

GUEST LECTURES

2021-22

**Interactive Session with Industry Expert and Alumni on
“Career Prospects in Industry and Academia”**

&

A Talk on “Mass Spectrometry and its Applications”

15th May, 2021

Report

The Department of Biochemistry organized an Interactive Session with Industry Expert and Alumni on “Career Prospects in Industry and Academia” & A Talk on “Mass Spectrometry and its Applications” by Mr. GopiKummarikuntla, Scientist, Analytical Sciences, CuraTeq Biologics, Hyderabad on 15th May 2021 from 10 am to 1:00pm on Zoom platform. The programme was conducted under DBT-Star college scheme.

The programme started with a talk by Mr.Gopi on the biotech career prospects in Industry. Mr. Gopi gave an overview of the various areas in biotech industry including research and development (R&D), manufacture and supply, commercial (healthcare, medical) and support functions (human resources, finance etc). He advised the students on the availability of jobs in areas like drug development, biotechnology services, Govt institutions, medical devices and academia. After the student interaction, Mr.GopiKummarikuntla delivered a lecture on “Mass spectrometry and its applications”. He discussed the application of mass spectrometer like analysis of mass/charge(m/z) ratio of ions, detecting the separated ions and collecting the ions. During the course of his talk, Mr. Gopi also explained the uses of mass spectrometer in analysing biomolecules and also explained the results of a typical MS spectrum.

MrGopi’s talk was followed by interaction of the undergraduate and post graduate students with the alumni who are working in industry, diagnostics, research institutes and agriculture. The alumni spoke about their experiences and explained the skills the students should develop to secure jobs in industry. The alumni advised the students to take up certification courses, improve their theoretical knowledge, and tailor their resumes to the job requirements. All the alumni extended their support to students by providing their contact details and interacted with students in the Q&A session. The alumni students also suggested the students to pursue courses in genetic counselling, clinical data management and insisted that the students pursue areas of research that can benefit the society. A total of 160 students from the

undergraduate and post graduate courses of life sciences attended and found the interaction very useful in planning their career.



Zoom Meeting You are viewing Dr Manju Devi's screen View Options

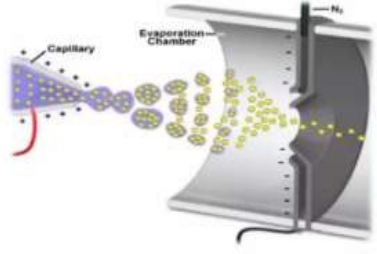
S Vanitha Gopi k iPhone Dr Manju Devi

Recording

Forming Ions: ESI ElectroSpray Ionization

ESI

- ▶ Molecules separated via HPLC.
- ▶ Jet of highly charged droplets emerge from capillary tip
- ▶ Solvent is evaporated.
- ▶ Multiply Charged Ions enter the analyzer.
- ▶ Paired with Quadrupoles, Ion Traps, FTs and Orbitraps Analyzers.



Ions

- ▶ Formed from molecules: H^+ or H^{++} or higher
- ▶ Reactive, so keep under vacuum.
- ▶ Moved in the MS by electromagnetic fields.

National Magnet Lab

Unmute Start Video Security Participants Chat Share Screen Reactions More End

Type here to search

Participants (160)

Find a participant

- SV S Vanitha (Host, me)
- DM Dr Manju Devi (Co-host)
- DS Dr swarnalatha da... (Co-host)
- GR Gopi k iPhone (Co-host)
- D s.padma (Co-host)
- sai padma Aluri (Co-host)
- 5393528 KOLLA BHUDEVI
- AR A R Vijaya laxmi mbic 2nd yr 42
- AI Abhigna (Mbic)
- AM Achala mgc
- AR Aishwarya Robby 32
- AR akhil reddy
- A Akhila

10:51 15-05-2021

Zoom Meeting You are viewing Dr Manju Devi's screen View Options

S Vanitha Gopi k iPhone Dr Manju Devi

Recording

Major products in Bio-tech industry

- Monoclonal antibodies
- Vaccines
- Hormones
- Peptides
- Gene Therapy
- Agricultural companies

