



Miranda House UNIVERSITY OF DELHI

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Chemistry

Year: 2016-2017 (for the period 01-07-2016 to 30-06-2017)

Staff Advisors: Dr. Smriti Sharma Bhatia and Ms. Anita Kumari

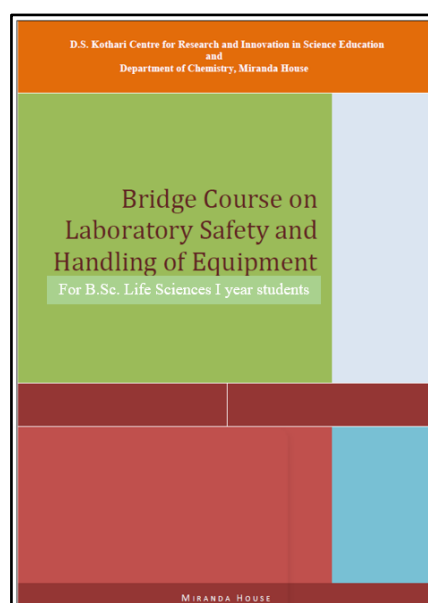
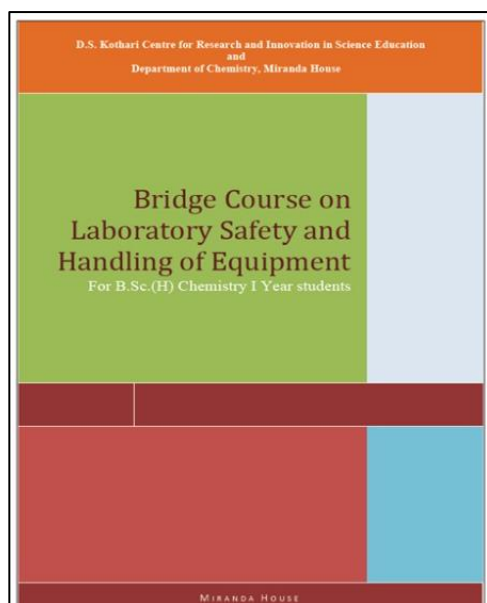
Student Office Bearers:

President	Vice President	General Secretary	Joint Secretary
Punisha Kardam	Nidhi Chaudhary	Amishi Tewari	Sukriti Mishra

Part B.1

Seminars/conferences/workshops conducted by the Department

The Academic year 2016-17 for the Chemistry Department of Miranda House started with an extremely informative Workshop: Bridge Course on Lab Safety and Handling of Equipment for B.Sc. (H) Chemistry and Life Sciences I Year students on 3-4 August 2016. The course was an attempt to bridge the gap between laboratory practices in school and college and was much appreciated by the I Year students. For many, it was their first exposure to advanced lab equipment.





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Details of students enrolled:

