



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



Report of activities under the aegis of DBT Star College Scheme 2020-2021

Two-day Online Hands-on Workshop on “Computational Chemistry and Molecular Modeling in Drug Design”, held on 19th-20th May, 2020 organised by Department of Chemistry

A two-day Online Hands-on Workshop on “Computational Chemistry and Molecular Modeling in Drug Design”, on 19th-20th May, 2020 via the zoom platform. The two-day workshop familiarized the B.Sc. Program students with basic concepts of molecular modelling and hands-on experience on using a molecular modeling mobile App, Mo3.

Detail Report

Day 1 started with a note by Dr. Reena Saxena, Coordinator-Chemistry, DBT Star College Scheme, where she enlightened the audience about the need for understanding molecular modelling for drug designing, especially in the wake of worldwide scare by Corona Virus.

This was followed by a very encouraging note by our respected Principal, Dr. Vibha S. Chauhan, who graced the event with her benign presence. Dr. Anita Kamra Verma, Program Coordinator, DBT Star College Scheme, also motivated the students and told them about the importance of such workshops. In today’s world, the applications of computers in chemistry are revolutionizing the drug discovery and life sciences in a huge way, and it is important for students to be well versed with the molecular modelling techniques.

This was followed by a lecture by Dr. Rakhi Thareja, Assistant Professor, St. Stephen’s College, University of Delhi, on the topic “A Review on Molecular Modeling”. The second lecture in the series was by Dr. Reena Saxena, where she introduced the mobile app ‘Mocubed’ to the students and guided them on how to download and install it on their smart phones. Both the lectures were very informative and introduced our students to the world of Molecular Mechanics and Computational Chemistry with special attention on its applications in the field of pharmaceutical design.

On Day 2, Dr. Ruchi S. Pandey, Assistant Professor, Chemistry, Kirori Mal College, gave a detailed demonstration on how to use the Mo3 mobile app for molecular modelling and computations and also correlated these exercises with the academic concepts. Students not only made models of simple drug molecules but also



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



calculated various geometrical and energetic parameters of the same and also computed the IR spectra of the molecules. Dr. Shashwat Malhotra, Assistant Professor, Chemistry, Kirori Mal College, then helped the students understand the IR spectrum in details vis-à-vis concepts from organic chemistry.

Post the demonstration, the students shared their views and feedback on the workshop and appreciated the multi-disciplinary nature of the field.

Kirori Mal College
University of Delhi

Department of Biotechnology
Govt. of India

COMPUTATIONAL CHEMISTRY & MOLECULAR MODELING IN DRUG DESIGN

Online Hands-on Workshop
for
B.Sc. (Programme), Semester VI Students

May 19-20, 2020
3 pm - 4 pm

Organised by
Department of Chemistry
(under the aegis of DBT Star College Scheme)

May 19th, 2020
3:00 pm - 3:30 pm
LECTURE: Introduction to Molecular Modeling
Dr. RAKHI THAREJA
Department of Chemistry,
St. Stephens College, University of Delhi

3:30 pm - 4:00 pm
Download and Demonstration of Mobile App
for Molecular Modeling
Dr. REENA SAXENA
Department of Chemistry,
Kirori Mal College, University of Delhi

May 20th, 2020
3:00 pm - 4:00 pm
Hands-on Training for Drug Designing
• Dr. SHALINI BAXI
• Dr. SHASHWAT MALHOTRA
• Dr. RUCHI S. PANDEY
Department of Chemistry,
Kirori Mal College, University of Delhi