Unmute Start Video Security Participants Chat Share Screen Reactions More End

Type here to search

Participants (162)

Find a participant

- SV S Vanitha (Host, me)
- DM Dr Manju Devi (Co-host)
- DS Dr swarnalatha da... (Co-host)
- GR Gopi k iPhone (Co-host)
- D s.padma (Co-host)
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- AM Achala mgc
- AR Aishwarya Robby 32
- AR akhil reddy
- A Akhila

10:45 15-05-2021



Bhavan's Vivekananda College
of Science, Humanities & Commerce
Sainikpuri, Secunderabad - 500094
An Autonomous College - Affiliated to Osmania University
Accredited with 'A' grade by NAAC

Department of Biochemistry
is organising

An Interactive Session with Industry Expert and Alumni
"Career Prospects in Industry and Academia"
&
A Talk on "Mass Spectrometry and its Applications"
Mr. Gopi Kummarikuntla
Scientist, Analytical Sciences, CuraTeq Biologics, Hyderabad





Time: 10.00 am-12.00 noon **Date: 15th May, 2021** **Platform: Zoom**


 Dr. Nagmani S Deputy Manager Indian Immunologicals Ltd, Hyd. Exp:17yrs	 Dr. Satish G Scientist GE Healthcare, Bangalore Exp:13yrs	 Mr. D Vishnu Yardhan Reddy Agriculture Specialist, Patancheru, Hyd. Exp: 14yrs	 Mr. Satish Kumar D Sr Scientist Novartis Healthcare Pet. Ltd, Hyd. Exp:11yrs	 Mr. Moh. Riyaz Ahmed Sr Statistical Programmer Parasoft Ind. Hyd. Exp:7yrs	 Dr. Swarnalatha D Hd. Genetics & Molecular Medicine, Moloch Pathlabs, Hyd. Exp:9yrs	 Mr. Srinivas V Technical Assistant National Institute of Virology, Bangalore Exp:7yrs
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(Under DBT-Star College Scheme)


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Speaker View Exit Full Screen



Dr. Kambha Golla



S. Vanisha

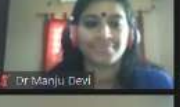

spadina


Revathi



Sathish Kumar Dathi


sai padma



Rajani Varlagadda



Dr Manju Devi


Riyaz ahmed



Srinivas V


Dr. J. Sarada



manisha

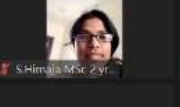

Priyanka Paul (M...



Sai kumar MSc M...



Sandeep Rajchad



Roshan Jacob Ab...

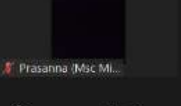

shivani kothakota


S Himaja MSc 2yr...


B. Devpriya


Sagar Daleja MBI...


Godava Miniyala


Prasanna (Msc Mi...

Galaxy A30

MANISHA AGGU

Josyula Sai Sath...

Mute Stop Video Security Participants Chat Share Screen Pause/Stop Recording Breakout Rooms Reactions End

2. Lecture on “Role of Nutrition for Prevention, Management and Recovery in COVID-Need for Customization”

22nd June, 2021

As a part of the science club activity, the department of Biochemistry has organized an outreach activity through a lecture on ***“Role of Nutrition for Prevention, Management and Recovery in COVID-Need for Customization”*** for students, faculty and public. This program was conducted under DBT - Star College Scheme. The lecture was delivered by Dr.P.JanakiSrinath, Asst Professor, Department of Foods & Nutrition, College of Community Science, Professor Jayashankar Telangana Agricultural University. Dr.Janaki spoke about nutritional requirements in people who are with comorbidities and are at greater risk of acquiring COVID-19 infections. She explained about how to build immunity of the body which takes time and effort. She differentiated between sufficient and optimal quantities of various micronutrients and the requirement of micronutrients that increase in the body during the COVID-19 infections. She also highlighted on the dietary management during the diseased condition and gave an insight into the immune boosting micronutrients. It was an interesting and informative lecture where, queries from the students and faculty were answered by the speaker.

