



Miranda House

UNIVERSITY OF DELHI

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Chemistry

Year: 2019-2020 (for the period 01-07-2019 to 30-06-2020)

Staff Advisors: Dr. Kalawati Saini and Dr. Anshika Lumb

Office bearers:

President	Vice President	General Secretary	Joint Secretary
Nikita Grover	Maria Amin	Garima	Ojaswita

Part B.1

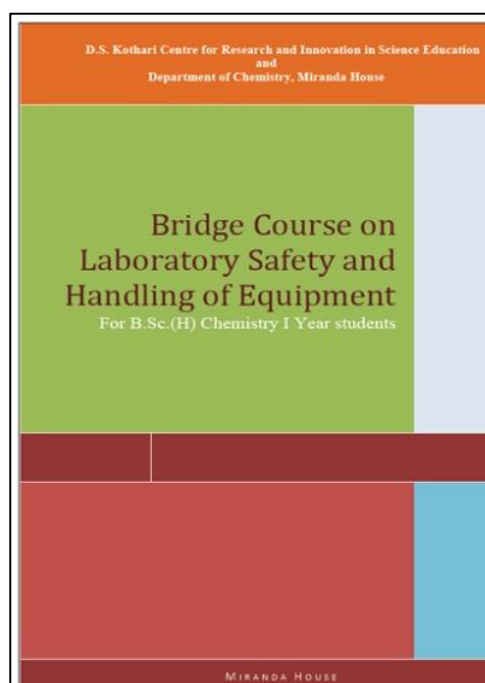
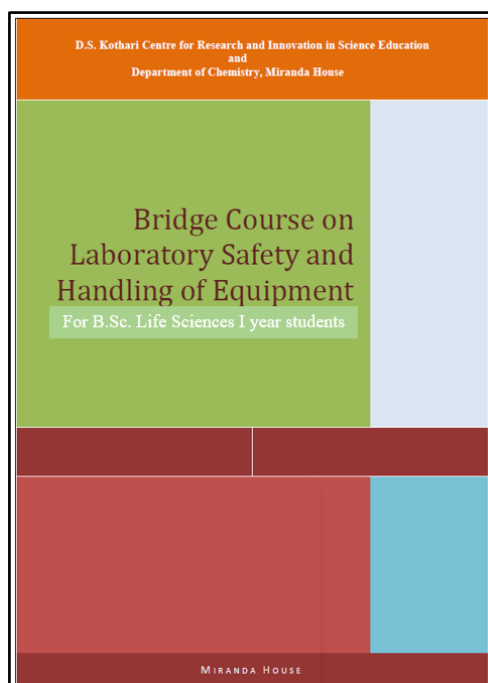
Seminars/conferences/workshops conducted by the Department

As per the practice in past years, a Bridge Course on Lab Safety and Handling of Equipment was organized on 1 August 2019 for all First Year Chemistry Honours students. For the first time since its inception, the Bridge Course was also conducted for First Year students of B.Sc. Life Sciences on 7 August 2019. The course attempted to bridge the gap between laboratory practices in school and college. It was much appreciated by the freshers, for many of whom it was the very first exposure to advanced labs and lab equipment. The Lab Safety Quiz held at the end of the course generated enthusiastic participation from both Honours and Life Sciences students.



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Details of students enrolled:

