Dr. Har Gobind Khorana - Remembering the legendary biochemist on his birth centenary

The Jaypee University of Information Technology, Waknaghat organized an event to celebrate the 100th birth anniversary of Dr Har Gobind Khorana on the theme "Innovations in Science and Technology for healthcare, environment and industrial development". Dr. Khorana shared the 1968 Nobel Prize for Physiology or Medicine with Marshall W. Nirenberg and Robert W. Holley for research that helped to show how the nucleotides in nucleic acids, which carry the genetic code of the cell, control the cell's synthesis of proteins.

Various participants from different schools took part in the event for quiz competition, oral presentation and poster presentation. The event started with speeches from the VC, Dr Rajendra Kumar Sharma, dean of Academics & Research, Dr Ashok Kumar Gupta and the HOD of the Biotechnology and Bioinformatics department, Dr Sudhir Kumar. Then, the competition for the various events started and the participants participated with full enthusiasm. The participants were judged by Dr Hemant Sood and Dr Saurabh Bansal of the BT &BI department, JUIT.

The winners of the quiz were Onamh Sharma and Eklavya Chauhan from MRA DAV public school, Solan. The winner of the poster competition was Ananya Verma from DAV public school, New Shimla. The winner of the oral presentation was Anusha Joshi from Gurukul International senior secondary school. After announcing the winners the faculty coordinators from JUIT and the faculty coordinators were given a token of appreciation from VC Dr RK Sharma. Then, the event concluded with a vote of thanks from Dr Shikha Mittal and Dr Poonam Sharma, the faculty coordinators of the event.

विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

सत्यमेव जयते

Azadi Ka Amrit Mahotsav

Report on

DST STUTI ICT

A hands-on Training Program on Approaches for Screening and Characterization of Pre-clinical Drug Candidates

(Dec 8-14, 2022)

Under the Scheme

Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)

An Initiative by

The Department of Science and Technology, India

Organized by

The Institute of Chemical Technology, Mumbai (PMU)

Organized by

Department of Biotechnology and Bioinformatics, JUIT

Hosted by

Jaypee University of Information Technology (JUIT)
Waknaghat, Solan

Report on Seven Days DST-STUTI-ICT Workshop

SUMMARY

The prestigious one week DST-STUTI workshop entitled "A hands-on Training Program on Approaches for Screening and Characterization of Pre-clinical Drug Candidates" from 8th to 14th Dec 2022 was held at the Jaypee University of Information and Technology (JUIT), Solan, Himachal Pradesh. This training program was initiated and sponsored by Department of Science and Technology (DST), under the scheme Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI) and organized by the Institute of Chemical Technology (ICT), Mumbai. The event was coordinated by Dr. Raj Kumar of the Department of Biotechnology and Bioinformatics and practically implemented by the faculties and staff of the Department of Biotechnology and Bioinformatics, JUIT. The workshop included a total 32 participants from different regions of India including post-graduate students, Ph.D. scholars, and faculties from well-known Universities.

The theme of the workshop was 'Preclinical Drug Discovery'. Drug discovery is the process through which potential new medicines are identified. The process of modern drug discovery starts with target identification followed by *in silico* and/or *in vitro* drug candidate screening. Pre-clinical study is carried out before testing potential drugs in human clinical trials which involves extensive *in vitro* (test tube or cell culture) and *in vivo* (animal) experiments that yield preliminary efficacy, toxicity, pharmacokinetic and safety information. The potential drug candidates from pre-clinical study are pushed into well-organized clinical trials in healthy individuals and patients for further drug development. This training program largely emphasized on both *in silico* and *in vitro* experiments for

the identification of potential drug molecules at the pre-clinical stage. Seven training modules were formulated which gave hands-on experience to candidates on drug target identification, phytochemical crude extraction and analysis of metabolites from medicinal plants, characterization of phytochemicals, high throughput virtual screening, and *in vitro* cytotoxicity assay.

A seven days program included intensive training modules having a daily expert lecture session from distinguished speakers of the relevant disciplines and a session of hands-on experiments using high-end instruments. Prominent external speakers in the workshop included Dr. Omesh Kumar Bharti from State Institute of Health & Family Welfare Himachal Pradesh, Dr. Prosenjit Mondal from IIT-Mandi, Dr. Hemraj Nandanwar from CSIR-Institute of Microbial Technology, Dr. Mahesh Kulharia from Central University of Himachal Pradesh, Dr. Shamsher Singh Kanwar and Dr. Wamik Azmi from Himachal Pradesh University, Dr. Rajnish Sharma from YSP UHF Nauni, Dr. Inderjeet Kaur from Central University of Haryana, and an industry expert Dr. Umender Sharma from CorMic Biotechnologies Pvt Ltd. Internal speakers included Dr. Raj Kumar, Dr. Hemant Sood, Dr. Udayabanu M., and Dr. Gopal Singh Bisht from the Department of Biotechnology and Bioinformatics, JUIT.

Overall, the participants enhanced their skills on key instruments including RT-PCR, HPLC, Fluorescent microscope, Atomic Absorption Spectroscopy, ELISA reader, UV spectroscopy, and viscometer etc. The workshop was accomplished with its goal of imparting sufficient hands-on experience to the candidates for understanding and executing the process of preclinical drug candidate screening for the discovery of new drugs.

Inauguration & Day-1 (08.12.2022)

The program started with the inauguration ceremony on 8th Dec 2022, in the divine presence of chief guest Padma Shree awardee Dr. Omesh Kumar Bharti, State Epidemiologist, State Institute of Health & Family Welfare, Parimahal, Shimla, Himachal Pradesh. The dignitaries on the dais included honorable Vice chancellor of JUIT Prof. Rajendra Kumar Sharma, Dean of Academics Prof. Ashok Kumar Gupta, and Registrar of JUIT Maj. Gen Rakesh Bassi. The inaugural function observed the presence of more than 60 persons including the Head of the Department of Biotechnology and Bioinformatics Prof. Sudhir Kumar, Head of the Department of Physics and Materials Science Prof. Dr. P.B. Barman, Head of the Department of Humanities and Social Sciences Dr. Amit Srivastava, faculty, staff, and students. The inauguration session was started by lamp lighting and paying a tribute to the Goddess of knowledge, with a beautifully performed Saraswati Vandana. Prof. Rajendra Kumar Sharma declared the event open and embraced the presence of chief guest Dr. Omesh Kumar Bharti with a bouquet. Prof. Rajendra Kumar Sharma addressed the audience with his inspiring words of brilliance. Prof. Sudhir Kumar introduced the Department of Biotechnology and Bioinformatics to the participants. Dr Raj Kumar formally introduced the event details to the audience. The inauguration was followed by a High Tea at the Mughal Gardens, where participants had a chance to befriend and interact to the Keynote Speakers and JUIT faculty.

The theme of first day was “Target identification and validation”. First technical session was proceeded by a talk of Dr. Omesh Kumar Bharti on “Breaking the barriers to introduce Intra-dermal ARV”. He discussed his research on alternate and affordable treatment for rabid dog bite and. He also discussed the long self-funded research efforts and his journey when World Health Organization

reviewed their technique and approved it as a low cost anti-rabies treatment protocol. He emphasized on other possibilities of low cost Anti-rabies vaccination in India. First session was followed by the talk of Dr. Raj Kumar the topic of “Strategies for drug designing”. He discussed various stages and processes involved in a drug discovery project. He emphasized the importance of computational methods in cost effective and time saving drug discovery strategies. He also discussed the drug repurposing efforts and presented his research work on a very popular topic of COVID-19 treatment. Participants showed great interest in these lectures and put up several queries to the keynote speakers.

The lecture sessions were followed hands-on training session coordinated by Dr. Jata Shankar of the Department of Biotechnology and Bioinformatics, JUIT. The participants learned important practical steps in operating RT-PCR. The participants ran their samples and understood the importance and its implementations in the COVID-19 diagnostics.


Approaches for Scree
of Pre-clinica
Under the Scheme
Synergistic Training Program Utilizing the


Seven Day
Approaches fo
of Pre
Under the Scheme


Organized by
The Institute of Chemical Tech
Mumbai (PMU)
Hosted by
Jaypee University of Inform
Waknaghat, Solan
2022 | Solan


DST STUTI ICT
Seven Days Hands-on Training Program on
Approaches for Screening and Characterization
of Pre-clinical Drug Candidates
Dec 8-14, 2022 | Solan

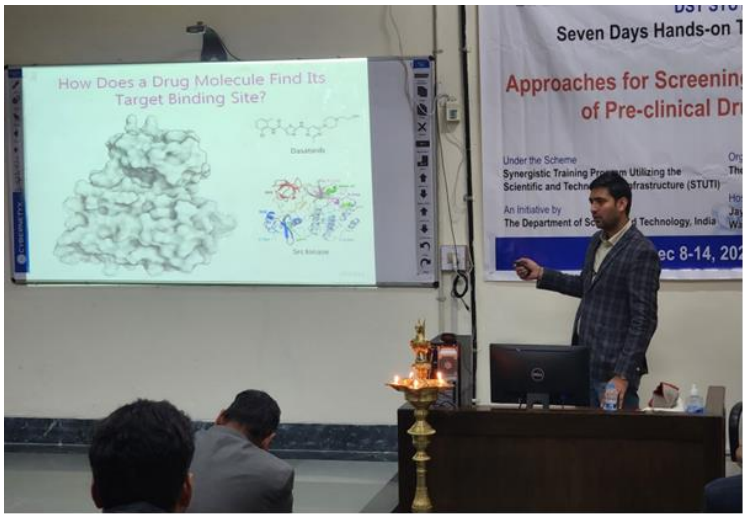

DST STUTI ICT

High Tea

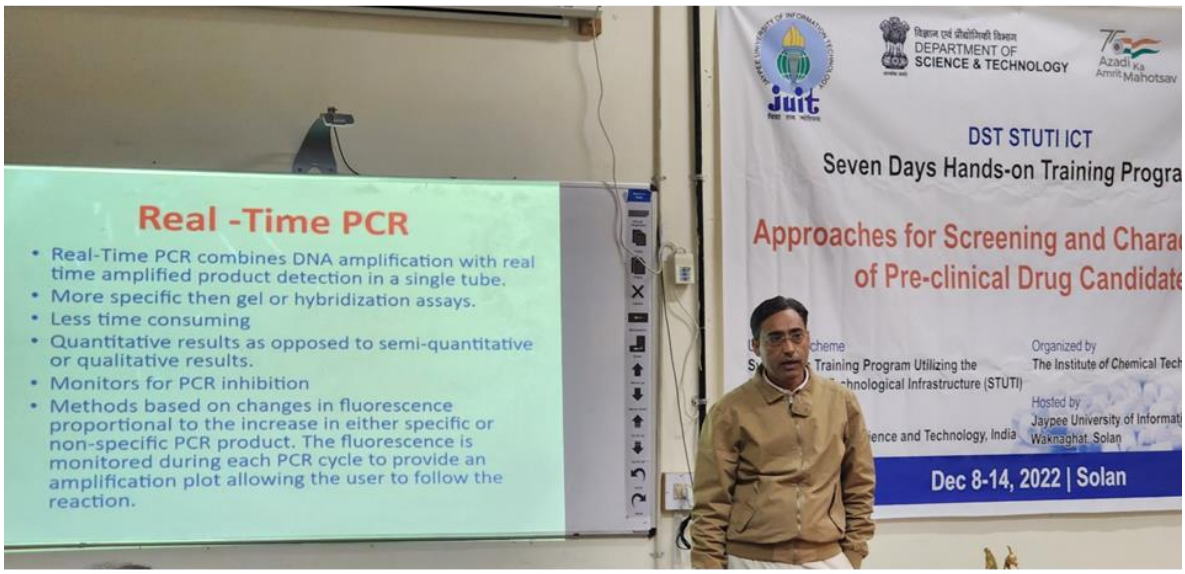

Breaking the barriers to introduce Intra-dermal ARV
Low cost Anti-rabies vaccination in India
Omesh Kumar Bharti
DST STUTI ICT
Seven Days Hands-on Training Program on
Approaches for Screening and Characterization of Pre-clinical Drug Candidates
Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)
An initiative by
The Department of Science and Technology, India
Dec 8-14, 2022


DST STUTI ICT
Approaches for Screening and Cha
of Pre-clinical Drug Candi


Approaches for Screeni
of Pre-clinical D
Synergistic Training Program Utilizing the
Scientific and Technological Infrastructure (STUTI)
Department of Science and Technology, India


How Does a Drug Molecule Find Its Target Binding Site?
Seven Days Hands-on T
Approaches for Screenin
of Pre-clinical Dr
Under the Scheme
Synergistic Training Program Utilizing the
Scientific and Techn
An Initiative by
The Department of Sc
Technology, India
ec 8-14, 202


and Characterization
ug Candidates
022 | Solan


Real -Time PCR
• Real-Time PCR combines DNA amplification with real time amplified product detection in a single tube.
• More specific then gel or hybridization assays.
• Less time consuming
• Quantitative results as opposed to semi-quantitative or qualitative results.
• Monitors for PCR inhibition
• Methods based on changes in fluorescence proportional to the increase in either specific or non-specific PCR product. The fluorescence is monitored during each PCR cycle to provide an amplification plot allowing the user to follow the reaction.
विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY
Azadi Ka Amrit Mahotsav
DST STUTI ICT
Seven Days Hands-on Training Progra
Approaches for Screening and Charac
of Pre-clinical Drug Candidate
Training Program Utilizing the
hnological Infrastructure (STUTI)
ence and Technology, India
Organized by
The Institute of Chemical Tech
Hosted by
Jaypee University of Informat
Waknaghat, Solan
Dec 8-14, 2022 | Solan


Seven Days Ha
proaches for Sc
of Pre-clin
Program Utilizing t
ological Infrastructu
nce and Techno
Dec


Approach
o
zation
Under the Scheme
nergistic Training P
entific and Technol
nitiative by
Department of Sci

Day-2

2nd day of DST-STUTI-ICT workshop started with the theme "Plant tissue culture for secondary metabolites production from medicinal plants". The first technical session of the day was proceeded by a talk of Dr. Prosenjit Mondal, Associate Professor, School of Basic Sciences, IIT Mandi on the topic of "A new strategic plan to combat diabetes". He explained the pathophysiology of type 2 diabetes mellitus. He presented his important research on non-peptidic Glucagon-Like Peptide-1 Receptor agonists for anti-obesity and anti-diabetes therapeutics. First session was followed by the talk of Dr. Hemant Sood, Associate Professor, Department of Biotechnology and Bioinformatics, JUIT. Dr. Sood her research on "Production of Medicinal Compounds from Endangered and Commercially Important Medicinal Plants of Himalayas through Cell and Tissue Culture Technologies". She emphasized on the strategies for the production of medicinally important metabolites from Himalayan herbs using plant tissue culture techniques. The lecture sessions were followed hands-on training session coordinated again by Dr. Hemant Sood. The session gave hands-on training on plant tissue culture techniques to the participants. Participants learned and practiced plant tissue culture maintenance and callus culturing technique. They also visited the green house facility where plants are subjected to hardening before transfer to actual fields.

Day-3

The theme of first day was "Crude extraction and analysis of metabolites from medicinal plants". The first technical session of 2nd day was proceeded by a talk of Dr. Hemraj Nandanwar, Chief Scientist, CSIR-Institute of Microbial Technology,

Chandigarh. His talk was on the topic “Triedecaptin M: A preclinical candidate against colistin resistant Gram negative bacteria”. He emphasized on various important strategies for developing drugs against multidrug resistant microbes. Dr. Nandanwar’s talk was followed by the speech of Dr. Deepak Kumar, Professor, School of Pharmaceutical Science, Shoolini University, Himachal Pradesh. His topic of speech was “Design, synthesis, characterization of heterocyclic compounds and their biological activity”. Dr. Kumar presented his vast research in the domain of pharmaceutical chemistry, screening, synthesis, and biological testing of small molecules again various pathologies. The lecture sessions were followed hands-on training session coordinated by Dr. Gopal Singh Bisht of the Department of Biotechnology and Bioinformatics, JUIT. This session provided hands-on traininig to the participants on High-performance liquid chromatography (HPLC).

Day-4

The theme of Day-4 was “High throughput virtual screening” for identification of potential lead compounds against important drug targets. The first technical session proceeded by a talk of Dr. Mahesh Kulharia, Associate Professor & Director, Centre for Computational Biology & Bioinformatics, CUHP, Himachal Pradesh. He gave an expert talk on the topic “Computer Aided Drug Discovery”. Dr. Kulharia discussed various computational techniques used for virtual screening and prioritization of potential molecules from synthetic chemical databases. First session was followed by the talk of Dr. Rajnish Sharma, Associate Professor & Head, Department of Biotechnology, YSP UHF Nauni, Himachal Pradesh. He presented his important work on the topic “Biotechnological interventions in

medicinal plants: Conservation and bioactive compound extraction". This lecture was helpful to understand the origin of natural compounds and their extraction from various medicinal plants. The lecture sessions were followed hands-on training session coordinated by Dr. Raj Kumar and Dr. Tiratha Raj Singh of the Department of Biotechnology and Bioinformatics, JUIT. The participants had hands-on experience on handling molecular modeling software such as Chimera, AutoDock, and Discovery Studio. Participants also learned to perform virtual screening of compound library using molecular docking simulation experiment.

Day-5

The Day-5 started with the theme "*In vitro* screening: Cytotoxicity assay" of potential drug molecules. The first technical session of was proceeded by a talk of Dr. Shamsher Singh Kanwar Professor, Department of Biotechnology, Himachal Pradesh University, Shimla. He talked about the application of MTT assay for measuring cell metabolic activity. First session was followed by the talk of Dr. Udayabanu M., Associate Professor, Department of Biotechnology and Bioinformatics, JUIT. His speech had a title "Quercetin Attenuates Neurological Complications Associated with Chronic Diabetes". He emphasized on utilization of various plant metabolites in treatment of several diseases including diabetes and neurological disorders. The lecture sessions were followed hands-on training session coordinated again by Dr. Udayabanu. Participants learned basics of animal cell culture handling, and obtained hands-on training on fluorescent microscope handling.

Day-6

Day-6 started with the theme of "*In vitro* screening & antimicrobial assay". The first technical session of 2nd day was proceeded by a talk of industry expert Dr. Umender Sharma, Founder, CorMic Biotechnologies Pvt Ltd., Himachal Pradesh. The topic of his speech was "Genetic validation of drug targets in Mycobacterium tuberculosis". Dr. Sharma discussed various challenges and potential medications to combat tuberculosis in India. First session was followed by the talk of Dr. Gopal Singh Bisht of the Department of Biotechnology and Bioinformatics, JUIT. Dr. Bisht gave a very interesting talk on the topic "Road map for patent creation in drug discovery". He discussed several criteria and requirements for securing the intellectual property right in drug discovery field. The lecture sessions were followed hands-on training session coordinated by Dr. Saurabh Bansal, Dr. Jitendraa Vashistt, and Dr. Rahul Shrivastava of the Department of Biotechnology and Bioinformatics, JUIT. The participants received hands-on training on instruments such as Plate reader and UV visible spectrometer.

Day-7

The theme of Day-7 was "Nano-formulations and nanomedicines". The first technical session of final day was proceeded by a talk of Dr. Wamik Azmi, Professor & Chairperson, Department of Biotechnology, Himachal Pradesh University, Shimla. He delivered an excellent talk on the topic of "Nanopharmaceuticals and nanomedicines". He discussed the importance and application of nanomaterials in drug delivery strategies. The final lecture of the workshop entitled "Deciphering the fundamental pathways associated with calcium dependent protein kinases (CDPKs) in Plasmodium falciparum at blood stages",

was given by Dr. Inderjeet Kaur, Assistant Professor, Department of Biotechnology, Central University of Haryana, Jant-Pali, Mahendergarh, Haryana. Dr. Kaur presented her research in malaria, post translational modifications, mass spectrometry based proteomics to study PTMs, studying phosphorylation for possible malaria treatments. The lecture sessions were followed hands-on training session coordinated by Prof. Sudhir Kumar, Dr. Abhishek Chaudhary, and Dr. Poonam Sharma of the Department of Biotechnology and Bioinformatics, JUIT. The participants received hands-on training on instruments such as Atomic Absorption Spectroscopy and Viscometer.

Valedictory ceremony

On Wednesday, December 14, 2022, the enriching journey through the "Hands-on Training Program on Approaches for Screening and Characterization of Pre-clinical Drug Candidates" reached its conclusion as the curtains were drawn on this transformative experience. The valedictory function, coordinated by the event's co-coordinators Dr. Udayabanu M., Dr. Shikha Mittal, Dr. Ashok Kumar Nadda, and Dr. Rahul Shrivastava, marked the ceremonial close of this impactful program. During this training program, distinguished keynote speakers were honored for their contributions with certificates, traditional Himachali caps, mufflers, and mementos, symbols of gratitude for sharing their invaluable knowledge throughout the program. The event enjoyed the esteemed presence of Prof. Rajendra Kumar Sharma, the Honorable Vice Chancellor of JUIT, who bestowed his blessings upon all workshop participants. His words resonated with the participants, urging them to preserve the memories and carry forward the profound learnings acquired during the training to propel progress in their research endeavors. Acknowledging the significance of the program, Prof. Sudhir Kumar extended his appreciation to the organizing committee for creating a platform where experts from diverse fields

could unite to impart their ideas and research to the eager students. His encouraging words prompted participants to integrate the newfound knowledge into their lives, fostering a meaningful impact. Dr. Raj Kumar extended the Vote of Thanks, acknowledging the guests of the valedictory session, the faculty of the University, the dedicated staff involved in the workshop's execution, the enthusiastic participants, and the student volunteers, whose combined efforts culminated in the success of this program.

