



Miranda House UNIVERSITY OF DELHI

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Botany

Year: 2018-2019

Department Society and its Office Bearers:

Botanical Society “Antheia”

1. **President:** Kareena Singh; B. Sc. (H) Botany III year
2. **General Secretary:** Varsha Singh Solanki; B. Sc. (H) Botany II year
3. **CR 3rd Year:** Arushi Chib; B. Sc. (H) Botany III year
4. **CR 2nd Year:** Poonam; B. Sc. (H) Botany II year
5. **CR 1st Year:** Diksha Patel; B. Sc. (H) Botany I year

Staff Advisors: Dr. Neetu Chaudhary and Dr. Rajeshwari (Dr. Somdutta Sinha Roy From 1 January 2019-31 March 2019)

Part B.1

Seminars/conferences/workshops conducted by the Department

Colloquium on Hydrological Modelling for the Ecological Restoration of Loktak Lake, Northeast India by Ms. Khwairakpam Eliza, Guest Assistant Professor in Environmental Studies, Miranda House.

Date: 02 August 2018

Dr. Madhu Bajaj was the Coordinator of the Colloquium.

No. of participants: 70 (approx.)

Colloquium on
Hydrological Modeling For The Ecological
Restoration of Loktak Lake, Northeast India

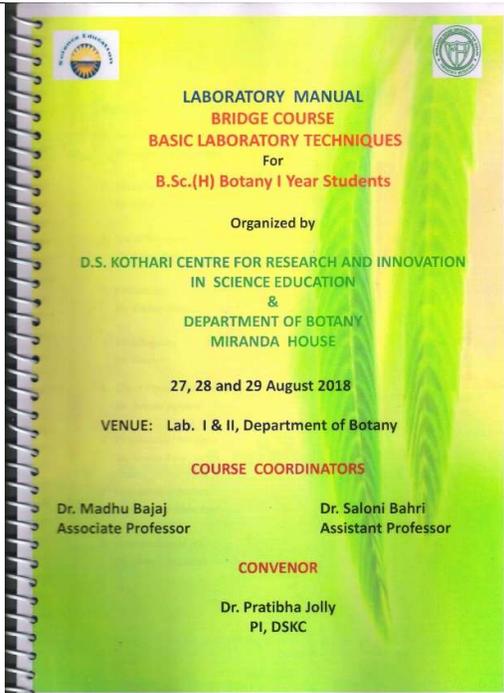
Speaker: Ms. Khwairakpam Eliza,
Guest Lecturer (Miranda House)