Role of Nutrition for Prevention, Management and Recovery in COVID - Need for Customization

42:24

Recording has started. This meeting is being recorded. By joining, you are giving consent for this meeting to be recorded. [Privacy Policy] [Dismiss]

Participants

Invite someone or dial a number

Share invite

Participants (14)

- Srila Inc MNDC (Guest)
- Tadam sahitya 29 (Guest)
- WROLL-15 SAI AASHRITH...
- 2 Sri Manasa mbic
- 27 Muskan Sayyed MNDC (G...
- 28 Manasa kolla MGC (Guest)
- 39 Spandana Lingam MNDC (G...

Role of Nutrition for Prevention, Management and Recovery in COVID-Need for customization

Dr.P.Janaki Srinath
Senior Nutritionist
Assistant Professor
Department of Foods & Nutrition
College of Community science
Professor Jayashankar Telangana State agricultural university

Janaki Srinath (Guest)

PROTEIN : GOOD QUALITY IN DEFINED QUANTITY

Protein Deficiency → Negative Nitrogen Balance → Sarcopenia → Deteriorates Immunity

High Protein Sources (Veg)

It is important to consume at least 1 serving of protein in each meal.



Wet (soak) chickpeas (1 cup, 170g)

Protein (100g) = 21g

Protein (100g) = 21g

Protein (100g) = 21g

Protein (100g) = 21g

Protein (100g) = 21g

High Protein Sources

It is important to consume at least 3-4 servings of milk and milk products each day.



1 cup (250ml) Milk

Protein (100g) = 8g

Protein (100g) = 8g

Protein (100g) = 8g

Protein (100g) = 8g

Protein (100g) = 8g

High Protein Sources (Non-veg)

Protein from non-vegetarian sources have high biological value.

It is important to consume at least 1 serving of protein in each meal.



Chicken breast (100g)

Protein (100g) = 31g

Protein (100g) = 31g

Protein (100g) = 31g

Protein (100g) = 31g

Protein (100g) = 31g

Jasvati Srivastha (Guest)

JS

Varsha S

RD

Rajani D

MG

MINI GS

MS

DG

SR

+59

PS

Healthy Fats

Omega-3 fats are essential fats since the body can't make them from scratch but must get them from food. Foods high in Omega-3 include fish, vegetable oils, nuts (especially walnuts), flax seeds, flaxseed oil, and leafy vegetables.

Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) come mainly from fish, so they are sometimes called marine omega-3s.



Mackerel

100gm gives 0.74g of DHA and 0.17 g of EPA

Salmon

100gm gives 1.19 g of DHA and 0.4 g of EPA

Tuna

100gm gives 0.53 g DHA and 0.09 g EPA

Vegetarian Sources Of Omega-3 Fatty-Acids



Bajra
42 mg per 30g



Black gram, whole
180.3 mg per 30gm



Black Rajma
162.3 mg per 30 gm



Soya bean, brown
393 mg per 30 gm

J Srivastha (Guest)