Register before 17th May 2020 at <https://forms.gle/XUQDA1czjaJ8y5zo8>

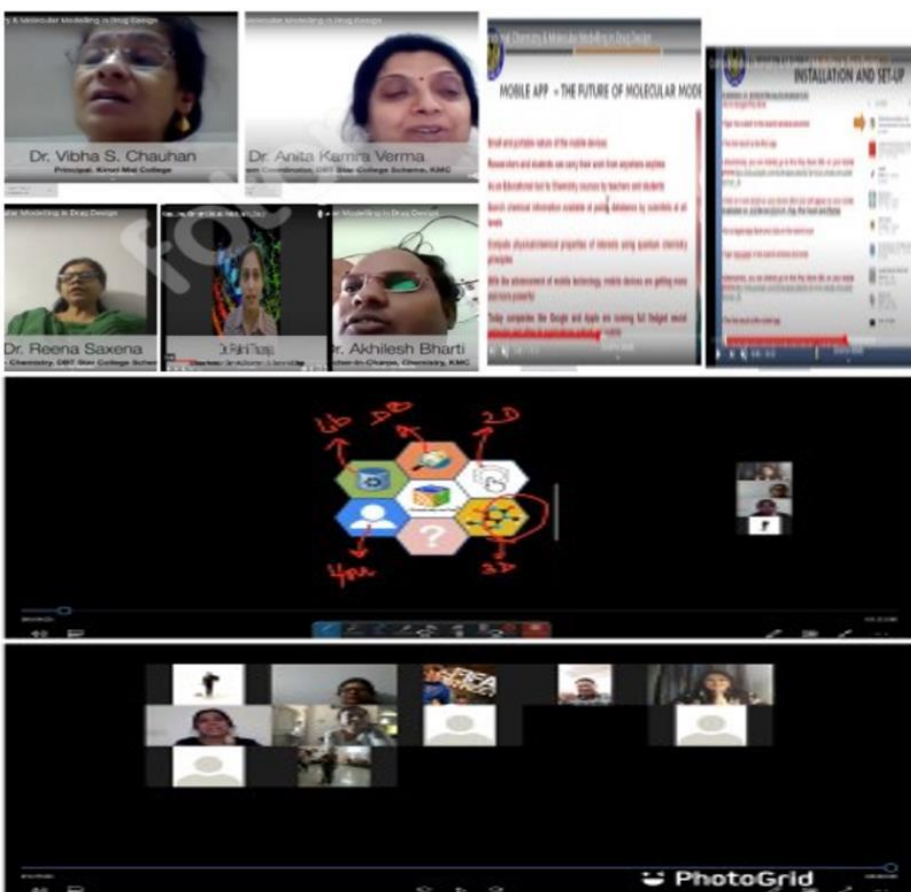
System Requirements: Mobile Device with Android 5.0+ or IOS 9.0+ with Internet Connectivity

Teacher-in-charge
Dr. Akhilesh Bharti

Co-ordinator-Chemistry
DBT Star College Scheme
Dr. Reena Saxena

Patron
Dr. Vibha Singh Chauhan
Principal
Kirori Mal College

Convener Seminar Committee
Dr. M. Ramananda Singh



Glimpses of Two-day Online Hands-on Workshop on “Computational Chemistry and Molecular Modelling in Drug Design”, held on 19th-20th May, 2020



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



Webinar on “Diagnostic & Therapeutic Approaches to Covid-19” on 3rd September, 2020, organized by Department of Zoology

The Department of Zoology organized a webinar entitled “Diagnostic & Therapeutic Approaches to Covid-19” on 3rd September, 2020, under the aegis of DBT star College Scheme.

Dr Imtaiyaz Hussan from Centre for Interdisciplinary Research in Basic Science, Jamia Milia Islamia gave a lucid talk on the diagnostic aspects of Covid-19. About 100 students attended from all over India.

Kirori Mal College
NAAC Accredited A+ grade
Department of Zoology
under the aegis of DBT Star College Scheme

Presents Webinar on

“Diagnostic & Therapeutic Approaches to Covid-19”
by
Dr. Imtaiyaz Hassan,
Center for Interdisciplinary Research in Basic Sciences,
Jamia Millia Islamia,

Organized by
Department of Zoology

3rd September, 2020
Venue : Google meet
<https://meet.google.com/qrn-atbd-bjs?authuser=0&hl=en>
Time: 11am-12.30pm

Dr. Sanjukta Das, Teacher-in-charge
Dr. Kb. Cherita Devi, Webinar Organizer

Prof. Vibha Singh Chauhan, Principal

Dr. Anita K. Verma, Program Coordinator

Webinar entitled “Machine Learning and Data Science for Biologist” on 4th September, 2020

The Department of Botany organized a webinar entitled “Machine Learning and DataScience for Biologist” on September 4th, 2020 under the aegis of DBT Star College Scheme. The very passionate and talented Dr. Gitanjali Yadav, scientist NIPGR, and lecturer at the University of Cambridge was the speaker for the day. More than 900 participants registered for the webinar. Microsoft Teams platform was used wherein live streaming of the event was arranged to give access to all the participants.

Detail Report

The webinar commenced at 11:30 am by the welcoming words of Dr. Renu Kathpalia, Botany

Kirori Mal College
Department of Botany
University of Delhi
(under the aegis of DBT Star College Scheme)
Presents
Webinar
On
Machine Learning and Data Science for Biologists
Dr. Gitanjali Yadav, Scientist, NIPGR
Lecturer University of Cambridge

Date: 4th September 2020
Time: 11:30 am
Venue: Google meet

Dr. Vibha S. Chauhan, Principal
Dr. Anita K. Verma, Program Coordinator
DBT Star College Scheme
Dr. Renu Kathpalia, Coordinator Botany
Dr. Ram Babu, Teacher-in-charge, Department of Botany

The collage shows various participants in a video conference grid, some with their names visible, and a slide titled 'Machine Learning and Data Science for Biologists'.