S.No.	Student Name	Roll No.	Course Name
1	Aakrati Kushwaha	868	B.Sc. (H) Chemistry I Year
2	Aditi Porwal	1202	B.Sc. (H) Chemistry I Year
3	Akansha Bhandari	733	B.Sc. (H) Chemistry I Year
4	Alka Dhawan	656	B.Sc. (H) Chemistry I Year
5	Amrita	383	B.Sc. (H) Chemistry I Year
6	Ananya Awasthi	578	B.Sc. (H) Chemistry I Year
7	Anju	47	B.Sc. (H) Chemistry I Year
8	Anjali Singh Senghar	488	B.Sc. (H) Chemistry I Year
9	Anshu Priya	688	B.Sc. (H) Chemistry I Year
10	Anshu Singh	922	B.Sc. (H) Chemistry I Year
11	Anupma	1494	B.Sc. (H) Chemistry I Year
12	Asha Pandey	74	B.Sc. (H) Chemistry I Year
13	Ayushi Gupta	822	B.Sc. (H) Chemistry I Year
14	Bhairavi Tripathi	610	B.Sc. (H) Chemistry I Year
15	Bhavana Meena	381	B.Sc. (H) Chemistry I Year
16	Bhumika Singh	660	B.Sc. (H) Chemistry I Year
17	Deepa Mishra	311	B.Sc. (H) Chemistry I Year
18	Deepa Shikhawat	783	B.Sc. (H) Chemistry I Year
19	Divya Gahoi	487	B.Sc. (H) Chemistry I Year
20	Elizabeth Yeldo	572	B.Sc. (H) Chemistry I Year
21	Anshika Verma	732	B.Sc. (H) Chemistry I Year
22	Garima Singh	307	B.Sc. (H) Chemistry I Year
23	Harshita Rao	19	B.Sc. (H) Chemistry I Year
24	Jyoti	632	B.Sc. (H) Chemistry I Year
25	Kaju Bhojak	931	B.Sc. (H) Chemistry I Year
26	Karishma Agrawal	353	B.Sc. (H) Chemistry I Year
27	Karuna Pratap	693	B.Sc. (H) Chemistry I Year
28	Khushboo Sharma	458	B.Sc. (H) Chemistry I Year
29	Khushboo Varshney	876	B.Sc. (H) Chemistry I Year
30	Preeti	699	B.Sc. (H) Chemistry I Year
31	K M Akriti	459	B.Sc. (H) Chemistry I Year
32	Mansi Rastogi	491	B.Sc. (H) Chemistry I Year
33	Manjeeta	1502	B.Sc. (H) Chemistry I Year
34	Megha Verma	1600	B.Sc. (H) Chemistry I Year
35	Monica verma	1417	B.Sc. (H) Chemistry I Year
36	Muskan Chaudhary	1181	B.Sc. (H) Chemistry I Year
37	Naina Yadav	827	B.Sc. (H) Chemistry I Year
38	Namrita Pandey	857	B.Sc. (H) Chemistry I Year



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39	Neelam	1501	B.Sc. (H) Chemistry I Year
40	Neetu yadav	859	B.Sc. (H) Chemistry I Year
41	Neha Patheja	677	B.Sc. (H) Chemistry I Year
42	Neha Singh	689	B.Sc. (H) Chemistry I Year
43	Nidhi	48	B.Sc. (H) Chemistry I Year
44	Nidhi Priya	556	B.Sc. (H) Chemistry I Year
45	Nidhi Singh	695	B.Sc. (H) Chemistry I Year
46	Palak Majitha	794	B.Sc. (H) Chemistry I Year
47	Palkaran	684	B.Sc. (H) Chemistry I Year
48	Pallavi Shekhar	927	B.Sc. (H) Chemistry I Year
49	Pooja	839	B.Sc. (H) Chemistry I Year
50	Pragati Gautam	257	B.Sc. (H) Chemistry I Year
51	Priya	1618	B.Sc. (H) Chemistry I Year
52	Priyanka	655	B.Sc. (H) Chemistry I Year
53	Priyanka	721	B.Sc. (H) Chemistry I Year
54	Priyanka	908	B.Sc. (H) Chemistry I Year
55	Priyanka Jain	863	B.Sc. (H) Chemistry I Year
56	Priyanka Meena	843	B.Sc. (H) Chemistry I Year
57	Priyanka Singh	1594	B.Sc. (H) Chemistry I Year
58	Rashmi Devi	620	B.Sc. (H) Chemistry I Year
59	Renu Kumari	1266	B.Sc. (H) Chemistry I Year
60	Rupal Garg	65	B.Sc. (H) Chemistry I Year
61	Rupali Verma	723	B.Sc. (H) Chemistry I Year
62	Sakshi Antil	735	B.Sc. (H) Chemistry I Year
63	Sakshi Jaiswal	236	B.Sc. (H) Chemistry I Year
64	Samridhi Pratap Singh	901	B.Sc. (H) Chemistry I Year
65	Sapna	450	B.Sc. (H) Chemistry I Year
66	Shaivi Kesari	698	B.Sc. (H) Chemistry I Year
67	Sheetal Kalra	705	B.Sc. (H) Chemistry I Year
68	Sheetal vaidhv	1186	B.Sc. (H) Chemistry I Year
69	Simran	704	B.Sc. (H) Chemistry I Year
70	Simran Meena	1469	B.Sc. (H) Chemistry I Year
71	Sonam Verma	256	B.Sc. (H) Chemistry I Year
72	Surbhi Sharma	828	B.Sc. (H) Chemistry I Year
73	Tanvi Gupta	915	B.Sc. (H) Chemistry I Year
74	Taru Tomar	682	B.Sc. (H) Chemistry I Year
75	Tiya	933	B.Sc. (H) Chemistry I Year
76	Toshi	944	B.Sc. (H) Chemistry I Year
77	Vandana Baghel	838	B.Sc. (H) Chemistry I Year
78	Varsha Verma	489	B.Sc. (H) Chemistry I Year
79	Vartika Tripathi	642	B.Sc. (H) Chemistry I Year