Bridge Course was also conducted for First Year students of B.Sc. Honours I year			
S.No.	Student Name	Roll No.	Course Name
1	AARTI	392	B.Sc (H) I yr
2	AARUSHI GUPTA	1192	B.Sc (H) I yr
3	ADITI SHARMA	1190	B.Sc (H) I yr
4	AKSHAYA MOHAN	323	B.Sc (H) I yr
5	ANAMIKA SHARMA	44	B.Sc (H) I yr
6	ANJALI V A	118	B.Sc (H) I yr
7	ANJANA R CHANDRAN	105	B.Sc (H) I yr
8	ANJEL FATHIMA KK	71	B.Sc (H) I yr
9	ANUSHKA DAHIYA	1239	B.Sc (H) I yr
10	ASTHA YADAV	1004	B.Sc (H) I yr
11	CHHAVI PRAJAPATI	662	B.Sc (H) I yr
12	CHHAVI SHARMA	1177	B.Sc (H) I yr
13	DHARNA YADAV	104	B.Sc (H) I yr
14	DIVYA	1319	B.Sc (H) I yr
15	DIVYA SINGH	1194	B.Sc (H) I yr
16	EKTA	317	B.Sc (H) I yr
17	EKTA	446	B.Sc (H) I yr
18	FAGUNI AGRAWAL	1179	B.Sc (H) I yr
19	HANA FATHIMA KELOTH	13	B.Sc (H) I yr



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20	HARSHA	380	B.Sc (H) I yr
21	IPSHITA DAS	101	B.Sc (H) I yr
22	ISHIKA BANSAL	1302	B.Sc (H) I yr
23	JYOTI	862	B.Sc (H) I yr
24	KAIKASHA MALIK	389	B.Sc (H) I yr
25	KAJAL	69	B.Sc (H) I yr
26	KALPANA MAHALA	525	B.Sc (H) I yr
27	KANIKA DESHWAL	1211	B.Sc (H) I yr
28	KANIKA GOYAL	1309	B.Sc (H) I yr
29	KEERTHI E	877	B.Sc (H) I yr
30	KHUSHI	1054	B.Sc (H) I yr
31	KIRTI	310	B.Sc (H) I yr
32	KOMAL	1176	B.Sc (H) I yr
33	KRITI SHAKYA	16	B.Sc (H) I yr
34	KRITIKA	427	B.Sc (H) I yr
35	MANISHA	1173	B.Sc (H) I yr
36	MANISHA KERKETTA	517	B.Sc (H) I yr
37	MEGHNA MANOHARAN	20	B.Sc (H) I yr
38	MITALI RAJPUT	1228	B.Sc (H) I yr
39	MS MEGHA JANGIR	318	B.Sc (H) I yr
40	MUSKAAN JOSHI	1209	B.Sc (H) I yr
41	MUSKAN SINGH	1188	B.Sc (H) I yr
42	NAMITA	579	B.Sc (H) I yr
43	NAVPREET KAUR	300	B.Sc (H) I yr
44	NEHA	643	B.Sc (H) I yr
45	NEHA SHARMA	379	B.Sc (H) I yr
46	NIDHI JAIN	1343	B.Sc (H) I yr
	NISHA NAZIYA		
47	PARANGODATH	103	B.Sc (H) I yr
48	NISHA PATWAL	1797	B.Sc (H) I yr
49	PALLAVI	80	B.Sc (H) I yr
50	PAYAL YADAV	477	B.Sc (H) I yr
51	PRACHI	506	B.Sc (H) I yr
52	PRAKRITI THAKUR	920	B.Sc (H) I yr
53	PREETI	1231	B.Sc (H) I yr
54	PRIYA KUMARI	1405	B.Sc (H) I yr
55	PRIYANKA	948	B.Sc (H) I yr
56	PRIYANKA MEENA	1068	B.Sc (H) I yr
57	PRIYANSHI	1169	B.Sc (H) I yr
58	PRIYANSHU	1348	B.Sc (H) I yr
59	R BHUVANESHWARI	286	B.Sc (H) I yr
60	RAKHI	89	B.Sc (H) I yr
61	RAVEENA KUMARI	1253	B.Sc (H) I yr
62	REETIKA	1656	B.Sc (H) I yr
63	RITU SINGH	1218	B.Sc (H) I yr
64	RIYA KUMARI	475	B.Sc (H) I yr
65	SADHNA	1320	B.Sc (H) I yr