Coordinator, DBT Star College Scheme, which was followed by a formal welcome of all the participants by Dr.



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



Rajni Gupta. Thereafter, our principal ma'am, Dr. Vibha Singh Chauhan addressed the participants with her encouraging words. The program proceeded with the briefing about the DBT program by Dr. Anita Kamra Verma, Program Coordinator, DBT Star College Scheme. After the formal introduction of the speaker for the day Dr. Gitanjali Yadav by Dr. Renu Kathpalia, the lecture began with the basic concepts of machine learning. Dr. Yadav talked about how we are connected to Machine Learning (ML) and Artificial Intelligence in our daily lives by giving realistic examples such as weather predictions, amazon customer service, GPS application, and many more. She also explained how machine learning can be used for converting text descriptions of plants into images. She then talked about The Indian Agritech Sector, digital agriculture and the importance of data science in the agriculture

sector. She also described the four types of machine learning systems available which can be used for biological data analysis. The application of ML analysis to find out the influence of different environmental conditions on the biochemical compounds in the plants was explained by citing case studies from her own research work. She informed the students about various hands-on courses on ML and data sciences available online. Indeed, the talk was very informative and engaging; it also kindled many queries in young minds. The program culminated with a questionnaire session conducted by Dr. Sunil K. Dhiman. All the questions were amply answered by Dr. Gitanjali. The program was highly appreciated by all the participants. The program concluded by formal vote of thanks by Dr. Renu Kathpalia. E Certificates were provided to all the participants for attending the webinar.

Glimpses

Webinar on “Multifunctional Nanomaterials for Advanced Applications in Healthcare” held on 16th September, 2020

A webinar on “Multifunctional Nanomaterials for advanced application in health care” under the aegis of DBT star college scheme on 16th September 2020. The guest

Kirori Mal College
NAAC ACCREDITED GRADE 'A+'
University of Delhi

DEPARTMENT OF CHEMISTRY
UNDER THE AEGIS OF DBT STAR COLLEGE SCHEME
PRESENTS WEBINAR
ON
**MULTIFUNCTIONAL NANOMATERIALS FOR
ADVANCED APPLICATIONS IN HEALTHCARE**

Speaker: Dr. INDRAJIT ROY
ASSOCIATE PROFESSOR
DEPARTMENT OF CHEMISTRY, UNIVERSITY OF DELHI

16th September, 2020
12.30 – 1.30 PM

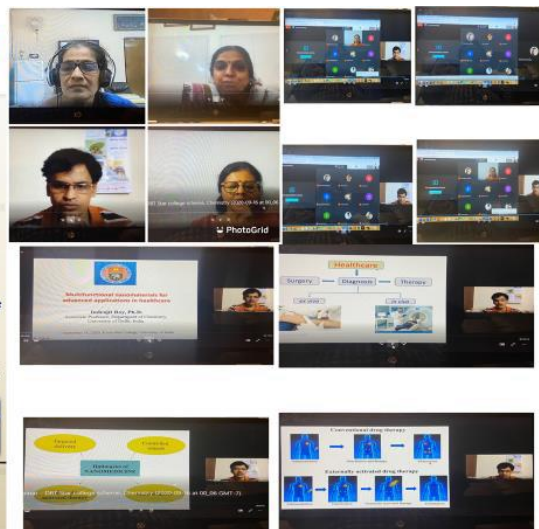
Join via: meet.google.com/jae-huwm-fsd
Register via: <https://forms.gle/6GCHQF1T579E5>

Dr. Anshu Bhatti
Teacher in-charge
Dr. M. Ramananda Singh
Convener, Seminar Committee

Dr. Reena Saxena
Coordinator-Chemistry,
DBT Star College Scheme

Dr. Anita K. Verma
Program Coordinator,
DBT Star College Scheme

Dr. Vibha S. Chauhan
Principal
Kirori Mal College





किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



speaker, Prof. Indrajit Roy from the Department of Chemistry, University of Delhi gave a very stimulating and compendious lecture on this very relevant topic in the recent times when the world is living through a pandemic. There were around 120 audiences comprised of undergraduate students from our college and from other colleges along with several faculty members.