Organized by : Department of Botany
Venue :Room No. 136

Date & Time: August 2, 2018 (Thursday)
2.05-4.05pm



Miranda House UNIVERSITY OF DELHI

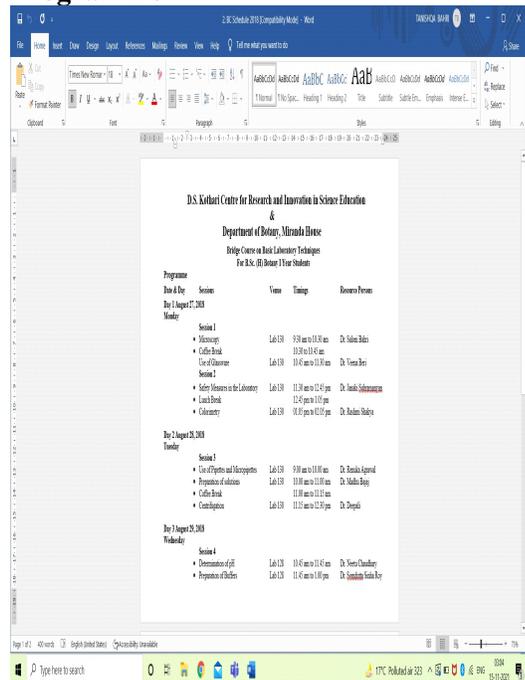
<p>Colloquium on Characterization of the Activity of the Anther-Specific Promoter of Rice by Dr. Reema Mishra, Assistant Professor, Gargi College, University of Delhi, Delhi, and an alumna of the college.</p> <p>Date: 09 August 2018</p> <p>Dr. Madhu Bajaj was the Coordinator of the Colloquium.</p> <p>No. of participants: 70 (approx.)</p>	<p>Colloquium on :Characterization of the activity of anther-specific promoter of Rice</p> <p>Speaker: Dr. Reema Mishra Assistant Professor, Gargi College</p> <p>Organized by :Department of Botany</p> <p>Venue :Room No. 136</p> <p>Date & Time: 9 August 2018 2:05 -4:05pm</p>
<p>Bridge Course on Basic Laboratory Techniques organized by Department of Botany under the aegis of DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi.</p> <p>Date: For B.Sc. (Honours) Botany I Year students, 27- 29 August 2018.</p> <p>Dr. Madhu Bajaj and Dr. Saloni Bahri were the Coordinators of the Bridge Course.</p> <p>No. of participants: 28</p> <p>Summary Report</p> <p>The Department of Botany conducted a Bridge Course on 'Basic Laboratory Techniques' for students of B.Sc. Honours Botany I Year under the aegis of D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House. The objectives of the Bridge Course were to: (i) highlight the importance of safety measures to be followed while working in the laboratory, (ii) familiarize the students with the use of microscopes and handling of glassware, (iii) teach the working of instruments such as</p>	



Miranda House UNIVERSITY OF DELHI

centrifuge, vortex mixer and colorimeter, and (iv) explain the use of micropipettes and preparation of solutions. The Course aimed at augmenting the students' basic knowledge about scientific instruments and laboratory techniques. A laboratory manual was also prepared for the Bridge Course covering all the topics in detail and given to all the students along with a Certificate of Participation.

Duration of the Course: 10 Hours Programme



List of Participants

B.Sc. (H) Botany I Year

S. No.	Roll No.	Name	Sign
1	346	Aarohi Rawat	Aarohi
2	29	Akshita Solanki	Akshita
3	1224	Ashmita	Ashmita
4	264	Bharti Singh	Bharti
5	1369	Choo Choo Gulshan Fatima	Choo Choo
6	643	Diksha Patel	Diksha
7	384	Divya Jaitak	Divya
8	872	Jyoti	Jyoti
9	1267	Jyotsana	Jyotsana
10	330	Kirti Dixit	Kirti
11	18	Kriti Choudhary	Kriti
12	258	Laiba Fatima	Laiba
13	197	Madavi Sarika	Madavi
14	871	Mamta	Mamta
15	971	Meghana Mariam Mathew	Meghana
16	642	Muskaan Johnson	Muskaan
17	405	Namindla Bhargavi	Namindla
18	510	Neeraj Kumari	Neeraj
19	954	Pallavi Sharma	Pallavi
20	1428	Pooja	Pooja
21	302	Pragya Jha	Pragya
22	1207	Priyanka Saini	Priyanka
23	1513	Rakhi	Rakhi
24	1422	Saifali Dhyani	Saifali
25	837	Shweta Rana	Shweta
26	20	Swati Nayak	Swati
27	565	Tamanna Yadav	Tamanna
28	190	Vankudothu Swathi	Vankudothu
29	992	Yumnam Sonata Devi	Yumnam