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66	SAKSHI	362	B.Sc (H) I yr
67	SAKSHI	899	B.Sc (H) I yr
68	SALOCHANA MEENA	857	B.Sc (H) I yr
69	SAMYA RAJ	1195	B.Sc (H) I yr
70	SANIA SHARMA	580	B.Sc (H) I yr
71	SANNA	1821	B.Sc (H) I yr
72	SAVITA PRAJAPATI	1342	B.Sc (H) I yr
73	SHAGUN PALIWAL	1354	B.Sc (H) I yr
74	SHILPI YADAV	577	B.Sc (H) I yr
75	SHIVANI DOHARE	1215	B.Sc (H) I yr
76	SHIVANI VERMA	509	B.Sc (H) I yr
77	SHRUTI SHARMA	1346	B.Sc (H) I yr
78	SHWETA	1196	B.Sc (H) I yr
79	SNEHAL KUMARI	281	B.Sc (H) I yr
80	SONAM	1296	B.Sc (H) I yr
81	SONIA	1337	B.Sc (H) I yr
82	SRISHTI	1289	B.Sc (H) I yr
83	TULSI	1866	B.Sc (H) I yr
84	VAISHALI SINGH	1344	B.Sc (H) I yr
85	VANDANA KUMARI	1347	B.Sc (H) I yr
86	VINI	1241	B.Sc (H) I yr
87	YASHASVI BANYLA	1266	B.Sc (H) I yr
88	ZAINAB FATIMA	1219	B.Sc (H) I yr

Bridge Course was also conducted for First Year students of B.Sc. Life Sciences			
S.No.	Student Name	Roll No.	Course Name
1	ADITI BHARDWAJ	2019 / 1245	B.Sc (LS) I yr
2	AKANKSHA ANAND	2019 / 1635	B.Sc (LS) I yr
3	AMRITPAL	2019 / 1587	B.Sc (LS) I yr
4	AMULYA	2019 / 1243	B.Sc (LS) I yr
5	ANISHA RAJ	2019 / 1154	B.Sc (LS) I yr
6	ANUSHKA DAYAL	2019 / 1312	B.Sc (LS) I yr
7	CHARVI SAINI	2019 / 1616	B.Sc (LS) I yr
8	CHHAVI TOMER	2019 / 1325	B.Sc (LS) I yr
9	DEEPANSHI AGARWAL	2019 / 1246	B.Sc (LS) I yr
10	DEEPIKA	2019 / 383	B.Sc (LS) I yr
11	DODDI VENKATA APOORVA	2019 / 332	B.Sc (LS) I yr
12	DRISHTI KOHLI	2019 / 1702	B.Sc (LS) I yr
13	ISHIKA	2019 / 1624	B.Sc (LS) I yr
14	K USHA RANI	2019 / 1532	B.Sc (LS) I yr



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15	KAVYA SHARMA	2019 / 1244	B.Sc (LS) I yr
16	KHUSHBOO GURJAR	2019 / 385	B.Sc (LS) I yr
17	KOMAL YADAV	2019 / 1525	B.Sc (LS) I yr
18	KRITIKA JAYANT	2019 / 1570	B.Sc (LS) I yr
19	MAHIMA	2019 / 1542	B.Sc (LS) I yr
20	MEENAKSHI YADAV	2019 / 1484	B.Sc (LS) I yr
21	MUSKAN MAHESHWARI	2019 / 1659	B.Sc (LS) I yr
22	NAMITA MISHRA	2019 / 1483	B.Sc (LS) I yr
23	NEHA	2019 / 1540	B.Sc (LS) I yr
24	NEHA NANDINI	2019 / 1281	B.Sc (LS) I yr
25	PINKY	2019 / 1230	B.Sc (LS) I yr
26	PRATIBHA GANGWAR	2019 / 462	B.Sc (LS) I yr
27	PRIYA RANA	2019 / 1340	B.Sc (LS) I yr
28	SAKSHI KUSHWAHA	2019 / 528	B.Sc (LS) I yr
29	SAPNA YADAV	2019 / 1292	B.Sc (LS) I yr
30	SHIKHA KADYAN	2019 / 1421	B.Sc (LS) I yr
31	SHIVANI	2019 / 1288	B.Sc (LS) I yr
32	SHREYA CHOUDHURI	2019/1782	B.Sc (LS) I yr
33	SNEHA	2019 / 1313	B.Sc (LS) I yr
34	SWETA	2019/1798	B.Sc (LS) I yr
35	TENZIN DECHEN	2019 / 1663	B.Sc (LS) I yr
36	VANSHIKA BHARDWAJ	2019 / 1175	B.Sc (LS) I yr
37	VYAKHYA SINGH	2019 / 1305	B.Sc (LS) I yr

