



**Report for Workshop on
Quantum Mechanics and its Applications
September 24, 2019 (Tuesday)**

Jointly Organized by
**National Academy of Sciences India (NASI)-Delhi Chapter
&**

**Department of Physics, Daulat Ram College, University of Delhi
(A star Status College
Accredited by NAAC with 'A' grade)**



Physics Department, Daulat Ram College in collaboration with The National Academy of Sciences India-Delhi Chapter organized a one day workshop on “Quantum Mechanics and its Application” on Sept 24, 2019.

The keynote speakers were:

1. Prof Ajoy K. Ghatak (Meghnad Saha Fellow of National Academy of Sciences. Former a professor of Physics at IIT Delhi)
2. Prof. Patrick Das Gupta
(Department of Physics and Astrophysics, University of Delhi)
3. Prof. Anirban Pathak
(Department of Physics, Jaypee institute of Information Technology, Noida)

The workshop witnessed huge participation of around ~ 200 participants from various sectors of educational institutes such as Amity University (Gurgaon), IIIT (Noida), and various colleges of Delhi University. It started with lamp lighting, saraswati vandana and welcome address by Prof. Savita Roy- Principal, Daulat Ram College.

The workshop was conducted in 4 technical sessions and it mainly focused on the development and the modern applications of the Quantum Mechanics.

First, **Prof. Ajoy Ghatak** introduced the brief history and vision of National Academy of Sciences (NASI) in front of students to make them aware of the cultivation and promotion of research in scientific & technological fields for societal welfare.

The technical session I and II were taken by **Prof. Ajoy Ghatak** who elaborated on the basics of quantum physics & its applications in various fields like entanglement.

In the technical session III, **Prof. Patrick Dasgupta** introduced the students to the Quantum World of Superfluids and Superconductors.

And in Technical session IV, **Prof. Anirban Pathak** talked upon the Modern applications of quantum mechanics including Quantum Computation and Information Processing.

The speakers enlightened the students on the basics as well as topics of current research. At the end, a quiz was conducted on the basis of the workshop and the top ten scorers were awarded with certificates and a book as a prize, appreciating their involvement in the seminar. In total, the workshop was a great learning and motivating experience for all the participants.



Pic 1.: A moment from Inauguration Ceremony.



*Pic 2.: Felicitation of Prof. Ajoy Ghatak by Prof. Savita Roy, Principal, Daulat Ram College
Dr. Pooja Jain Convener IQAC (on the right) and Converer of Workshop-Dr. Neetu Agrawal (on
the left)*



Pic 3.: Felicitation of Dr. Pooja Jain- Convener IQAC, Daulat Ram Collge



Pic 4. : A moment from technical session I, presentation by Prof. Ajoy Ghatk



Pic 5. : A moment from technical session III, presentation by Prof. Patrick Dasgupta



Pic 6. : A moment from technical session IV, presentation by Prof. Anirban Pathak



Pic 7. : Prof. Anirban Pathak, Convener-Dr. Neetu Agrawal and organizing team members with the winners of the Quiz



Pic 8. : Group Photo with the participants of “Workshop on Quantum Mechanics & its Applications”

Report for IQAC

Name of event with organizing department

In-house Skill Development Program on “**Latex and its Applications**”

Organized by Physics Department of Daulat Ram College, Delhi University

Objective: This Program provides an opportunity to learn LaTeX, a typesetting programming language. The students will be able to use this knowledge for producing high quality technical and scientific typeset documents, reports as well as for making pictures. This will surely benefit students and give them edge in their academics over others.

Convenor/co-convenor: The event was organized under the supervision of

1. Dr. Savita Roy (PRINCIPAL)
2. Dr. Onkar Mangla (CONVENOR)
3. IQAC Observer: Dr. Pooja Jain

Duration with dates: 12th -19th July 2019 from 10:00 am to 2:00 pm

Number and profile of participants

The participants of this seminar were the graduation students of Physics (Hons) (IInd and IIIrd year) from Physics Department, Daulat Ram College.