Sonal Singh Sonal

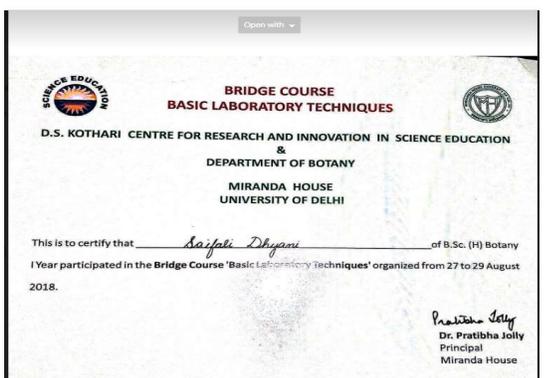
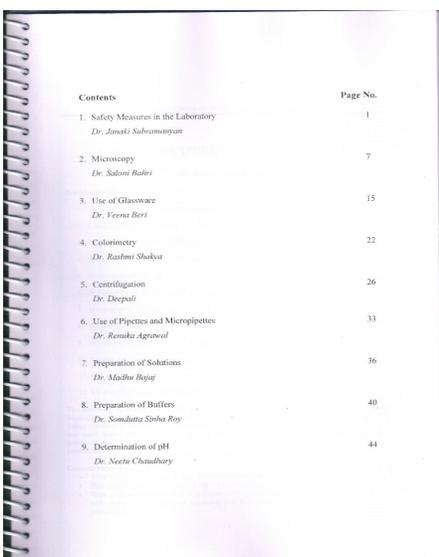
Madhu Bajaj Madhu

Coordinators





Miranda House UNIVERSITY OF DELHI

 <p>Open with -</p> <p>SCIENCE EDUCATION</p> <p>BRIDGE COURSE BASIC LABORATORY TECHNIQUES</p> <p>D.S. KOTHARI CENTRE FOR RESEARCH AND INNOVATION IN SCIENCE EDUCATION & DEPARTMENT OF BOTANY MIRANDA HOUSE UNIVERSITY OF DELHI</p> <p>This is to certify that <u>Saifali Dhyani</u> of B.Sc. (H) Botany 1 Year participated in the Bridge Course 'Basic Laboratory Techniques' organized from 27 to 29 August 2018.</p> <p><i>Pratibha Jolly</i> Dr. Pratibha Jolly Principal Miranda House</p>	<h3>Contents Page of Manual</h3>  <table border="1"><thead><tr><th>Contents</th><th>Page No.</th></tr></thead><tbody><tr><td>1. Safety Measures in the Laboratory <i>Dr. Janaki Subramanyam</i></td><td>1</td></tr><tr><td>2. Microscopy <i>Dr. Sabina Bhat</i></td><td>7</td></tr><tr><td>3. Use of Glassware <i>Dr. Veena Beri</i></td><td>15</td></tr><tr><td>4. Colorimetry <i>Dr. Rashmi Shukla</i></td><td>22</td></tr><tr><td>5. Centrifugation <i>Dr. Deepali</i></td><td>26</td></tr><tr><td>6. Use of Pipettes and Micropipettes <i>Dr. Renuka Agrawal</i></td><td>33</td></tr><tr><td>7. Preparation of Solutions <i>Dr. Madhu Bajaj</i></td><td>36</td></tr><tr><td>8. Preparation of Buffers <i>Dr. Soudhata Sinha Roy</i></td><td>40</td></tr><tr><td>9. Determination of pH <i>Dr. Neeta Chandhury</i></td><td>44</td></tr></tbody></table>	Contents	Page No.	1. Safety Measures in the Laboratory <i>Dr. Janaki Subramanyam</i>	1	2. Microscopy <i>Dr. Sabina Bhat</i>	7	3. Use of Glassware <i>Dr. Veena Beri</i>	15	4. Colorimetry <i>Dr. Rashmi Shukla</i>	22	5. Centrifugation <i>Dr. Deepali</i>	26	6. Use of Pipettes and Micropipettes <i>Dr. Renuka Agrawal</i>	33	7. Preparation of Solutions <i>Dr. Madhu Bajaj</i>	36	8. Preparation of Buffers <i>Dr. Soudhata Sinha Roy</i>	40	9. Determination of pH <i>Dr. Neeta Chandhury</i>	44
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<p>Colloquium on Small RNAs: Master Regulators (?) and Beyond by Dr. Sandip Das, Associate Professor, Department of Botany, University of Delhi, Delhi.</p> <p>Date: 30 August 2018</p> <p>Dr. Madhu Bajaj was the Coordinator of the Colloquium.</p> <p>No. of participants: 70 (approx.)</p>	<div style="border: 1px solid black; padding: 10px; text-align: center;"><h2>COLLOQUIUM ON</h2><p>"SMALL RNAs: MASTER REGULATOR (?) AND BEYOND"</p><p>Speaker - Dr. Sandip Das</p><p>Organised by - Antheia, Department of Botany</p><p>Date- 30th Aug 2018 Time- 2pm Venue- Room 136</p></div>																				