Number of students successfully completing the course: 125



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
University of Delhi

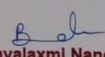


DEPARTMENT OF CHEMISTRY

Bridge Course
Laboratory Safety and Handling of Equipment
B.Sc. Chemistry Honours

This is to certify that **AARUSHI GUPTA** of
*B.Sc. (H) Chemistry, I Year, Miranda House has successfully completed the Bridge Course on
Laboratory Safety and Handling of Equipment conducted on 1 and 9 August 2019 by
Department of Chemistry, Miranda House, University of Delhi.*


Dr. Mallika Pathak
Teacher-in-Charge


Dr. Bijayalaxmi Nanda
Acting Principal



MIRANDA HOUSE

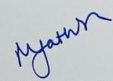
University of Delhi




DEPARTMENT OF CHEMISTRY

Bridge Course
Laboratory Safety and Handling of Equipment
B.Sc. Chemistry Honours

This is to certify that **KRITI SHAKYA** of
*B.Sc. (H) Chemistry, I Year, Miranda House has successfully completed the Bridge Course on
Laboratory Safety and Handling of Equipment conducted on 1 and 9 August 2019 by
Department of Chemistry, Miranda House, University of Delhi.*

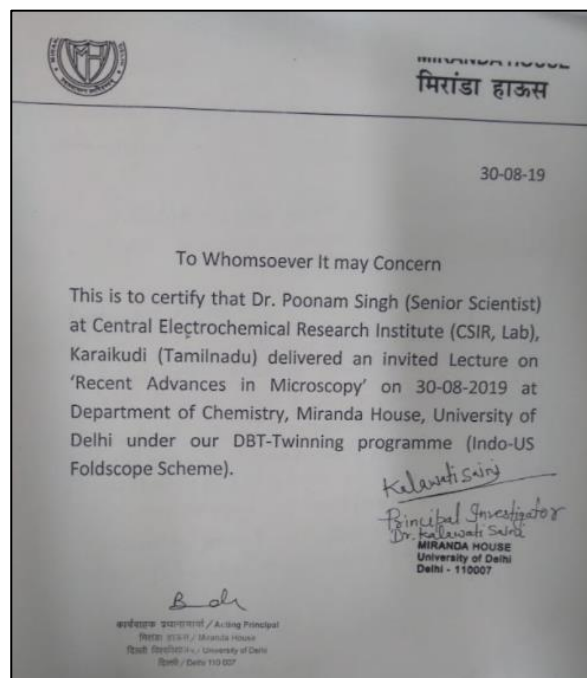

Dr. Mallika Pathak
Teacher-in-Charge


Dr. Bijayalaxmi Nanda
Acting Principal





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A talk was delivered by Dr Poonam Singh, Central Electrochemistry Research Institute of CSIR, Karaikudi, Tamil Nadu on 30 August 2019.



A joint Inaugural Lecture organized by Rasayanika, the Chemical Society of Miranda House and the Add-on certificate Course in Nanochemistry, was delivered on 6 September 2019 by **Institute Chair, Professor Ashok Kumar Ganguli**, Department of Chemistry, IIT Delhi. The talk, titled '**The World in A Grain of Sand**', introduced for faculty and students to various aspects of Nanoscience and Nanotechnology, helping them to imbibe the spirit of the nano world. At the end of the session, many students were able to envisage a career option in the field.