This immersive training provided participants with a unique opportunity to delve into the intricate realm of drug discovery and development, with a primary focus on the crucial phases of screening and characterization of pre-clinical drug candidates. Unlike a mere theoretical discourse, this training was a dynamic platform for hands-on exploration and experiential learning. Guided by our esteemed faculty of experts, participants navigated the intricate process of identifying potential drug candidates and meticulously scrutinizing their pharmacological attributes. From initial compound selection to the application of cutting-edge methodologies for characterization, attendees were exposed to the latest advancements and best practices in this evolving field. The lessons learned in this workshop will undoubtedly serve as guiding lights in the future endeavors of the participants, as they strive to bring forth safer and more effective medications for the betterment of global health.

Report on Workshop

Five Days Hands on Workshop on "Next generation sequencing data analysis"

(20-24,March 2023)

The Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology, Waknaghat, Solan (H.P.) has organized a five Day Hands on Workshop "**Next generation sequencing data analysis"** between 20th - 24th March 2023.

The Workshop was successfully completed under the auspices of

- Prof. Rajendra Kumar Sharma – Vice Chancellor, JUIT Waknaghat and Patron of the organized Workshop.
- Prof. Ashok Kumar Gupta – Dean of Academics, JUIT Waknaghat.
- Maj. General Rakesh Bassi (Retd.) - Registrar and Dean of Students, JUIT Waknaghat
- Prof. Sudhir Kumar – HOD of Biotechnology & Bioinformatics Department, JUIT Waknaghat
- Dr. Jata Shankar – Associate Professor in Department of Biotechnology and Bioinformatics, JUIT Waknaghat and Program Convener of organized Workshop.
- Dr. Shikha Mittal – Assistant Professor in Department of Biotechnology and Bioinformatics, JUIT Waknaghat and Program Convener of organized Workshop.

The Workshop on "Next generation sequencing data analysis" comprised mainly of invited and guest lecturers from eminent speakers of renowned institutes. Table 1 highlights the program schedule of the conducted Workshop including the names and organizations of the speakers along with the title of lectures (talks) delivered by them.

Table 1: Program schedule for 5-days hands on workshop on Next-generation data Analysis

<table>
<tr><th colspan="4">PROGRAM SCHEDULE</th></tr>
<tr><th>Time</th><th>Activity</th><th>Resource person</th><th>Title</th></tr>
<tr><td colspan="4">DAY 1: Monday, 20.03.2023</td></tr>
<tr><td>9:00 - 10:00</td><td colspan="3">Arrival and Registration</td></tr>
<tr><td>10:00 - 11:00</td><td colspan="3">Inaugural Session</td></tr>
<tr><td>11:00 - 11:30</td><td colspan="3">High Tea</td></tr>
<tr><td>11:30 - 13:00</td><td>Lecture Session-1</td><td>Dr. Amit Kumar Singh
Senior Scientist,
Division of Genomic Resources, ICAR-NBPGR, Pusa campus, New Delhi</td><td>Genomics Assisted Characterization of germplasm and trait mapping in crops</td></tr>
<tr><td>13:00 – 14:00</td><td colspan="3">Lunch</td></tr>
<tr><td>14:00 – 15:00</td><td>Practical Session-1</td><td rowspan="4">Dr. Raj Kumar, Dr. Shikha Mittal
Assistant Professor,
Department of Biotechnology and Bioinformatics, JUIT</td><td rowspan="4">Basics of Linux System & Installation, Basic Linux Commands, Handling of files/data with shell commands</td></tr>
<tr><td>15:00 – 16:00</td><td>Practical Session-1</td></tr>
<tr><td>16:00 - 16:15</td><td>Tea break</td></tr>
<tr><td>16:15 - 17:15</td><td>Practical Session-2</td></tr>
<tr><td colspan="4">DAY 2: Tuesday, 21.03.2023</td></tr>
<tr><td>10:00 - 11:15</td><td>Lecture Session-1</td><td>Mr. Pawan Verma
Senior Bioinformatics Engineer,
Elucidata Data Consulting Pvt. Ltd</td><td>NGS Data Processing at Scale: Perspectives from Academia and Industry</td></tr>
</table>

11:15 – 11:45	High Tea		
11:45 – 13:00	**Lecture Session -2**	**Mr. Sachin Kumar Gupta** Senior Bioinformatics Scientist Elucidata Data Consulting Pvt. Ltd	NGS Data Processing at Scale: Perspectives from Academia and Industry
13:00 – 14:00	Lunch		
14:00 – 15:15	**Practical Session -1**	**Dr. Shikha Mittal** Assistant Professor, Department of Biotechnology and Bioinformatics, JUIT	Quality Check and trimming of NGS data
15:15 - 15:30	Tea break		
15:30 - 17:00	**Practical Session -2**		
DAY 3: Wednesday, 22.03.2023			
10:00 - 11:15	**Lecture Session-1**	**Dr. Jata Shankar** Associate Professor, Department of Biotechnology and Bioinformatics, JUIT	RNA-Seq data analysis of Aspergillosis in mice model
11:15 – 11:45	High Tea		
11:45 – 13:00	**Lecture Session -2**	**Dr. Tiratha Raj Singh** Associate Professor, Department of Biotechnology and Bioinformatics, JUIT	Computational genomics and fragment assembly
13:00 – 14:00	Lunch		
14:00 – 18:00	Trip to Shimla		
DAY 4: Thursday, 23.03.2023			
10:00-11:30	**Practical session - 1**	**Dr. Shikha Mittal** Assistant Professor, Department of Biotechnology and Bioinformatics, JUIT	denovo and reference based assembly
11:30 – 11:45	High Tea		
11:45 – 13:00	**Lecture Session-1**	**Dr. Manoj Kumar** Senior Principal Scientist and Head Virology Unit, Bioinformatics Centre CSIR-IMTECH, Chandigarh	Viral next-generation sequencing data analysis
13:00 – 14:00	Lunch		
14:00 – 15:15	**Practical Session -2**	**Dr. Manoj Kumar** Senior Principal Scientist and Head Virology Unit, Bioinformatics Centre CSIR-IMTECH, Chandigarh	Viral next-generation sequencing data analysis
15:15 - 15:30	Tea break		
15:30 - 17:00	**Practical Session -3**		
DAY 5: Friday, 24.03.2023			
10:00 - 11:15	**Lecture Session-1**	**Dr. Jitendraa Vashistt** Associate Professor, Department of Biotechnology & Bioinformatics, JUIT	Bacterial identities identification using Miseq technique
11:15 – 11:45	High Tea		
11:45 – 13:00	**Practical Session -1**	**Dr. Shikha Mittal** Assistant Professor, Department of Biotechnology and Bioinformatics, JUIT	Genome annotation and KEGG pathway analysis
13:00 – 14:00	Lunch		
14:00 – 15:30	**Valedictory Session & High Tea**		

This workshop was organized with the aim of providing in-depth knowledge about Next Generation Sequencing (NGS) techniques and data analysis.NGS methods are highly

parallelized enabling to sequence thousands to millions of molecules simultaneously. Due to its wide area of applications, it attracts students, researchers, and faculty from various prestigious institutes. This technology results into huge amount of data, which need to be analyzed to conclude valuable information. Analysis of NGS data unravels important clues in quest for the treatment of various life-threatening diseases; improved crop varieties and other related scientific problems related to human welfare.

Workshop was conducted in Offline Mode. All the lectures were delivered remotely by keynote speakers, whereas hands-on sessions were conducted by experts in the Lab. A total of 26 participants had registered for this workshop. A total of 26 students participated from various prestigious insitute such as AIIMS-New Delhi, IIT- Dhaward, HFRI-Shimla, Graphic Era University, Singhania University, DAV College- Chandigarh, JIIT-Noida, Sharda University-NOIDA, Chandigarh University, SHUATS-Prayagraj.

In the workshop, **26 participants** i.e., UG/PG (13 participants), Ph.D/Research fellows (09 participants), Faculty (4 participants) registered in the workshop.

Other Salient Features

- Presentation slides of all lectures by the speakers for the Workshop available with the organizing committee and has been distributed to participants
- Certificates of participation issued to all registered participants.
- Certificates of resource persons issued to all the listed speakers
- Feedback collected from participants for further improvement in conducting such future Workshops

Summary Statistics of Feedback received from Participants are summarized below in Table

Total number of participants feedback	**25**
Overall average feedback score	Excellent (80%); Very Good (16%); Good (4%) Based on a 5 point scale rating system (1- 5; [poor to excellent])


Juit
Hands-on workshop on
analysis"
March 2023
Department
Jaypee Univ
– 173234


Juit
Hands-on workshop on
'Next-generation sequencing
data analysis'
Organized by
Department of Biotechnology & Bioinformatics
Jaypee University of Information Technology,
Solan, Himachal Pradesh 173234


Hands-on workshop on
"Next-generation sequencing data analysis"
20-24 March 2023
Organized by
Department of Biotechnology & Bioinformatics
Jaypee University of Information Technology, Solan,
Himachal Pradesh - 173234

A Summary on the NCMW-2023 Workshop

Two weeks Workshop on “Advanced Topics in Partial Differential Equations”

(15-27, May 2023)

The Department of Mathematics, Jaypee University of Information Technology, Waknaghat, Solan (H.P.), in collaboration with National Centre for Mathematics (A joint centre of IIT Bombay and TIFR, Mumbai) has organized two weeks workshop entitled “Advanced Topics in Partial Differential Equations " between 15-27 May 2023 (in CR3), JUIT Waknaghat Solan.

The Workshop concluded successfully under the patronages of:

- Prof. Rajendra Kumar Sharma – Vice Chancellor, JUIT Waknaghat.
- Prof. Ashok Kumar Gupta – Dean of Academics, JUIT Waknaghat.
- Maj. General Rakesh Bassi (Retd.) - Registrar and Dean of Students, JUIT Waknaghat.
- Dr. Ujjwal Koley (Organizer)-Tata Institute of Fundamental Research (TIFR-CAM) Bengaluru.
- Dr. Bidhan Chandra Sardar (Organizer)-Department of Mathematics, IIT Ropar.
- Prof. Rakesh Kumar Bajaj (Organizer)- Department of Maths, JUIT, Waknaghat.
- Prof. R. S. Raja Durai (Coordinator)- Department of Maths, JUIT, Waknaghat.
- Dr. Pradeep Kumar Pandey (Coordinator)- Department of Maths, JUIT Waknaghat.

The workshop received an overwhelming response, with a total of 41 outstation participants in attendance. The participants represented a diverse range of scholars from the prestigious institutes of India.

The Workshop on “Advanced topics in PDEs” comprised mainly of lecturers from eminent speakers from renowned institutes.

The details of speakers follow:

SN	Resource persons	Memento	Position	Affiliation	URL
1	Dr. Ujjwal Koley	Organizer	Associate Professor (G)	TIFR-CAM, Bangalore	https://www.math.tifrbng.res.in/people/ujjwal
2	Dr. Debayan Maity	Resource person	Reader (F)	TIFR-CAM, Bangalore	https://www.math.tifrbng.res.in/people/debayan
3	Dr. Rajib Dutta	Resource person	Assistant Professor	IISER Kolkata	https://www.iiserkol.ac.in/web/en/people/faculty/dms/rajib-dutta/#gsc.tab=0
4	Dr. Ali Hyder	Resource person	Reader (F)	TIFR-CAM, Bangalore	https://www.math.tifrbng.res.in/people/hyder
5	Dr. Arka Mallick	Resource person	Assistant Professor	IISc Bangalore	https://iiscprofiles.irins.org/profile/279731
6	Dr. Bidhan Chandra Sardar	Resource person	Assistant Professor	IIT Ropar	https://www.iitrpr.ac.in/mathematics/bidhan
7	Dr. Abu Sufian	Resource person	Post-Doc Fellow	TIFR-CAM, Bangalore	https://www.math.tifrbng.res.in/people/abu22
8	Dr. Vaibhav Kumar Jena	Resource person	Post-Doc Fellow	TIFR-CAM, Bangalore	https://www.math.tifrbng.res.in/people/vkjena22
9	Mr. Ritu Raj	Resource person	Research Scholar	IIT Ropar	https://www.iitrpr.ac.in/math//content/phd-students
10	Dr. Debdip Ganguly	Guest speaker	Associate Professor	IIT Delhi	https://sites.google.com/site/debdipganguly02/home

Feedback:

The workshop received outstanding feedback from the participants. They found it extremely valuable and useful. An important outcome reported by the attendees was that they felt more self-confident in their ability to understand ideas clearly and concisely. They noted improvements in their learning & teaching skills of PDEs. Feedback was collected from participants for further improvements in conducting future events.

Conclusion:

The “Advanced Topics in Partial Differential Equations” Workshop was a great success, giving participants important knowledge to improve their research and teaching skills. The workshop's participatory format, material, and delivery were all applauded by the participants. Overall, the workshop met its goals and had a great effect on the attendees. Certificates were given to all participants who were registered and participated in the workshop.


National Centre for Mathematics Workshop
on
"Advanced Topics in Partial Differential Equations"
May 15-27, 2023
Jointly Organized by
Department of Mathematics, Jaypee University of Information Technology,
Solan, Himachal Pradesh and National Centre for Mathematics (NCM) - A
joint centre of IIT Bombay and TIFR Mumbai.


National Centre for Mathematics Workshop
on
"Advanced Topics in Partial Differential Equations"
May 15-27, 2023
Jointly Organized by
Department of Mathematics, Jaypee University of Information Technology,
Solan, Himachal Pradesh and National Centre for Mathematics (NCM) - A
joint centre of IIT Bombay and TIFR Mumbai.


National Centre for Mathematics Workshop
on
"Advanced Topics in Partial Differential Equations"
May 15-27, 2023
Jointly Organized by


National Centre for Mathematics Workshop
on
"Advanced Topics in Partial Differential Equations"
May 15-27, 2023
Jointly Organized by


juit
tifr
National Centre for Mathematics Workshop
on
"Advanced Topics in Partial Differential Equations"
May 15-27, 2023
Jointly Organized by
Department of Mathematics, Jaypee University of Information Technology, Solan, Himachal Pradesh and National Centre for Mathematics (NCM) – A joint centre of IIT, Bombay and TIFR, Mumbai


Juit
tifr

Report On
One Week Faculty Development Programme on
"Teaching and Research Practices"
(Hybrid Mode)

The Department of Biotechnology and Bioinformatics has organized a week-long Faculty Development Program on "Teaching and Research Practices" from **05-10 June 2023**. The program commenced with a prestigious Inaugural session, graced by the esteemed presence of Padma Shri (Dr.) Omesh Kumar Bharti was a Chief Guest and the keynote speaker. Many other prestigious speakers like Dr. Meenakshi Sood (Associate Professor, NITTTR, Chandigarh), Prof. (Dr) R. K. Sharma (Honorable Vice Chancellor, JUIT), and Prof. (Dr.) Sudhir Kumar (HOD, BT&BI), Prof. (Dr.) O.P. Sharma, Mr. Amit Kumar (National Best Teacher Awardee 2022), Prof. (Dr.) Rajesh. K. Sani (Professor, South Dakota School of Mines, USA), Dr. Amit Srivastava (HOD, HSS, JUIT), Prof. Vijay Kumar Thakur (SRUC, UK), Dr. Naren Aggarwal (Editorial Director, Springer Nature), Ms. Alpana Sagwal (Springer Nature), Mrs. Reema Sahni Mediratta (Senior Project Manager, FITT, IIT Delhi), Prof. (Dr.) Ashish Kumar (HOD, CE, JUIT) and Dr. Hemant Sood (Associate Professor, BT&BI, JUIT) shared their insights with their expert lectures during the week.

A remarkable **total of 102 participants** from diverse places of the country such as Kolkata, Bengaluru, Pune, Jaipur, Delhi, Shimla, Solan, Chandigarh and Jammu, etc., enthusiastically joined this significant event via hybrid mode. We have 12 participants exclusively from RKMV, Shimla with the support of Principal Dr. Ruchi Ramesh and IQAC coordinator Dr. Anil Thakur and 6 from Sri Sathya Sai Institute of Higher Learning, Bengaluru, and faculties from different Departments of JUIT, Waknaghat. Dr. Hemant Sood and Dr. Saurabh Bansal are the coordinators who have planned and designed this FDP for the faculties of pure, applied, and social sciences for the knowledge enrichment in teaching, research, and holistic development along with the support of co-organizer Dr. Rahul Shrivastava and Prof. Sudhir Kumar (HOD) from the Department of Biotechnology and Bioinformatics.

On the Valedictory day, certificates and mementos were distributed to all participants, supporting staff, and team. The online and offline participants highly appreciated the team for wonderful organization and the topic covered during the FDP while giving their feedback. On the request of several participants, the organizing team arranged an extended session on 10th June 2023 on topic IPR and Knowledge Economy.

The extraordinary efforts of the team for the well-structured FDP were appreciated by Vice Chancellor, Prof. R. K. Sharma, Dean (A&R), Prof. Ashok Kumar Gupta; and Registrar and Dean of Students, (Retd.) Maj. Gen. Rakesh Bassi. Prof. Sudhir Kumar congratulated the team for the successful accomplishment of FDP at JUIT.

Dr. Hemant Sood and Dr. Saurabh Bansal expressed sincere gratitude to the JUIT administration, faculty, staff, and the student team of BT and BI for their exceptional contributions in conceptualizing this Faculty Developmental Program and for its successful execution and the smooth running of this week-long program. Details like Flyer, Schedule of lectures, inauguration and valedictory pictures have mentioned below:

FDP Flyer:

One Week Faculty Development Programme on
"Teaching and Research Practices"
(Hybrid Mode)

05-09 June 2023

Program Coordinators: Dr. Hemant Sood, JUIT
Dr. Saurabh Bansal, JUIT
Head of Department: Prof. Sudhir Kumar, JUIT

Department of Biotechnology and Bioinformatics
Jaypee University of Information Technology,
Waknaghat, Solan, Himachal Pradesh – 173234

PATRONS

Prof. Rajendra Kumar Sharma
Vice Chancellor, JUIT

Prof. Ashok Kumar Gupta
Dean, Academics & Research, JUIT

Maj. Gen. Rakesh Bassi (Retd.)
Registrar, JUIT

ABOUT THE FDP

The Faculty Development Program (FDP) intends to facilitate for enrichment of knowledge, skill and ethical aspects, for attaining excellence in teaching and learning pedagogies. It also intends to provide opportunities to teachers to learn from experts and from their vast experience to empower their knowledge with latest case studies and challenges occurred during present times.

This FDP intents for the followings:

1. To provide learning enrichment with latest pedagogies for effective teaching
2. To built the skills of writing transformative research grants and publications
3. Intent to provide ethical learning in research and teaching

ABOUT JUIT

The University campus is spread over 25 acres of lush green picturesque slopes of Waknaghat in the Solan District of Himachal Pradesh. The smart campus is pollution free and enjoys lovely weather throughout the year. The hospitable environment makes the campus worthy to be visited. The University offers various engineering courses, PG programmes and has undertaken various sponsored and collaborative R & D projects funded by the various funding bodies of National repute.

ABOUT THE DEPARTMENT

The Department of Biotechnology & Bioinformatics has gained National and International distinction in education and research through its UG and PG programs. The Department has strong R&D program, up-to-date educational curricula, modern laboratory infrastructure, highly qualified faculty, IPR & patents, and placements of students. The Department offers B.Tech. and Ph.D. courses in Biotechnology and Bioinformatics, M.Tech. in Biotechnology, M.Sc. in Microbiology and Biotechnology. The Department also encourages students to undergo exchange programs in overseas Universities.

REGISTRATION

Registration Starts On: 1st March 2023
Last date of Registration : 30th May 2023
Registration Link: https://forms.gle/CqgFWGZipK7CKNXK7

ELIGIBILITY

- Faculty Members
- Research Fellows (Ph.D. /Post-doc)
- Scientists and Researchers (JRF/SRF/RA)

REGISTRATION FEES AND ACCOMODATION

Online	Offline*
1000	3000

*For Accommodation Rs. 300/-per day will be additionally charged that include breakfast and dinner.

- Offline Participants' Registration fee includes all working lunches/tea during the program and registration kit along with study material and a hard copy certificate.
- e-certificates and study materials will be provided to the online participants.