Miranda House UNIVERSITY OF DELHI

Biodiversity Conclave: Biodiversity for Everyone's Life, Miranda House, University of Delhi, Delhi, and Institute of Bioresources and Sustainable Development (IBSD), Manipur.

Date: 31 August 2018

Dr. Saloni Bahri was a Co-Convener and Dr. Janaki Subramanyan was a Member, Organizing Committee.

Miranda House
University of Delhi
and
Institute of Bioresources and Sustainable Development (IBSD), Manipur
Conclave on
BIODIVERSITY FOR EVERYONE'S LIFE

Date: Friday, 31 August 2018
Venue: Auditorium, Miranda House
Time: 09.00 am to 06.00 pm

Programme Details & Pre-registration:
http://www.mirandahouse.ac.in/BiodiversityConclave_31Aug2018.php
Registration Fee: Rs. 200

Email: biodiversity.conclave@mirandahouse.ac.in | www.mirandahouse.ac.in

Colloquium on Innovation in Medicinal Plant Research and Human Welfare by Professor Veena Agrawal, Department of Botany, University of Delhi, Delhi.

Date: 06 September 2018

Dr. Saloni Bahri was the Coordinator of the Colloquium.

No. of participants: 70 (approx.)

COLLOQUIUM
ON
"Innovation in Medicinal Plant Research and Human Welfare"

Speaker- Dr. Veena Agrawal
Organised By- Antheia,
Department of Botany

Date- 6th September 2018
Time- 2:00pm
Venue- Room 136



Miranda House UNIVERSITY OF DELHI

Bridge Course on Basic Laboratory Techniques organized by Department of Botany under the aegis of DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi.

Date: For B.Sc. Life Science I Year students, 06 and 07 September 2018.

Dr. Madhu Bajaj and Dr. Saloni Bahri were the Coordinators of the Bridge Course.

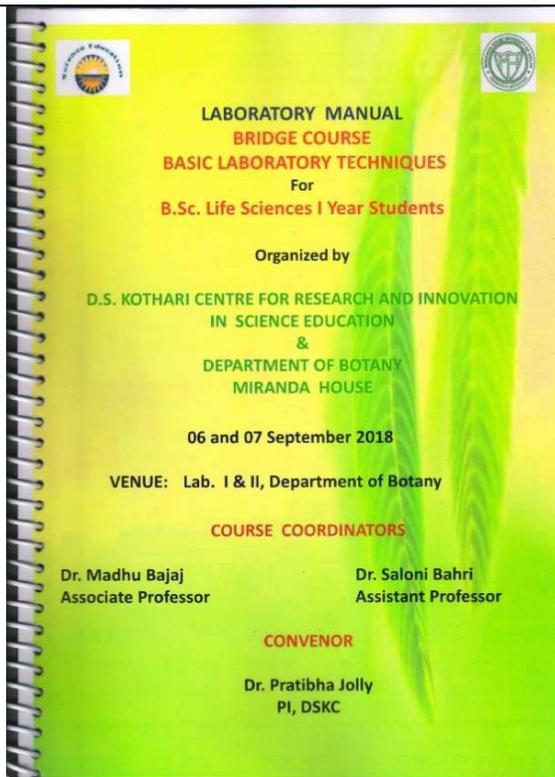
No. of participants: 32

Summary Report

The Department of Botany conducted a Bridge Course on 'Basic Laboratory Techniques' for students of B.Sc. Life Science I Year under the aegis of D.S. Kothari Centre for Research and Innovation in Science Education, Miranda House. The objectives of the Bridge Course were to: (i) highlight the importance of safety measures to be followed while working in the laboratory, (ii) familiarize the students with the use of microscopes and handling of glassware, (iii) teach the working of instruments such as centrifuge, vortex mixer and colorimeter, and (iv) explain the use of micropipettes and preparation of solutions. The Course aimed at augmenting the students' basic knowledge about scientific instruments and laboratory techniques. A laboratory manual was also prepared for the Bridge Course covering all the topics in detail and given to all the students along with a Certificate of Participation.