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80	Vibhuti Mehta	850	B.Sc. (H) Chemistry I Year
81	Vinita Jangra	654	B.Sc. (H) Chemistry I Year
82	Yashasvi Rajora	819	B.Sc. (H) Chemistry I Year
83	Yashi	992	B.Sc. (H) Chemistry I Year
84	Zahara Batool	1512	B.Sc. (H) Chemistry I Year
85	Vidhushi	97	B.Sc. (H) Chemistry I Year
86	KM Garima	788	B.Sc. (H) Chemistry I Year

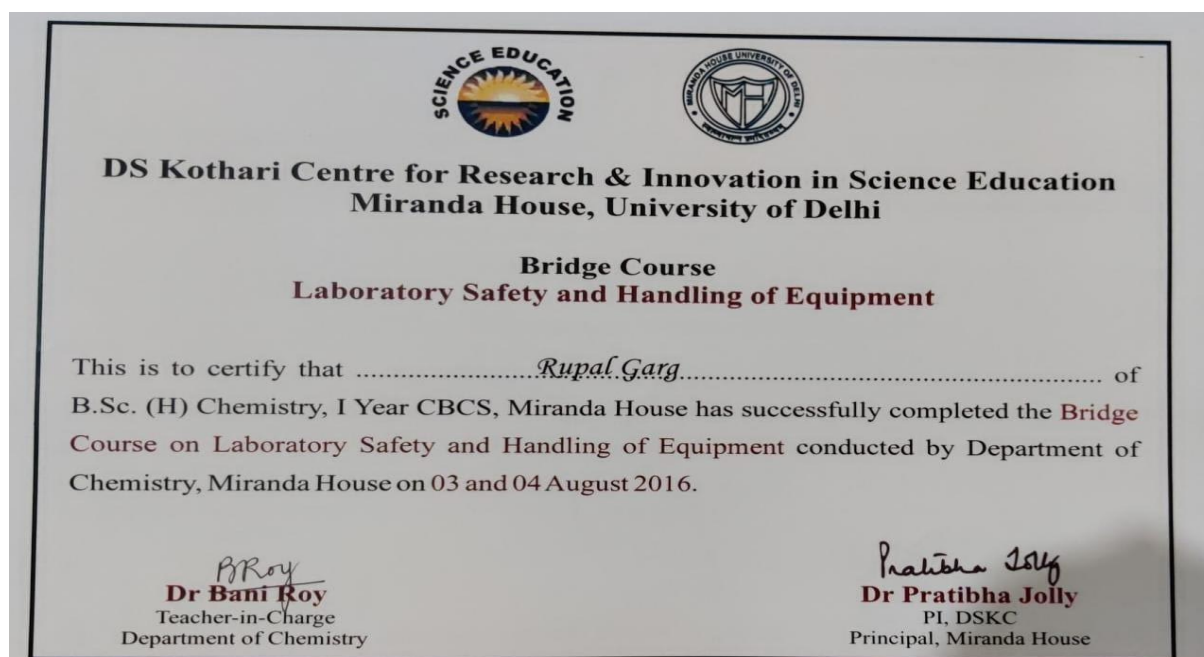
S.No	Name	Roll No.	Course Name
1	Aakanksha Yadav	2016/1344	B.Sc. Life Science I Year
2	Akanksha	2016/175	B.Sc. Life Science I Year
3	Amisha Singh	2016/980	B.Sc. Life Science I Year
4	Anjali	2016/1570	B.Sc. Life Science I Year
5	Anjali Yadav	2016/1575	B.Sc. Life Science I Year
6	Ankita	2016/78	B.Sc. Life Science I Year
7	Ayushi Saini	2016/145	B.Sc. Life Science I Year
8	Chhavi	2016/190	B.Sc. Life Science I Year
9	Dachen Chosnith	2016/1246	B.Sc. Life Science I Year
10	Glory Simran	2016/42	B.Sc. Life Science I Year
11	Harsha Nath	2016/1341	B.Sc. Life Science I Year
12	Heena Marwah	2016/37	B.Sc. Life Science I Year
13	Hiteshi Vaidya	2016/166	B.Sc. Life Science I Year
14	Jyotsna	2016/1598	B.Sc. Life Science I Year
15	Kajal	2016/1478	B.Sc. Life Science I Year
16	Kajal Mavi	2016/1064	B.Sc. Life Science I Year
17	Kritika Chauhan	2016/57	B.Sc. Life Science I Year
18	Mahima Yadav	2016/1265	B.Sc. Life Science I Year
19	Malika Saini	2016/1613	B.Sc. Life Science I Year
20	Mangshatabam Devika Chanu	2016/1451	B.Sc. Life Science I Year
21	Meghna Joon	2016/279	B.Sc. Life Science I Year
22	Mridani Purohit	2016/49	B.Sc. Life Science I Year
23	Nancy Ladwal	2016/1528	B.Sc. Life Science I Year
24	Niharika Gangwar	2016/187	B.Sc. Life Science I Year
25	Nivedita Rathor	2016/251	B.Sc. Life Science I Year
26	Parul	2016/1614	B.Sc. Life Science I Year
27	Pooja Sethi	2016/168	B.Sc. Life Science I Year
28	Poojita	2016/268	B.Sc. Life Science I Year