[Detail Report](#)

Principal, Dr. Vibha Singh Chauhan welcomed the guest speaker, Prof. Indrajit Roy from the Department of Chemistry, University of Delhi along with the DBT Star Scheme Coordinator Dr. Anita Kamra Verma. Prof. Roy familiarized the students with the various aspects of quantum confinement in understanding the structure and properties of nanoparticles and then went on to explain their relevance in targeted drug delivery in cancer treatments and respiratory disorders. The students were enthralled and asked several interesting questions. The webinar ended with a formal vote of thanks.

2-days Workshop for students on “Carbon Sequestration & Solid Waste Management-A Perspective” on 5-6th November, 2020.

The Department of Botany organized a workshop entitled “Carbon Sequestration & Solid Waste Management-A Perspective” under the aegis of DBT Star College Scheme. Dr. Lata, Principal scientist, Division of Microbiology NIPGR, ICAR and IARI gave lecture on “Solid Waste Management”. Dr. Ratul Baishya, Department of Botany, University of Delhi, spoke on “Technological Interventions in Carbon and Solid Waste Management”. More than 100 students participated for the workshop. Microsoft Teams platform was used wherein live streaming of the event was arranged to give access to all the participants.

[Detail Report](#)

Day 1

On the first day a lecture was delivered on ‘Solid Waste Management Through Composting’ by Dr. Lata, Principal Scientist, Division of Microbiology, Indian Agricultural Institute, New Delhi. The speaker emphasized on recycling of solid waste through composting, use of green manure and biofertilizers. She also enlightened students about the various wastes that can be used in composting, which includes leaves, grass clippings and food scraps. The advantages of composting which includes volume reduction up to 50% and destruction of pathogens and weed seeds were discussed among the talk. The talk also highlighted the types of waste that need to be avoided



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



for the better and efficient functioning of the composting beds. The material to be avoided included oil, fat, grease, fish or dairy products, unwashed egg shells (which tend to attract pests), citrus peels etc.

The basic standard methods and the factors affecting composting were demonstrated to enhance the inquisitive skills of students so that they can also plan and do small experiments to standardize the protocols as per their composition of waste. A detailed discussion was done to show the effect of various factors viz. air (oxygen), water, food, temperature, particle size of substrate, and C:N ratio of the substrate.

In addition to this the lecture engrossed the audience with the discussion on development of formulation of effective microorganisms for production of enriched compost for peri-urban agriculture. In the end the speaker informed the audience that the compost also has to undergo strict quality controls before it is used commercially. The various parameters such as moisture percent by weight, colour, odour, particle size, bulk density, Total organic carbon, Total Nitrogen, total phosphates, potash etc. are to be maintained as per the Indian Standards, The Fertilizer (Control) Order, 1985, issued by the Fertilizer Association of India. The scope of the compost production, its details and logistics were taken up the speaker elaboratively. She concluded her talk by reiterating that an integrated approach may result in higher use efficiency of inputs for sustainable crop yields. Dr. Lata addressed all the queries raised by the students.

The students were asked to submit feedback form. The talk was highly appreciated and inspired many to start their own composting at home. There are many students who already treating their waste and commented that they will improvise method of composting as suggested by the speaker. At the end students were given an assignment in the form quiz.

Day 2

On the second day Dr. Ratul Baishya gave talk on “Technological interventions in carbon and solid waste management”. He started his lecture by discussing Carbon cycle, carbon pool and emission of carbon in the atmosphere. He further discussed Carbon sequestration, climate change and global warming, He talked in detail about Kyoto protocol and its implication and the conventions to decrease carbon dioxide emission as well bringing down the level of carbon dioxide in the atmosphere. He analysed different methods of measurement of carbon dioxide and compared it with the method used by NOAA laboratory where average of carbon dioxide is measured. According to NOAA the rate of carbon dioxide is increasing at an alarming rate of approximately adding 2ppm carbon dioxide every year. Burning of arctic and wild fire are the major source of carbon dioxide emission. The accelerating emission of carbon dioxide



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



leads to release of methane which is difficult to be trapped and is more dangerous in regulation of climate change mechanism. To avoid carbon emission, technological interventions has led to development of Carbon capture and storage technology (CCS). The CCS technologies not only capture carbon but also covert it into solid gel type and finally transfer this fixed carbon to dessert for geological storage. In comparison to photosynthesis which fix carbon dioxide,

CCS technology capture carbon released by industry and convert to different form and transfer

to ocean, dessert or blended with fly ash for building roads, houses and used in agriculture practises.

