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Uppal, Hyderabad

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#### LEAD TO ILLUMINATE



DEPARTMENT OF CHEMISTRY 2019-20



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# "ANALYTICAL TECHNIQUES AND ITS APPLICATIONS IN THE LAB" REPORT

Name of the Event: Guest lecture

Place: Montfort Hall, LFDC

Date: 25/07/2019

Time: 10:00am - 12:00pm No. of participants: 1-23

The Department of Chemistry organized a guest lecture on 25<sup>th</sup> July 2019 on "Analytical Techniques and its applications in the lab" in Montfort Hall, LFDC. The resource person was **Mr. Bhooshan Kapadnis** from **SRI KRISHNA Pharmaceuticals** – **TARNAKA Hyderabad**. Students of Bt.MC I, II, III year, BZC I, II& III year, MPC I, II& III year participated in the guest lecture. Sir guided the students by giving them the information about Gas chromatography, HPLC, mass spectroscopy, with their applications in Pharma companies. He clarified doubts in the interactive session. participants got the information of a totally new branch of analytical science which is coming into limelight. The session ended with vote of thanks.



INTERACTIVE SESSION WITH STUDENTS





**SESSION IN PROGRESS** 



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#### **Science Fair Visit and Lecture Report**

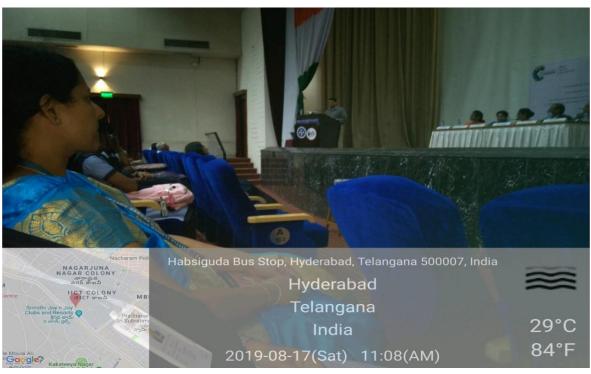
Name of the Event: Science Fair Visit to IICT

Place: IICT Auditorium, TARNAKA, HYDERABAD

Date: 17/08/2019 Time: 10-12PM

No. of participants:39

The Department of Chemistry organised a trip to IICT on August 17, 2019, commemorating the 150th anniversary of Mendeleev's Periodic Table. BZC and MPC second-year students participated under the guidance of Dr. Shailaja. This Science Fair featured model and poster presentations on various aspects of the periodic table. Eminent scientists were felicitated, sharing insights into its history, Nobel laureates, and endangered elements. Students observed various models and interacted with scientists, concluding with a vote of thanks.



Inauguration of the program.





2nd year BZC students at the model of periodic table



**GROUP PHOTOGRAPH** 



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# INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY [CSIR-IICT]

Name of the Event: IICT-Field trip

Place: IICT, TARNAKA, HYDERABAD

Date: 26/08/2019 & 17/09/2019

**Time: 10-12PM** 

No. of participants:106

The Department of Chemistry organised a field trip to IICT-Taraka in Hyderabad on August 26, 2019, for third-year BTMC and MPC students. Another trip was organised on September 17, 2019, for third-year BZC and second-year MPC students. Led by Dr. Sanjay Yadav, the visit encompassed a thorough exploration of the institute, including the museum, NMR facility, and Synthetic Organic Lab. Students interacted with scientists and research scholars showcased their research work organic pesticides, fluoro- agrochemicals, and semi chemicals. Students gained insight into diverse research domains. They also received demonstrations on NMR spectroscopy and learned about internship opportunities. Overall, the trip offered invaluable exposure to chemistry.