Total number of students = 26

Total number of faculties = 5

1. Dr. Omwati Rana (Physics Department)
2. Dr. Onkar Mangla (Physics Department)
3. Dr. Neetu Agrawal (Physics Department)
4. Dr. Neeru Sehdev (Physics Department)
5. Dr. Tarun Chaudhari (Physics Department)

Total number of participants = 26 + 5 = 31

Program schedule (with title of session and speakers)

The program was organized with the following iternary:

SCHEDULE

Date	10:00 AM-11:00 AM		11:00 AM-11:30 AM	11:30 AM-2:00 PM
	Resource Person	Title of Lecture		Hands-On
12.07.2019	Dr. Neetu Agrawal	Introduction to Latex and the preamble	Snacks	Making cover page of report.
13.07.2019	Dr. Onkar Mangla	Table of contents, section, subsection, equations.....	Snacks	Making Table of contents, section, subsection and equations in report.
15.07.2019	Dr. Omwati Rana	Enumeration, Making Tables, Inserting Figures	Snacks	Making tables and inserting figures in the report.
16.07.2019	Dr. Neeru Sehdev	References and PPT making	Snacks	Putting references in report and making PPT using Latex.
17.07.2019 and 18.07.2019	Dr. Tarun Choudhari	Making Figure, making graphics, plot and compilation	Snacks	Making figures, graphics and plots with in the report using Latex.
19.07.2019	Compilation and printing of the final report prepared by Participants, submission of entries for the best report by the participants, Feedback and Valedictory			

Method of assessment of participants:

A feedback form of the event was provided to the participants. The overall summary is as mentioned below:

1. **Overall Event:** The participants considered the event to be very good platform providing an enlightening exposure to the latex programming and its use for report making.
2. **Usefulness of session:** The participants found the lectures and hands-on practice sessions excellent and beneficial for improvisation of their knowledge. It also provide them an excellent tool to be used for making report now and in future perspective.
3. **Quality of speakers:** The participants considered the lectures delivered by the respective speakers very good.

4. **Facilities:** The facilities provided for this skill development program were proper seating arrangement, projector, white board, laptops, papers, printing and other necessary facilities required for proper functioning of the program.
5. **Materials:** The materials provided for this skill development program were printing paper, informative notes, refilling of cartridge of printer, extension board. For procuring these items department has used a part of registration fees taken from the participants. The participants were satisfied with the materials provided.
6. **Registration Process:** Registration process was excellent as we had taken the details of all participants on registration forms and we provided each participants with a registration kit composed of a notepad and a pen.
7. **Refreshment:** Light refreshing snacks were provided. Participants found the refreshment satisfactory.

Financial details amount collected and spent

The financial expenses were covered by using the registration fees

1. Registration fees: Rs. 500 per participant.
2. Total amount Collected: Rs. 13000/-
3. Total expenditure (registration kit, refreshment, materials): Rs. 10,400/-
4. Amount for Valedictory of SDPs: Rs. 2600/- (certificate and refreshments)

Submitted hard copy of skill development program on “LaTex and its Applications” organized by Physics Department during 12th-19th July, 2019 along with bills, account summary and attendance of participants. An amount of Rs. 2600/- at the rate of Rs. 100/- per participant (total number of participants is 26) is being deposited for valedictory function of SDP.

(Dr. Onkar Mangla)

Coordinator

the Armed Forces that resulted in opening of opportunities for women in Territorial Army etc. She has conducted many awareness and gender sensitization programs with schools, colleges, Universities, Govt. and non-Govt. organizations. She was a Member of many Sexual Harassment Committees and has dealt with many sexual harassment complaints. After being appointed as a Member of the National Human Rights Commission, she has been dealing with subjects like Women, Children, LGBTI, Trafficking, Reproductive rights etc.

The national webinar received international e-coverage, and witnessed 700 participants joining in for the session.