 **RASAYANIKA** 

The Chemical Society of Miranda House
with
Add on Certificate Course in
Nanochemistry
invites you to the
Inaugural Lecture

**The World in a Grain of Sand:
Nanotechnology, Current and
Future**

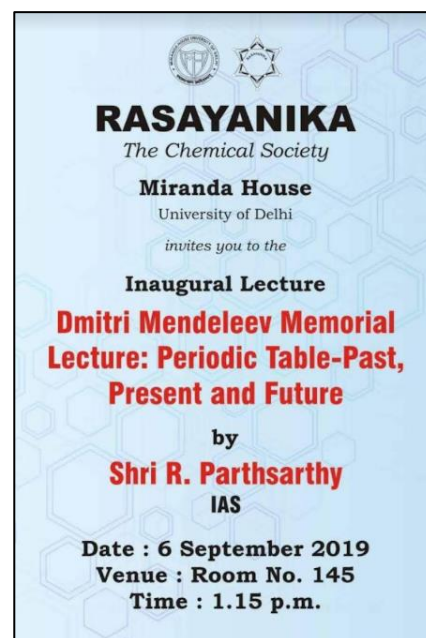
by
Professor Ashok Kumar Ganguli,
Department of Chemistry
IIT, Delhi

DATE : 6 SEPTEMBER 2019
VENUE : ROOM NO. 145
TIME : 11:30 A.M.

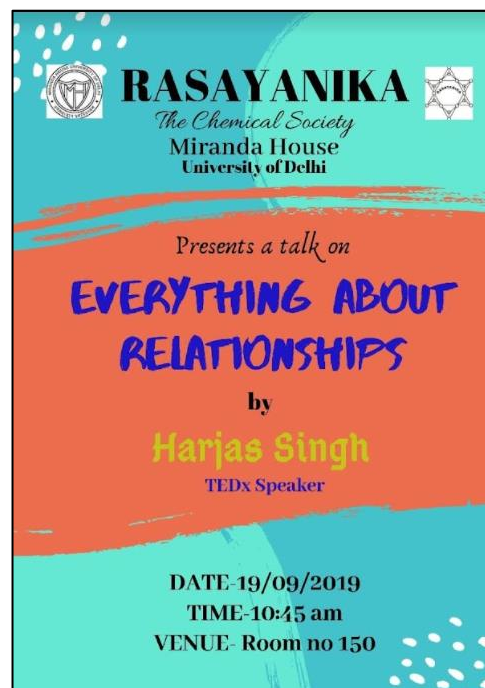


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On the same day (6 September, 2020), the Department also organized the Dmitri Mendeleev Memorial Lecture. The invited speaker was Mr. R. Parthasarathy, former IAS officer, who gave a talk titled Periodic Table: Past, Present and Future. The talk enhanced the students' knowledge about the development of the current periodic table.



Mr Harjas Singh, a TEDx Speaker and life skill coach at Bhoomaya Foundation, delivered a talk titled "Everything about Relationships" for Chemistry students on 19 September 2019. Mr Singh, the author of the book titled "The Righteous Rebel", explained various topics such as inter-personal relationships and how to deal with them. The talk generated a lot of interest among students and was followed by a lively interactive session.