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29	Prabhkeerat Kaur Dhillon	2016/129	B.Sc. Life Science I Year
30	Pratika Dhussa	2016/73	B.Sc. Life Science I Year
31	Priya Gautam	2016/1260	B.Sc. Life Science I Year
32	Rajkumari Rajeshree Devi	2016/1404	B.Sc. Life Science I Year
33	Seema Bharti	2016/1586	B.Sc. Life Science I Year
34	Shaifali Singh	2016/6	B.Sc. Life Science I Year
35	Sheetal Chauhan	2016/180	B.Sc. Life Science I Year
36	Shivangi Tiwari	2016/278	B.Sc. Life Science I Year
37	Shreeya Srivastava	2016/174	B.Sc. Life Science I Year
38	Smriti Mishra	2016/69	B.Sc. Life Science I Year
39	Srishti S Ghosh	2016/306	B.Sc. Life Science I Year
40	Stanzin Yangdol	2016/1400	B.Sc. Life Science I Year
41	Sweety Singh	2016/1263	B.Sc. Life Science I Year
42	Tanisha Yadav	2016/855	B.Sc. Life Science I Year
43	Tanya Rana	2016/1399	B.Sc. Life Science I Year

Number of students successfully completing the course: 129





Miranda House UNIVERSITY OF DELHI



**DS Kothari Centre for Research & Innovation in Science Education
Miranda House, University of Delhi**

**Bridge Course
Laboratory Safety and Handling of Equipment**

This is to certify that*Simran*..... of
B.Sc. (H) Chemistry, I Year CBCS, Miranda House has successfully completed the Bridge
Course on Laboratory Safety and Handling of Equipment conducted by Department of
Chemistry, Miranda House on 03 and 04 August 2016.