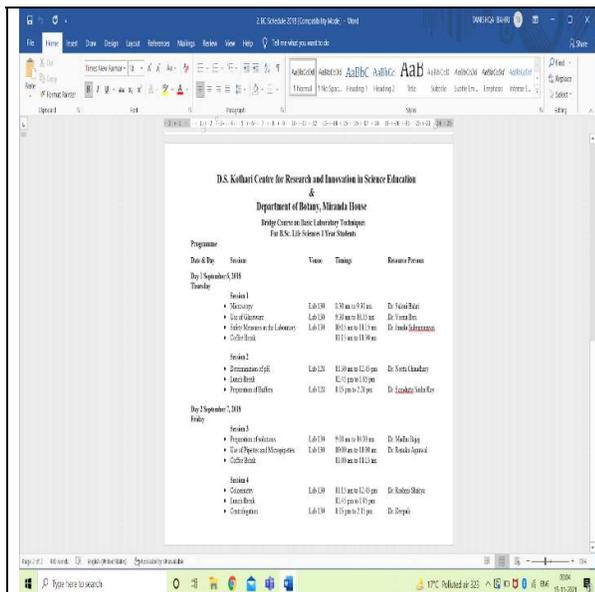
Duration of the Course: 10 Hours

Programme





Miranda House UNIVERSITY OF DELHI



List of Participants

Bridge Course 18

B.Sc. Life Science 1 Year 2018

S.No.	Roll No.	Name	Sign
1	913	Aanchal	Aanchal
2	475	Aanchal Kurup	Aanchal
3	1082	Aarti Yadav	Aarti
4	1378	Amisha	Amisha
5	1334	Anushree Kataria	Anushree
6	1242	Balwant Kaur	Balwant
7	1280	Disha Chaudhary	Disha
8	279	Eva Adhikari	Eva
9	901	Gargya Singh	Gargya
10	2	Gunjan Goyal	Gunjan
11	1314	Lavina Mulani	Lavina
12	1352	Megha Jain	Megha
13	1431	Mehul Chabria	Mehul
14	172	Monika Kataria	Monika
15	616	Nitika	Nitika
16	1221	Nitika Chandra	Nitika
17	162	Pragya Tiwary	Pragya
18	1364	Praveen Singh	Praveen
19	229	Preeti Pawar	Preeti
20	1443	Robia Kshetrimayum	Robia
21	1442	Sakshi Mehta	Sakshi
22	1193	Sakshi Sharma	Sakshi
23	16	Saumya Gupta	Saumya
24	518	Shiksha Joshi	Shiksha
25	1166	Shivani Kumari	Shivani
26	692	Shruti Singh	Shruti
27	161	Sudarshana Chatterjee	Sudarshana
28	1372	Sukirti Shivpuri	Sukirti
29	839	Tanshika Singh	Tanshika
30	1298	Vanshika Kaushik	Vanshika
31	1119	Wallimen Walling	Wallimen
32	791	SARAH YODAL	SARAH
33	256	Aashwin	Aashwin

Madhu Bajaj *Anurag*

Coordinators

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2. Microscopy Dr. Sakshi Rishi	7
3. Use of Glassware Dr. Sneha Rishi	15
4. Cultivation Dr. Rashmi Shukla	22
5. Centrifugation Dr. Deepika	26
6. Use of Pipettes and Microspectors Dr. Rensha Agrawal	33
7. Preparation of Solutions Dr. Madhu Bajaj	36
8. Preparation of Buffers Dr. Namrata Saha Ray	40
9. Determination of pH Dr. Neeta Chaudhary	44





Miranda House UNIVERSITY OF DELHI

Colloquium on Apomixis by Professor Shailendra Goel, Department of Botany, University of Delhi, Delhi.

