: Rs.200/-**

## Attendance of the participants



**Avinashilingam Institute for Home Science and Higher Education for Women**  
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 Coimbatore - 641 043, Tamil Nadu, India

Bharat Ratna Prof.C.N.R Rao Research Centre

Workshop on "Surface and Interface Studies Using  
 Surface Energy and Ellipsometry"

### Attendance Sheet

S.No	DATE	Name of the Participant	Class/Designation	Time (FN)	Signature
1.	28/07/22	S. Vysknavi	Research scholar, Chemistry	9.51am	vysknavi
2.	28/07/22	K. Thirisha	Research scholar, Chemistry	9.51am	K.Thirisha
3.	28/07/22	R. Dhanya Sreethi	Research scholar, Chemistry	9.52 am	R.DhanyaSreethi
4.	28/07/22	L. K. Sreedhara	Research scholar, Chemistry	9.52 am	L.K.Sreedhara
5.	28/07/22	SHAMLI T.C	RESEARCH SCHOLAR, PHYSICS	9.55 am	Shamli
6.	28/07/22	P. Mehara	Research scholar, Physics	9.55 am	P.Mehara
7.	28/07/22	C. Dhivya	Research scholar, Chemistry	9.55 am	C.Dhivya
8.	28/07/22	S. Tharvani	Research scholar, Chemistry	9.55 am	S.Tharvani
9.	28/07/22	S. Srinidhi	Research scholar, Chemistry	9.55 am	S.Srinidhi
10.	28-7-22	B. NANDINI	Research scholar, Chemistry	9.55 am	B.Nandini
11.	28/7/22	A. Geetharani Devi	Research scholar, Food Science & Nutrition	9.55am	A.Geetharani
12.	28/7/22	Jyothsna Sengaiyan	Research scholar, Food Science & Nutrition	9.55 am	Jyothsna
13.	28/7/22	Sonika Shandhu	Research scholar, Food Science & Nutrition	9.55am	Sonika
14.	28/7/22	Dr. N.S. Rajeswari	Assistant Professor, Physics	9.55am	N.S.Rajeswari
15.	28/7/22	Aruna P	Research scholar, Chemistry	9.55am	Aruna
16.	28-7-22	Pon Niretha A	Research scholar, Chemistry	9.55 am	A.PonNiretha
17.	28-7-22	Harinivashini R	Research scholar, CHEMISTRY	9.50 AM	R.Harinivashini
18.	28/7/22	Gayathri S	Ph.D. Zoology, Part time	9.20 Am	Gayathri
19.					



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Coimbatore - 641 043, Tamil Nadu, India

Bharat Ratna Prof.C.N.R Rao Research Centre

Workshop on "Surface and Interface Studies Using  
Surface Energy and Ellipsometry"

## Attendance Sheet

S.No	DATE	Name of the Participant	Class/Designation	Time (AN)	Signature
1.	28/07/22	Vyshnavi. id	Research scholar, Chemistry	1.50 pm	Vyshnavi
2.	28.7.22	B. NANDINI	Research scholar chemistry	1.50pm	B.Nandi
3.	28/07/22	Tharani.S	Research Scholar Chemistry	1.50pm	ST Tharani
4.	28/07/22	Liseethan	Research scholar chemistry	1.50pm	Liseethan
5.	28/07/22	C. DHIVYA	Research scholar chemistry	1.50 PM	C. Dhivya
6.	28/07/22	P. Mehana	Research scholar Physics	1.50 PM	P. Mehana
7.	28/07/22	T. C. Shamli	Research scholar Physics	1.50 PM	T. C. Shamli
8.	28/07/22	S. Sindhu	Research scholar Chemistry	1.50 pm	S. Sindhu
9.	28/07/22	Dr.N.S. Rajeswari	Assistant Professor (SO) Physics	1.50pm	Dr. N. S. Rajeswari
10.	28/07/22	R. Dhanya Sreethi	Research scholar chemistry	1.50 pm	R. Dhanya Sreethi
11.	28/7/22	Aruna .P	Research scholar chemistry	1.50 PM	Aruna
12.	28/7/22	K. Thirisha	Research scholar chemistry	2.55 pm	K. Thirisha
13.	28/7/22	Sonika Thondar	Research scholar Food Science & Nutrition	1.50 pm	Sonika
14.	28/7/22	A. Geetharani Devi	Research scholar Food Science & Nutrition	1.50 pm	A. Geetharani
15.	28/7/22	Molana Gajajam	Research scholar Food Science & Nutrition	1.50 pm	Molana
16.	28.7.22	Pon Nivetha A	Research scholar Chemistry	1.50 PM	Pon Nivetha
17.	28.7.22	Harinivashini R	Research scholar CHEMISTRY	1.50 PM	Harinivashini
18.	28/7/22	Gayathri S	Ph.D. Zoology Part time	1.50 pm	Gayathri
19.					