B.Roy
Dr Bani Roy
Teacher-in-Charge
Department of Chemistry

Pratibha Jolly
Dr Pratibha Jolly
PI, DSKC
Principal, Miranda House



Miranda House UNIVERSITY OF DELHI

The Inaugural Lecture of the Department, *A Motivational Talk for Chemistry Students*, was delivered by Professor Gurmeet Singh, Head, Department of Chemistry, University of Delhi on 21 September 2016. Prof. Singh had delivered enjoyable talk.

RASAYANIKA
The Chemical Society
Miranda House
PRESENTS
The inaugural lecture of the department

A MOTIVATIONAL TALK FOR CHEMISTRY STUDENTS
By
PROFESSOR GURMEET SINGH
Head, Department of Chemistry
University of Delhi

21 September, 2016

note to self:
DO NOT QUIT



Miranda House UNIVERSITY OF DELHI

A workshop for students entitled *Green Chemistry and Environment* was organized by the Department of Chemistry, Miranda House on 6 and 7 February 2017.

Prof Shyamala Mani of National Institute of Urban Affairs, New Delhi spoke on *Sustainable and Safe Plastics Waste Recycling*;

Mr Siddharth Saran from Petroleum Conservation Research Association (PCRA), New Delhi spoke on *Oil and Natural Gas Conservation*.

Dr Pranab J. Patar, Senior Manager from Earth watch Institute India delivered an interactive talk on *Citizen Science, Green Skill and Sustainable Future – Some Alternative Perspectives in Indian Context*

Workshop on Green Chemistry and Environment

6 and 7 February 2017

DAY 1	Monday, 6 February 2017
09.00 am to 10.00 am	<i>Twelve Principles of Green Chemistry</i> <u>Dr. Sharda M Sonkar</u>
10.00 am to 11.30 am	<i>Sustainable and Safe Plastics Waste Recycling</i> <u>Dr. (Ms) Shyamala Mani</u> , Professor, National Institute of Urban Affairs (NIUA)
11.30 am to 01.00 pm	Hands-on Workshop Sessions <i>Molecular Modelling</i> <u>Dr. Kalawati Saini</u> and <u>Dr. Smriti S Bhatia</u>
01.00 pm to 01.30 pm	Lunch
02.00 pm to 02.30 pm	<i>Green Chemistry: Prerequisite for Sustainable Development</i> <u>Dr. Anshika Lumb</u> and <u>Dr. Deepti Rawat</u>
02.30 pm to 03.30 pm	Hands-on Workshop Sessions <u>Dr. Anshika Lumb</u>
03.30 pm to 04.30 pm	Hands-on Workshop Sessions <i>Green Methods in Organic Laboratory</i> <u>Dr. Sharda M Sonkar</u> , <u>Ms. Nutan Rani</u> and <u>Ms. Anita Kumari</u>
DAY 2	Tuesday, 7 February 2017
09.00 am to 11.00 am	Hands-on Workshop Sessions <i>Spot Tests in Qualitative Inorganic Analysis</i> <u>Dr. Madhulika J Verma</u> , <u>Dr. Bani Roy</u> and <u>Dr. Deepti Rawat</u>
11.00 am to 12.00 noon	<i>Oil and Natural Gas Conservation</i> <u>Petroleum Conservation Research Association</u>
12.00 noon to 12.45 pm	<i>Applications of Green Chemistry and Career Opportunities</i> <u>Dr. Sujata Sengupta</u>
12.45 pm to 01.30 pm	<i>Degradation of Atrazine under milder conditions using Cobalt(II) phthalocyanines as catalyst</i> <u>Dr. Poonam</u>
01.30 pm to 02:00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Natural Indicators and their Practical Applications</i> <u>Dr. Adarsh Gulati</u> , <u>Dr Amrita T Sheikh</u> , <u>Dr Mallika Pathak</u> and <u>Dr Bani Roy</u>

A seminar for students entitled “Scientific Methods of Solving Crime Scenes’ by Dr. G.S. Sodhi, Dept. of Chemistry, Sri Guru Tegh Bahadur Khalsa College – part of *Pratikriya 2017* was organized by Department of Chemistry, Miranda House on 29 March 2017 in which 100 students participated.