He talked in detail about Carbon footprint and method to study it. The mechanism of carbon balance sheet devised by REDD+, which measure how much is carbon fixed and emitted by a

country. The quantitative values are converted into certificate and these certificates are sold or bought in huge carbon market. He talked about

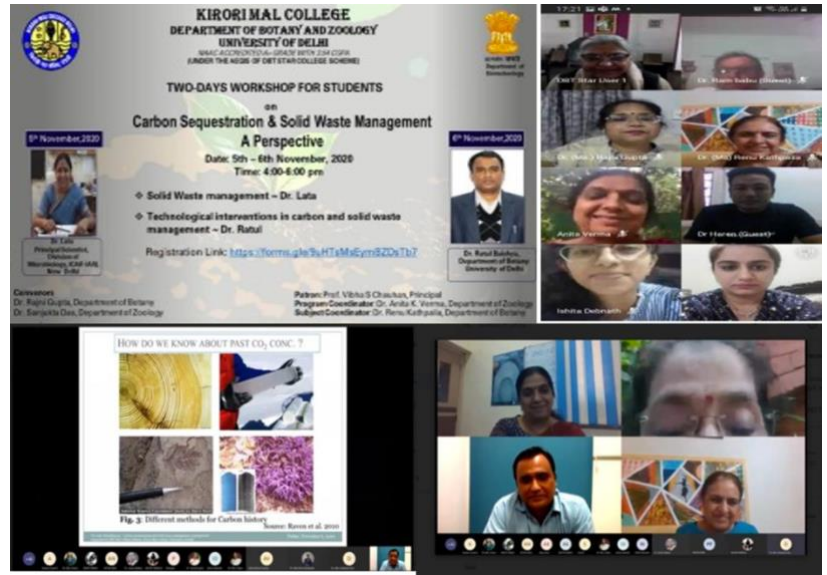
Global REDD project site in India, different

companies and NGOs which determine carbon footprint. The student was appraised of the status carbon dioxide sequestration in Delhi ridge area. At the end he explained Solid waste management in Delhi by different model and practises. He concluded his talk by citing example of best practises used in north campus to reduce municipal solid waste. The talk ignited many students minds and there was a very questionnaire session.

The workshop was concluded by vote of thanks and concluding remarks by Dr. Anita Kamra Verma. On 11th November Dr. Ratul Bashiya shared link of a work sheet to all the participants. The link for quiz

<https://docs.google.com/forms/d/e/1FAIpQLSckOiUjRoBozV3CPAXLdS9VwJgQVWolpGf>

[ugfdHuamPK0MMMw/viewform?usp=sf_link](https://docs.google.com/forms/d/e/1FAIpQLSckOiUjRoBozV3CPAXLdS9VwJgQVWolpGf) The quiz was attempted by 55 students all the participants were given e-certificate of participation. Mahima of Miranda house stood first and Aditya Kiran of Kirori Mal college won second prize.





किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



Seven-day workshop for students on “Scientific and physical computing of the experiments with Python” organised by Department of Physics on 5th -7th 13th 19th & 23rd Nov, 2020

A seven days’ workshop on “Scientific and physical computing of the experiments with PYTHON” has been conducted on above dates in virtual (Online) mode at Physics Department, Kirori Mal College. The aim of the workshop was to impart basics of python programming language and its commonly used libraries like SciPy, NumPy, Pandas, etc. This workshop was

initiated/organised by Dr. Sangeeta D Gadre, Associate professor in Physics Department and DBT Physics Coordinator, under the aegis of DBT star scheme of the college.

Detail Report

On inaugural of workshop, Dr. Anita K. Verma, DBT Star College Scheme, Programme coordinator, briefly introduced about the DBT star scheme. The session then was addressed by our Principal, Dr. V.S.Chauhan, Senior Professor Physics Department Dr. O.P. Sharma and Teacher-in-Charge of Physics Department Dr. R. K. Pandey. They emphasised the usefulness of Python programming language, their plan to introduce this language in Physics(H) course and elaborated on their association with the key speaker. A detail introduction of main speaker of the workshop, Prof. Dhananjay V. Gadre was presented by organising member and our student Mr. Vijay and invited prof. Gadre to deliver the inaugural lecture.

Prof. Dhananjay V. Gadre, with 31 years of research and teaching experience, author of several professional articles and books, directs two open access laboratories at NSUT, namely Centre for Electronics Design and Technology (CEDT) and Texas-Instrument Centre for Embedded Product Design (TI-CEPD). Since past several years he has been interested in microcontroller based embedded system design. His lecture was upon review of Physical and Scientific Computing using Python. He described about the physical computing devices which takes input samples and based on the program that has been written, the program processes this information and gives output. The output needs to be analysed with some other scientific method. He talks about the association of scientific computing with physical computing and their features. He emphasised on main aim of this workshop:

Kirori Mal College
Department of Physics
University of Delhi
(under the aegis of DBT STAR College Scheme)

WORKSHOP
"Scientific and Physical Computing of the experiments with Python"
(For 7 days)
Date: 5th November, 2020 onwards
Time: 4-6 PM (IST)
For Schedule, Visit: shorturl.at/suvwR
Or Scan:

Inaugural Lecture:
Topic: Review of Physical and Scientific computing using Python.