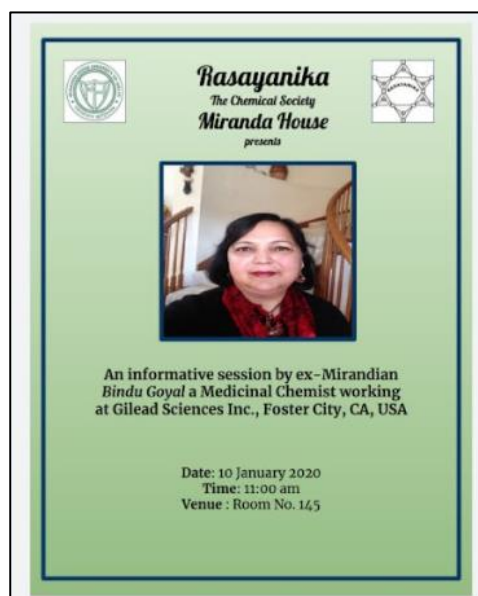


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Rasayanika, the Chemical Society arranges interactive sessions with alumnae in different walks of life every year which aims to help the current students to explore new horizons in Chemistry and related areas as well as in fields other than Science. **Several distinguished alumnae of Miranda House** visited the Department of Chemistry in 2019-20 and interacted with the students to talk about their career paths after graduation and milestones achieved in life. These sessions with alumnae gave wide exposure to students about the possible openings for a Chemistry graduate from Miranda House and also imparted a sense of pride in being students of such a prestigious institution.

Alumna **Dr Bindu Goyal, a Medicinal Chemist** who is working at Gilead Sciences Inc., Foster City, California, USA visited on 13 January 2020. She gave an idea about how molecular modelling plays an important role in drug design and spoke about her work as a Research Scientist in pharmaceutical companies in India as well as in the US.





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Alumna, Ms Jyoti Aggrawal, is currently pursuing PhD in Leadership Studies, University of Lynchburg, Virginia, USA and visited the college on 13 January, 2020. The session with Jyoti proved to be quite interesting for the students as she talked about her journey from Miranda House to Lynchburg and beyond.



Alumna Ms. Shaileyee Bhattacharya, PhD scholar in Paul Scherrer Institute, Switzerland also visited the Department in January and spoke to the students about her M.Sc. in IIT Roorkee and her internship in



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Max Planck Institute for Chemical Physics
of Solids in Germany before she got the
offer from the Paul Scherrer Institute.

Activities of the Department of Chemistry in February 2020 included a **National Workshop Nano Road Show-2020** in collaboration with IIT Delhi.





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Dr. Kalawati Saini organized “Nano Roadshow - 2020: National Conference in collaboration with Indian Institute of Technology (IIT) Delhi” on 1 February 2020. The highly successful one-day event was designed to introduce undergraduate and postgraduate students to Nanochemistry. More than 250 participants, including 199 students from various colleges of Delhi University, Amity University, Central University Mahendergarh and other institutions attended.

NATIONAL WORKSHOP "Nano Road Show-2020"

1 February 2020
Miranda House
University of Delhi

Justly organized by
Miranda House
Department of Chemistry
University of Delhi
Delhi-110007

Organized by
Karnataka Science and Technology Promotion Society
Government of Karnataka

Miranda House
Miranda House has a special place among the women's colleges of the University of Delhi. Its location in the heart of the University Campus, and its close interaction with the various Departments of the University and other campus colleges gives it a unique advantage. It maintains interaction with other colleges and educational organizations across the country, actively engaging both men and women in all its extracurricular activities. The extremely distinguished alumni imparts a sense of confidence and immense pride in students. Broadly, the Department of Chemistry, Miranda House, is a center for the study of various branches of chemistry. The Department of Chemistry, Miranda House has a long tradition of excellence in the college level and in the understanding of what education means to the students. Miranda House gives an excellent quality of an excellent education. Miranda House has given an excellent quality of an excellent education. Miranda House has given an excellent quality of an excellent education.

Department of Chemistry, IIT Delhi
The Department of Chemistry, established in September, 1953, is one of the best three Departments of IIT Delhi. The Department offers one course in Chemistry for undergraduate B.Tech. students of Engineering in the Institute. In addition, it offers a two-year M.Sc. programme and a Ph.D. programme in Chemistry. Organic and inorganic chemistry research is carried out in all major areas of chemical and allied sciences. Major thrust is in the areas of analytical chemistry, biochemistry, biomaterials, polymers, organometallics, solid state, materials, chemistry, nanotechnology, organic synthesis, carbohydrate chemistry, structural biology, molecular recognition, IITM, nanotechnology, King, crystallography, theoretical chemistry, computer simulation and others. The Department has a dedicated team of staff members and distinguished faculty, trained at renowned Institute in India and abroad. The faculty members attract substantial financial support for their research activities from both governmental and private agencies. Several members of the faculty have been elected as Member of various scientific academies and some have been awarded medals/prizes for distinction in their areas of research. The faculty has been active in organizing scientific meetings from time to time and they are being invited to deliver lectures at various national and international conferences and symposia. The Department offers a great atmosphere to students and faculty to nurture the spirit of scientific inquiry and to pursue cutting-edge research in a highly encouraging environment.