RASAYANIKA:
THE CHEMICAL SOCIETY OF
MIRANDA HOUSE

Presents
An interactive Seminar on:

**SCIENTIFIC
METHODS OF
SOLVING CRIME
SCENES**

Date:
21 September, 2016

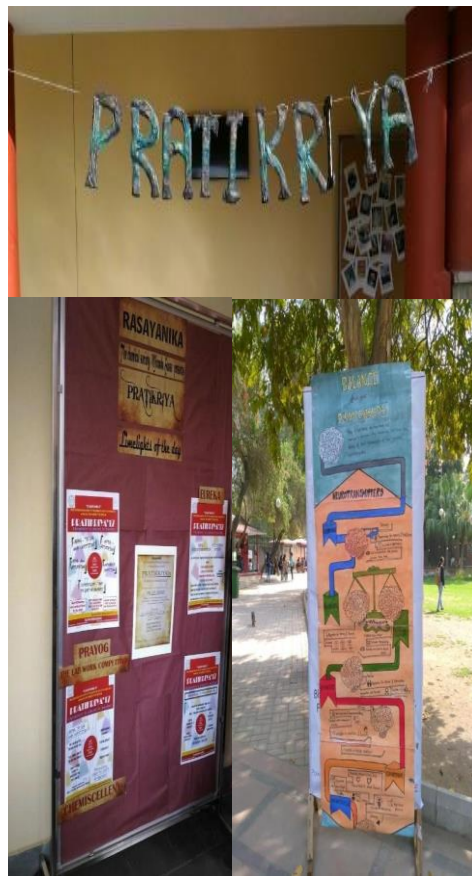
Speaker:

Dr. G S Sodhi
Department of Chemistry,
Sri Guru Tegh Bahadur Khalsa College,
University Of Delhi



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Pratikriya 2016-17, the annual Inter- College Chemistry Festival for the current session was held on 29 March 2017 and attracted enthusiastic participation from within and outside.



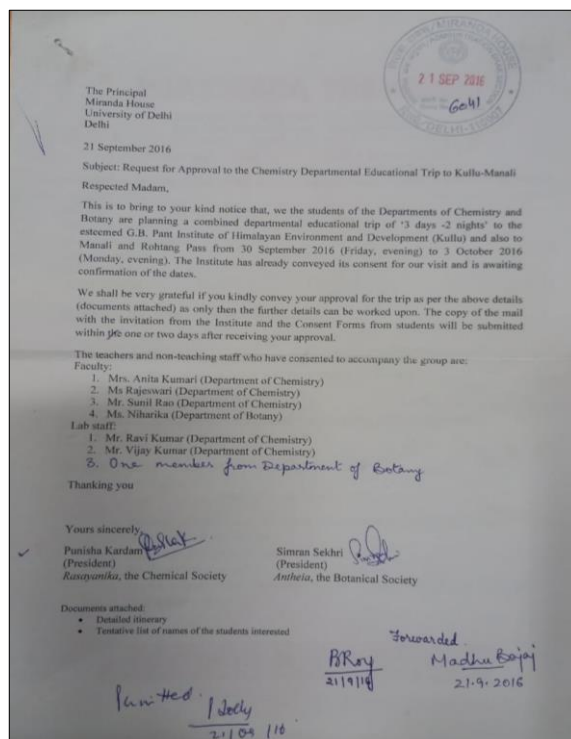


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Part B.3

Any other event organized as part of students' activities

Around 40 students and 4 faculty members from the Departments of Chemistry and Botany went for an **educational-cum-sightseeing trip to Kullu and Manali** on 30 October 2016. They visited the GB Pant Institute of Himalayan Environment and Development, Kullu, on 3 November 2016. It was an enjoyable and informative visit. The students were introduced to many Himalayan plant species they were unaware of and got a glimpse of the interdependence between humans and the environment in the Himalayan region.



An educational trip to the Ministry of Environment, Forest and Climate Change housed in the Indira Paryavaran Bhavan was arranged by the Department of Chemistry, Miranda House on 18 April 2017 for the students of Green Chemistry and Environment add-on course and B.Sc.(H) Chemistry III Year.