Date: 13 September 2018

Dr. Saloni Bahri was the Coordinator of the Colloquium.

No. of participants: 70 (approx.)

COLLOQUIUM
ON
"APOMIXIS"
Speaker- Dr. Shailendra Goel
Organised By
Antheia
Department of Botany
Date- 13th September 2018
Time- 2:00pm
Venue- Room 136

Colloquium on Updates on Commercial Transgenic Plants Resistant to Insects and Viruses by Professor Sudeshna Mazumdar Leighton, Department of Botany, University of Delhi, Delhi, and an alumna of the college.

Date: 27 September 2018

Dr. Saloni Bahri was the Coordinator of the Colloquium.

No. of participants: 70 (approx.)

COLLOQUIUM
ON
"Updates on Commercial Transgenic Plants resistant to insects and viruses"
Speaker- Dr. Sudeshna Mazumdar Leighton
Organised By- Antheia
Department of Botany
Date- 27th September 2018
Time- 2:00pm
Venue- Room 136



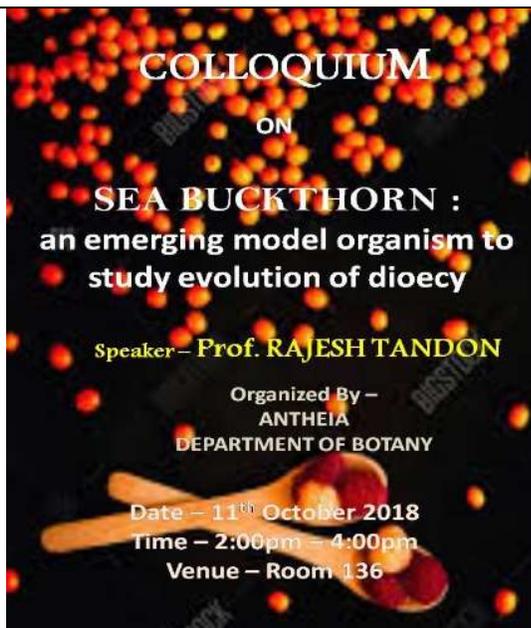
Miranda House UNIVERSITY OF DELHI

Colloquium on Sea Buckthorn: an Emerging Model Organism to Study Evolution of Dioecy by Professor Rajesh Tandon, Department of Botany, University of Delhi, Delhi.

Date: 11 October 2018

Dr. Saloni Bahri was the Coordinator of the Colloquium.

No. of participants: 70 (approx.)

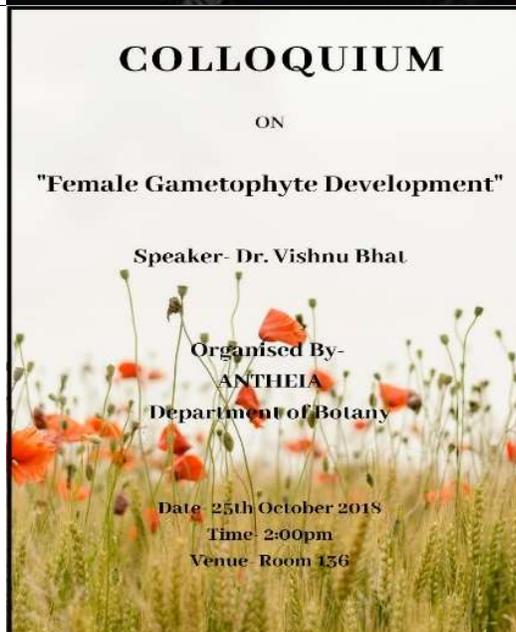


Colloquium on Female Gametophyte Development by Professor Vishnu Bhat, Department of Botany, University of Delhi, Delhi.