Local Coordinator
Professor Ashok K. Ganguli

Conveners
Dr. Kalawati Saini
Dr. Ashwini K. Agrawal

Organizing Secretary
Dr. Sanku Sharma

Organizing Committee
Dr. Manjula John Vimesa
Dr. Aneta Trishita Shaha
Dr. Shashi Mohan Kumar
Ms. Anita Khanna
Dr. Anusha Lamba
Dr. Sujata Saranya
Dr. Manita Saha
Dr. Lata Raha

Patron
Dr. Bhupinder Handa

Treasurer
Ms. Nisha Rai

Dr. Bani Roy
Dr. Manjula John Vimesa
Dr. Mani Sharma
Dr. Prabhat
Dr. Deep Datta
Dr. Anusha Lamba
Dr. Anusha Lamba
Dr. Anusha Lamba
Dr. Anusha Lamba

Nano Jatha LETS GO TO NANOWORLD

Local Coordinator
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Dr. Sujata Saranya
Dr. Manita Saha
Dr. Lata Raha

Patron
Dr. Bhupinder Handa

Treasurer
Ms. Nisha Rai

Dr. Bani Roy
Dr. Manjula John Vimesa
Dr. Mani Sharma
Dr. Prabhat
Dr. Deep Datta
Dr. Anusha Lamba
Dr. Anusha Lamba
Dr. Anusha Lamba
Dr. Anusha Lamba

UTILISATION CERTIFICATE

For National Workshop on "Nano-Road Show-2020" on 1.02.2020, at Miranda House, University of Delhi.

(Rs. : 71,600.00/-)

- Title of the workshop : **National Workshop on " Nano-Road Show-2020"**
- Name of the Organization: **Miranda House, University of Delhi, Patel Chest Marg, New Delhi-110007**
- Convener of the Workshop : **Dr. Kalawati Saini**
- Karnataka Science and Technology Promotion Society, Government of Karnataka order No. & date of sanctioning the Fund : **J97570470, Dated: 28.01.2020**
- Other receipts/interest: **NIL**
- Total amount that was available for expenditure to conduct the workshop : **71,600.00/-**
- Actual expenditure (excluding commitments) incurred for the workshop (statement of expenditure is enclosed): **71,600.00/-**
- Unspent balance refunded, if any (Please give details of cheque No. etc.) : **NIL**
- Balance amount available of Nano Road Show-2020: **NIL/-**
- Amount allowed to be carried forward to the Add-on Course in Nano-chemistry, Department of Chemistry: **NIL/**

- Certified that the amount of **Rs. 71,600.00/-** mentioned against serial no 7 has been utilized for the **National Workshop on Nano Road Show-2020/** scheme for the purpose for which it was sanctioned and that the balance of **...NIL...** remaining unutilized at the end of the year / will be adjusted towards the Add-on Course in Nano-chemistry, Department of Chemistry.
- Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled / are being fulfilled

Kalawati Saini

(CONVENOR OF WORKSHOP)
(Signed and stamped)
Dr. KALAWATI SAINI
Assistant Professor
Miranda House
Department of Chemistry
University of Delhi
Delhi-110007

S. A. Anand

अनुसंधान अधिकारी (वित्त) / Section Officer (Finance)
(FINANCE OFFICER)
रिजिस्ट्री विभाग (Registered Office)
(Signed and stamped)
Miranda House / University of Delhi
Delhi-110007

Deep Datta

(HEAD OF THE INSTITUTE)
(Signed and stamped)
कार्यवाहक प्रभारवाहक / Acting Principal
मिरांडा हाउस / Miranda House
रिजिस्ट्री विभाग / University of Delhi
रिजिस्ट्री / Delhi 110 007