JS

Varsha S

RD

Rajani D

MG

MINI GS

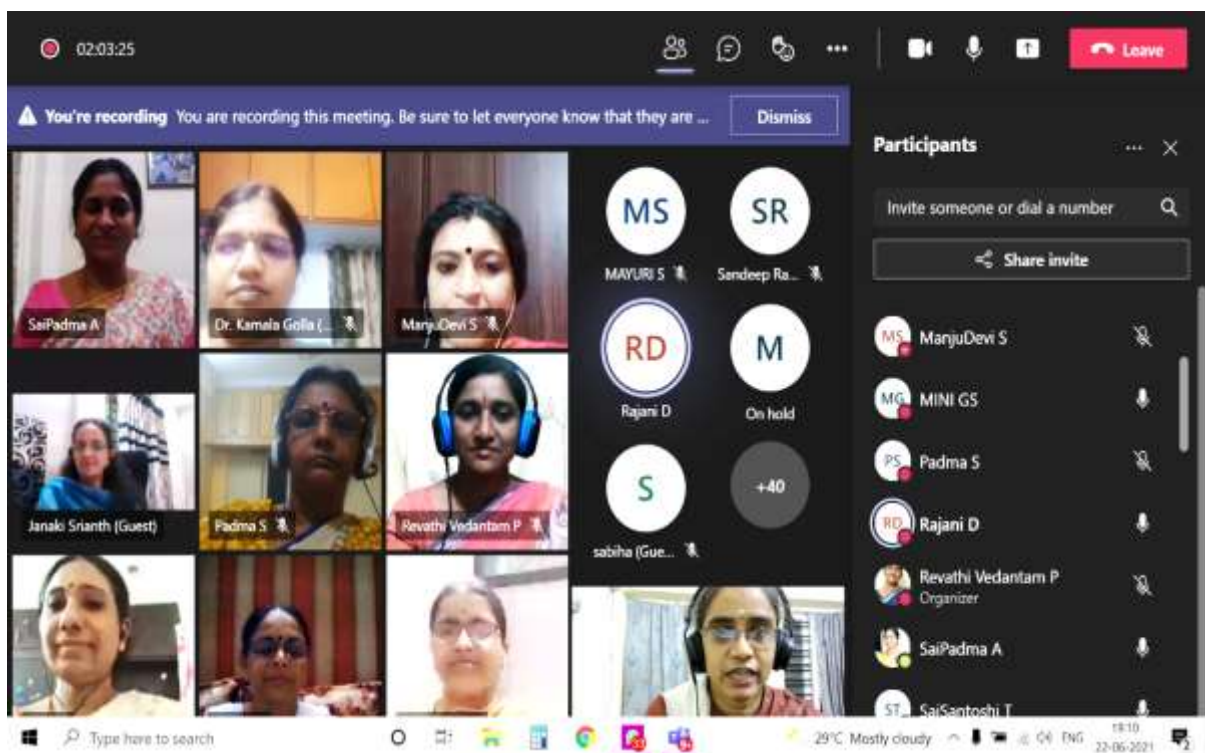
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Faculty development programme
“Advancements in Biochemistry and Allied Sciences”
Under DBT-STAR college Scheme
23rd-27th November 2021

The Department of Biochemistry organized an online five-day faculty Development program (FDP) on “Advancements in Biochemistry and Allied Sciences” from 23rd to 27th November 2021, in association with FABA academy, Hyderabad as the knowledge partner. A total of 186 faculty from various institutions registered for the FDP. The FDP started on 23rd November with inauguration by virtual lamp lighting followed by inaugural address by Principal, BVC, Sainikpuri, Prof. Y. Ashok, Vice- Principal B. Niraimathi, DBT- Coordinator Dr K. Anuradha, Convenor of FDP Dr. A. Sai Padma, the Chief Guest of inauguration Dr. P.R. Sudhakaran, AsuthoshMookherjee Fellow, Department of Computational Biology and Bioinformatics, University of Kerala and Guest of Honour Dr Karuna. R, Head & Associate Professor, Department of Biochemistry, Osmania University. The inauguration was followed by the Key Note address by Dr P.R. Sudhakaran on “Beyond molecularization of Biology”. Dr. Sridevi Patnala, Endocrinologist, Apollo Hospital, Secunderabad delivered lecture on Diabetes and Dr Thomas Furst from Palacky University in Olomouc (Czech Republic) delivered lecture on “Breaking bad: Inappropriate statistics and wrong incentives are ruining medical sciences” on the same day.

On the second day, Dr Ramesh Athe, Assistant Professor, Department of Data Science and Intelligent Systems (Statistics), Indian Institute of Information Technology, Dharwad, Karnataka, gave talk on Biostatistics and its advances in Health. The second speaker Dr. B Manjula, Associate professor, Dept of Biochemistry, Osmania University spoke on “Proposal writing for funding agencies”. The third speaker, Dr A Sai Padma, Department of Biochemistry, Bhavan’s Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad gave lecture on Biosensors- past and present.