Reviewing the posters of different IICT lab



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#### NATIONAL INSTITUTE NUTRITION FIELD TRIP-REPORT

Name of the Event: NIN-FIELD TRIP

Place: NIN-Tarnaka Date: 04/09/2019

Time: 10:00AM To 01:00PM

No. of participants:121

The department of chemistry organised a Field trip to National Institute of Nutrition on the occasion of World Nutrition Week on 4<sup>th</sup> September 2019. All chemistry students participated in the field trip. It was hosted by Dr. Annantan. The day started with a visit to NIN museum. Further there was a talk from Dr. Annantan on the research work carried out in NIN. Students understood the importance of nutrition. The session ended with a vote of thanks and visit to the labs. Students had a great time with the scholars and interacted with the scientists to learn about the career opportunities.



SCIENTIST EXPLAINING ABOUT THEIR WORK



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#### SEMINAR ON THE WORKING OF NIN



RESOURCE PERSONS AND PARTICIPANTS HAVING A BREATH OF FRESH AIR



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# INTER COLLEGIATE COMPETITION REPORT SESQUICENTENNIAL IYPT - 2019

Name of the Event: Inter collegiate competition

Place: Department Of chemistry, Osmania University

Date: 30/10/2019 Time: 10-01PM

No. of participants:07

As part of the sesquicentennial IYPT celebrations, the Chemistry Department of Osmania University held an E-poster competition on 30th October 2019. Event started with guest lectures on the accidental discoveries of ferrocene and Prussian blue. After that, LFDC students displayed posters titled "ELEMENTS OF CHEMISTRY - ENVIRONMENTAL & SUSTAINABLE DEVELOPMENT". P. Manasa Reddy (MPC-III year) and N. Tarun Teja (MPC-II year) bagged second place and a cash reward of Rs. 1000. Certificates of participation were given to each participant; The occasion fostered a desire for such enlightening encounters in the future by offering insightful information about the function of chemistry in various sectors.



CERTIFICATE OF MERIT DISTRIBUTED TO STUDENTS





CERTIFICATE OF APPRECIATION GIVEN TO WINNERS



WINNERS OF THE COMPETITION



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#### VIMTA LABS FIELD TRIP REPORT

Name of the Event: VIMTA LABS FIELD TRIP

Place: Cherlapally Date: 16/12/2019
Time: 10-01PM

No. of participants :60

On 16th December 2019, a field trip was organized by the Department of chemistry to Vimta Labs, Cherlapally. Vimta's landscape includes analytical, clinical, preclinical services to life sciences Industries, quality and safety testing for food and beverage industries & environment services to a wide spectrum of industries. A lecture was given by Dr. Sambasiva Rao. It was quite informative. He explained about generic drugs, bio availability, and bioequivalence. Later the students saw the instruments like HPLC, GCMS; LCMS. The knowledge acquired is quite helpful to guide the students and to know the future perspectives regarding research in their concerned aspects.



GROUP PHOTOGRAPH OUTSIDE VIMTA LAB



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#### THERMODYNAMICS REPORT

Name of the Event: Guest lecture

Place: I-32

Date: 19/12/2019 Time: 10-01PM

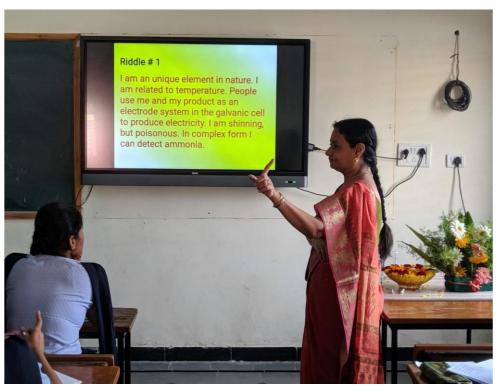
No. of participants :49

The Department of chemistry organized a guest lecture program on Thermodynamics. The resource person was Dr. Mala Das Sharma, from St. Pious X degree and PG College for women, Nacharam, Hyderabad. She has guided the students by giving them the information about Thermodynamics and the terms involved in thermodynamics like system, work function, path function, enthalpy, entropy etc. She gave some Riddles to the students to make the session interesting and clarified the doubts in the interactive session. This session made the participants understand about applications of thermodynamics and its uses.