Payment Details
Bank Name: Punjab National Bank The Mall, Shimla
Beneficiary Name: Jaypee University of Information Technology
Beneficiary account No: 0427002100682105
NEFT/IFSC/RTGS code : PUNB0042700
Type of account : Current

SCHEDULE

Day 1: Inaugural Session & Keynote Lectures
- ✓ Cost-effective method for Research & Innovation
- ✓ Effective Teaching Skills and Time management

Day 2: Quality & Relevance of Higher Education
- ✓ Outcome-based learning
- ✓ NEP 2020 and its inclusion
- ✓ Best Practices in Teaching

Day 3: Excellence in Academics & Research
- ✓ Achieving Excellence in Academics & Research
- ✓ Soft Skills in Academics & Research
- ✓ Innovation in Teaching and Learning Practices

Day 4: Opportunities in Research & Publication
- ✓ Overseas Grant Opportunities for Indians
- ✓ How to write & Publish a Book
- ✓ Tools: Journal Finder, Research Paper Writing
- ✓ Grant Opportunities in UK-Europe and an overview of Research Proposal Writing

Day 5: Innovation & Intellectual Properties
- ✓ Intellectual Properties & Copyright
- ✓ Technology Incubation and Govt. initiative for start up

CONTACT DETAILS

Dr. Hemant Sood
EMAIL: hemant.sood@juitsolan.in
Telephone No : 01792-239274

Dr. Saurabh Bansal
EMAIL: saurabh.bansal@juitsolan.in
Telephone No : 01792-239222

HOW TO REACH JUIT

JUIT Waknaghat is midway between Shimla & Solan. Kalka is the nearest broad-gauge railway station. Waknaghat is 24 kms. from Solan on the way to Shimla on NH-22. For coming to JUIT, one has to take a left turn at Waknaghat and drive for 3 kms. Shimla is 24 kms away from JUIT, .

The Faculty development program will be held in hybrid mode between 05 – 09 June 2023.

Schedule of lectures

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

One Week Faculty Development Programme on

"Teaching and Research Practices"

(Hybrid Mode)

05-09 June 2023

INAUGURAL SESSSION & KEYNOTE LECTURES (DAY 1: MONDAY, 05 June 2023)		
Time	**Speaker & Affiliation**	**Topic**
9:10 -10:00 AM	REGISTRATION	
10:00 – 10:40 AM	INAUGRAL CEREMONY Venue: CR3	
10:40 – 11:20 AM	HIGH TEA Venue: Orange Shed	
11:30 – 1:00 PM	Padma Shri Dr. Omesh Kumar Bharti Principal, State Institute of Health and Family Welfare, Kasumpti Shimla	Cost-effective Method for Research & Innovation
1:00 - 2:00 PM	LUNCH	
2:00 – 3:30 PM	Dr. Meenakshi Sood Associate Professor in CDC & ECE, National Institute of Technical Teachers Training & Research, Chandigarh	Outcome-Based Learning
3:30 – 3:45 PM	FEEDBACK	
3:45 – 4:10 PM	TEA	

1

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

One Week Faculty Development Programme on

"Teaching and Research Practices"

(Hybrid Mode)

05-09 June 2023

QUALITY & RELEVANCE OF HIGHER EDUCATION (DAY 2: TUESDAY, 06 June 2023)		
Time	**Speaker & Affiliation**	**Topic**
10:00 - 11:30 AM	**Dr. Meenakshi Sood** Associate Professor in CDC & ECE, National Institute of Technical Teachers Training & Research, Chandigarh	NEP 2020 & its implementation
11:30 – 11:50 AM	TEA	
12:00 – 1:30 PM	**Prof. (Dr.) R. K. Sharma** Vice-Chancellor, Jaypee University of Information Technology Waknaghat	Effective Teaching skills & Time Management
1:30 - 2:30 PM	LUNCH	
2:30 – 4:00 PM	**Prof. (Dr.) Sudhir Kumar** Professor & Head, Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology Waknaghat	Best Practices in Teaching
4:00 – 4:15 PM	FEEDBACK	
4:15 – 4:40 PM	TEA	

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

One Week Faculty Development Programme on

"Teaching and Research Practices"

(Hybrid Mode)

05-09 June 2023

EXCELLENCE IN ACADEMICS & RESEARCH (DAY 3: WEDNESDAY, 07 June 2023)		
Time	**Speaker & Affiliation**	**Topic**
10:00 - 11:30 AM	**Prof. (Dr.) O. P. Sharma** Emeritus Scientist at CSIR-Institute of Himalayan Bioresources Technology Palampur	Achieving excellence in Academics and Research
11:30 – 11:50 AM	**TEA**	
12:00 – 1:30 PM	**Mr. Amit Kumar** Faculty cum Trainer of Computer Science with NVS, (MoE), Govt. of India. National Awardee Teacher 2022 from Hon'ble President of India	Innovation in Teaching and learning Practices
1:30 - 2:30 PM	**LUNCH**	
2:30 – 4:00 PM	**Prof. (Dr.) O. P. Sharma** Emeritus Scientist at CSIR-IHBT Palampur	Soft Skills in Academics and research
4:00 – 4:15 PM	**FEEDBACK**	
4:15 – 4:40 PM	**TEA**	

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

One Week Faculty Development Programme on

"Teaching and Research Practices"

(Hybrid Mode)

05-09 June 2023

OPPORTUNITIES IN RESEARCH & PUBLICATION (DAY 4: THURSDAY, 08 June 2023)		
Time	**Speaker & Affiliation**	**Topic**
9:45 - 11:15 AM	**Prof. Rajesh K. Sani** Professor, Departments of Chemical and Biological Engineering & Chemistry and Applied Biological Sciences, South Dakota School of Mines and Technology, USA	Effective project writing for grants
11:15 – 11:40 AM	**TEA**	
11:50 – 1:00 PM	**Dr. Amit Srivastava** Head, Department of Humanities and Social Sciences, Jaypee University of Information Technology Waknaghat	Tools and Practices in Research
1:00 - 2:00 PM	**LUNCH**	
2:00 – 3:15 PM	**Prof. Vijay Kumar Thakur** Head, Biorefining & Advanced Materials Research Centre SRUC UK	Grant Opportunities in the UK- Europe and An Overview of Research Proposal Writing
3:15 – 4:30 PM	**Dr. Naren Aggarwal** Editorial Director of books in Asia, Springer Nature Group	How to Write and Publish a Book Springer Tools & Platform
4:30 – 4:40 PM	**FEEDBACK**	
4:40 – 5:00 PM	**TEA**	

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

One Week Faculty Development Programme on

"Teaching and Research Practices"

(Hybrid Mode)

05-09 June 2023

INNOVATION & INTELLECTUAL PROPERTIES (DAY 5: FRIDAY, 09 June 2023)		
Time	**Speaker & Affiliation**	**Topic**
9:45 - 11:00 AM	Ms. Reema Sahni Mediratta Senior Project Manager at Innovation Technology Transfer Office, FITT, IIT Delhi	Nuances of IPR and its translation
11:00 – 11:15 AM	TEA	
11:15 – 12:00 PM	Prof. (Dr.) Ashish Kumar Chairman, TIEDC Cell & Head, Department of Civil Engineering, Jaypee University of Information Technology Waknaghat	Startup ecosystem and Role of HEI
12:15 - 1:15 PM	VELEDICTORY	
1:10 – 1:20 PM	FEEDBACK	
1:20 – 2:20 PM	LUNCH	

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

One Week Faculty Development Programme on

"Teaching and Research Practices"

(Hybrid Mode)

05-09 June 2023

INNOVATION & INTELLECTUAL PROPERTIES (DAY 6: SATURDAY, 10 June 2023): Extended Session		
Time	**Speaker & Affiliation**	**Topic**
10:00 - 12:00 PM	Dr. Hemant Sood Associate Professor, Jaypee University of Information Technology Waknaghat	IPR for Developing Knowledge Economy
12:00 – 12:15 PM	FEEDBACK	
12:15- 1:30 PM	LUNCH	

Distinguished speakers

Glimpses of Inauguration ceremony:

Glimpses of Valedictory Ceremony

News coverage in papers and social media

हरिभूमि 10

एक सप्ताह का फैकल्टी डेवलपमेंट प्रोग्राम शिक्षण और अनुसंधान अभ्यास

नई दिल्ली। जैव प्रौद्योगिकी और जैव सूचना विज्ञान विभाग, जेयूआईटी ने शिक्षण और अनुसंधान अभ्यास पर आयोजित होने वाले सप्ताह भर के फैकल्टी डेवलपमेंटल प्रोग्राम का सफलतापूर्वक उद्घाटन किया। कार्यक्रम की शुरुआत एक प्रतिष्ठित उद्घाटन सत्र के साथ हुई, जिसकी गरिमामयी उपस्थिति रही। प्रातःकालीन सत्र के मुख्य अतिथि एवं मुख्य वक्ता के रूप में पद्म श्री (डॉ.) ओमेश कुमार भारती। डॉ. मीनाक्षी सूद, एनआईटीटीटीआर, चंडीगढ़ की एसोसिएट प्रो ने परिणाम आधारित शिक्षा और एनईपी 2020 कार्यान्वयन पर शाम का सत्र लिया। केरल, बंगाल, असम, बैंगलोर, जयपुर, दिल्ली जैसे विभिन्न राज्यों और स्थानों से कुल 93 प्रतिभागियों ने उत्साहपूर्वक हाइब्रिड मोड के माध्यम से इस महत्वपूर्ण कार्यक्रम में भाग लिया।

Participants attending a faculty development programme at JUIT, Himachal Pradesh on Monday.

Faculty development programme inaugurated at JUIT

Excelsior Correspondent

JAMMU, June 5: The Department of Biotechnology and Bioinformatics at JUIT successfully inaugurated a week-long faculty developmental programme on "Teaching and Research Practices" from June 5th to June 9th, 2023.

The program commenced with a prestigious inaugural session, featuring Padam Shri (Dr) Omesh Kumar Bharti as the chief guest and keynote speaker for the morning session.

Dr Meenakshi Sood, an Associate Professor from NITTTR, Chandigarh, conducted an evening session on Outcome-based learning and the implementation of the National Education Policy (NEP) 2020.

A press statement said that a total of 93 participants from various states and locations, including Kerala, Bengal, Assam, Bangalore, Jaipur, Delhi, and others, enthusiastically joined the event through hybrid mode.

The program planned and designed by Dr Hemant Sood and Dr Saurabh Bansal, with the support of co-organizer Dr Rahul Shrivastava and Prof Sudhir Syal (HOD) from the Department of Biotechnology and Bioinformatics, aimed to enhance the teaching, research, and holistic development of faculties in pure, applied, and social sciences.

The inaugural session was graced by the presence of eminent personalities, such as Vice Chancellor Prof RK Sharma, Dean A&R Dr Ashok Kumar Gupta, Registrar and Dean of Students Retired Maj Gen Rakesh Bassi, HoD BT & BI Prof Sudhir Kumar, as well as other distinguished Departmental heads from Civil, HSS, and Physics departments of JUIT.

Dr Hemant Sood and Dr Saurabh Bansal expressed their sincere gratitude to the JUIT administration, faculty, staff, and the student team of BT and BI for their exceptional contributions in making this Faculty Developmental Programme a reality.

Participants attending offline mode are also benefiting from the FDP while immersing them in the serene environment of JUIT and enjoying the beautiful view of Devbhoomi Himachal Pradesh.

One Week Faculty Development Programme on "Teaching and Research Practices"conducted at Jaypee University of Information Technology (JUIT) Waknaghat, Solan, H.P

The Department of Biotechnology and Bioinformatics, JUIT successfully inaugurated a week-long Faculty Developmental Programme on "Teaching and Research Practices" to be organized during 05-09 June, 2023. The programme commenced with a prestigious Inaugural session, graced by the esteemed presence of Padam Shri (Dr.) Omesh Kumar Bharti, as a chief guest and the keynote speaker of the morning session. Dr Meenakshi Sood, Associate Professor from NITTTR, Chandigarh took evening session on Outcome based learning & NEP 2020 Implementation.A remarkable total of 93 participants from diverse states and places such as Kerala, Bengal, Assam, Bangalore, Jaipur, Delhi, and others enthusiastically joined this significant event via hybrid mode. Dr Hemant Sood and Dr Saurabh Bansal are the coordinators who have planned and designed this FDP for the faculties of pure, applied and social sciences for the knowledge enrichment in teaching, research and holistic development along with the support of co-organizer Dr. Rahul Shrivastava and Prof. Sudhir Syal (HOD) from the Department of Biotechnology and Bioinformatics. The Inaugural session was further dignified by the presence of eminent personalities, including the Vice Chancellor, Prof. RK Sharma; Dean A&R, Dr Ashok Kumar Gupta; Registrar and Dean of Students, Retired Maj. Gen. Rakesh Bassi; HoD BT &BI, Prof. Sudhir Kumar, as well as other distinguished Departmental heads .

जेयूआईटी का शिक्षण और अनुसंधान प्रथाओं पर फैकल्टी डेवलपमेंट प्रोग्राम

नई दिल्ली। जैव प्रौद्योगिकी और जैव सूचना विज्ञान विभाग, जेयूआईटी ने 05-10 जून 2023 से "शिक्षण और अनुसंधान प्रथाओं" पर एक सप्ताह के फैकल्टी डेवलपमेंट प्रोग्राम का सफलतापूर्वक आयोजन किया। कार्यक्रम एक प्रतिष्ठित उद्घाटन सत्र के साथ शुरू हुआ, जिसमें पद्म श्री (डॉ) ओमेश कुमार भारती मुख्य अतिथि और मुख्य वक्ता थे। कई अन्य प्रतिष्ठित वक्ता जैसे डॉ. मीनाक्षी सूद (एसोसिएट प्रोफेसर, एनआईटीटीटीआर, चंडीगढ़), प्रो. (डॉ) आर.के. शर्मा (माननीय वाइस चांसलर, जेयूआईटी), और प्रो. (डॉ) ओ.पी. शर्मा, श्री अमित कुमार (नेशनल बेस्ट टीचर अवार्ड 2022), प्रो. (डॉ), राजेश के. सानी (प्रोफेसर, साउथ डकोटा स्कूल ऑफ माइन्स, यूएसए), डॉ. अमित श्रीवास्तव (एचओडीए एचएसएस, जेयूआईटी), प्रो. विजय कुमार ठाकुर (एसआरएसी, यूके), डॉ. नरेन अग्रवाल (संपादकीय निदेशक, स्प्रिंगर नेचर), सुश्री अल्पना सागवाल (स्प्रिंगर नेचर), श्रीमती रीमा साहनी मेदिरत्ता (वरिष्ठ परियोजना प्रबंधक, एफआईटीटी, आईआईटी दिल्ली) प्रो. (डॉ) आशीष कुमार (एचओडी, सीई, जेयूआईटी) और डॉ. हेमंत सूद (एसोसिएट प्रोफेसर, बीटी-बीओआई, जेयूआईटी) ने सप्ताह के दौरान अपने विशेषज्ञ व्याख्यानों के साथ अपनी अंतर्दृष्टि साझा की। देश के विभिन्न स्थानों जैसे कोलकाता, बेंगलुरु, पुणे, जयपुर, दिल्ली, शिमला, सोलन, चंडीगढ़ और जम्मू आदि से कुल 93 प्रतिभागियों ने उत्साहपूर्वक हाइब्रिड मोड के माध्यम से इस महत्वपूर्ण कार्यक्रम में भाग लिया।

List of Participants

S. No.	Name	Organization Name
1	Dr. Aditi Nayak	Guru Nanak Institute of Pharmaceutical Science and Technology, Kolkata
2	Ms. Akriti Daksh	Sharda University, Greater Noida
3	Dr. Amol Tagalpallewar	School of Health Science and Technology, Pune
4	Dr. Anil Thakur	Govt college, Solan
5	Dr. Anita Rani	Guru Nanak College, Sri Muktsar Sahib, Punjab
6	Ms. Ankita Verma	Rajkiya Kanya Mahavidyalaya, Shimla
7	Mr. Anup Kumar Sinha	Jaypee University of Information Technology Waknaghat
8	Dr. Anuradha Barda	Chandigarh Business School of Administration, Mohali
9	Dr. A.R. Chabukswar	Dr. Vishwanath Karad MIT World Peace University, Pune
10	Dr. Anant Vidya Nidhi	Govt. College, Solan (HP)
11	Dr. Balaram Khamari	Sri Sathya Sai Institute of Higher Learning, Bengaluru
12	Dr. Bandana Padhan	Adamas University, Kolkata
13	Ms. Anita Mandhotra	Rajkiya Kanya Mahavidyalaya, Shimla
14	Dr. Bulagonda Eswarappa Pradeep	Sri Sathya Sai Institute of Higher Learning, Bengaluru
15	Mrs. Bhagyalakhi Gogoi	Women's College,Tinsukia, Assam
16	Dr. Chetan Chauhan	Sardar Patel University, Mandi, H.P
17	Prof. Daiwat Amit Vyas	Nirma University, Ahmedabad
18	Dr. Darshan Gera	Sri Sathya Sai Institute of Higher Learning, Bengaluru
19	Dr. Deepak Gupta	Govt.College, Solan
20	Dr. Ambika Sharma	Rajkiya Kanya Mahavidyalaya, Shimla
21	Dr. Sunita Kumari	Post graduate government college for girls, sector 42, Chandigarh
22	Mr. Harjeet Singh	Dr. Bhanwar Singh Porte Govt. College Pendra, G.P.M. (C.G.), Pendra, Chhattisgarh
23	Dr. Himani Dem	Ramjas College University of Delhi, Delhi
24	Dr. Johni Debbarma	Assam Don Bosco University, Kamrup, Assam
25	Dr. Joyjyoti Das	Adamas University, Kolkata
26	Ms. Kanu priya	Government College, Solan
27	Mr. Sai Anand K K	Sri Sathya Sai Institute of Higher Learning, Bengaluru
28	Ms. Karishma	Jaypee University of Information Technology Waknaghat
29	Dr. Manojkumar Kantilal Rathod	SDJ International College, Palsana, Surat
30	Dr. Meena Kumari	Rajkiya Kanya Mahavidyalaya, Shimla
31	Dr. Nakul Sharma	Trinity Academy of Engineering, Pune
32	Mrs. Namratha N	CIMS College of Nursing, Chamarajanagar, Karnataka
33	Mrs. Niharika Dhiman	APG Shimla University, Shimla
34	Dr. Nupur Raghav	Duvasu, Mathura

35	Dr. Pankaj Bhardwaj	Central University of Punjab, Bathinda
36	Dr. Parul Shrivastava	KPGU, Vadodara
37	Dr. Pooja Puri	Bahra University Waknaghat
38	Dr. Prachi Vaid	AP GOYAL SHIMLA UNIVERSITY, Shimla
39	Mr. Rahul Prashar	University Institute of Technology, Himachal Pradesh University, Shimla
40	Ms. G Priyaalini	Dr. N.G.P. Arts and Science College, Coimbatore
41	Ms. Rashmi Priya Toppo	Government Nagarjuna Post Graduate College of Science Raipur
42	Mr. Rajesh Kumar Azad	Rajkiya Kanya Mahavidyalaya, Shimla
43	Dr. Raju Shankarayan	SMVDU Katra
44	Dr. Ram Sunil Kumar Lalji	Kirori Mal College, University of Delhi, Delhi
45	Mrs. Ramya H N	Agriculture college, Hassan, Karnataka
46	Mrs. Renu Dwivedi	Bahra University, Waknaghat Solan Himachal Pradesh
47	Dr. Ruchi Sharma	Department of Biotechnology, Post graduate government college for girls sector 42 Chandigarh
48	Mr. Sayantan Bhattacharya	Lovely Professional University Phagwara
49	Dr. Seema Rani	Aditi Mahavidalaya, University of Delhi, Bawana, Delhi-110039
50	Dr. Shaik Firdoz	VFSTR, Vadlamudi, Andhra Pradesh
51	Dr. Shital Hemal Doshi	St. Xavier's College, Ahmedabad
52	Dr. Sofia Banu	Gauhati University, Guwahati
53	Dr. Mayank Sohani	SVKM'S NMIMS University, MPSTME Shirpur Campus, Maharashtra
54	Dr. Sonam Sharma	Chandigarh Group of Colleges, Landran, Mohali
55	Dr. Swati Changdeo Jagdale	Dr. Vishwanath Karad MIT World Peace University, Pune
56	Ms. Upasna Khera	Chandigarh Group of Colleges, Landran & Chandigarh University, Mohali
57	Dr. Upendra Verma	SVKM'S NMIMS University, MPSTME Shirpur Campus, Maharashtra
58	Mr. Vikas Menon	Chandigarh College of Technology, Mohali
59	Dr. VNS Malleswara.D	Sri Sathya Sai Institute of higher learning, Bengaluru
60	Mrs. Vertika Shrivastava	Maharaja Agrasen International College
61	Dr. Vibhuti Joshi	Bennett University, Greater Noida
62	Dr. Renu Muwal	Guru Jambheshwar University of Science & Technology, Hisar
63	Dr. Pradeep Kumar Pandey	Jaypee University of Information Technology Waknaghat
64	Mr. Shiv Kumar Gupta	Jaypee University of Information Technology Waknaghat
65	Prof. RAKESH KUMAR BAJAJ	Jaypee University of Information Technology Waknaghat
66	Mr. Himanshu Dhumras	Jaypee University of Information Technology Waknaghat