Speaker: Prof. Dhananjay V. Gadre
Netaji Subhash University of Technology (NSUT), Delhi

Instructors:
1) Divanshu Dodeja (LAMBDAV LLP)
2) Harsh Sharma (NSUT)

For Queries, Contact:
● Kaushkee: 9818413713

Prof. Vibha Singh Chauhan
Principal

Dr. Rakesh Kumar Pandey
Teacher-in-charge

Dr. Sangeeta Gadre
DBT Physics Coordinator

Dr. Anita K. Verma
DBT Programme Coordinator



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



introduction of python, its usefulness in scientific computing. He also talked about efficiency of Python in combination with its modules NumPy, SciPy, Matplotlib and Pandas.

After the inaugural lecture the technical sessions of workshop was conducted by the two instructors Mr. Harsh Sharma and Mr. Divanshu Dodeja. Mr. Harsh talked about course objective, its prerequisite, Introduction to python language and how to install the compiler.

Starting with how to install and use Jupyter notebook for python programming, the lecture covered features and very basic introduction of some python syntax, various libraries and modules. He also mentioned the areas of scientific computing where python is used. He also demonstrated that how python is more efficient than other similar programming languages like C++.

On second day Mr. Divanshu Dodeja started session with taking problems faced by participants in installation of python shell or Jupyter. Thereupon he introduced how Python variables are defined and mentioned various data types (list, tuples, Dictionaries etc.) available in the programming language.

On Day 3 Mr. Dodeja described in detail about the data type “list, sets and dictionary” and their various modules and operations. He also explained how to define and use conditional statement, Looping statement, various operators and functions in Python programming. At the end of the session two assignments were posted in the Google Classroom.

On fourth day Mr. Harsh introduced the two of the most commonly used libraries in python like NumPy- Numerical python, Pandas- for python data analysis tool. At the end of the session questions and problems faced with the participants were resolved.

On fifth day Mr. Harsh continued the session with elaborate discussion of two other commonly used libraries: a) Matplotlib- plotting and visual analysis. In matplotlib various plotting functions like: stems, Curve plots, Histograms, Bar Graph, Pie-charts, Scatter plot and bubble plots were discussed. However, the library is not limited to only these modules. b) SciPy- Scientific Python, a tool with functions like- interpolation, integration, Fourier Transform, Differentiation and many more. The session ended with basic exercises based on above modules.

Day six started with taking problems from previous sessions and a brief overview of Numpy, Pandas, SciPy and matplotlib libraries. On the end of day 6 and day 7 various assignments problems like behaviour of Electric field of two charges, population dynamics problem, etc. were discussed in detail. On the end of day 7 we motivated



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

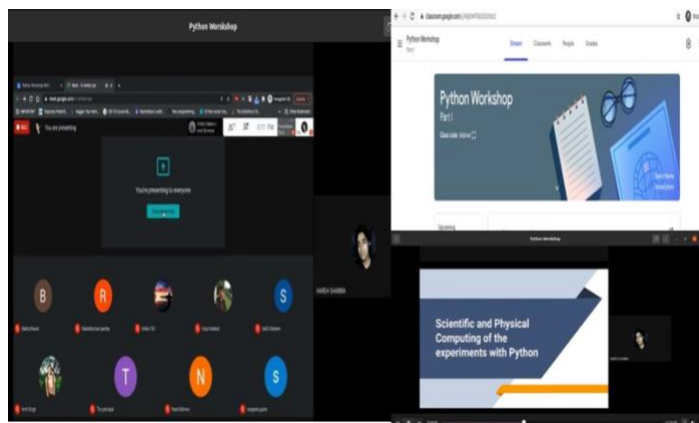
Tel. No.: 011-27667939

Website: kmc.du.ac.in



participants to work on a project of their interest i.e., to write a program for any scientific problem which would require most of the python syntax and its modules discussed during the entire workshop. We agreed to meet one more day to take the queries and doubts from participants.

Hence the last day of the workshop was conducted on Dec 4 where the participants were given time to present their projects. So, it was mostly a discussion-cum question answer session.