2. Women and the Making of *Aatmanirbhar Bharat*.

June 12, 2020

Our distinguished alumna Prof. Sushma Yadav, Hon'ble Vice-Chancellor of Bhagat Phool Singh Mahila Vishwavidyalaya, Sonapat, as our Resource Person. She is also a member of University Grants Commission and Press Council of India. Previously she held many positions: Prof. of Public Policy and Governance, Indian Institute of Public Administration, President, National Social Science Association, Pro-Vice Chancellor (2013-15) Indira Gandhi National Open University, Chair Professor (2005-2013), Dr Ambedkar Chair in Social Justice and Indian Institute of Public Administration. Her areas of research are: Public Policy, Good Governance, Life and Philosophy of Dr B.R. Ambedkar, Social Justice, Gender issues, Inclusive Development and Higher Education.

The webinar witnessed enthusiastic presence of 700 national/international participants.

3. Skill Enhancement Techniques amidst COVID-19

June 13, 2020

The eminent speaker Shri. Raj Nehru, Hon'ble Vice-Chancellor, Shri Vishwakarma Skill University, Haryana (the first Skill University of India and the 6th in the world) was the Resource Person for the webinar. He has been also entrusted with an additional responsibility as Mission Director, Haryana Skill Development Mission. Under his leadership, SVSU has pioneered the Dual Education Industry Integrated Model, which is becoming highly popular now as the 'Earn While Learn' scheme. He has also undertaken various philanthropic activities and has worked on ground zero in the Disaster hit areas of Uttarakhand, Visakhapatnam and Jammu & Kashmir. The webinar witnessed enthusiastic presence of 700 national/international participants.

Webinar on New Education Policy

January 11, 2021

(II).The Entrepreneurship Activities 2020-21

The Entrepreneurship Cell of the college is convened by the Economics Department.

Convener (2020-21): Ms. Chetna Malik (Economics Department), **Teacher In charge (2020-21):** Dr. Malini Sharma

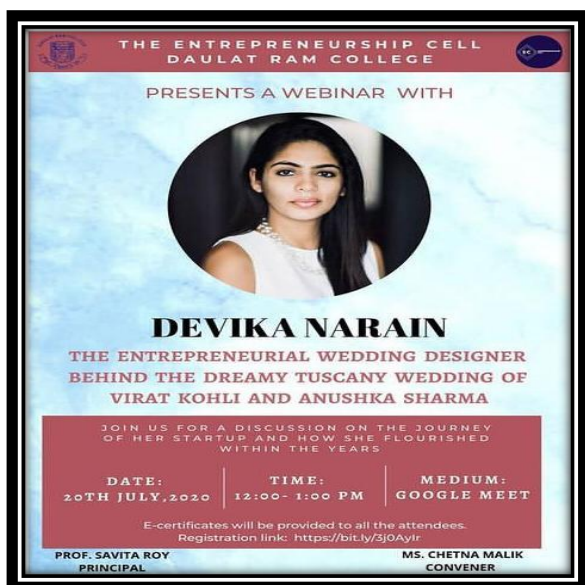
At this hour of uncertainty, we are putting forward our best efforts to engage in virtual events and activities. We have Organized the following webinars:

1. IMPACT OF COVID-19 ON STARTUPS AND GLOBAL ECONOMY

On the 28th of June 2020, a webinar was organized with Mr. Nitesh Kaushik, Entrepreneurship Development and Placement Specialist at UNDP, India. Mr. Kaushik provided the students with real-world insights and an understanding of the mechanism beyond the books. The session sought positive feedbacks from all attendees and also gave students an Opportunity to learn about various UNDP internships.



2. ENTREPRENEURIAL JOURNEY



Another successful webinar was executed on 20th July with Ms. Devika Narain, a globally renowned entrepreneurial wedding planner and designer. She has designed some of the most opulent weddings including that of Virat Kohli and Anushka Sharma. She underlined the requisites of the entrepreneurial world and shared her journey, making it an extremely inspirational session for the budding entrepreneurs.

3. GOVERNMENT POLICIES AND CHALLENGES TO ENTREPRENEURSHIP

Adding to the list, another very fruitful International webinar was organized on 2nd September 2020. The panelists were Mr. Rajendra Deshpande, Certified Business Value Development Consultant, USA, Dr. Sanjiv Layek, Executive Secretary at World Association for Small and Medium Enterprises (WASME) and Ms. Sakshi Sharma, Director of Soho Honey and an esteemed alumnus of the Economics department of DRC. The webinar saw some great government policies being underlined by all three panelists and overall it was one of the most knowledgeable sessions one could expect.