67	Ms. Monika	Jaypee University of Information Technology Waknaghat
68	Dr. Pardeep Garg	Jaypee University of Information Technology Waknaghat
69	Mr. Chandra Pal Gautam	Jaypee University of Information Technology Waknaghat
70	Dr. Rishi Rana	Jaypee University of Information Technology Waknaghat
71	Mrs. Triambica Gautam	Jaypee University of Information Technology Waknaghat
72	Prof. Anupriya Kaur	Jaypee University of Information Technology Waknaghat
73	Dr. Tanu Sharma	Jaypee University of Information Technology Waknaghat
74	Dr. Sanjiv Kumar Tiwari	Jaypee University of Information Technology Waknaghat
75	Dr. Rajni Mohana	Jaypee University of Information Technology Waknaghat
76	Dr. Ekta Gandotra	Jaypee University of Information Technology Waknaghat
77	Dr. Deepak Gupta	Jaypee University of Information Technology Waknaghat
78	Dr. Aman Sharma	Jaypee University of Information Technology Waknaghat
79	Ms. Neha Sharma	Jaypee University of Information Technology Waknaghat
80	Ms. Kalpana	Jaypee University of Information Technology Waknaghat
81	Mr. Rahul Singh	Jaypee University of Information Technology Waknaghat
82	Ms. Neha Thakur	Jaypee University of Information Technology Waknaghat
83	Ms. Anuradha	Jaypee University of Information Technology Waknaghat
84	Ms. Neha	Jaypee University of Information Technology Waknaghat
85	Mr. Amit Chauhan	Jaypee University of Information Technology Waknaghat
86	Dr. Shruti Jain	Jaypee University of Information Technology Waknaghat
87	Ms. Priyanka Sharma	Jaypee University of Information Technology Waknaghat
88	Ms. Sweta	Jaypee University of Information Technology Waknaghat
89	Ms. Sakshi	Jaypee University of Information Technology Waknaghat
90	Ms. Shirani	Jaypee University of Information Technology Waknaghat
91	Mr. Amit Sharma	Rajkiya Kanya Mahavidyalaya, Shimla
92	Mr. Denny Melkay M George	Sri Sathya Sai Institute of Higher Learning, Bengaluru
93	Ms. Anita Kumari	Rajkiya Kanya Mahavidyalaya, Shimla
94	Ms. Kiran Bala Sharma	Rajkiya Kanya Mahavidyalaya, Shimla
95	Dr. M. Divya Gnaneswari	Gargi College, New Delhi
96	Dr. Prabha Arya	Deshbandhu College, University of Delhi
97	Dr. Poonam kumari	Rajkiya Kanya Mahavidyalaya, Shimla
98	Mr. Rohit Kumar	Rajkiya Kanya Mahavidyalaya, Shimla
99	Ms. Sheetal Charbathia	Rajkiya Kanya Mahavidyalaya, Shimla
100	Mrs. Neha sawant	Rajkiya Kanya Mahavidyalaya, Shimla
101	Dr. Vijaylakshmi	J K Lakshmipat University, Jaipur
102	Dr. Nisha Chauhan	Rajkiya Kanya Mahavidyalaya, Shimla

NCMW - Advanced topics in PDEs (2023)

Venue: Jaypee University of Information Technology, Solan

Dates: 15 May 2023 to 27 May 2023

Convener(s)

Name:	Prof. Ujjwal Koley, Associate Professor	Prof. Rakesh Kumar Bajaj, Professor & HOD	Dr. Bidhan Chandra Sardar, Assistant Professor
Mailing Address:	TIFR Centre for Applicable Mathematics Sharada Nagar, Chikkabommasandra,	Department of Mathematics, Jaypee University of Information Technology	Department of Mathematics Indian Institute of Technology Ropar

	Bengaluru, 560065	Waknaghat, Solan, H.P - 173234	Rupnagar, Punjab - 140001
Email:	ujjwal at math.tifrbng.res.in	rakesh.bajaj at juitsolan.in	bcsardar at iitrpr.ac.in

This NCMW aims to introduce the participants to the advanced topics in Partial Differential Equations (PDEs). This will be indeed immensely helpful to the researchers who are already familiar with the basics of PDEs, since we are going to discuss several state-of-the art techniques related to Hyperbolic, Elliptic and Parabolic PDEs.

In the first week, we plan to discuss topics like BV compactness for scalar conservation laws, controllability of PDEs with their applications, and homogenization of elliptic PDEs.

At the end of the first week, we plan to focus more on compensated compactness method for scalar conservation laws, Caffarelli-Silvestre extension problems for fractional PDEs, and concentration compactness principle and their applications in the Sobolev embedding.

NCMW ATPDES (2023)

Advanced topics in PDEs (2023)

Speakers and Syllabus
Application Form
Selected Applicants
How To Reach

One Day Workshop on Biotechnological Techniques

Organized by: Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology Waknaghat

Organized at: Department of Biotechnology, Khalsa College, Patiala

Date: 02 May 2023

No. of Participants: 30 (B.Sc. Biotechnology Students)

Resource Persons: 1. Dr. Rahul Shrivastava, Associate Professor

2. Dr. Saurabh Bansal, Associate Professor

3. Mr. Baleshwar, Technical Staff

Department of Biotechnology and Bioinformatics Jaypee University Technology Waknaghat, Solan organized a one day workshop on "Biotechnological Techniques" at Khalsa College, Patiala on 02 May, 2023.

The main objective of the workshop was to make B.Sc. Biotechnology Students aware of Biotechnological Techniques and to showcase the strength of Jaypee University in this area. Dr Rahul Shrivastava from JUIT and Dr. Nipunjot Kaur from Khalsa College, Patiala coordinated the workshop. The workshop started with the welcome and introduction session. This was then followed by practical-cum demonstration sessions on different modules of the workshop. Various Biotechnology techniques including, SDS-PAGE, Rocket immune electrophoresis and restriction digestions were demonstrated jointly by the faculty members, Dr. Rahul Shrivastava and Dr. Saurabh bansal and the technical staff Mr. Baleshwar.

Jaypee University of Information Technology

Waknaghat, Solan-173234(H.P.), India

(*Established under HP Legislative Assembly Act No. 14 of 2002 and Approved by UGC under Section 2(f) of UGC Act 1956*)

One week hands-on workshop on

"Computational Methods For Physics And Material Science"

29th December 2022-3rd January 2023

Speakers:

Dr. Anik Sen, GITAM Institute of Science
Dr. Swarup Panda, Bennett University
Dr. Swastika Chatterjee, IISER Kolkata
Dr. Santu Baidya, JUIT Solan

Description:

Different computational methods used in various areas of physics and materials science will be introduced along-with hands-on. Targeting participants with initial stage of their career.

Topics: Catalysis, Correlated Materials, Earth Science and DFT, Tight-binding-Wannier function

Convener

Dr. Santu Baidya

Co-convener

Dr. Ragini Raj Singh
Dr. Surajit Kumar Hazra

Head of Department

Prof. P. B. Barman
Physics and Materials Science

Mode of workshop: Hybrid

For Registration

https://forms.gle/hKpvQ7nwvDdkLEoz7
Registration opens: 7th Nov, 2022
Registration closes: 25th Dec, 2022

Registration Fees

Students (UG/PG) and Ph.D. Research Scholars: 1000/-
Faculties and Researchers: 1500/-
Industries: 2000/-

Accommodation: As per actual (for offline participants), limited accommodation
Venue: CR-3, Vivekananda Vaban, JUIT Solan

+91 9019485916, 8894818236 santu.baidya@juitsolan.in

HANDS-ON WORKSHOP

MOLECULAR BIOLOGY & BIOINFORMATICS TECHNIQUES

Organized by
Jaypee University of Information Technology (JUIT) , Waknaghat , Solan
&
St. Bede's College, Shimla

PATRON

Vice Chancellor, JUIT, Solan

Prof. R.K.Sharma

Principal, St. Bede's College, Shimla

Prof. Sr. Molly Abraham

Convener

Dr. Sudhir Kumar
Prof. & Head, Department of Biotechnology & Bioinformatics, JUIT, Waknaghat, Solan (H.P.)
(Mob) 9805627899
Email Id: sudhir.syal@juit.ac.in

Ms. Reena Thakur
Associate Prof. & Head, St. Bede's College, Shimla, Himachal Pradesh
(Mob) 9418200233
Email Id: sharmja@gmail.com

Resource Persons

Dr. Rahul Shrivastava, Associate Prof.
rahul.shrivastava@juitsolan.in
(Mob) 8894135634
(Session on:- DNA and RNA Isolation, Restriction Digestion)

Dr. Shikha Mittal, Assistant Prof.
shikha.mittal@juitsolan.in
(Mob) 8076035143
(Session on :- BLAST , MSA, Phylogenetic Analysis)

Target Audience

- Undergraduate Science Students
- Postgraduate Science Students

DATE &TIME

7th December, 2023
9:30 AM - 4:00 PM
https://www.juit.ac.in/biotechnology-bioinformatics

One Day Workshop on Molecular Biology & Bioinformatics Techniques

Organized by: Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology Waknaghat

Organized at: St. Bede's College, Shimla

Date: 07 Dec 2023

No. of Participants: 60 (B.Sc. Biotechnology, B.Sc. Microbiology, B.Sc. Botany, & B.Sc. Zoology Students)

Resource Persons: 1. Dr. Rahul Shrivastava, Associate Professor

2. Dr. Shikha Mittal, Assistant Professor

3. Mr. Baleshwar, Technical Staff

Department of Biotechnology and Bioinformatics Jaypee University Technology Waknaghat, Solan organized a one day workshop on "Molecular Biology & Bioinformatics Techniques" at St. Bede's College, Shimla on 07 Dec, 2023. Prof. Sudhir Kumar from JUIT and Ms. Reena Thakur from St. Bede's College, Shimla coordinated the workshop. JUIT Ph.D. research scholars – Ms. Sakshi Sharma and Ms. Suhani Bhagta, along with M.Sc. Biotechnology students Ms. Sneha Joshi, Ms. Tanvi Chadha, Ms. Ritika Chauhan and Ms. Sanskriti Sauhta were a part of the team for conducting the workshop and provided technical help and hands-on demonstration to the students.

The main objective of the workshop was to make B.Sc. Biotechnology and B.Sc Botany Students gain hands-on working experience of Molecular Biology and Bioinformatics Techniques and to showcase the strength of Jaypee University in this area.

The workshop started with the Welcome and Introduction session delivered to the students by Prof. Sudhir Kumar (Head, BTBI, JUIT) on the topic "OFF SHOOTS" focusing on how to improve learning. This was then followed by practical-cum demonstration sessions on different modules of the workshop. Various Biotechnology techniques for genomic DNA, plasmid DNA & RNA isolation and restriction digestions were demonstrated by Dr. Rahul Shrivastava and technical staff Mr. Baleshwar. Whereas demonstration on Bioinformatics techniques including BLAST, MSA and phylogenetic tree was given by Dr. Shikha Mittal.








Jaipur University


Online Faculty Development Program on

"Computational Genomics and Proteomics"

(Under E & ICT Academy of IIITDM Jabalpur)

Jointly Organized by

IIITDM Jabalpur and JUIT Solan

28th Aug. 2022 to 10th Sept. 2022

1. About the FDP

The faculty development program (FDP) on Computational Genomics & Proteomics got successfully completed on 10.09.22. This event was sponsored by the Electronics & ICT Academy, an initiative of the Ministry of Electronics & Information Technology, Government of India. The event commenced on 28.08.22 and was jointly organized by ECE departments of Jaypee University of Information Technology (JUIT), Waknaghat, Solan & IIITDM Jabalpur. During this two-week FDP eminent speakers delivered talks on the Fundamentals of Molecular Biology, Genome Sequencing, Signal Processing, Machine learning, Personalized Medicine, MATLAB Programming &Computer-aided drug design. Also, Numerous case studies were discussed to highlight the applicability of computational methods in facilitating molecular biology experimentations. The learned speakers who delivered the talks in this program include Prof. B.Jayaram (IIT Delhi), Prof. L. Shashidhara (IISER, Pune), Prof. Rajiv Saxena (JIIT Noida), Dr.Pushpendra Singh (Scientist, ICMR), Prof. S.N.Sharma (IIITDM, Jabalpur), Dr. D.K. Shakya (SATI, Vidisha), Dr. S.D. Sharma (JUIT, Waknaghat) and Yashpal Yadav**.** Prof. Aparajita Ojha, Coordinator E&ICT Academy Jabalpur, emphasized the importance of such collaborative programs. In his concluding remarks Prof. R.K. Sharma, Vice Chancellor, JUIT Waknaghat wished that this program will promote collaborative cross-disciplinary research and that participants will contribute towards nation-building by developing novel solutions for the existing molecular biology problems using computational tools. Prof. Rajiv Kumar (HOD, ECE) also briefed on the facilities and infrastructure of the department. Prof. S.N. Sharma, ECE Department, IIITDM Jabalpur &Dr. S.D. Sharma, ECE Department,and JUITWaknaghat were the coordinators of this program.

2. Coordinators

- Prof. Sanjeev Narayan Sharma (Prof. S.N.Sharma), ECE Department, PDPM IIITDM Jabalpur, M.P.
- Dr. Sunil Datt Sharma (Dr. S.D. Sharma), ECE Department, JUIT, Waknaghat, Solan, H.P.

3. Numberof Participants

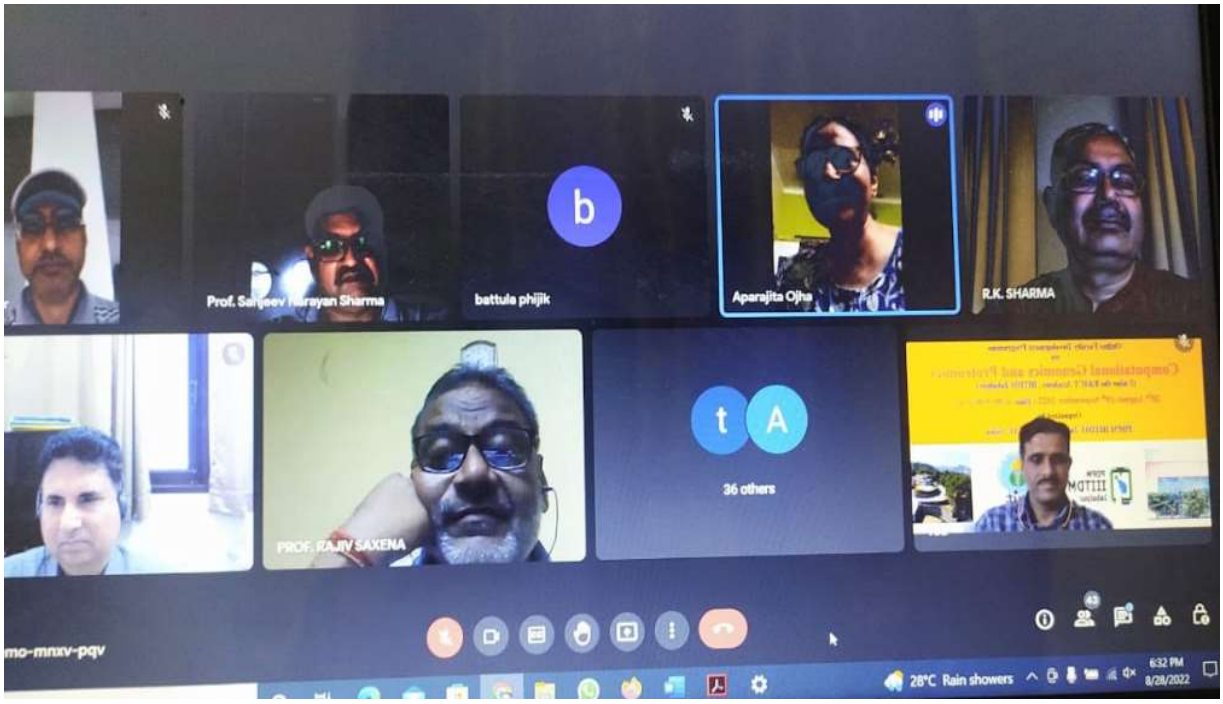
- External participants: 52
- Internal participants: 05

4. Highlights of the online FDP

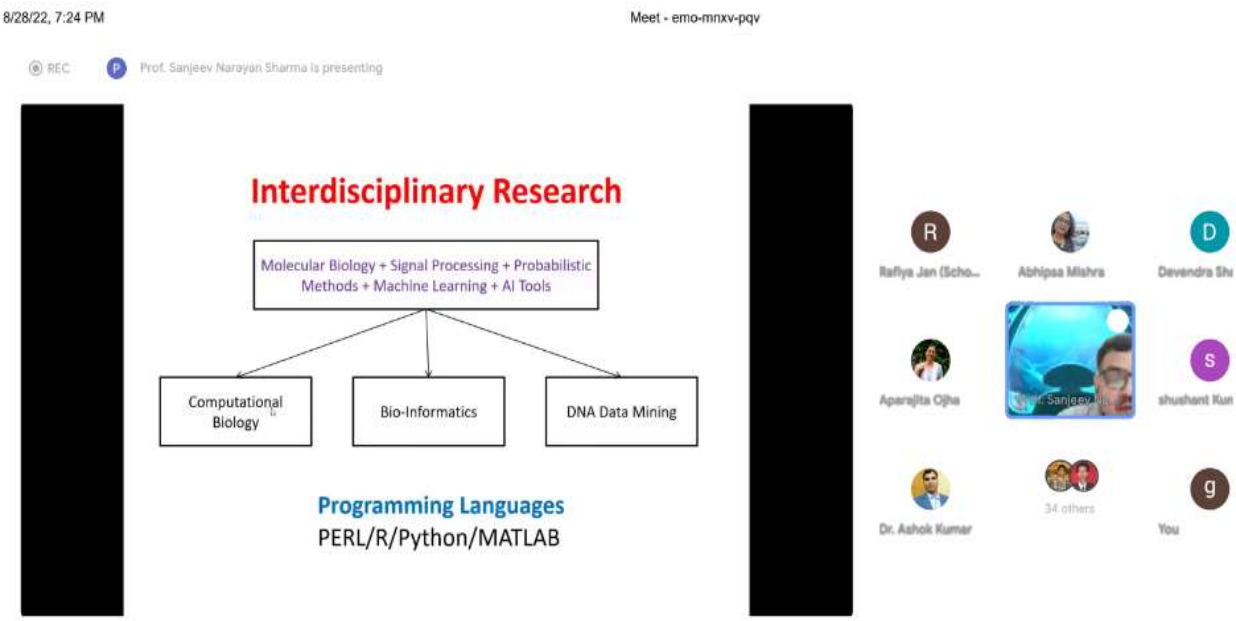
Date: 28-08-22

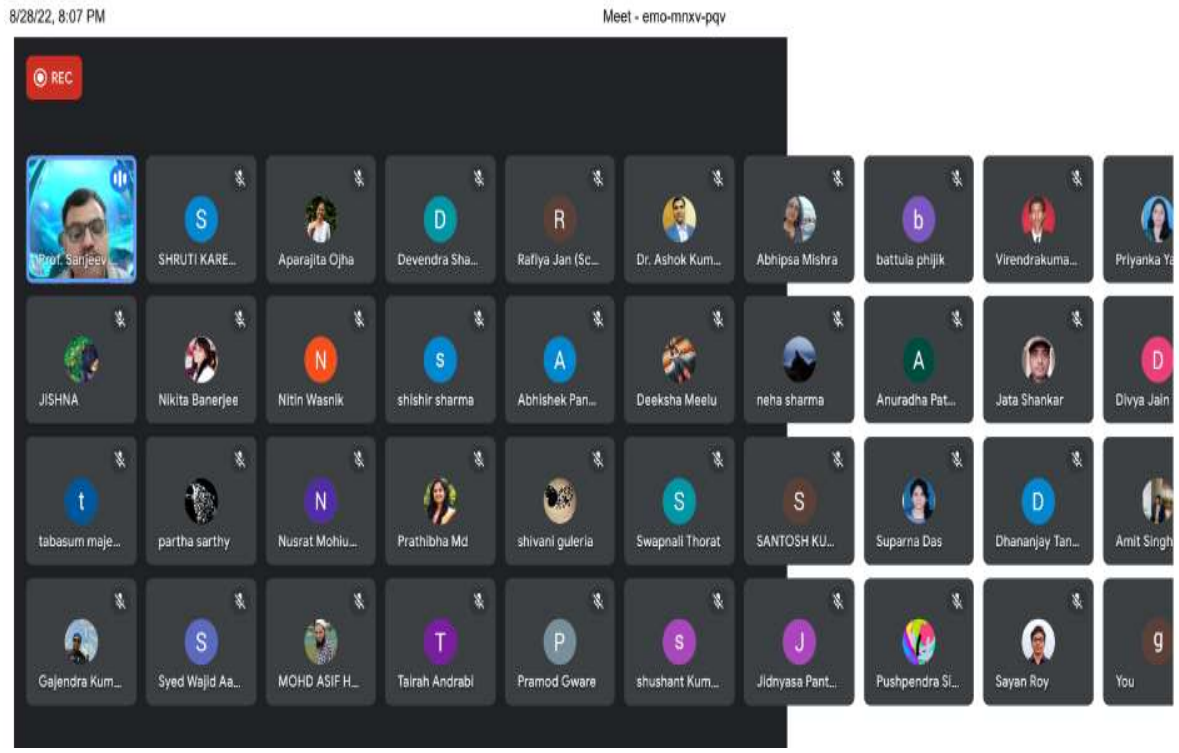
Session-1: Inaugural Session on-28-08-22

During the inaugural ceremony, Prof. Aparajita Ojha (Head, E & ICT Academy, IITDM Jabalpur), Prof. (Dr.) R.K. Sharma (Vice-Chancellor, JUIT), eminent academician Prof. Rajiv Saxena (Adjunct Professor, JIIT Noida), Prof. Sanjeev Narayan Sharma (ECE, PDPM IIITDM, Jabalpur), and Prof. Rajiv Kumar (HOD, ECE JUIT) were present. Total 57 participants from different parts of the country have been registered for the FDP. The session was coordinated by Prof. Sanjeev Narayan Sharma (PDPM IIITDM Jabalpur), and Dr. Sunil Datt Sharma (Jaypee University of Information Technology, Solan, H.P.) expressed the vote of thanks to distinguished dignitaries and participants for their kind presence at the end of the session.