## Photographs of the workshop

**Welcome the gathering: Dr.P.Lalitha, Prof of Chemistry,  
Co-ordinator,Prof.C.N.R Rao  
Research Centre**



**Greeting the audience: Dr.S.Kowsalya, Registrar**



**Master of Ceremony: Ms.Aruna P , Ph.D.Chemistry**



## Theory session





## Practical session – Hands on Training

### Batch I



## Batch II



## Feedback of event: as collected from the response of Google form

S.No	Responses
1.	Very useful and informative, learnt a lot
2.	Need more workshop like this
3.	It will be usefull for my future studies.
4.	Thank you for organizing this workshop.
5.	It can be used to find the refractive index and thickness of any formulations we prepare.
6.	To study the thickness and refractive index of our sample material
7.	Very useful technique
8.	Might be useful if I conduct research with surfaces.
9.	It was a useful topic. And it was well explained.
10.	Instrument related to energy
11.	It's was so helpful
12.	Very useful
13.	FESEM,XRD,3D-OPTICAL PROFILOMETRY
14.	Useful and Informative session
15.	I came to know abt nano scale
16.	It will be useful.
17.	Very useful to characterization purpose
18.	Kindly arrange to demonstrate CA measurement and Inform us when all can used for samples by us. Thank you
19.	Very informative and might be helpful
20.	Very informative and useful to probe into application
21.	It was not relevant to my essay here and subject it was interesting and useful session
22.	Informative
23.	Hope to join more workshops in the future and gain new and valuable knowledge
24.	Not related but gain new knowledge
25.	Informative
26.	Very informative session, gain basic knowledge about ellipsometry and surface interface studies using surface energy.

## Invitation of the event

**Avinashilingam Institute for Home Science and Higher Education for Women**  
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**Workshop on**  
"Surface and Interface Studies Using Surface Energy and Ellipsometry"  
On  
28th JULY 2022, Thursday 10.00am-1pm

**Presidential Address**

**Dr.S.Kowsalya**  
Registrar

**Technical Session**  
"Surface and Interface Studies Using Surface Energy and Ellipsometry"  
**Dr.Aruna Dhathathreyan**  
Research Mentor cum Consultant  
Avinashilingam Institute for Home Science and Higher Education for Women

Registration link: <https://tinyurl.com/cx9ycmww>  
Registration Fee: Rs.200/-  
Theory session: Gallery  
Practical session: Prof.CNR Rao Research Centre in batches of 10



**Avinashilingam Institute for Home Science and Higher Education for Women**

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Coimbatore - 641 043, Tamil Nadu, India

**Workshop on**  
**“Surface and Interface Studies Using**  
**Surface Energy and Ellipsometry”**

*On*

**28<sup>th</sup> JULY 2022, Thursday 10.00am-1pm**

**PROGRAMME**

- 10.00- 10.05 am** : Prayer
- 10.05- 10.15am** : Welcome  
**Dr.P.Lalitha**  
Professor of Chemistry,  
Director R & D i/c  
Avinashilingam Institute for Home Science and  
Higher Education for Women
- 10.20-10.35am** : Presidential Address  
**Dr.S.Kowsalya**  
Registrar  
Avinashilingam Institute for Home Science and  
Higher Education for Women
- 10.35 - 12.35pm** : Technical Session  
“Surface and Interface Studies Using  
Surface Energy and Ellipsometry”  
Dr.Aruna Dhathathreyan  
Research Mentor cum Consultant  
Avinashilingam Institute for Home Science and  
Higher Education for Women