THE ENTREPRENEURSHIP CELL
DAULAT RAM COLLEGE
(CONVENED BY ECONOMICS DEPARTMENT)
(under aegis of IQAC)

PRESENTS A WEBINAR WITH

MR. RAJENDER DESHPANDE
Business Value Development
Consultant, USA

DR. SANJIV LAYEK
Executive Secretary World
Association for Small and
Medium Enterprises

SAKSHI SHARMA
Director
Soho Honey

**TOPIC : GOVERNMENT POLICIES AND CHALLENGES
TO ENTREPRENEURSHIP**

DATE	TIME	MEDIUM
2ND SEPTEMBER 2020	4:00-5:00 PM	GOOGLE MEET

REGISTRATION LINK : <https://bit.ly/2YypjhJ>

E- CERTIFICATES WILL BE PROVIDED TO ALL ATTENDEES.

PROF. SAVITA ROY
PRINCIPAL

MS. MALINI SHARMA
HOD

MS. CHETNA MALIK
CONVENER

4. FAILURES TODAY TRAILBLAZERS TOMORROW

In 'FAILURES TODAY TRAILBLAZERS TOMORROW', we bring out the stories of people around us, who are entrepreneurs in one way or the other. These stories showcased the true feelings of a businessman and posed as a mirror to make us understand the hardships that one has to go through to achieve what they want to. We managed to **interview** (2020-21) a variety of entrepreneurs this year ranging from **alumni of DRC to a Padma Shree Nominee**. We also interviewed an entrepreneur who worked with **Ritu Kumar, the famous designer**, before starting her own brand and inspired students by telling them the hard work she had done to reach such a height.

5. THE ENTREPRENEURSHIP MONTH

Using the power of the social media, E-cell celebrated "**The Global Entrepreneurship Month**", **November, 2020**, whereby we posted various entrepreneurial related substantial facts and information to let the students know as much of entrepreneurship as they can. We talked about social entrepreneurship, about the companies who recklessly faced the COVID situation, and gave valuable facts about the startups in various industries like investment banking and EdTech. Our reach grew up leaps and bounds after due to the exclusiveness of the idea as a lot of budding entrepreneurs are looking for such help online.

IN-HOUSE SKILL DEVELOPMENT PROGRAMME: I

Department of Botany organized an IN-HOUSE SKILL DEVELOPMENT PROGRAMME (Under IQAC) on “Basics of Bioinformatics: Theory & Practice” in 2019.

11th - 17th July 2019

Coordinators: Dr Nidhi Gautam & Dr Meenakshi Sharma.

Participants: 38

Bioinformatics Practice Manual written by Dr Meenakshi Sharma released for the Graduate and Post Graduate Students. The comprehensive Practice Manual on Bioinformatics serves as an indispensable guide for learners and researchers alike. It offers hands-on exercises, step-by-step tutorials, and real-world datasets to hone bioinformatics skills. It covers tools, algorithms, and databases used in genomics, proteomics, and computational biology. Additionally, Covering diverse topics such as sequence analysis, molecular modelling, and data mining, this

manual equips users with essential tools to decode biological information. Whether for novices or seasoned practitioners, this manual fosters a deeper understanding of bioinformatics applications, empowering users to tackle complex biological challenges with confidence. This manual equips readers and Graduate and Post Graduate Students with essential skills for harnessing bioinformatics in cutting-edge research, discovery and for Job opportunities.

The image displays two posters for an in-house skill development programme. The left poster is titled 'IN-HOUSE SKILL DEVELOPMENT PROGRAMME (Under IQAC) on BASICS OF BIOINFORMATICS: Theory & Practice' and features a collage of bioinformatics-related images and diagrams. The right poster is titled 'DAULAT RAM COLLEGE (University of Delhi) DEPARTMENT OF BOTANY Under IQAC' and features a blue background with a molecular structure graphic. Both posters provide details about the programme dates (11th - 17th July, 2019), time (10:30 am - 3:30 pm), registration information, and contact details for the coordinators, Dr. Nidhi Gautam and Dr. Meenakshi Sharma.