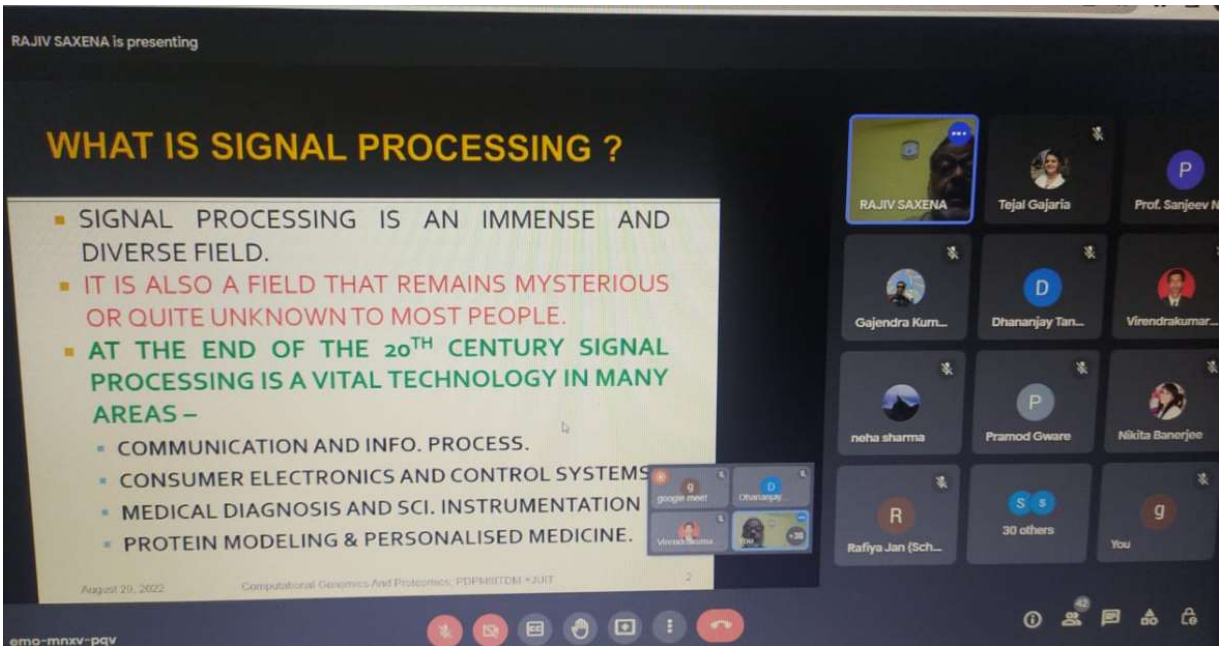
Lecture-1: Fundamentals of Genomics & Proteomics by Prof. S.N.Sharma, IIITDM. Jabalpur



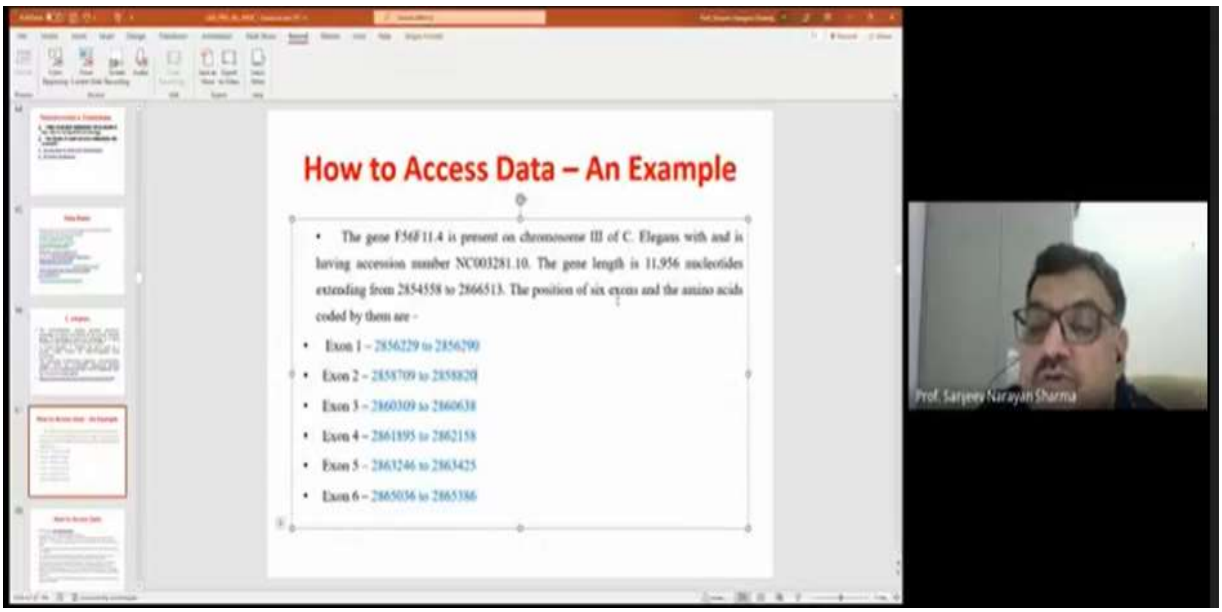


Date: 29-08-22

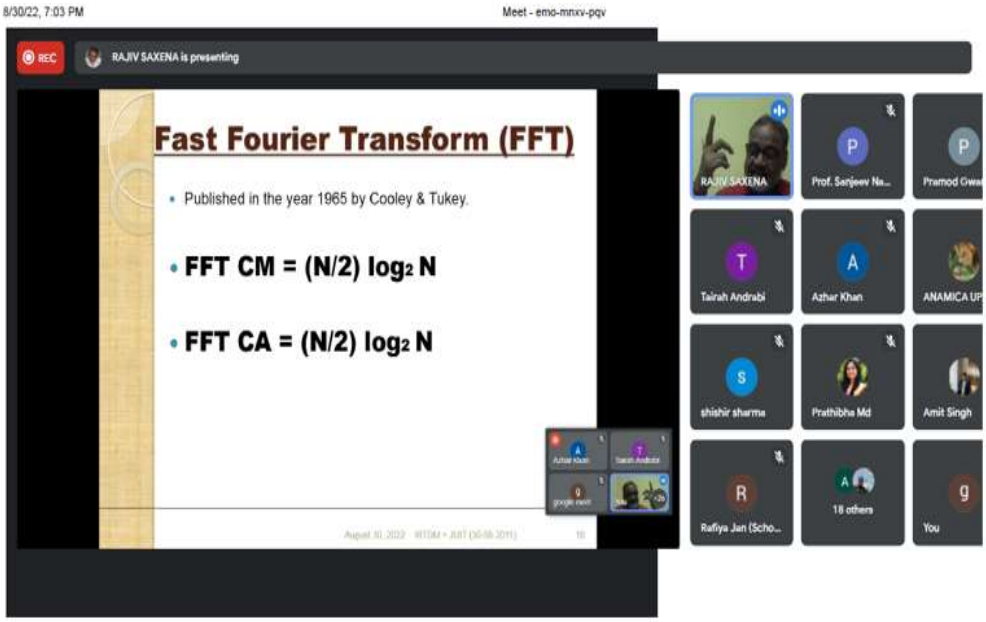
Lecture-2: Fundamentals Signals & Systems by Prof. Rajiv Saxena (Former VC, Jaypee University, AnoopShahr, & Adjunct Professor, JIIT Noida)

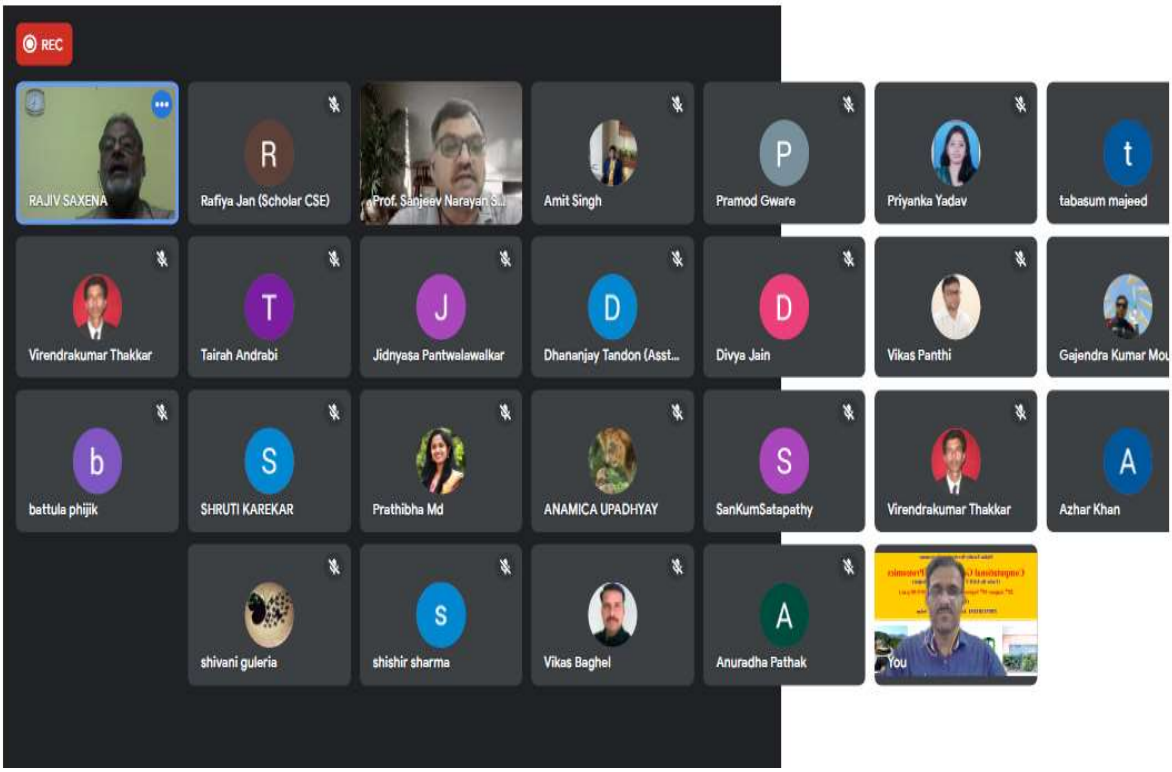


Lecture-3: Accessing DNA, Protein and Cancer Databases, Numerical Mapping Schemes by Prof. S.N.Sharma

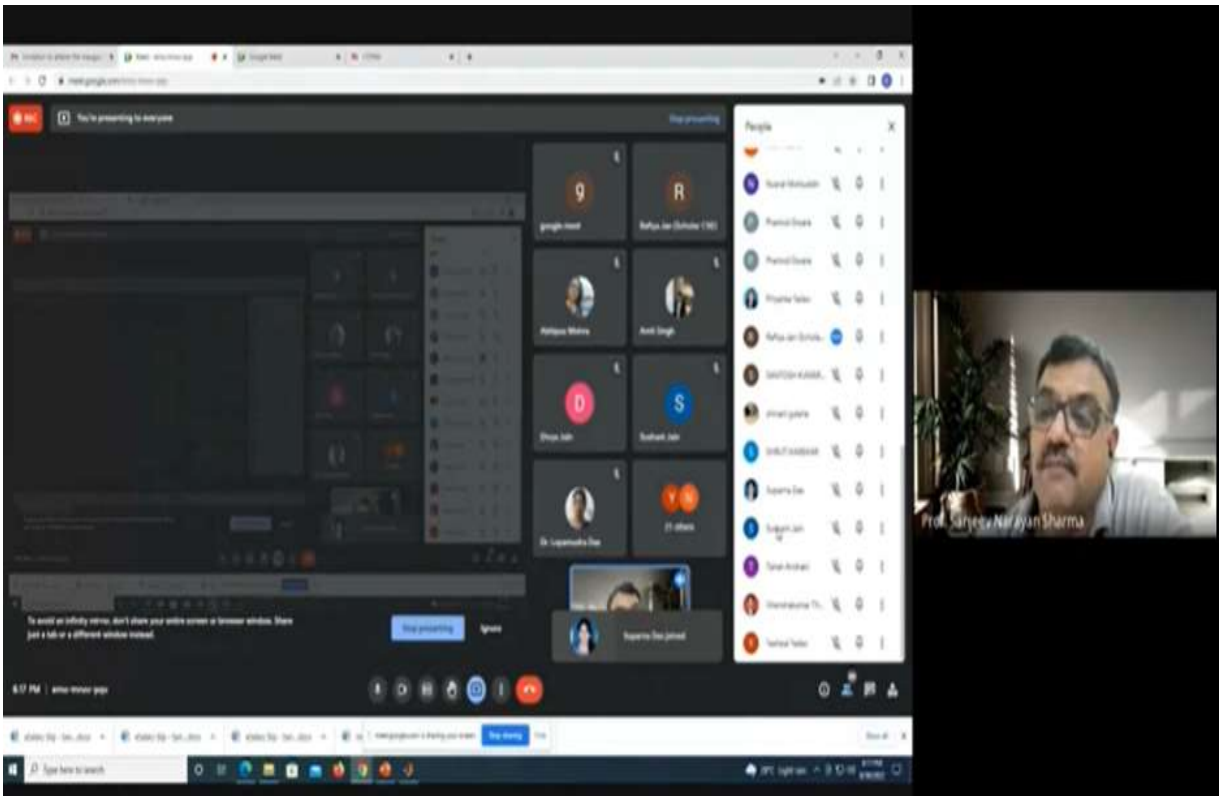


Date: 30-08-22
Lecture-4: Discrete Transforms by Prof. Rajiv Saxena (Former VC, Jaypee University, AnoopShahr, & Adjunct Professor, JIIT Noida)



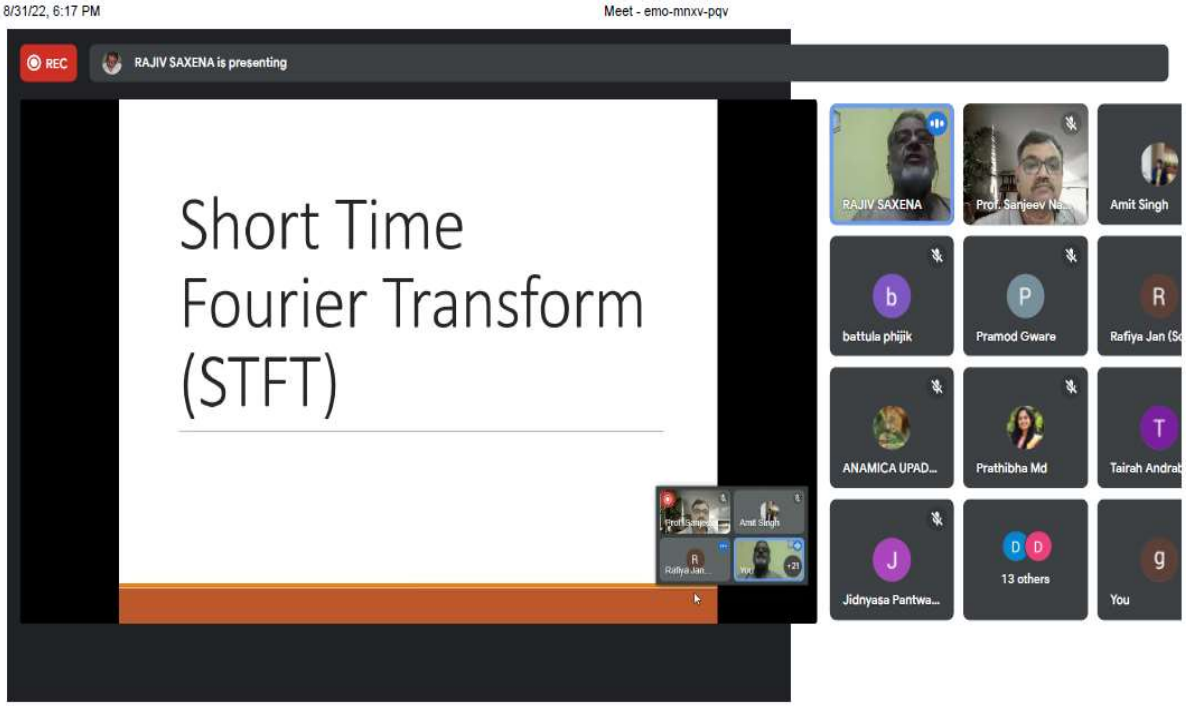


Lecture-5: Computation Using MATLAB-I by Prof. S.N. Sharma, IIITDM Jabalpur

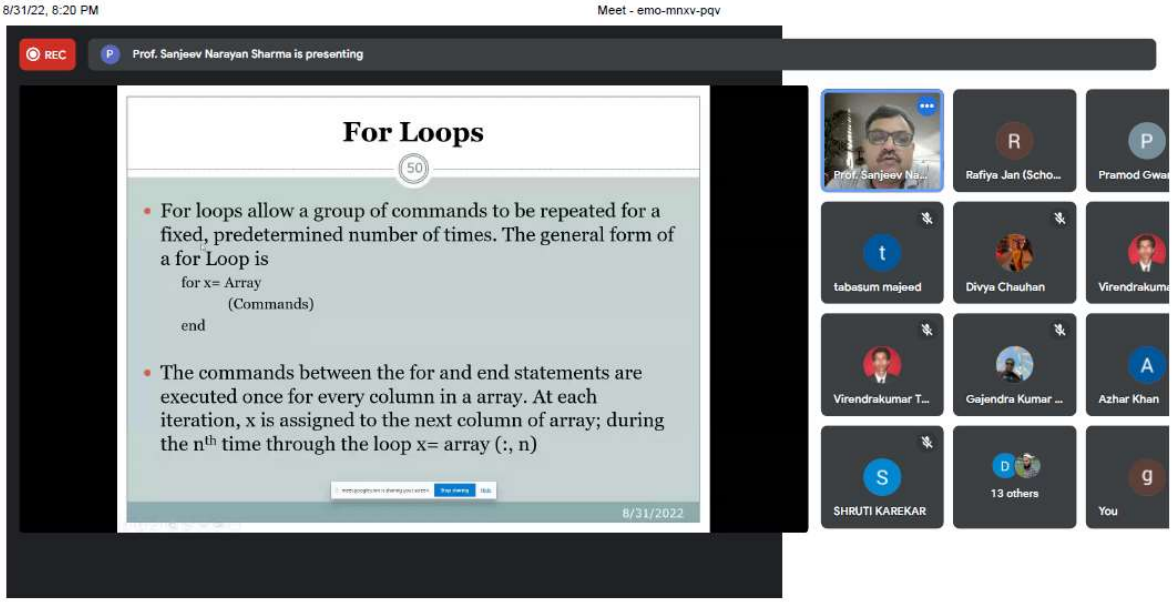


Date: 31-08-22.