All the sessions were very interactive adopting do it yourself (DIY) approach. The duration of the sessions was between 1:30Hrs to 2:00Hrs. Participants were very enthusiastic during the entire workshop as they were kept involved through assignments plus quizzes and to work on a problem of their choice. This was initially a seven days' workshop however it went up to eight days. The whole workshop was spread over a month. The flexibility in dates were decided in order to accommodate students' regular classes and also giving them time to solve workshop assignments and work on project of their interest.

Webinar cum workshop on “Development and use of molecular markers for crop improvement” organised by Department of Zoology, on 26th November, 2020

A webinar cum workshop on “Development and use of molecular markers of crop improvement” was organized by Department of Zoology, Kirori Mal College on 26th November, 2020 under the aegis of DBT Star College Scheme. The guest speaker on the occasion was Dr. Swarup K. Parida, Senior Scientist, NIPGR. It was attended by more than 100 participants including students and faculty.

Google Meet: <https://meet.google.com/bia-tudc-ivh>

[Detail Report](#)

Webinar
26-11-2020

KIRORI MAL COLLEGE
NAAC accredited A+ grade with 3.54 CGPA
DEPARTMENT OF ZOOLOGY
(under the aegis of DBT Star College Scheme)

Organizes **Webinar cum Workshop** On
“Development and Use of Molecular Markers for Crop Improvement”

Hosted By: Genomics-assisted Breeding Laboratory,
National Institute of Plant Genome Research (NIPGR),
New Delhi

Date: 26th November 2020 (Thursday)
Time: 10 am – 1.15 pm
Registration Link: <https://forms.gle/Lxtbxa5aMYCtY5727>
Meeting Platform: Googlemeet
Mail id: dbtstar_act@kmc.du.ac.in

Program Coordinator:
DBT Star College Scheme
Dr. Anita K. Verma

Organizers
Dr. Sanjukta Das, Teacher-in Charge
Dr. K. Cherita Devi

Patron:
Prof. Vibha S Chauhan
Principal
Kirori Mal College



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

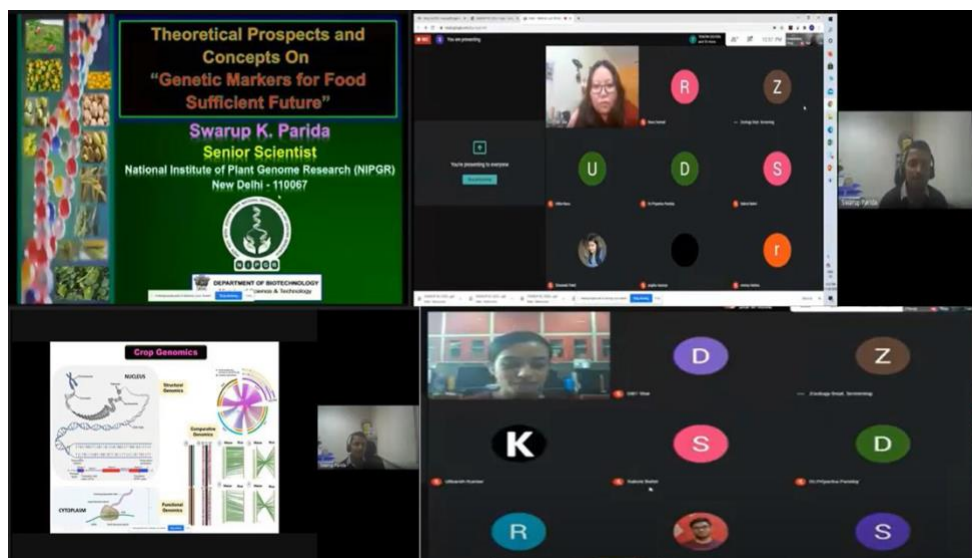
Tel. No.: 011-27667939

Website: kmc.du.ac.in



The session began with encouraging words of Principal, Prof. Vibha Singh Chauhan and introductory remarks of project coordinator Prof. Anita Kamra Verma. The guest speaker Dr. Swarup K. Parida, Senior Scientist, NIPGR was introduced by Prof. Anita. The topic of his talk was “Theoretical prospects and concepts on Genetic Markers for Food Sufficient future”. He introduced the genetic markers, DNA fingerprinting and the origin of these molecular markers concepts. The timeline of green revolution and first-generation genomic era were highlighted and it was only after DNA sequencing designing of molecular markers started. He also explained advances in sequencing method and different crops which have been sequenced.