IN-HOUSE SKILL DEVELOPMENT PROGRAMME (Under IQAC) on BASICS OF BIOINFORMATICS: Theory & Practice
11th - 17th JULY, 2019

DEPARTMENT OF BOTANY, DAULAT RAM COLLEGE
UNIVERSITY OF DELHI, DELHI-110007
Dr Meenakshi Sharma & Dr Nidhi Gautam

DAULAT RAM COLLEGE
(University of Delhi)
DEPARTMENT OF BOTANY
Under IQAC

In-house Skill Development Programme on
BASICS OF BIOINFORMATICS: Theory and Practice

11th - 17th July, 2019
Time: 10:30 am - 3:30 pm

- ♦ For Registration mail to - drbotany2019@gmail.com
- ♦ Refreshment and other incidental charges -INR 500/-
- ♦ Number of Seats-25-30
- ♦ For queries contact at -9971940098, 9868535813

Dr. Savitri Roy (Principal)
Dr. Nidhi Gautam Course Coordinator
Dr. Meenakshi Sharma Course coordinator











DAULAT RAM COLLEGE

UNIVERSITY OF DELHI



ZEBRAFISH LAB FACILITY

4, Patel Marg, Maurice Nagar, Delhi-110007

Report 2019-20

Zebrafish Lab Facility Daulat Ram College

The zebrafish lab facility in Daulat Ram College was set up in October 2015, jointly by Biochemistry and Zoology Departments in collaboration with CSIR-IGIB, Mathura Road, Delhi, and Sansriti Foundation Delhi. The facility has been funded by Star Innovation projects DU, Star College project DBT, Govt. of India, and Innovation projects DU. It was developed with the aim of providing an alternative *in vivo non –invasive model system for science education, teaching and research*.

Students of Biochemistry (Hons), Zoology (Hons) and Life Sciences join the lab as interns and work on research projects during their free time and holidays. This opportunity provides students with experiences wherein they can explore and discover the nature and process of scientific research using zebrafish model system. Small internship programs are also conducted for school students.

Zebrafish lab facility organized the following training workshop and training programs:

- Hands on training workshop on “ **Drosophila and Zebrafish model systems**” 28th -31st , 2019 May was jointly organized with Dr. Chitra Bhasin of Zoology department, for science teaching faculty of Delhi University Colleges. 15 teachers participated in the workshop.
- Summer Internship Program for science undergraduate students of Delhi University was organized from 17th June – 17th July 2019, on “ **Zebrafish Model System**” at Zebrafish facility, Daulat Ram College. 15 students participated.
- One day training program on “ **Zebrafish Husbandry**” was organized for Zoology Hons. Students of Khalsa College, University of Delhi on 24th September, 2019. 50 students participated in the workshop.

- Hands on training workshop on “**Zebrafish model system**” was conducted from 17th Dec – 20th December 2019 in Zebrafish lab facility, Daulat Ram College. 15 undergraduate students of Zoology (Hons) Ist year Daulat Ram College participated in the workshop
- Two PhD Scholars from Ashoka University, Haryana, underwent training in “**Zebrafish Husbandry**” in January 2020.

Small research projects undertaken by faculty and students in Zebrafish lab facility have resulted in one publication in UGC approved journal and 4 poster presentations in National and International Conferences.

Zebrafish lab facility also serves as a resource center to provide zebrafish and embryos to other colleges/ departments and research institutes to support teaching and lab practicals.

The following faculty were the Resource persons for the internship and training programs:

Dr. Padmshree Mudgal (Department of Biochemistry, DRC) **Co-ordinator**

Dr. Chitra Bhasin (Department of Zoology, DRC)

Dr. Adita Joshi (Sansriti Foundation)

Dr. Radhika Gupta (Department of Biochemistry, DRC)



Dr. Padmshree Mudgal
Professor,
Department of Biochemistry,
Incharge- Zebrafish Lab Facility
Daulat Ram College, University of Delhi, New Delhi, India 110007
pmudgal@dr.du.ac.in