Lecture-6: Digital Filtersby Prof. Rajiv Saxena (Former VC, Jaypee University, AnoopShahr, & Adjunct Professor, JIIT Noida)

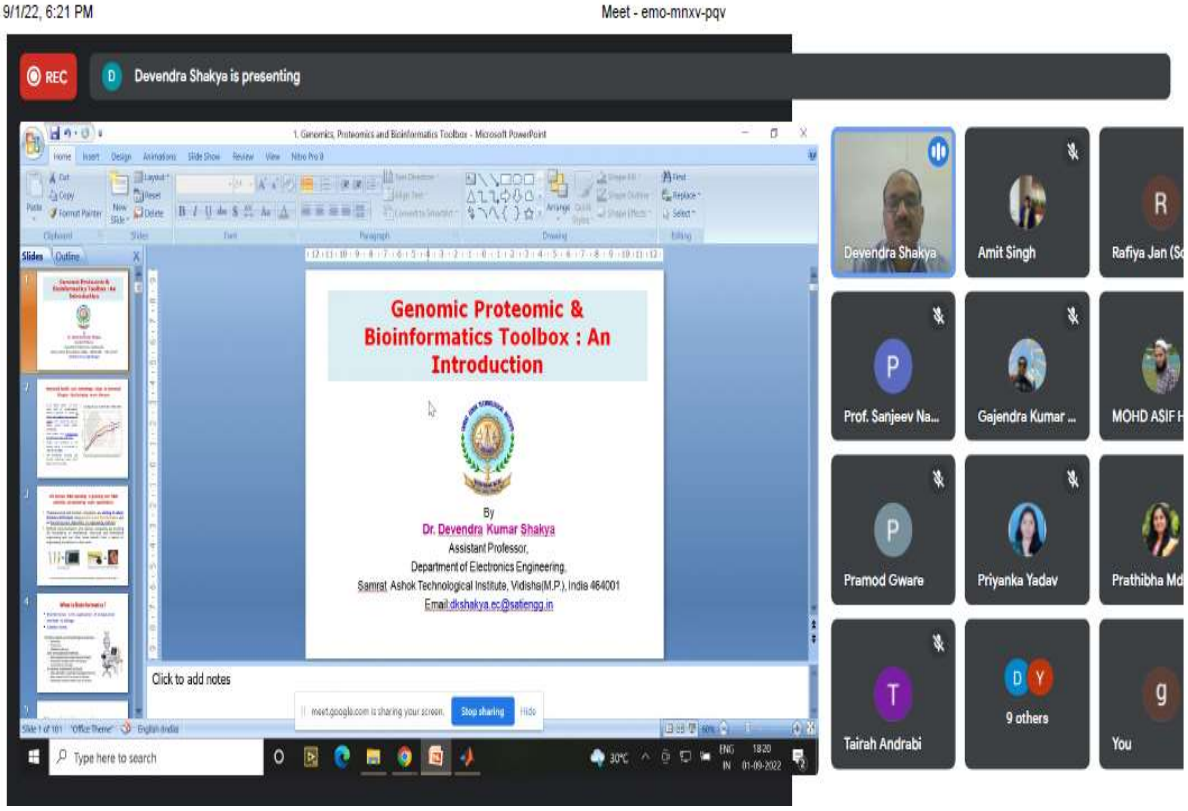


Lecture-7: Computation Using MATLAB-II by Prof. S.N. Sharma, IIITDM Jabalpur

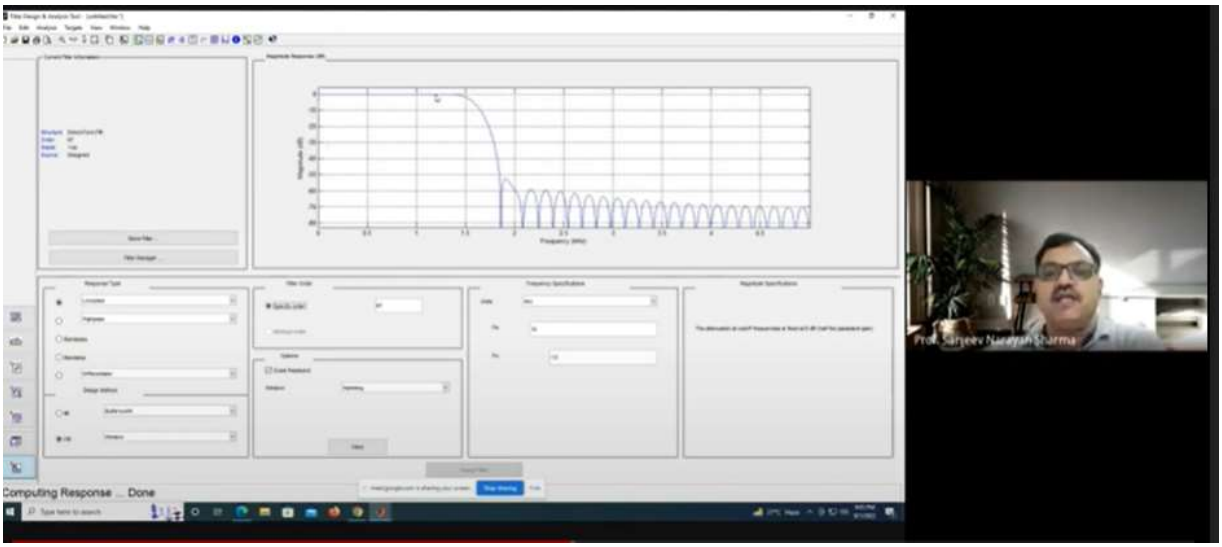


Date: 01-09-22

Lecture-8: Introduction to Bioinformatics MATLAB Toolbox by Dr. D.K. Shakya, SATI, Vidisha, M.P.

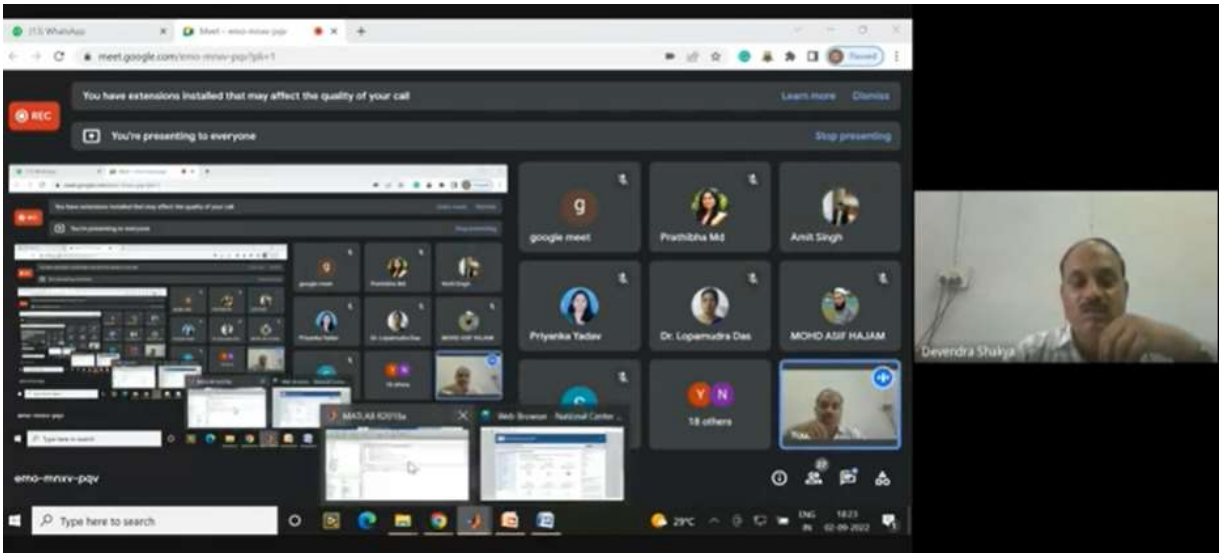


Lecture-9: Signal Processing Using MATLAB by Prof. S.N. Sharma, IIITDM Jabalpur

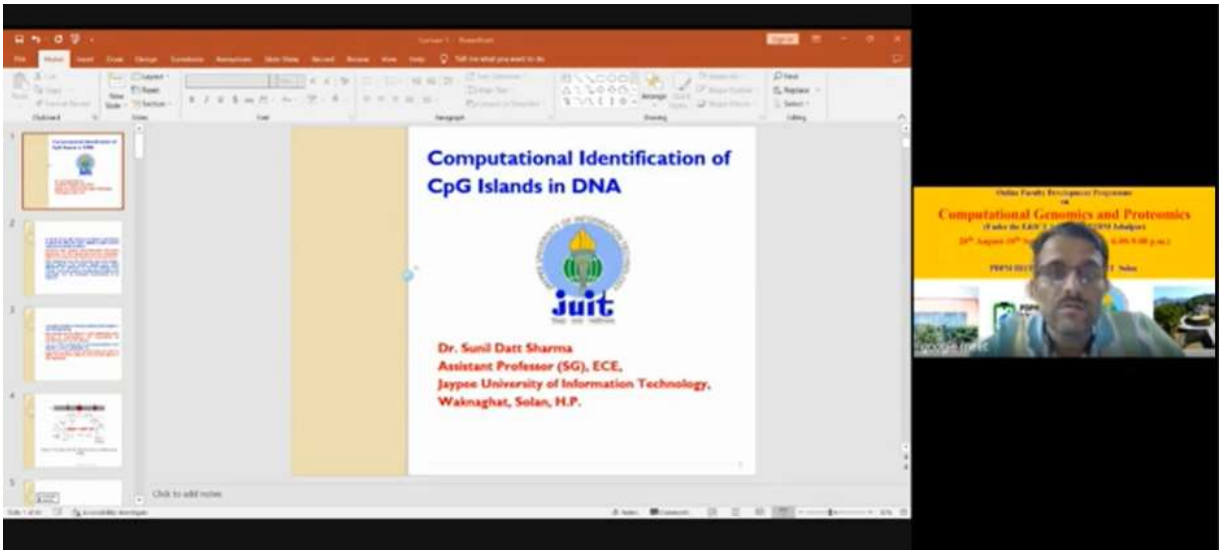


Date: 02-09-22

Lecture-10: Hands on Bioinformatics MATLAB Toolbox by Dr. D.K. Shakya, SATI, Vidisha, M.P.

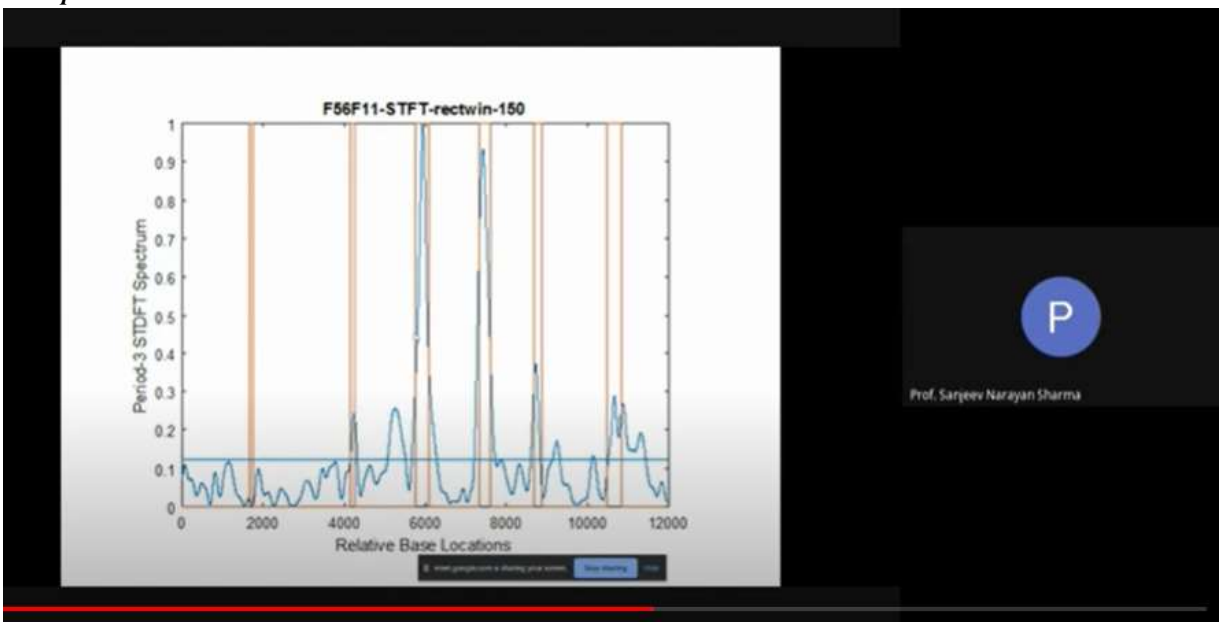


Lecture-11: Computational of Identification of CpG Islands in DNA by Dr. S.D.Sharma, JUIT, Solan

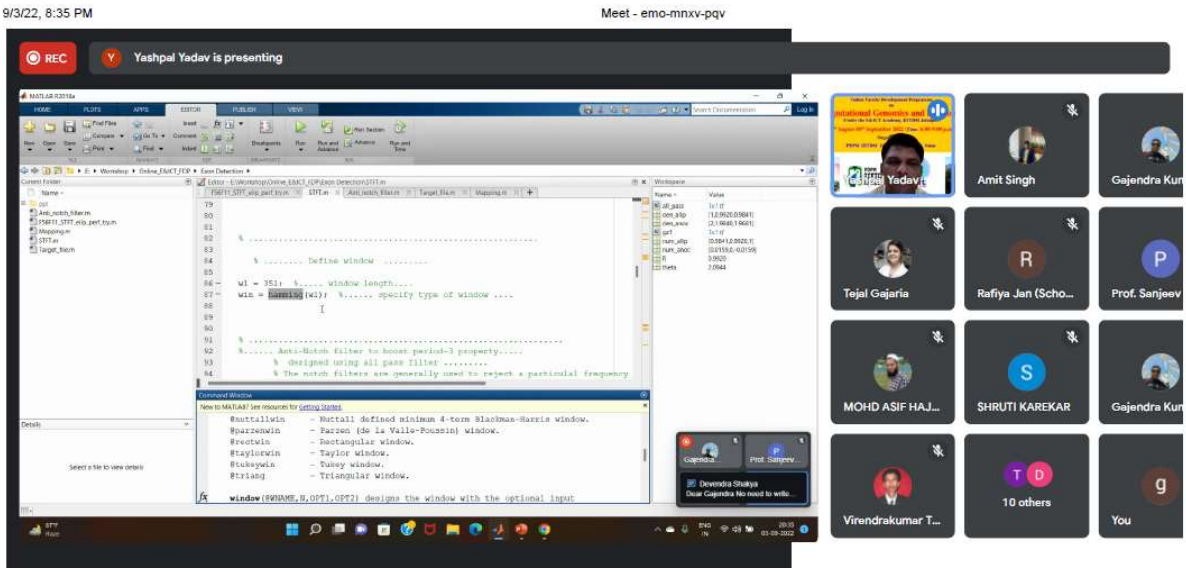


Date: 03-09-22

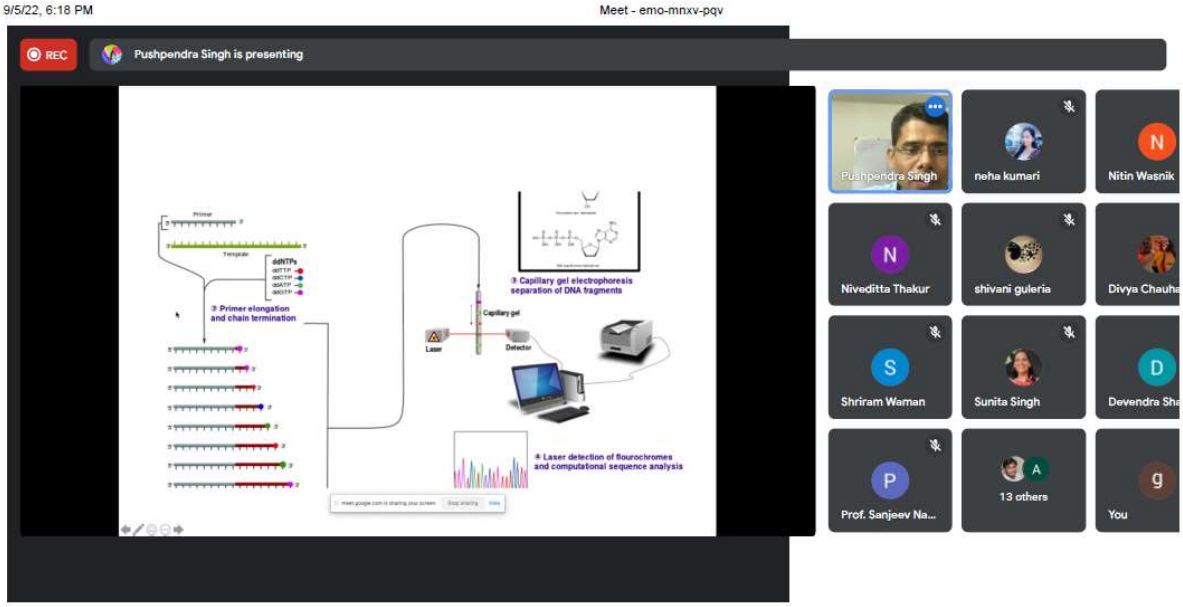
Lecture-12: Computational Identification of protein coding region in DNA by Prof. S.N. Sharma, IIITDM Jabalpur



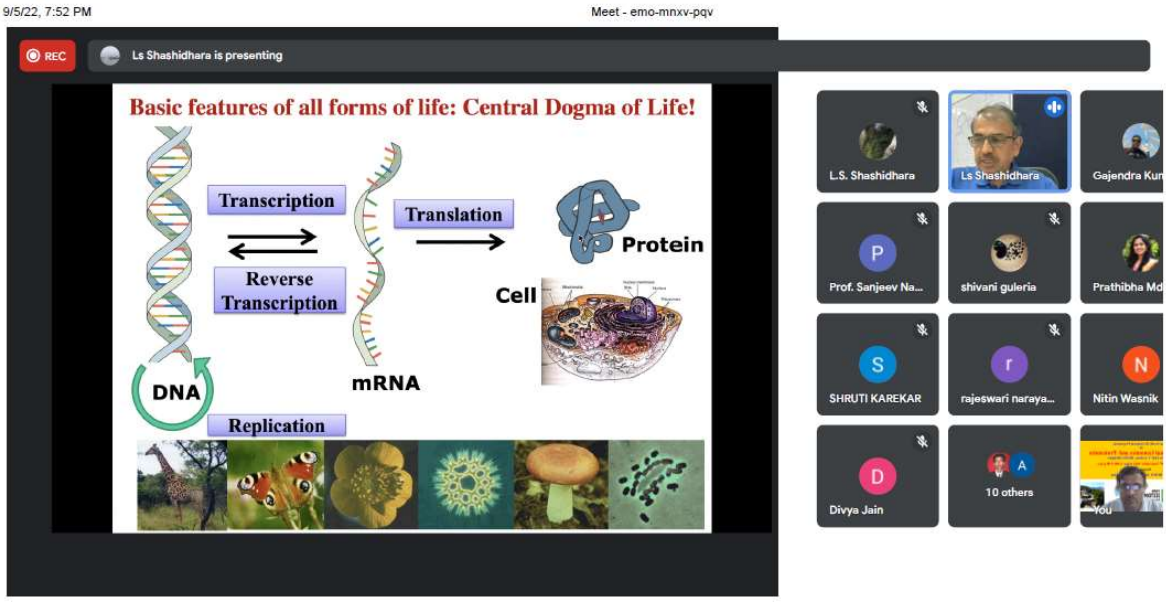
Lecture-13: MATLAB Implementation of Computational Identification of protein coding region in DNA by Mr. Yashpal Yadav



Date: 05-09-22
Lecture-14: Next generationsequencing by Dr. Pushpendra Singh, ICMR (NIRTH), Jabalpur, M.P.