STUDENTS WELCOMING Dr MALA DAS WITH BOUQUET OF FLOWERS





RIDDLES TO MAKE THE TOPIC INTERESTING



FELICITATION OF GUEST SPEAKER BY VICE PRINCIPAL Ms. JAYANTHI REDDY



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#### INTERCOLLEGIATE COMPETITION(EDGE-19) REPORT

Name of the Event: Chem-Crossword & Chem-Collage.

**Place : P-01** 

Date: 30/12/2019 Time: 10-01PM

No. of participants:13+9=19

The Department of Chemistry conducted the intercollegiate competition on 30th December 2019, on the occasion of EDGE-19. The competitions were chem crossword and collage on 'carbon boon or bane'. Since it was an international year of Mendeleev's periodic table, the crossword was made on elements of the periodic table and their applications. Collage on the other hand was to promote a sense of responsibility to students to keep their environment safe and without pollution. All the students actively participated in this event.



Photograph of students participating in chem-crossword



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Felicitation of judge, Dr G. Vijayalakshmi (Head of Department from department of chemistry from Koti women's College)



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#### INTRA COLLEGIATE COMPETITIONS REPORT

Name of the Event: CHEM-CROSSWORD Place: Botany and Zoology lab, 4<sup>th</sup> floor

Date: 06/01/2020 Time: 10-01PM

No. of participants:56

The Department of Chemistry conducted the Intra Collegiate competition "CROSS-WORD" on 6th Jan, 2020. The objective of the event is to celebrate the International Year of Mendeleev's Periodic table i.e. 150<sup>th</sup> year. In this cross-word competition, the students had to guess the metals or non-metals based on clues given to them. Students actively participated in this event.



STUDENTS SOLVING THE CROSSWORD





APPLYING PERIODIC TABLE CONCEPT IN PUZZLE



**ACTIVITY TO THE BRAIN** 



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#### NEXT GENERATION NANOMATERIALS REPORT

Name of the Event: GUEST LECTURE

Place: 3rd floor seminar hall

Date: 07/01/2020 Time: 10-01PM

No. of participants :47

The Department of Chemistry organized a guest lecture on "Next Generation Nanomaterials" with Dr. P.K. Jain from the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) as the resource person. B.Sc. students from various disciplines attended. This guest lecture aimed to familiarize them with nanomaterials' unique properties and applications. Dr. Jain provided an introduction to Nanotechnology, delving into its history and the changes in physical and chemical properties at the nanoscale. He highlighted applications in cosmetics, space technologies, diagnostics, and therapeutic practices, including cancer treatment and gene therapy. The lecture also explored nanoscale materials' impact on engineering and technology fields such as energy, environmental pollution control, textiles, automobiles, and electronics. The interactive session engaged students, clarifying doubts and making the topic more accessible. Overall, the seminar broadened participants' understanding of nanomaterials and their diverse applications.



SEMINAR CONDUCTED BY Dr. P.K. JAIN





FELICITATION OF THE GUEST SPEAKER



Felicitation by vice principal MS.P. Jayanthi Reddy



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# ONE DAY NATIONAL SEMINAR REPORT "EMERGING TRENDS IN NANOCHEMISTRY"

Name of the Event: Attended One day national Seminar

Date:14/02/2020 Time: 10-5 pm

place: Keshav memorial institute of commerce and science, Narayanguda, Hyderabad.

Participants:08

Keshav Memorial Institute of Commerce and Science hosted a one-day national seminar on "Emerging Trends in Nano chemistry" on February 14, 2020. The event featured insightful lectures by eminent professors and presentations by students from various colleges. Prof. Gopal Reddy, Registrar of OU, was the chief guest. The seminar concluded with the distribution of participation certificates and awards for the best posters. It was a well-organized and enriching experience for all participants.