Miranda House UNIVERSITY OF DELHI

Report : Online Labs for School Experiments

The Department in collaboration with Amrita University, Kerala organized a Workshop for School Teachers on Online Labs for School Experiments on 11 April 2017. The workshop was held under the D S Kothari Centre for Research and Innovation in Science Education (DSKC) and had 35 participants from various schools of Delhi.



Email Exchanges

From: **pantina chandrashekhar** <pantinashekhkar87@gmail.com>
Date: 15 March 2017 at 13:33
Subject: Greetings from Amrita - OLabs
To: mallika.pathak@mirandahouse.ac.in,.....

Respected Sir/Madam,

Greetings from Amrita University!

Online Labs for School Experiments (OLabs) is a novel e-Learning project developed by Amrita University, Kerala and CDAC, Mumbai with support from MeitY, GoI and based on the concept of virtual learning environment.

We plan to conduct olabs workshop in Delhi in April 3rd and 4th week.

As advised by you, we request that OLabs is considered by CBSE for inclusion in the teacher training programs for both CBSE Schools.

Please note the following

1. OLabs was selected for nationwide launch by *hon'ble Minister, MeitY, Shri Ravi Prasad Shankar* (attached)
2. OLabs was *evaluated by CBSE review* committee and *officially endorsed* via. a circular (attached)



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3. *The Physics, Chemistry and Biology labs *are mapped to NCERT/CBSE syllabus.
4. The Labs are available in English and also *being translated to Hindi, Malayalam and Marathi*.
5. OLabs is available on *National Knowledge Network *
6. OLabs is *free access* via. Internet
7. Schools without internet can be given a CD/DVD with the OLabs software
8. DeitY is supporting in *the training 30,000 teachers free of cost* in the next 3 years.
9. There is *no financial implication to CBSE* or the schools for using OLabs as software was supported by DeitY, GoI

We request your assistance in training your schools in your venue.

Regards
Chandrashekhar
9940653418

Mallika Pathak <mallika.pathak@mirandahouse.ac.in>

Wed, Mar 15, 2017, 8:05
PM

to Principal, Mallika, Bani, me, Sadhna, Sharda.Sonkar

Dear Madam

The Department of Chemistry and Department of Physics are planning to jointly organise a one day workshop for school teachers entitled "Online Labs for Science Experiments" in the 3rd or 4th week of April.

The lectures and hands-on practical sessions will be organised by the resource person from Amrita University, Kerala.

This is to request you to kindly permit us to hold the workshop under the aegis of DS Kothari Centre for Research and Innovation in Science Education and DBT Star College Project.

Warm regards
Mallika



Miranda House UNIVERSITY OF DELHI

List of Participants

Name	Designation (TGT/PGT/College)	Institution
NEHA MALIK	PRT	EDMCPS NAND NAGRI C1
Mrs Nishi Arora	PGT (retd)	St.Xavier's school.
Samira Gulati	TGT	K.R.Mangalam World School
Amita Bajpai	PGT	The Shri Ram School- Mousari
Dr Mamta Rajput	Assistant Professor	SPM College
Dr. Pratima M. Lall	PGT	Somerville School
Priya Khurana	Assistant Professor	Aditi Mahavidyalaya, University of Delhi
Vaishali	College	Aditi Mahavidyalaya
Deepmala Kaushik	College	Aditi Mahavidyalaya
Manisha Yadav	Assistant Professor	SPM College, University of Delhi
Shruti	College	Aditi Mahavidyalaya
Dr.Aradhana Mani	Assistant Professor	Mata Sundri College for Women, University of Delhi
Neha Prasad	College	Aditi Mahavidyalaya College DU
PRIYANKA TYAGI	PGT	DAV PUBLIC SCHOOL VASANT KUNJ
Shivani Verma	College	Aditi Mahavidyalaya,DU
Priyanka	College	Aditi Mahavidyalaya
Manisha	College	Aditi Mahavidyalaya
Prachi	College	Delhi University
Madhu	College	Delhi University
Neetu	College	Aditi Mahavidyalaya
Parminder Chopra	PGT	DPS, R K Puram
Priya	College	Aditi Mahavidyalaya
Annu	Student	Aditi Mahavidyalaya
Shelly	College	Delhi University
Dr. Geeta Rani	Assistant Professor	Miranda House
Payal	College	Aditi Mahavidyalaya
Dr. Nirmla Saini	Assistant Professor	Miranda House
Rachna Singh	College	Miranda House
Yukti Bansal	Student	Miranda House
Isha Joshi	College	Miranda House
NEHA GARG	PGT	RAMJAS SCHOOL PUSA ROAD
Dr Adarsh Gulati	Associate Professor	Miranda House
Dr Sujata Sengupta	Assistant Professor	Miranda House
Ms Nutan Rani	Assistant Professor	Miranda House
Dr Deepti Rawat	Assistant Professor	Miranda House