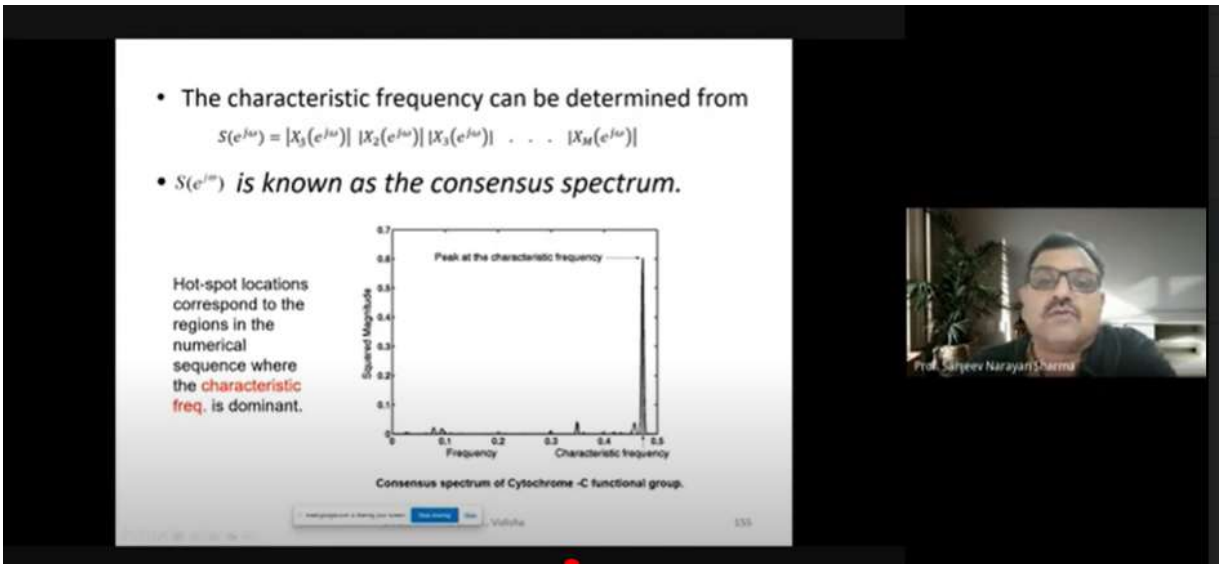


Lecture-15: From Genetics to Cancer Genome by Prof L. Shashidahra, IISER, Pune

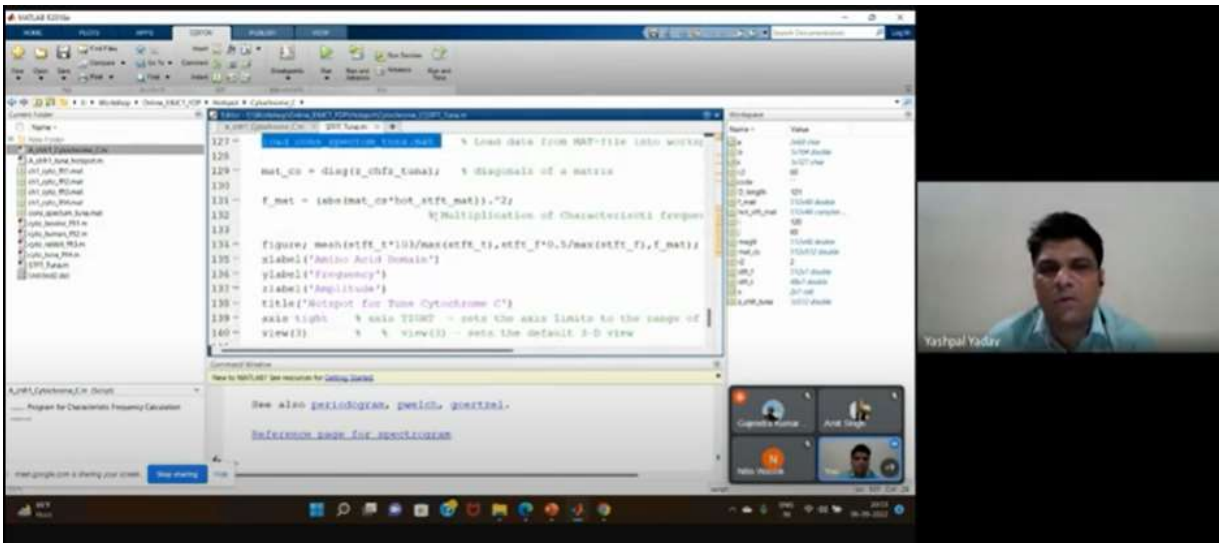


Date: 06-09-22

Lecture-16: Computational Identification of Hot Spot in Protein by Prof. S.N. Sharma, IIITDM Jabalpur

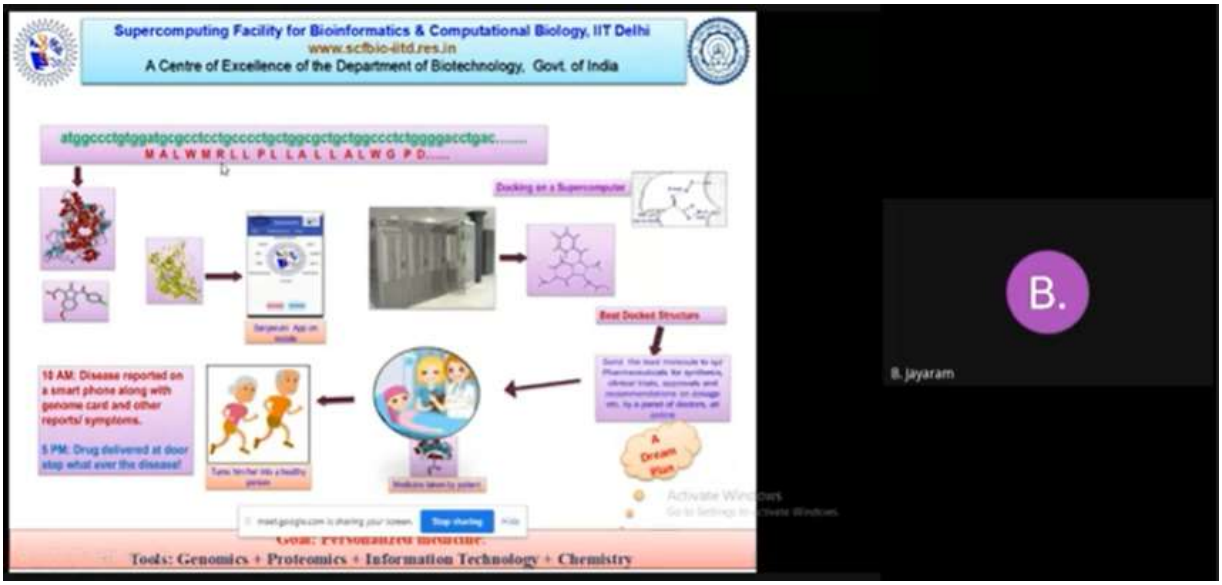


Lecture-17: MATLAB Implementation of Computational Identification of Hot Spot in Protein by Mr. Yashpal Yadav



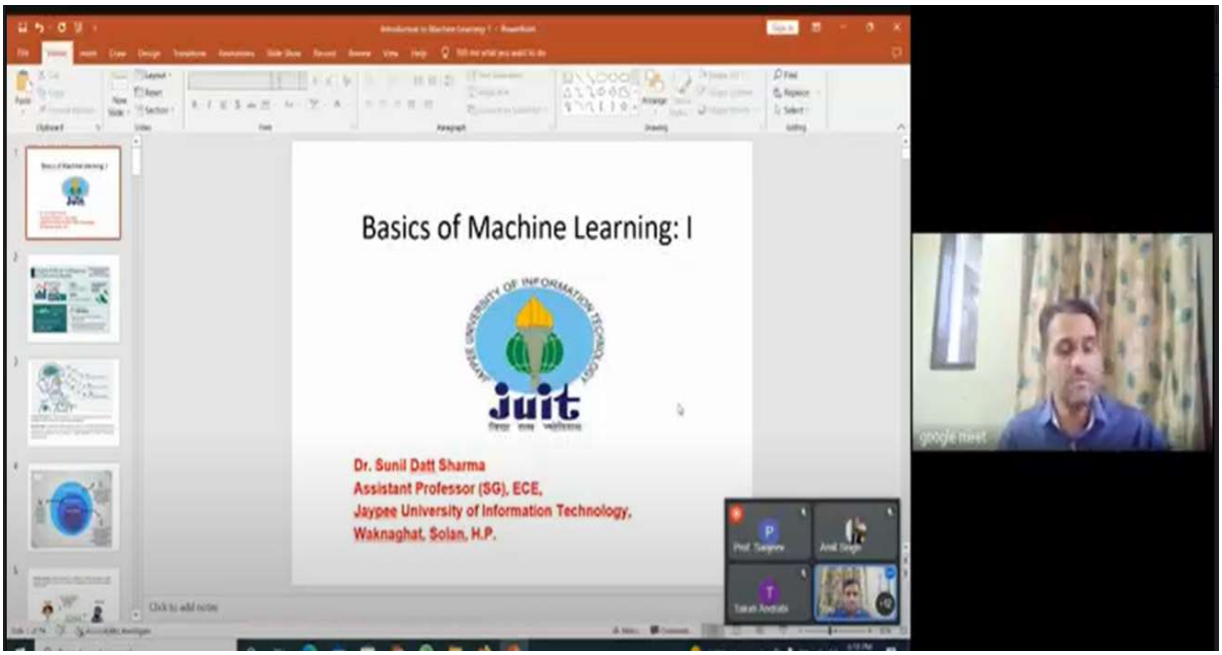
Date:07-09-22

Lecture-18: Molecular Dynamics Based Genome Annotation by Prof. B. Jayaram, IIT Delhi

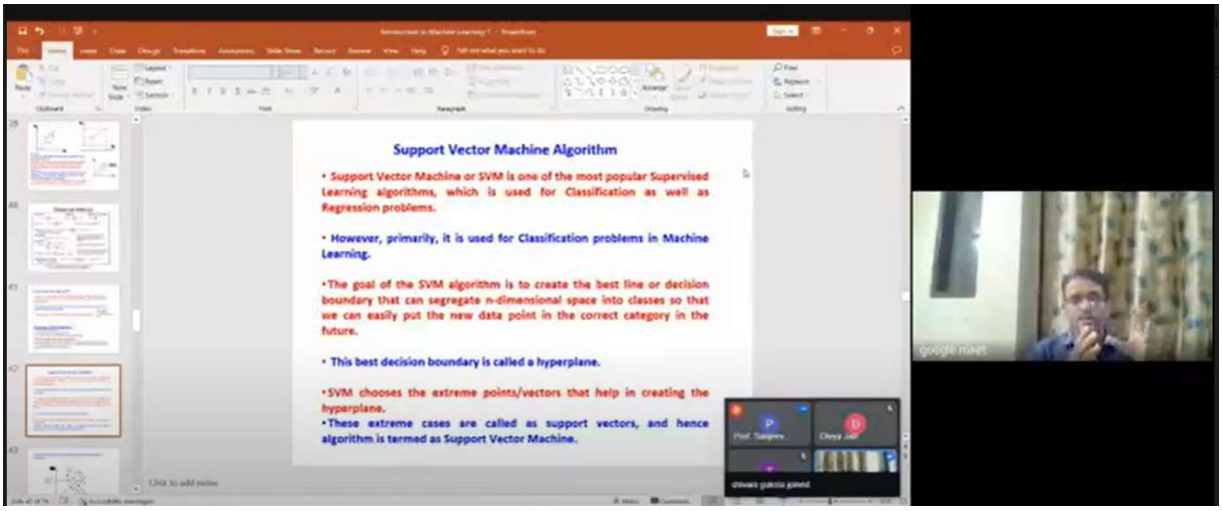


Date: 08-09-22

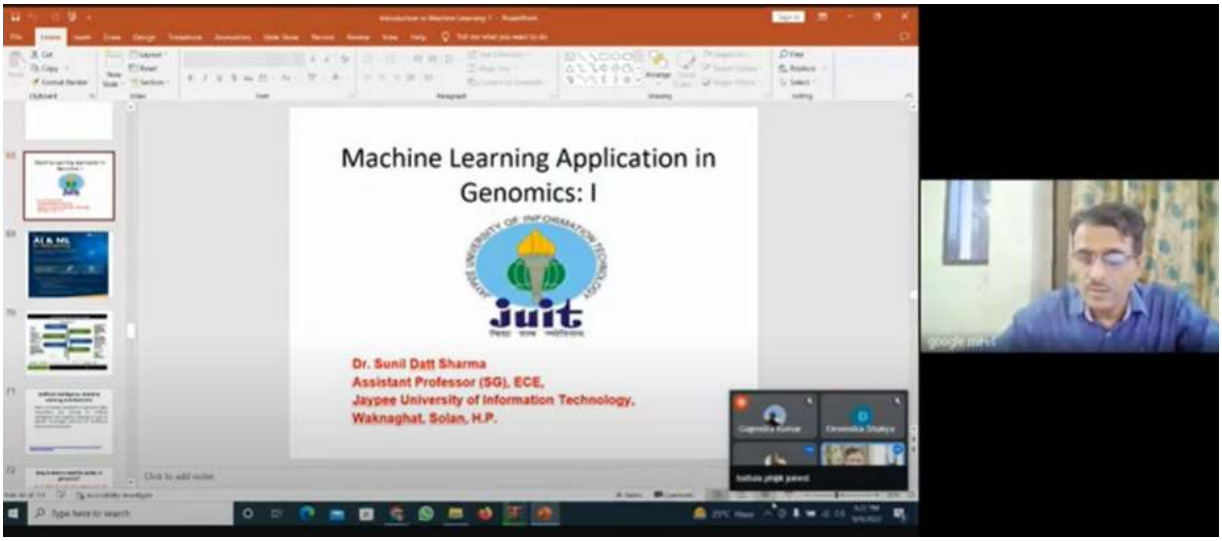
Lecture-19: Basics of machine learning-I by Dr. S.D. Sharma, JUIT Solan, H.P.



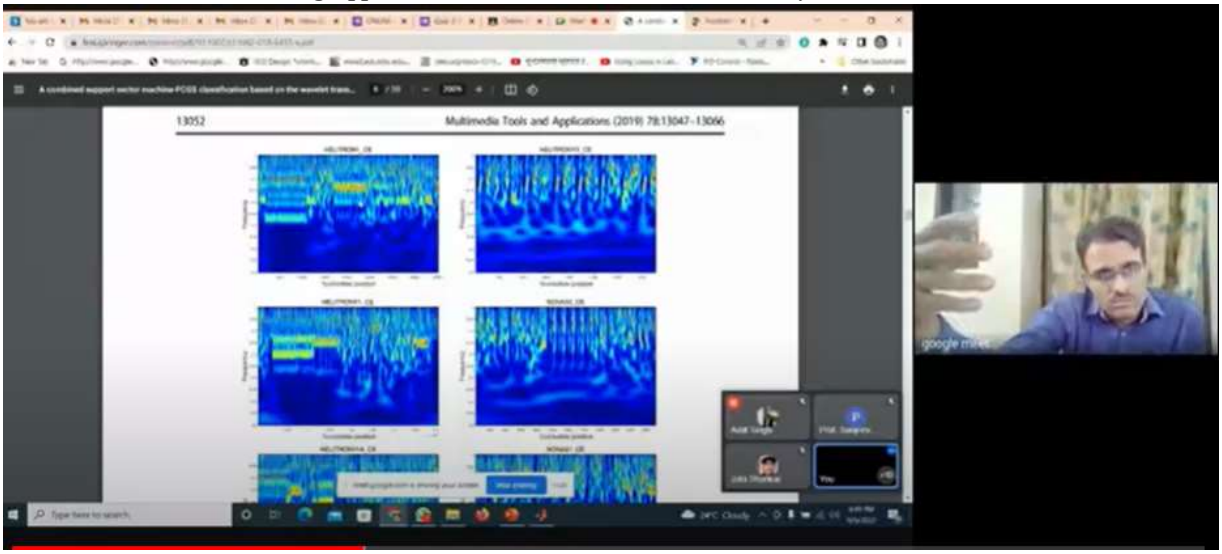
Lecture-20: Basics of machine learning-II by Dr. S.D. Sharma, JUIT Solan, H.P.



Date: 09-09-22
Lecture-21: Machine learning Application in Genomics & Proteomics-I by Dr. S.D. Sharma, JUIT Solan, H.P.



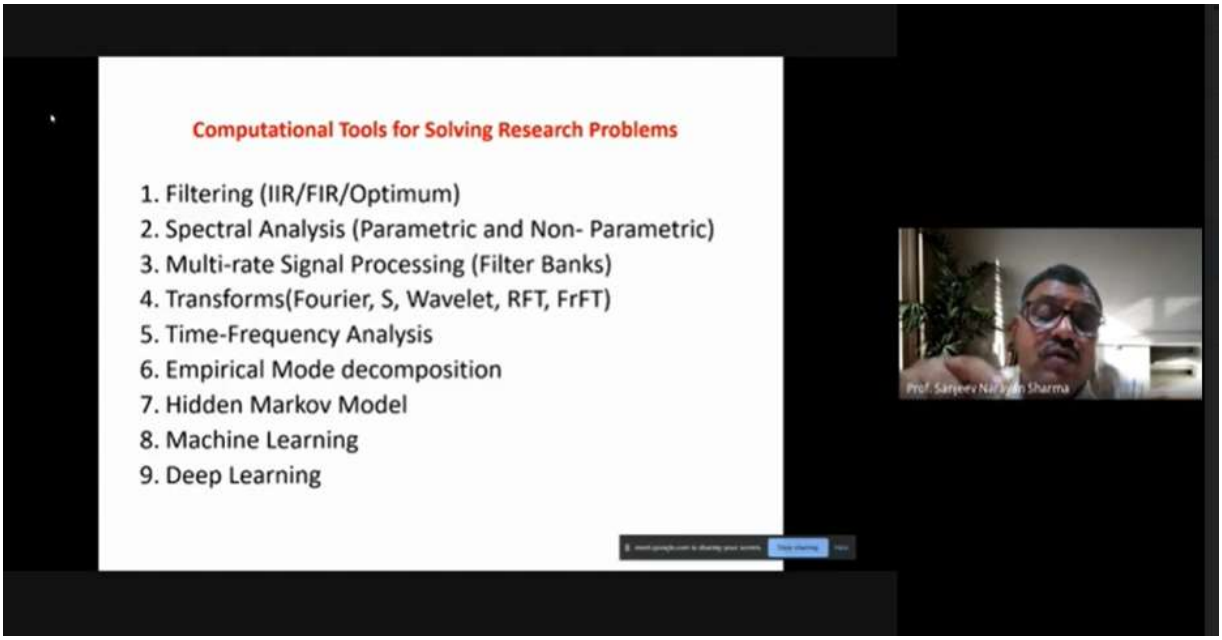
Lecture-22: Machine learning Application in Genomics & Proteomics-II by Dr. S.D. Sharma, JUIT Solan, H.P.

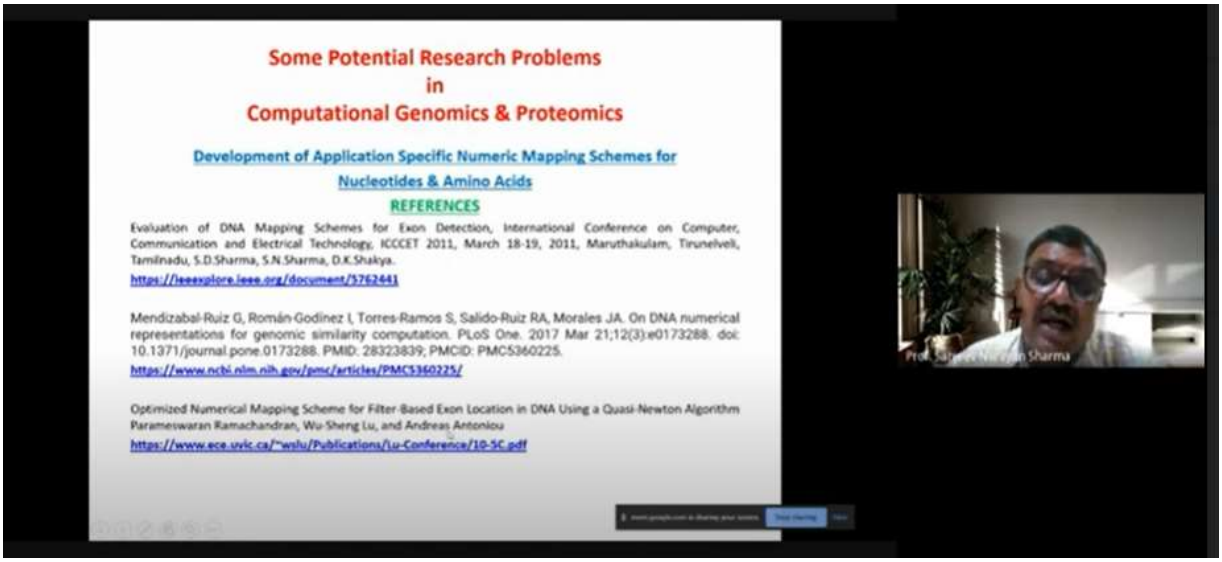


Date:10-09-22

Lecture-23: Some open research problems in computational Genomics and Proteomics & Useful referencing by Prof. S.N. Sharma, IIITDM Jabalpur

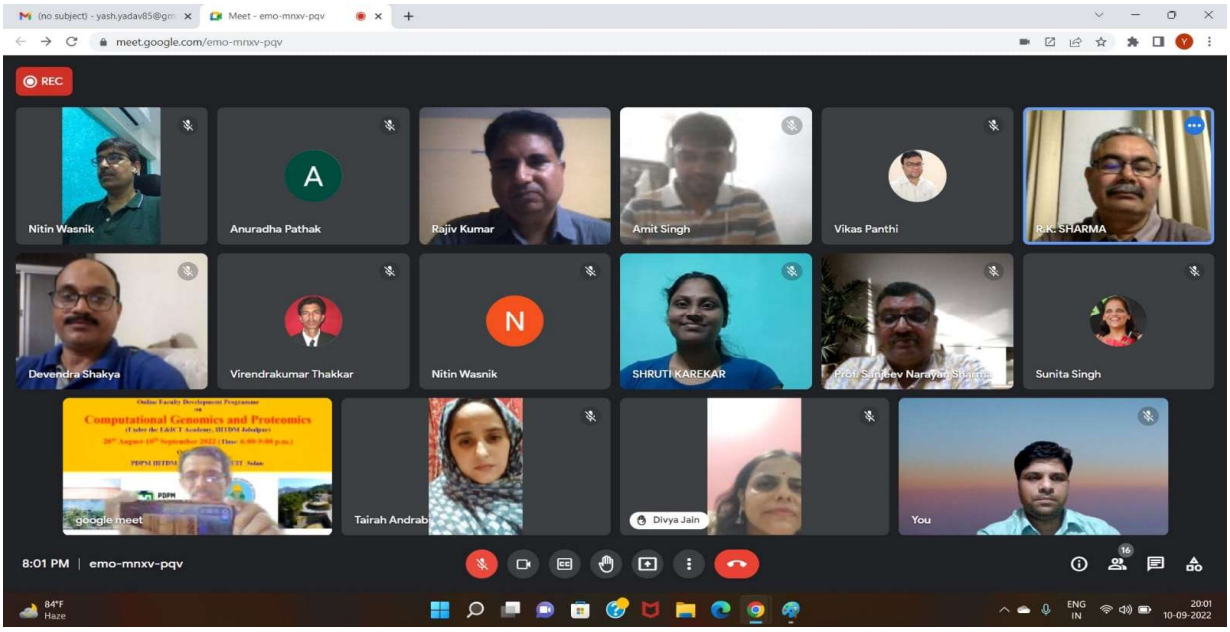
.