Sai Soumya & Tejaswi receiving participation certificates



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#### ATTENDED ONE DAY WORKSHOP REPORT

Name of the Event: Molecular Modelling Workshop Using Open-Source Software

Place: Department of Chemistry, Osmania University.

Time: 10-5 pm partcipents:02

MS. Rama & MS. Rashmi Srinidhi, Department of chemistry attended a One Day Molecular Modelling Workshop using Open-Source Software (Sponsored by DST) Under Scientific Social Responsibility Organized by Department of Chemistry, Osmania University. Docking is a computational procedure of searching for an appropriate ligand that fits both energetically and geometrically the protein's binding site. In other words, it is a study of how two or more molecules. E.g. ligand and protein, fit together. It is a key tool in structural molecular biology and computer assisted drug design. Docking helps us in developing more potent, selective and efficient drugs. She has explained in detail the theory and practicality of docking. After completing the introductory session, the practical session started. In the practical session she has dealt with interpretation of modelling. At the end, certificates were distributed to all the participants. It was overall a successful program.



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procedure of searching for an appropriate ligand that fits both energetically and geometrically the protein's binding site. In other words, it is a study of how two or more molecules. e.g. ligand and protein, fit together. It is a key tool in structural molecular biology and computerassisted drug design. Docking helps us in developing more potent, selective and efficient drug candidates.

Convenor and Co-ordinator Prof. M. Vijjulatha

Hands on Molecule Sketching 2D and 3D, Homology modeling and Molecular Docking.

#### Registration Details No Registration Fee Lunch and Certificates will be provided to the participants.

Resource Persons Dr. P. Saikiran Reddy Ms. T. Srivani

#### Registration Form

One Day Molecular Modeling Workshop using Open Source Softwares

(15th February, 2020)

Name	
Designation	
College	
Address	
Phone	
Email	

(Last date of Registration: 14th Feb, 2020)

Total number of participants will be limited to 25. Registration is on first come first served basis.

Note: Participants should bring their own laptops for Hands on session. No spot Registrations will be entertained.

Signature of the Faculty Date:

Correspondence: Prof. M. Vijjulatha - 9866845408 Dr. P. Saikiran Reddy - 9908661114

Please mail us the registration forms at chemosmania15@gmail.com



#### One Day Molecular Modeling Workshop using Open Source

(Sponsored by DST) Under Scientific Social Responsibility

> Organized by: Department of Chemistry.

Date:  $15^{th}\, February,\, 2020.$ Time: 10.00 a.m. to 5 p.m.

Venne:



Lecture Hall-1, Department of Chemistry, University College of Science, Osmania University, Hyderabad-500 007.





Ms. Ramadevi &Ms Rashmi Srinidhi receiving certificate for hands on training



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#### TWO-DAY WORKSHOP REPORT

Name of the Event: Spectral Analysis of Organic Compounds.

Date:19th & 20th February 2019

PLACE: Montfort hall Time: 10:00AM-05:00PM

partcipents:59

A Workshop on spectral analysis was organized by the Department of Chemistry on 19<sup>th</sup>& 20th February 2020. The students of BZC, BTMC and MPC attended the workshop. Ms. Aliya Begum started the session explaining about the different types of spectroscopies. She has explained in detail the rotational, vibrational, and electronic spectroscopy. After completing the introductory session, the practical session started. In the practical session she has dealt with interpretation of spectral analysis. At the end, certificates were distributed to all the participants. It was overall a successful program.



WELCOMING Ms. ALIYA BEGUM FOR TWO DAYS WORKSHOP ON SPECTRAL ANALYSIS





RESOURCE PERSON EXPLAINING ABOUT SPECTROSCOPY



FELICITATION OF GUEST SPEAKER BY PRINCIPAL REV.BRO. VINCENT REDDY



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#### ATTENDED TWO DAY NATIONAL SEMINAR REPORT

Name of the Event: "ECO-FRIENDLY STRATEGIES FOR SUSTAINABLE

**DEVELOPMENT"** 

Date:28<sup>TH</sup> AND 29<sup>TH</sup> February 2020

PLACE: BHAVANS VIVEKANANDA COLLEGE, SAINIKPURI.