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Photographs

Flex outside Digital Resource Centre



Resource Person, Mr P. Chandrashekher delivering lecture





Miranda House

UNIVERSITY OF DELHI

Training Program in progress



Participants at work



Some participants with faculty members
Department of Chemistry, Miranda House





Miranda House UNIVERSITY OF DELHI

Certificate Issued to Resource Person



MIRANDA HOUSE
मिरांडा हाऊस

To Whomsoever It May Concern

This is to certify that **Mr Chandrashekhhar Pantina** of **Amrita Create** has trained 21 teachers as part of the workshop **Online Labs for School Experiments** organized by Departments of Chemistry and Physics, Miranda House, University of Delhi in collaboration with Amrita University, Kerala. He has paid Rs 600 for the snacks arranged for the participants for the same.

Dr. Mallika Pathak Dr. Sharda M. Sonkar

Coordinators



Miranda House

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Awards and recognition received

Chemistry students won a number of awards and recognition for their achievements in 2016-17.

1. Sakshi Antil won the First Prize in the Poster-making competition at Sri Aurobindo College at the National Seminar on *Emerging Issues of Climate Change: Sustainability and Economic Implications* sponsored by ICSSR.
2. Sakshi also won the First Prize of Rs. 500/- at the Poster-making competition at Daulat Ram College.
3. Garima Singh received a cash prize of Rs. 1000/- for securing 2nd position at the MH Freshers" Quiz.
4. Karisma Aggarwal completed the Global Certification Programme "Green Revolution", an initiative by International Centre for Culture and Education(ICCE) in October 2016.
5. Ishita Chandra received a certificate for a poster presented at GITAM University, Vishakhapatnam.
6. Raksha Jain secured the First Position in the Baseline Chemistry Test, MH 2016-17 as well as the Association of Chemistry Teachers (ACT) Concept Test 2016.
7. Manisha and Shruti secured the 2nd and 3rd positions respectively in the Baseline Chemistry Test 2016-17.
8. Raksha also got the Third Prize in the poster competition held in Dyal Singh College.
9. Smriti Bhardwaj secured the 1st position in the Inter-college Chess Tournament held in Kirori Mal College and the 2nd position in tournaments held in Sri Ram College of Commerce, Gargi College and Lady Sri Ram College respectively.
10. Preeti Choudhary received state and national certificates in Ball Badminton and National Camp certificate in NCC in 2016
11. .Sheetal and Simran participated in the Self Defence Training organised by Delhi Police from 9 to 24 January 2017 in Kirori Mal College.
12. Kriti Kapil interned for 2 months at Nysa Health, Global Business Park Gurgaon for website content creation, marketing and app development at a stipend of Rs. 30,000.
13. Sukriti received a Certificate of Appreciation for volunteering in *Yamuna Shramdaan* organised by *Swechha India*.



Miranda House

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14. Faculty and students involved in Innovation Project MH-306: *Design of Affordable Water Purification Devices Using Green and Ecofriendly Silver Nanoparticles* received the certificate of *Most Promising Innovation* at 93rd Annual Convocation of University of Delhi held on 19 November 2016.