**Feedback Session / Interaction**

- 12.50pm- 1.00pm** : Vote of Thanks  
Any 1 research scholar

Registration link: <https://tinyurl.com/ex9ycmww>

Registration Fee: Rs.200/-

Theory session: Gallery

Practical session: Prof.CNR Rao Research Centre in batches of 10

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## Certificate copy



**Avinashilingam Institute for Home Science and Higher Education for Women,  
Coimbatore-641043**

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Coimbatore - 641 043, Tamil Nadu, India

**Bharat Ratna Prof.C.N.R Rao Research Centre**

**Workshop on 'Surface and Interface Studies Using Surface Energy and Ellipsometry'**

### Certificate

**This is to certify that Harinivashini R, Ph.D Research Scholar Chemistry**

**Avinashilingam Institute for Home Science and Higher Education for Women,**

**Coimbatore**  
has participated in the Workshop on 'Surface and Interface Studies Using Surface Energy and Ellipsometry'  
organized by **Bharat Ratna Prof.C.N.R Rao Research Centre** on July 28, 2022 at **Avinashilingam Institute  
for Home Science and Higher Education for Women, Coimbatore-641043.**

  
Dean R&D

  
Registrar



Avinashilingam Institute for Home Science and Higher Education for Women  
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD) Re-accredited with 'A++' Grade by NAAC.  
Recognised by UGC Under Section 12 B Coimbatore-641 043, Tamil Nadu, India

**GUIDELINES/PROFORMA FOR ORGANISING CONFERENCES, WORKSHOPS, SEMINARS, WEBINARS OR OTHER EVENTS**

Name of the applicant: Dr.P.Lalitha Department: Bharat Ratna Prof. C.N.R Rao Research Centre



Please Tick (✓) The Appropriate Item

- 1. Activity : Workshop
- 2. Geographical Coverage : Institutional Level
- 3. Name of the Event : Surface and Interface Studies Using Surface Energy and Ellipsometry
- 4. Date : 28-7-2022
- 5. Venue : Bharat Ratna Prof. C.N.R Rao Research Centre

6. Name & Designation of Convenor/Organizing Secretary and Team

Convenor : Dr.P.Lalitha, Professor of Chemistry  
Dean i/c R& D, Co-ordinator, Prof.C.N.R Rao Research Centre,

Organizing Secretary & Team : Nishana A S, Lab technician, Prof.C.N.R Rao Research Centre.  
Gayathri S, Lab technician, Prof.C.N.R Rao Research Centre.

- 7. Financial Assistance Required : No
- 8. Details of assistance sought from other sources: No
- 9. Details of collaborating institution, if any: Nil

10. Detailed Proposal of the Activity

A. Aims/Objectives : To enrich the scholars on the basic principles of Ellipsometer, Handling techniques, Instrumentation and applications of Ellipsometer for their research work.

B. Target audience/participants with expected number: Researchers / 50

C. Details of Sessions:

Fore noon : Theory Session  
After noon : Hands on Training

vc/10/2  
25/7/22

D. Expected outcome: To gain knowledge about the instrument and its applications for research field.

11. Registration fee : Yes (Rs.200/per person)

Signature

*[Signature]*  
Finance Officer  
20/7/22

*[Signature]*  
Registrar  
20/7/22

*[Signature]*  
Dean R&D

*[Signature]*  
85/07/2022  
Vice Chancellor

Date: 19.7.2022

**General Rules for conduct of Events**

- For conducting International Events form should be submitted minimum 8 months prior to the date
- For conducting National Events form should be submitted minimum 5 months prior to the date
- For conducting Regional/Webinar form should be submitted minimum 20 days prior to the date

**The organizers thank the authorities of the Avinashilingam Institute for Home Science and Higher Education for Women for the facilities and opportunity to conduct this event.**

*[Signature]*  
28/7/2022