Closing ceremony

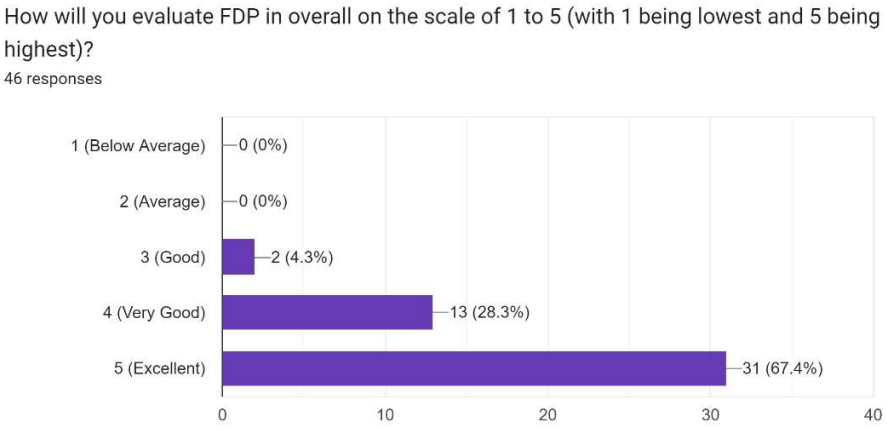
During the closing ceremony of this program, **Prof. R.K. Sharma (Hon'ble VC, JUIT), Prof. S.N. Sharma (ECE, IIITDM, Jabalpur), and Prof. Rajiv Kumar (HOD, ECE JUIT)** were present. The FDP was coordinated by Prof. S.N. Sharma, IIITDM Jabalpur & Dr. **S.D. Sharma JUIT Waknaghat.**

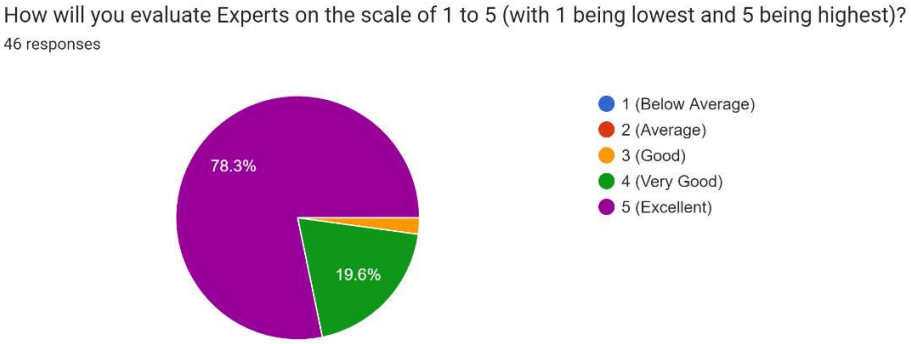


5. Evaluation

Quiz-1-Online-FDP-E & ICT-Computational Genomics and Proteomics-02-09-2022 (9:00pm- 9:30 pm)
Quiz-2-Online-FDP-E & ICT-Computational Genomics and Proteomics-09-09-2022 (9:00pm- 9:30 pm)

6. Feedback from the participants





7. News in social media:

Facebook:

https://www.facebook.com/JUITWSolan/photos/pcb.2637864179683412/2637864119683418/

https://www.facebook.com/JUITWSolan/photos/a.608184322651418/2634832023319961/?__cft__[0]=AZXV77ix_0ER8veZpRDztjNccLXIMJFNw5Z4CoscsGzXkUT9TBRgfM4KwszSvzRRMFFCgd8oNDd6510jelVFraVx8M_M1jWpMGjj_2mmRaT1Xtk3ZN2xTg6W9Qw3deeE9z3uMS6c9Y6kK26tYlMUqwDyg6nWtrTf1y-oLvpMV0fAmRipt4djhYY95eEodGKeRcemYDWyiBpzpofPmfrnO-G-&__tn__=EH-R

https://www.facebook.com/JUITWSolan/photos/pcb.2623673207769176/2623671477769349/?__cft__[0]=AZU3Y6rKuR94u48IhLNeVqefv6jbiT6PEYEsPnpbpdpZYwxEmz2rsCTyoO7PzA-Yn--BMdHm3xkFWpnKeWbjaag1YvyjR9mYRVFopVzHSoQOfbbS6Y9GggmJwT_9j-I6oNYVLltKgCW7ojaSwUOP5otCNMWCCs43WcoUjlJT8ydgApRk6BdTt2ocrkvDvK9bMj23nFyjpN0_KeDS8cAZjMZi&__tn__=*bH-R

LinkedIn

https://www.linkedin.com/feed/update/urn:li:activity:6970074681236180993

8. News in Print Media:

जे.यू.आई.टी. ने कंप्यूटेशनल जीनोमिक्स और प्रोटिओमिक्स पर करवाया संकाय विकास कार्यक्रम

● मैटलैब प्रोग्रामिंग और कंप्यूटर एडेड ड्रग डिजाइन के बुनियादी सिद्धांतों पर चर्चा की

सवेरा न्यूज

नई दिल्ली, 12 सितंबर : जे.यू.आई.टी. सोलन में आई.आई.आई.टी.डी.एम. जबलपुर के सहयोग से कंप्यूटेशनल जीनोमिक्स और प्रोटिओमिक्स पर संकाय विकास कार्यक्रम (एफ.डी.पी.) आयोजित किया गया। कंप्यूटेशनल जीनोमिक्स और प्रोटिओमिक्स पर संकाय विकास कार्यक्रम (एफ.डी.पी.) को सफलतापूर्वक पूरा हुआ। ये कार्यक्रम इलैक्ट्रॉनिक्स और सूचना प्रौद्योगिकी मंत्रालय भारत सरकार की एक पहल, इलैक्ट्रॉनिक्स और आई.सी.टी. अकादमी द्वारा प्रायोजित किया गया था। ये कार्यक्रम 28.08.22 को शुरू हुआ और जे.पी. यूनिवर्सिटी ऑफ इंफॉर्मेशन टैक्नोलॉजी (जे.यू.आई.टी.) वाकनाघाट, सोलन और आई.आई.आई.टी.डी.एम. जबलपुर के ई.सी.ई. विभागों द्वारा संयुक्त रूप से आयोजित किया गया था। इस दो सप्ताह के संकाय विकास कार्यक्रम के दौरान प्रख्यात वक्ताओं ने आणविक जीवविज्ञान, जीनोम अनुक्रमण, सिग्नल प्रोसैसिंग, मशीन लर्निंग, पर्सनलाइज्ड मैडिसिन, मैटलैब प्रोग्रामिंग और कंप्यूटर एडेड ड्रग डिजाइन के बुनियादी सिद्धांतों पर चर्चा की। इसके अलावा आणविक जीव विज्ञान प्रयोगों को सुविधाजनक बनाने में कम्प्यूटेशनल विधियों की प्रयोज्यता को उजागर करने के लिए कई केस स्टडीज पर चर्चा की गई। इस कार्यक्रम में विद्वान वक्ताओं में प्रो. बी. जयराम (आई.आई.टी. दिल्ली), प्रो. एल. शशिधर (आई.आई.एस.ई. आर., पुणे), प्रो. राजीव सक्सेना (जे.आई.आई.टी. नोएडा), डा. पुष्पेंद्र सिंह (वैज्ञानिक, आई.सी.एम.आर.), प्रो. एस.एन. शर्मा (आई.आई.आई. टी.डी.एम., जबलपुर), डा. डी.के. शाक्य, डा. एस.डी. शर्मा और यशपाल यादव शामिल थे। प्रो. अपराजिता ओझा, समन्वयक ई एंड आई.सी.टी. अकादमी जबलपुर ने ऐसे सहयोगी कार्यक्रमों के महत्व पर जोर दिया। कार्यक्रम के दौरान डा. राजीव कुमार भी समापन समारोह में उपस्थित थे।

form of any formalities.

FDP on Computational Genomics & Proteomics at JUIT Solan in Collaboration with IIITDM Jabalpur

The faculty development program (FDP) on Computational Genomics & Proteomics got successfully completed on 10.09.22. This event was sponsored by Electronics & ICT Academy, an initiative of Ministry of Electronics & Information Technology, Government of India. The event commenced on 28.08.22 and was jointly organized by ECE departments of Jaypee University of Information Technology (JUIT), Waknaghat, Solan & IIITDM Jabalpur. During this two-week FDP eminent speakers delivered talks on Fundamentals of Molecular Biology, Genome Sequencing, Signal Processing, Machine learning, Personalized Medicine, MATLAB Programming & Computer aided drug design. Also, Numerous case studies were discussed to highlight the applicability of computational methods in facilitating molecular biology experimentations. The learned speakers who delivered the talks in this program include Prof. B.Jayaram (IIT Delhi), Prof. L. Shashidhara (IISER, Pune), Prof. Rajiv Saxena (JIIT Noida), Dr. Pushpendra Singh (Scientist, ICMR), Prof. S.N.Sharma (IIITDM, Jabalpur), Dr. D.K. Shakya (SATI, Vidisha), Dr. S.D. Sharma (JUIT, Waknaghat) and Yashpal Yadav. Prof. Aparajita Ojha, Coordinator E&ICT Academy Jabalpur, emphasized the importance of such collaborative programs. In his concluding remarks Prof. R.K. Sharma, Vice Chancellor, JUIT Waknaghat wished that this program will promote collaborative cross-discipl nary research and participants will contribute towards the nation building by developing novel solutions for the existing molecular biology problems using computational tools. During the program Dr. Rajiv Kumar (Professor & Head, ECE, JUIT Solan) was also present in the closing ceremony. The program concluded with vote of thanks delivered by Prof. S.N. Sharma, IIITDM Jabalpur & Dr. S.D. Sharma JUIT Waknaghat, Coordinators of this events.

The Hindu (14-09-2022),

****

"UTKARSH"- Take Flight

An Upliftment Program

FDP Focused on Leadership and Excellence

By
AMULYA SHUKLA
Strategic Leadership Coach
Poka-Yoke Master, Human Resources & Branding

Live as if you were to die tomorrow. Learn as if you were to live forever. ~ Gandhi

---

LIST of CONTENTS **Page No.**

UTKARSH: JUIT FDP Objectives and Take-aways

When clear goals are associated with learning, it occurs more easily and rapidly. With that in mind, we list our FDP Workshop Objectives and Take-Aways for participants.

- ***Imparting Quality Education to Students:***
  - *Building healthy relationship with students and motivating them To GREATER HEIGHTS!*
  - *Making them Industry Ready and helping them chart their Career Path & Competencies.*
  - *Encourage and Nurture Entrepreneurial Attitude in youngsters.*
- ***Quality Consciousness:*** *improve one's commitment to Quality*
  - *Through Continual Improvement and EXCELLENCE*
  - *Adopt and assure quality culture.*
- ***Ownership:*** *Demonstrate a personal commitment to build Trust & Responsibility.*
  - *A Professional = 100% Ownership, 0% Excuses*
- ***Being A Professional:***
  - *Focus on Expectations – Stated, Unstated, Benchmarks and Standards (External and/or Internal)*
- ***Entrepreneurial Spirit:*** *Nurture your entrepreneurial spirit by owning responsibilities and serving delight.*
- ***Collaboration and Value Addition:***
  - *Be an integral part of the Institute by taking it to the next level.*
  - *By collaborating with colleagues, other reputed universities across India and Globally.*
- ***Build cordial relationships:*** *Having empathetic and intuitive understanding to build cordial relationships with superiors and students.*
- ***Mutual Respect:***
  - *Treat all individuals with sensitivity and respect.*
  - *Build productive working relationships with colleagues and internal/external communities.*
- ***Assertive Communication:***
  - *Use of Constructive communication at Work.*
  - *Develop ways to strengthen and improve group dynamics and Team Spirit.*
  - *Eliminate Conflict situations and ensure Harmony.*
- ***Brand Ambassador: Uphold the Organization's Culture***
  - *Each organization has a unique and exclusive culture for itself.*
  - *Understanding the culture and associated values help one to function better.*
  - *Be a Flag-bearer of your Institution.*
- ***Giveback to Society:***
  - *Taking Initiatives in so as to serve and enrich the Society, your Institution and the Student Community, beyond your normal call of duty.*
- ***Develop the Correct Attitude:*** *Developing the correct attitude motivates one to be optimistic and helps the person to face challenges.*
- ***Choose Your Attitude:*** *Blame-Victim-Mode or Empowerment?*
  - *Every individual is responsible for the way he/she reacts to what life presents. Choosing an attitude helps us to quit blaming others (or destiny) for unpleasant or stressful situations and take control over the way we respond to situations. Being responsible for your own attitude yields tremendous personal power.*
- ***Attitude is Everything:*** *Participants get to know themselves better, build on their Strengths.*
  - *Also get to know others better.*
  - *Develop a Healthy Attitude. AN ATTITUDE OF GRATITUDE!*
- ***Stress Alleviation and Awareness:*** *Focus on understanding yourself instead of blaming others.*
- ***Choice Not Chance:*** *It's our everyday choices that make us a success or a failure.*
- ***Love Yourself:***
  - *Apply your own uniqueness to everything that you undertake.*
  - *Learn to believe in yourself, and love who you are.*
  - *Then extend that extra love to loving your students, colleagues and others.*

A wide range of Experiential Activities, Exercises, Assignments, Motivational Video clips, Affirmations, Role Plays and Games will act as catalysts in precipitating the learnings amidst participants.

TRAINING METHODOLOGY

"It is your attitude not your aptitude that determines your altitude." – Zig Ziglar

- The training will be delivered in a highly interactive format with a view to engage participants and help them to assimilate and practice the key concepts.
- The workshop will make ample use of multi-media presentations, concept/skill sessions, and other suitable audio-video content to maximize training impact, to create an environment conducive to learning and to facilitate practice of key skills.
- Employing a variety of training methods, including discussions, individual reflections, group sharing exercises, introspective questionnaires, real life examples, case studies, role plays, games/activities, and stories.
- Audio-Videos clips will be used abundantly to highlight key concepts and sustain interest.
- Use of Auto-Suggestions and Affirmations helps participants in building their innate strengths.
- The Resource Person conducts his Training Programs in a manner touching each of his participants deeply, helping them to connect with, and believe in, themselves. Interspersed with real-life stories, down to earth humor, and a wide range of simulations making it an experiential phenomenon which stays with the participants for long.

Post-Training

- At the end of the training session, the participants shall be filling up an Action-Plan-Intention-Commitment Form for future reference and recall.
- The Participants will show their gratitude through a live feedback to arrive at a successful completion of the training.
- The participants will also receive a handout of key concepts and tools for later reference.

Valedictory Function

- A certificate of participation for the Faculty Development Program at JUIT, Waknaghat, shall be awarded to successful participants. The certificate award is subject to attendance and satisfactory performance requirements set by JUIT.

A future Follow-up Session with the same Participants, monitoring of metrics on an agreed schedule would be highly desired & welcome -- To ensure that key concepts and frameworks have been assimilated and applied at the workplace.

WORKSHOP OUTLINE
DAY 1 : "UTKARSH"-Take Flight

Productivity is being able to do things that you were never able to do before. ~ Franz Kafka

PRE-START TEA **Gathering** **9.30 am**	***IN A SEPARATE ROOM/SPACE ADJOINING THE AUDITORIUM/TRAINING HALL: Preferably all participants are gathered 20 min prior to "Start Time" for "WELCOME TEA & SNACKS".*** ***People enjoy this informal welcome, settle down and start looking forward to the session.*** *(*in a room other than the Training Hall)* *This also helps us accommodate late-arrivals and start the Training Program on time*
WELCOME **9.45 am**	*Introduction and Welcome Note by the Vice Chancellor: Dr. R. K. Sharma*
DAY 1 START 10 am sharp	**Training Workshop : "UTKARSH" – Take Flight** ***An Icebreaker*** *: An interesting Individual Activity – Highlighting how easily we miss which we are not looking for… (AWARENESS TEST)*
	SETTING THE BALL ROLLING **Setting the Tone**: Need for this Program, Participant's Expectations from this Workshop ***MODULES: The Bigger Picture*** Keeping Life & Profession in Perspective
AM TEA-TIME	**WORKING TEA** ***"Chai-Charcha":*** ***QUICK FEEDBACK TIME:*** *Participants' Experiential Responses & Interaction*
Activity	Get to know your Potential, build on your Strengths. ***ACTIVITY + MODULES***
LUNCH 1PM -2PM	**BREAK** Followed By an Energizer
2.15 pm sharp	***MODULES*** Achievement & Goal Setting ***Pride & Alma Mater*** Be a Flag Bearer of your University Professional Expectations from you.

	Activity + Modules *What people want! What people don't want!*
PM TEA-TIME	**Working Tea *"Chai-Charcha":*** ***QUICK FEEDBACK TIME:*** *Participants' Experiential Responses & Interaction*
	Activity + Modules
	Leadership in Action
	OWNERSHIP: Activity + Modules
Wind-up **5.30 pm**	***Home Assignments for Participants*** *-- to be completed overnight (before the Second Day)*
Late Evening **DINNER** **7pm**	Get-together and Fun Activities: FELLOWSHIP and BONDING over a BONFIRE Followed by Dinner

WORKSHOP OUTLINE
DAY 2 : "UTKARSH"-Take Flight

The biggest single problem in communication is the illusion that it is taking place

PRE-START TEA **Gathering** **9.30 am**	20 min prior to "Start Time" TEA n SNACKS in a separate room
DAY 2 START 10 am Sharp	**Training Workshop : "UTKARSH" – Take Flight** ***An energetic Icebreaker***
	Setting the Tone for the day
	Activity + Modules
	Pride & Alma Mater Be a Flag Bearer of your University Professional Expectations from you.
AM TEA-TIME	**WORKING TEA *"Chai-Charcha":*** ***QUICK FEEDBACK TIME:*** *Participants' Experiential Responses & Interaction*
	The Students: Customer Delight Encourage and Nurture Entrepreneurial Attitude
Action Plan	***INTENTION-COMMITMENT SHEET :*** **Filling Up of a PERSONAL ACTION PLAN**
LUNCH 1PM -2PM	**LUNCH BREAK** Followed By Valedictory Session
UTKARSH: Taking Flight **2.15 pm**	**A Comprehensive Group Activity to Wind-up** Self-Discovery and Awareness about self and Life. *Participants get to know themselves better, build on their Strengths.* ○ *Also get to know others better.* ○ *Develop a Healthy Attitude. AN ATTITUDE OF GRATITUDE!* *Every individual is responsible for the way he/she reacts to what life presents. Choosing an attitude of Gratitude helps us to quit blaming others (or destiny) for unpleasant or stressful situations and take control over the way we respond to situations. Being responsible for your own attitude yields tremendous personal power.*

3 pm sharp	**VALEDICTORY SESSION** **ADDRESS by** - **Vice Chancellor: Dr. R. K. Sharma** - **Other Senior Officials of JUIT** - **Resource Person: Amulya Shukla** **AWARD DISTRIBUTION FUNCTION** with a 2 Minute Gratitude/Appreciative Byte by each *Participant on Stage while receiving the Certificate (To be Video Recorded)* **VOTE OF THANKS by _____** ***GROUP PHOTOGRAPH with CERTIFICATES***
HAPPY ENDING	***Good-bye…*** *till we meet again!*

A wide range of Experiential Activities, Exercises, Assignments, Motivational Video clips, Affirmations, Role Plays and Games will act as catalysts in precipitating the learnings amidst participants

COURSE OVERVIEW

UTKARSH: This 2 day hands-on workshop involves a variety of activities to enhance the learning experience. The modules have been upgraded and designed accordingly.

The Faculty Development Program 'UTKARSH" seeks to develop existing Faculties by providing the desired attitudinal and behavioral inputs through interactive training. It is also a confidence building workshop imparting the essential Soft Skills and Life Skills for a successful Professional.

"What you do, speaks so loud, that I cannot hear what you say.
~Ralph Waldo Emerson

MANTRAS

1. ***The six most important words… 'I admit I made a mistake'.***
2. ***The five most important words… 'I am proud of you'.***
3. ***The four most important words … 'What is your opinion?'***
4. ***The three most important words… 'If you please'.***
5. ***The two most important words… 'Thank you'.***
6. ***The one most important word… 'We'.***
7. ***The last, most unimportant word… 'I'.***