He highlighted the work being done by NIPGR scientists, who have decoded the sequence of Chick pea and studied the genomic expression. His presentation included the different steps involved in marker assisted crop improvement and using these markers how the different species of rice has originated. Using SNPs and molecular markers, QTL



mapping has also been achieved in different crop species. He also highlighted the different approaches used for crop improvement like creating mutation and allelic variation, marker assisted selection. The session concluded with vote of thanks by Prof. Anita Kamra Verma. The next session begin with Demonstration of Computational Genomic Tools on the topic “In silico Mining and Development of Microsatellite Markers in Crop Plants” by Ms. Udita Basu, Ph.D. Student (NIPGR). She explained the basic features of biomolecular markers, basic principle of microsatellite markers using Simple Sequence Repeats (SSR) and Single Nucleotide Polymorphism (SNP). She demonstrated different steps involved in making microsatellite markers using different genomic resources. The session was appreciated by all the attendees and ignited queries in enthusiastic minds. All the queries were answered by Ms. Udita Basu. The session concluded with vote of thanks by Dr. Sanjukta Das.



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in



Webinar on “Innovative Solutions of Chemistry for Better Health Care” organised by Department of Chemistry held on 8th February, 2021

KIRORI MAL COLLEGE
NAAC ACCREDITED GRADE 'A+'
University of Delhi

DEPARTMENT OF CHEMISTRY
UNDER THE AEGIS OF DBT STAR COLLEGE SCHEME

PRESENTS WEBINAR
ON
Innovative Solutions of Chemistry for Better Health Care
BY

8th February, 2021
1:30 - 2:30 pm

Join via: Google Meet
Register via : <https://bit.ly/3cnonEN>

Speaker: Dr. Anupama Datta
Scientist
Institute of Nuclear Medicines and Allied Sciences (INMAS), DRDO

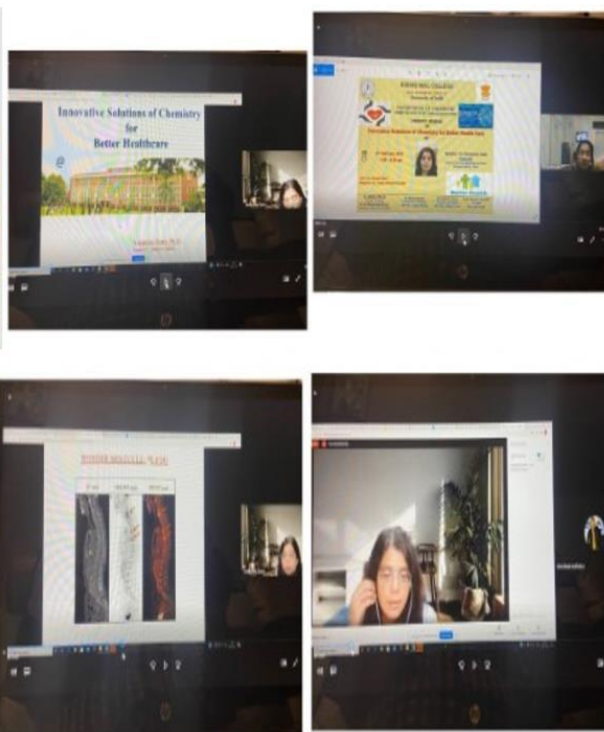
Better Health

Dr. Akhilesh Bharti
Teacher in-charge
Dr. M. Ramananda Singh
Convener, Seminar Committee

Dr. Reena Saxena
Co-ordinator-Chemistry,
DBT Star College Scheme

Dr. Anita K. Verma
Program Coordinator
DBT Star College Scheme

Prof. Vibha S. Chauhan
Principal
Kirori Mal college



A webinar was conducted by the Department of Chemistry, Kirori Mal College under the aegis of DBT Star College Scheme on the topic “Innovative Solutions of Chemistry for Better Health Care” on the 8th February, 2021.

Detail Report

The speaker Dr. Anupama Dutta, Scientist at Institute of Nuclear Medicine and Allied Sciences (INMAS), DRDO, gave an interesting lecture on the necessity of early diagnosis of diseases and how the recent innovations in chemistry are contributing to that cause. In the field of oncology, certain situations arise wherein diagnosis using conventional imaging techniques do not suffice. This is where the role of nuclear medicine techniques come into play, like F(18)-FES PET, which is most extensively characterized and frequently used in clinical studies. F-FES PET is also used in conjunction with other nuclear medicine like F(18)-FDG PET, or other radiological techniques like CT, MRI, Ultrasound, whenever applicable. In the end, she answered all the questions put forth to her by the students. All and all, the webinar turned out to be a huge success.



किरोड़ी मल कॉलेज

दिल्ली विश्वविद्यालय, दिल्ली - 110007

Kirori Mal College

University of Delhi, Delhi - 110007

Email: principal@kmc.du.ac.in

Tel. No.: 011-27667939

Website: kmc.du.ac.in