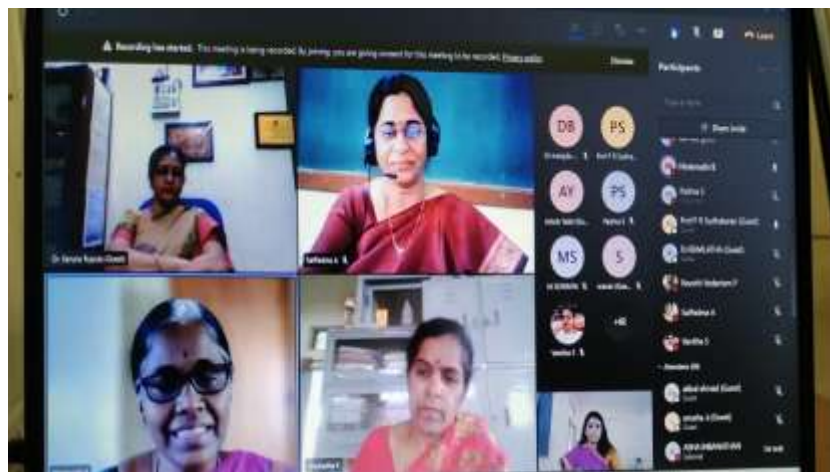
On third day, 25-11-21, the FDP session started with the lecture of Dr P. Hemalatha Reddy, ex-principal, Sri Venkateshwara College, New Delhi, on “Redefining the science teaching in hybrid learning environment”. The second speaker, Prof. Vipin Agarwal, TIFR Centre for Interdisciplinary Sciences (TCIS), Tata Institute of Fundamental Research, Hyderabad, delivered lecture on Solid-state NMR for structural characterisation of proteins”. The third speaker Mr. Adiraju Satyanarayana From

Vivekananda Institute of Human Excellence, Hyderabad detailed about “Stress management at work place”. The third day concluded with the talk of Alumnus of Bhavans, Dr. Lakshman Varanasi, Assistant Professor of Biological Sciences, Krea University, Andhra Pradesh on “The measurement of protein abundance using peptide surrogates: addressing a fundamental problem in biomedical science.”

Dr. P. Shyam, Assistant Professor, Department of Biotechnology, National Institute of Technology, Warangal, was the first speaker of day 4 FDP. He delivered lecture on “Trends in sequencing methods”. The next speaker Dr. Akash Ranjan, Staff Scientist and Head, Computational & Functional Genomics Group, Centre for DNA Fingerprinting and Diagnostics, Hyderabad, spoke on “Computational Biology and Bioinformatics Approach to Understand the Biology of Human Diseases”. The last speaker of the day, Prof. P. Sankar Ganesh, Associate Professor, Department of Biological Sciences, BITS Pilani, Hyderabad Campus, delivered lecture on “Nanotechnology as a Double-Edged Sword: Novel Applications and Potential Toxicology”.

Day 5 started with lecture of Dr. Vijayakrishna Karri, Associate Professor, Indian Institute of Technology, Bhubaneswar on topic “Nanomaterials and their applications” Last speaker of 5 days FDP was Dr. Ratnakar, Tech Mahindra, FABA Academy on “AI and its application in health care”, followed by Valedictory function.

In the valedictory session, Convenor Dr A Sai Padma, presented report of the 5 day FDP. Dr. Manjula Bhanoori, Associate professor, Department of Biochemistry, Osmania University, was the Guest of honour and she highly appreciated for the successful conduct of FDP with eminent speakers. Participants also gave feedback of the FDP in the valedictory session and expressed their satisfaction for all useful sessions. The FDP program was very successful with good participation of faculty from all over India. E-certificates were issued to all the participants after completion of the 5 day FDP.