Date: 25 October 2018

Dr. Saloni Bahri was the Coordinator of the Colloquium.

No. of participants: 70 (approx.)





Miranda House UNIVERSITY OF DELHI

Workshop on Biofertilizers for B.Sc. (Honours) Zoology I Year students, DBT Star College Scheme, Department of Botany, Miranda House, University of Delhi, Delhi.

Date: 02 November 2018

Dr. Janaki Subramanyan and Dr. Saloni Bahri were the Coordinators of the Workshop.

No. of participants: 19



DBT Star College Scheme

A Workshop on Biofertilizers

Date : 02 November 2018

Time : 8.30 a.m. to 4.00 p.m.

Venue: Room No. 128, Department of Botany

Lecture on

Arbuscular Mycorrhizae in Sustainable Agriculture

by

Professor Rupam Kapoor

Department of Botany

University of Delhi



Followed by Hands-on Training

Coordinators: Dr Janaki Subramanyan, Dr Saloni Bahri

DBT Star College Project Co-ordinator

Dr Sadhna Sharma

Chairperson

Dr Pratibha Jolly, Principal, Miranda House

DST INSPIRE Scholars Science Conclave 2019: Research on the Frontiers, Department of Technology, Government of India, and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, Delhi.

Date: 16-18 January 2019

Dr. Janaki Subramanyan was a Co-Convenor; Dr. Madhu Bajaj and Dr. Saloni Bahri were Members, Organizing Committee.



D S Kothari Centre for Research and Innovation in Science Education

Miranda House
University of Delhi

Presents



DST INSPIRE Scholars



Department of Science & Technology

Science Conclave 2019: Research on the Frontiers

Wednesday 16 January to Friday 18 January 2019

Venue: Auditorium, Miranda House

Time: 9:00 am to 5:00 pm

Preamble

These are exciting times. India today is a front ranking country in the field of research in basic science. Indian scientists are respected internationally and are making major contributions to the frontiers of science, participating as equal partners in several multi-nation international projects. The Government recognizes that science is the engine that will drive growth and development, especially in the emerging scenario of competing economies. On one hand the focus is on applying S&T to address national needs; the grand challenges facing communities; and meeting the goals of sustainable development. On the other hand, the thrust is also on pursuit of knowledge and blue sky research on the frontiers that will lead to greater understanding and create transformative technologies of the future.

DST INSPIRE Scholars Science Conclave 2019: Research on the Frontiers

This three day programme has been carefully crafted to give an opportunity to young students to interact with scientists who are with great passion and dedication working in areas of contemporary interest and are reputed for path breaking research. It includes expositions on areas of research that have been awarded the Nobel Prize in recent times. Path breaking research presented will include areas of contemporary interest such as Laser Physics, Soft Matter, Nano Bioscience, Human Genetics, Drug Discovery, Medical Imaging, Cancer Therapy, Neuroscience, Cognitive Science, Artificial Intelligence, Machine Learning, Quantum Computers. The touchstone of the programme will be talks by the DST Secretary, Principal Scientific Advisor to Govt. of India, Secretary DBT, Director IIT Delhi and Director IGIB. The talks will unravel the complex beauty of the process of science, scientific research, knowledge generation and product development, emphasizing the breaking of boundaries between disciplines, multidisciplinary synergy and intersectionality of ideas.

Sufficient time has been allocated for interaction after each talk to promote deep thinking. The interaction with the distinguished speakers will give not just a panoramic view of the changing landscape of Indian Science but also trigger greater interest and spirit of enquiry for the



Miranda House UNIVERSITY OF DELHI

20th Manasi Ram Memorial Lecture Plant Sciences and Changing Climatic Conditions by Professor Paramjit Khurana, Head, Department of Plant Molecular Biology, University of Delhi South Campus, New Delhi, organized by Department of Botany, Miranda House, University of Delhi.

Date: 11 February 2019

Dr. Saloni Bahri was the Coordinator of the Lecture.

No. of participants: 110 (approx.)