Time: 10:00AM-05:00PM

partcipents:07

Students from Department of chemistry attended a two-day national seminar on eco-friendly strategies for sustainable development organized by Bhavans Vivekananda College of Science, Humanities and Commerce on 28 & 29 February, 2020. Insight full lectures were given by Eminent speakers followed by E-Poster presentation. The seminar mainly focused on fundamental requirement of Environment sustainability to avoid depletion and degradation of natural resources, developing effective strategies for maintaining the balance in the natural environment, rising technological advances and promising eco-friendly products that avoid air, land and water pollution.



**Students with certificate of participation** 





Students with the guest speakers



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#### NATIONAL WEBINAR REPORT

Name of the Event: CHEMISTRY AGAINST COVID-19

**PLACE: On-line-Zoom meeting** 

Time: 10:00 to 12:30 pm

partcipents:175

The Department of Chemistry organized a National Webinar named "CHEMISTRY AGAINST COVID-19". It was a successful event which was graced by two speakers Dr. D. S. Sharada Associate Professor from IIT Hyderabad who spoke about "Potential drug target against COVID-19". The second speaker was Dr. M. Kavitha, assistant professor from Koti Women's college OU Hyderabad who spoke about "Biological perspective of COVID-19". As it was the start of lockdown this webinar helped to bring people from all over India to think about COVID-19 and have an insightful discussion.

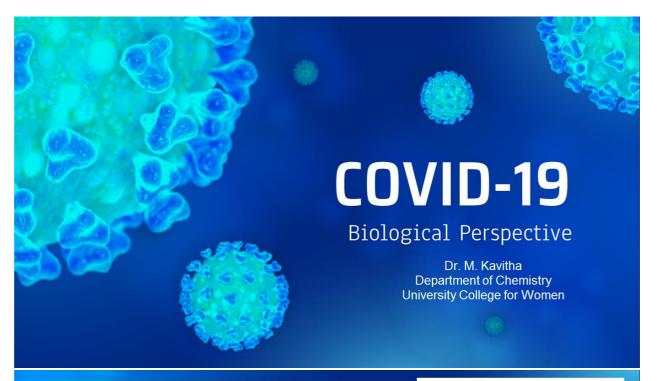
It was a successful event and participants from all over the nation took part, in the zoom meeting. The session ended with a vote of thanks.





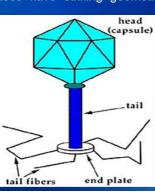
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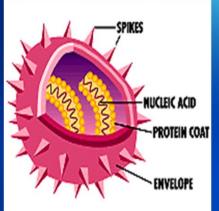
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#### Structure of Virus

- Viruses are nucleic acids (DNA/RNA) wrapped in protein
- Typically the protein coat, or capsid, of an individual virus particle, or virion, is composed of multiple copies of one or several types of protein subunits, or capsomeres. Some viruses contain enzymes, and some have an outer membranous envelope. Many viruses have striking geometrically regular shapes







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#### NATIONAL FACULTY DEVELOPMENT PROGRAM REPORT

Name of the Event: 'EMOTIONAL QUOTIENT- A KEY TO SUCCESS IN LIFE'

Date:19/05/2020

**PLACE: online-Zoom meeting** 

Time: 10:30-12:00 pm

partcipents:143

The Department of Chemistry organised an FDP with Mr. Sanjay Upendram, CEO, Co-Founder of Amarthi Consultancy. He joined us to bring awareness on "emotional quotient- a key to success in life". It was a very inspiring and informative session. There was a lot of interaction and participants could clear their doubts. It was a successful event.