FDP Day 1- Inauguration



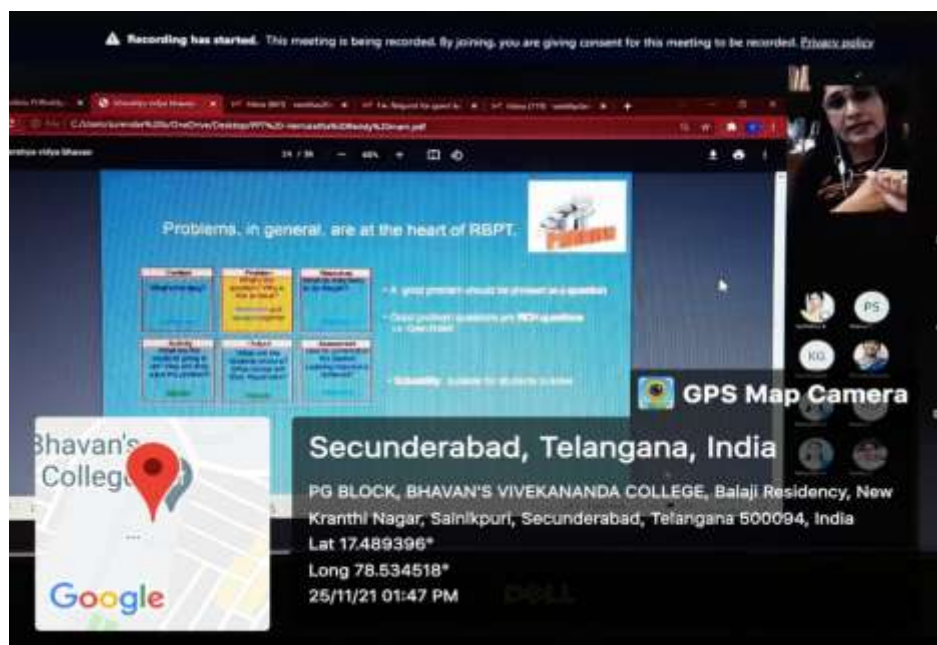
FDP Day 1 - Key Note address by Prof. PR Sudhakaran



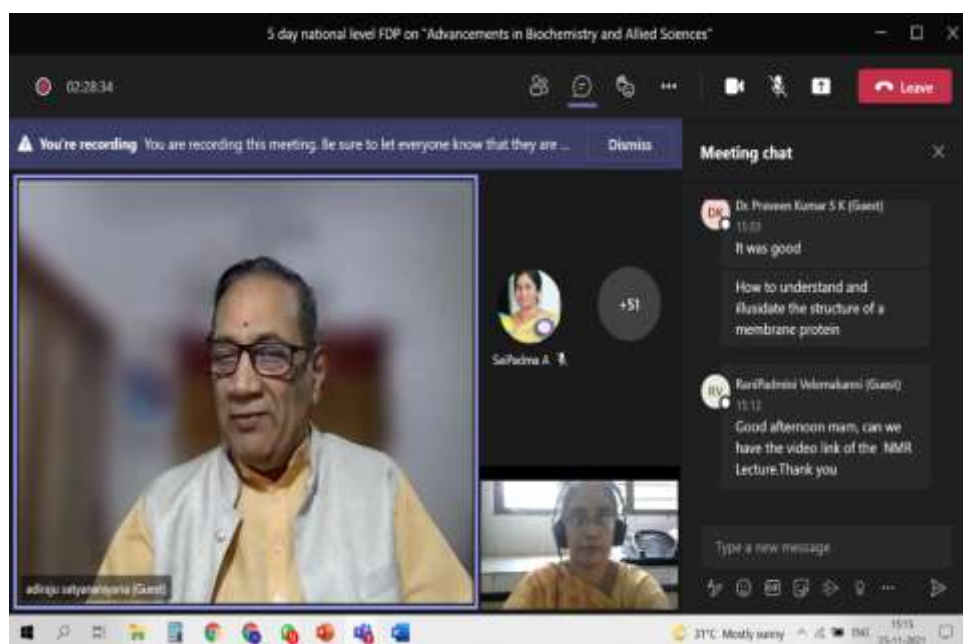
FDP Day 2- Dr Ramesh Athe explaining Biostatistics and its advances in health.



FDP Day 2- DrManjulaBhanoori detailing about Proposal writing for funding agencies



FDP Day 3- DrP.Hemalatha Reddy, speaking on “Redefining the science teaching in hybrid learning environment”



FDP Day 3- Mr.AdirajuSatyanarayana From Vivekananda Institute of Human Excellence, Hyderabad detailed about “Stress management at work place”.