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Senior Scientists from ‘Metrohm Instant Raman Analyzers (MIRA) and Metrohm Instant SERS Analyzers (MISA)’ visited the Department of Chemistry to demonstrate the working of robust and reliable portable spectrometers for material identification and verification. These instruments combine ease of use with maximum safety and provide results within seconds. Using ORS, MIRA systems yield highly reliable results, giving you more confidence in your measurements. MIRA and MISA Analyzers are being used for material verification, identification of illicit and hazardous unknowns, identification of illicit and hazardous substances and are portable system for detection and identification of trace-level food adulterants and illicit substances

RASAYANIKA
The Chemical Society of Miranda House
invites you to the
Workshop
on
**METROHM INSTANT RAMAN ANALYZER
(MIRA)**
by
Dr. WEI WEN YU
Metrohm International
Switzerland

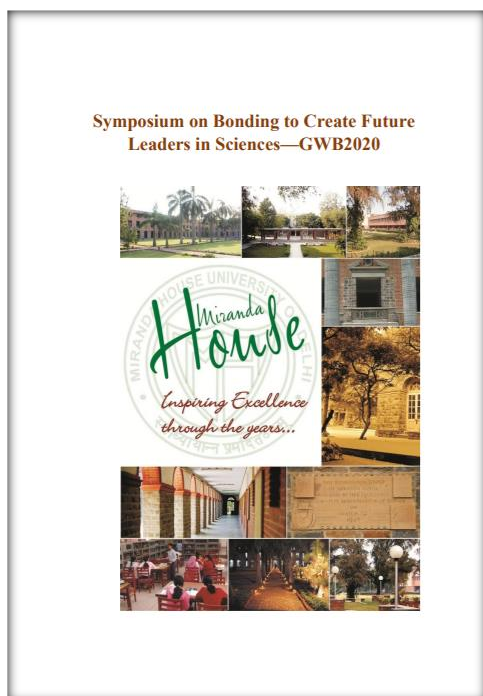
Date: 03 February 2020
Venue: Dept. of Chemistry
Time: 2 p.m.

All students and faculty members are cordially invited



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A Symposium on Bonding to Create Future Leaders in Sciences—GWB2020 as a part of the Centenary Celebration of the International Union of Pure and Applied Chemistry (IUPAC) was the other high-profile activity in February. The symposium featured eminent speakers and attracted enthusiastic participation from students and faculty across the university. The IUPAC Global Breakfast event also commemorated the International Day of Women and Girls in Science – 11 February. This special day aims to increase awareness about the important role that women and girls can, and do, play in science and technology.





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GWB-2020



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Part B.3

Any other event organized as part of students' activities (not listed above)

A Department trip was organized from 29 September to 4 October 2019 to Kullu-Manali and Kasol, Himachal Pradesh. A group of 53 students from across all three years of Chemistry Honours accompanied by faculty members Dr Shivani and Ms Lishinai and laboratory staff Mr Ravi and Mr Vijay went on the trip, which was highly enjoyable and informative.





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Teachers' Day was celebrated on 5 September by Chemistry students, who brought a cake which was cut jointly by students and faculty. The students also gave each teacher a small token of appreciation.





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The Department hosted a Freshers' party for the incoming batch of 2019 on 23-08-2019. The event had huge participation.



Awards and recognition received

Many Chemistry students have been recipients of a variety of scholarships in this academic session such as INSPIRE Scholarship from DST; JKPMS Scholarship Scheme by AICTE; Jammu State Scholarship; Punjab State Scholarship and Promotion of Science Education Haryana State Scholarship.

A number of prestigious College awards went to Chemistry students including the

1. Ved Jolly Resilience Award to Shilpi Yadav, Archana Kumari and Varnika
2. The Anu Bedi Award & Miranda House Alumnae Association Awards to Rubal
3. The most coveted Golden Jubilee Award to Chetna