Miranda House cordially invites you to the
Twentieth Manasi Ram Memorial Lecture
by



Prof. Paramjit Khurana
Head, Department of Plant Molecular Biology
University of Delhi South Campus, New Delhi
on
“Plant Sciences and Changing Climatic Conditions”
at
Miranda House, University of Delhi, Delhi 110007
Time : 10.30 a.m.
Date : 11 February 2019, Monday
Venue : Lecture Theatre (Room 145)

Phone: 011-27667367
Email: principal@mirandahouse.ac.in

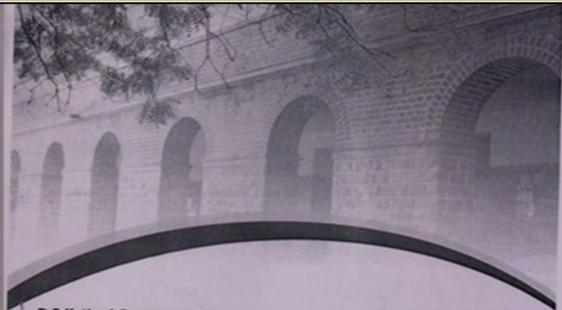
Dr. Pratibha Jolly
Principal

Symposium on Empowering Women in Chemistry: A Global Networking Event, IUPAC Centenary Celebration, DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, Delhi.

Date: 12 February 2019

Dr. Janaki Subramanyan and Dr. Saloni Bahri were Members, Organizing Committee.

No. of participants: 174



DS Kothari Centre for Research and Innovation in Science Education
Miranda House
University of Delhi
**Symposium on
Empowering Women in Chemistry:
A Global Networking Event**
organized by
Department of Chemistry
on
Tuesday, 12 February 2019
Venue: Heritage Hall
Programme Details & Pre-registration
<http://www.mirandahouse.ac.in>





Miranda House UNIVERSITY OF DELHI

Workshop on Biofertilizers for B.Sc. Life Science II Year students, DBT Star College Scheme, Department of Botany, Miranda House, University of Delhi, Delhi.

Date: 13 March 2019

Dr. Janaki Subramanyan and Dr. Saloni Bahri were the Coordinators of the Workshop.

No. of participants: 7



DBT Star College Scheme

A Workshop on Biofertilizers

Date : 13 March 2019
Time : 10.00 am to 4.00 pm
Venue: Room No. 128, Department of Botany



Coordinators: Dr Janaki Subramanyan & Dr Saloni Bahri

DBT Star College Project Coordinator
Dr Sadhna Sharma

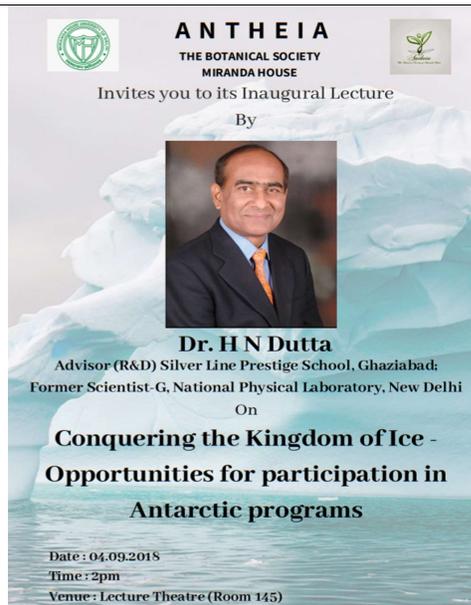
Chairperson
Dr Bijayalaxmi Nanda, Actg Principal, Miranda House



Miranda House UNIVERSITY OF DELHI

Part B.3

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

<p>Botanical Society Inaugural Lecture on Conquering the Kingdom of Ice-- Opportunities for Participation in Antarctic Programs by Dr. H. N. Dutta, Director (Research & Development), Roorkee Engineering & Management Technology Institute, Shamli.</p> <p>Date: 20 September 2018</p> <p>No. of participants: 70 (approx.)</p>	
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