Flow of genomic information

The diagram illustrates the flow of genomic information through various biological processes:

- DNA replication (DNA → DNA):** Involves DNA Polymerase.
- Transcription (DNA → RNA):** Involves RNA Polymerase.
- Reverse transcription (RNA → DNA):** Involves Reverse Transcriptase.
- RNA replication (RNA → RNA):** Involves RNA Polymerase.
- Translation (RNA → Protein):** Involves Ribosomes.
- RNA Dependent RNA Polymerase:** Involves RNA Polymerase.

GPS Map Camera

Bhavan's College

Secunderabad, Telangana, India
 FGQM+MPH, New Kranthi Nagar, Sainikpuri,
 Secunderabad, Telangana 500094, India
 Lat 17.48923°
 Long 78.534392°
 26/11/21 03:18 PM

FDP Day 4- Dr. Akash Ranjan explaining on “Computational Biology and Bioinformatics.

Trends of emerging contaminants

The graph shows the level of various contaminants over time (1980 to 2020). The contaminants include:

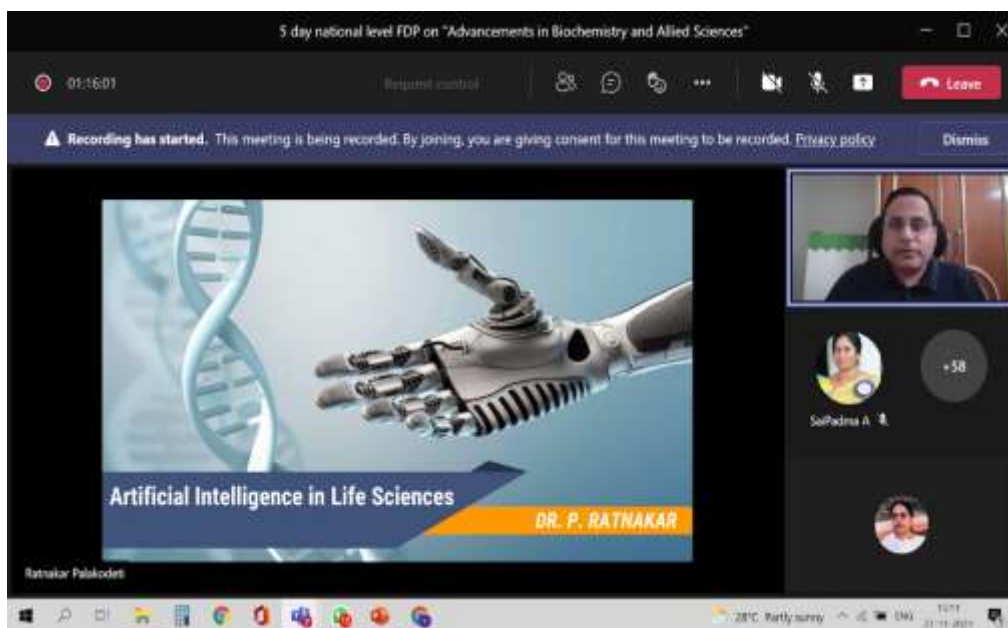
- Polychlorinated Biphenyls (PCBs)
- Organophosphorus Compounds (OPCs)
- Organotin Compounds (OTCs)
- Organochlorine Compounds (OCCs)
- Organophosphorus Compounds (OPCs)
- Organotin Compounds (OTCs)
- Organochlorine Compounds (OCCs)

GPS Map Camera

Bhavan's College

Secunderabad, Telangana, India
 FGQM+MPH, New Kranthi Nagar, Sainikpuri,
 Secunderabad, Telangana 500094, India
 Lat 17.489229°
 Long 78.534386°
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FDP Day 4-Prof. P. Sankar Ganesh, delivering lecture on “Nanotechnology as a Double-Edged Sword: Novel Applications and Potential Toxicology”.



FDP Day 5- Dr.Ratnakar, speaking on “AI and its application in health care