

**TELANGANA TRIBAL WELFARE RESEDENTIAL
DEGREE COLLEGE FOR WOMEN
SIRICILLA**

TEACHING LEARNING PRACTICES

TEACHING LEARNING PRACTICES – 2022-23

ACTIVITY: LECTURE BY MS. P. NIRMALA USING ICT TOOLS

Date: 25-7-2022

TOPIC: HYDRIDES OF P-BLOCK ELEMENTS

OBJECTIVES:

- Integrate ICT skills across various subjects and disciplines, making technology a seamless part of the learning process.
- Equip students with the ability to create, edit, and present information using Power Point effectively.
- To discuss the structure of borane, nature of hydrides, preparation of hydrides and properties of hydrides.



TEACHING LEARNING METHOD:

Live Demonstrations: Step-by-step walkthroughs on creating and customizing presentations.

Multimedia Resources-Tutorial Videos: Use of online resources and tutorial videos for self-paced learning.

ABOUT THE PROGRAM: Ms. P. Nirmala, Faculty of Chemistry delivered the lecture on hydrides of P-block elements and explains the structure of borane, Nature of hydrides, preparation of hydrides and properties of hydrides.

Program outcomes: After the listening the class students are able to understand the structure of borane, types of hydrides, methods of preparation of hydrides and properties of hydrides.

ACTIVITY: STUDENT SEMINAR USING POWER POINT

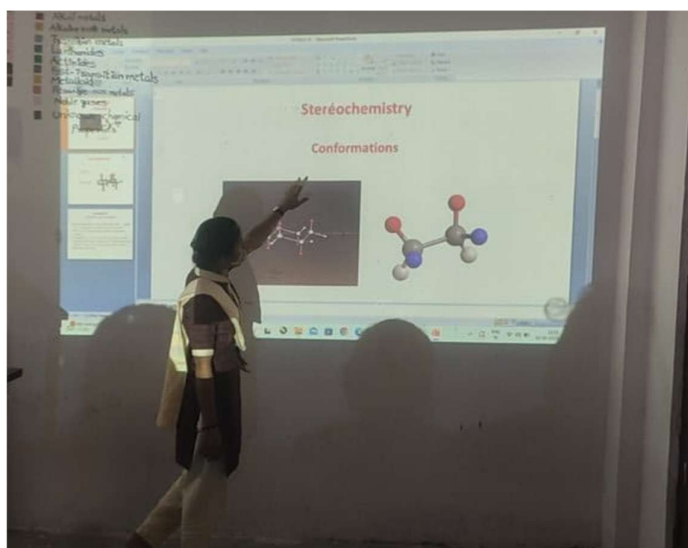
Date: 20-112022

TOPIC: STEREOCHEMISTRY

NAME OF THE STUDENT: POOJITHA

OBJECTIVES:

- Seminar on stereochemistry by projector enabled methodology in modern learning presentation tools, Techniques for creating visually appealing slides, including the use of images, charts, and diagrams
- Enhance Visual Learning: Utilize visual aids to improve comprehension and retention.
- Increase Engagement: Make seminars more engaging through dynamic and interactive presentations.
- To identify stereogenic centers in organic molecules.
- To distinguish between different types of isomers, including enantiomers and diastereomers.
- To know the role of chirality in nature and in drug design.



ABOUT THE PROGRAM:

Department of chemistry has organized a seminar for the students using the projector-based tool method in education the method involves the projector-based seminar involves a projector to display the visual content such as lights videos and media to enhance teaching

levels outcomes the method is found to be more engaging and interactive learning atmosphere Akhila delivered lecture on stereo chemistry.

ACTIVITY: STUDENT SEMINAR

Date: 15/3/22

TOPIC: HYBRIDISATION

Student participated: PRIYANKA, LFS, II-YEAR

OBJECTIVES:

- Seminar on ICT and PPT enabled methodology in modern LEARNING presentation tools, Techniques for creating visually appealing slides, including the use of images, charts, and diagrams.
- To educate participants on the latest developments in ICT.
- To encourage the students to use ICT tools.
- To build the confidence among the students to deliver the lectures.
- To explain the concept of hybridisation.
- To explain the bonding properties of molecules and atoms.
- To determine the shapes of molecules and their reactivity



TEACHING LEARNING METHODOLOGY:

- Enhanced Understanding
- Visual Aids: Visual aids help students grasp complex concepts more easily.
- Content Delivery: Use the projector to display slides and multimedia content. Maintain a balance between speaking and showing visuals.

ABOUT THE PROGRAM:

Department of chemistry has organized a seminar for the students using the projector-based tool method in education through power point the method involves the projector-based seminar involves a projector to display the visual content such as lights videos and media to enhance teaching levels outcomes the method is found to be more engaging and interactive learning atmosphere.

ACTIVITY: LECTURE BY DR. E. ANITHA USING POWER POINT

Date: 27-1-2023

TOPIC: IR SPECTROSCOPY

OBJECTIVES:

- **Enhanced Engagement:** Utilize a variety of teaching methods to keep students engaged.
- **Improved Outcomes:** Leverage technology to improve understanding and retention of material.
- To study the vibrational energy levels and vibrational transitions.
- To study the Principles of IR spectroscopy.
- Applications of IR spectroscopy

TEACHING LEARNING METHOD:

Blended learning method, which integrates traditional face-to-face instruction with online learning activities to create a cohesive educational experience.



ABOUT THE PROGRAM:

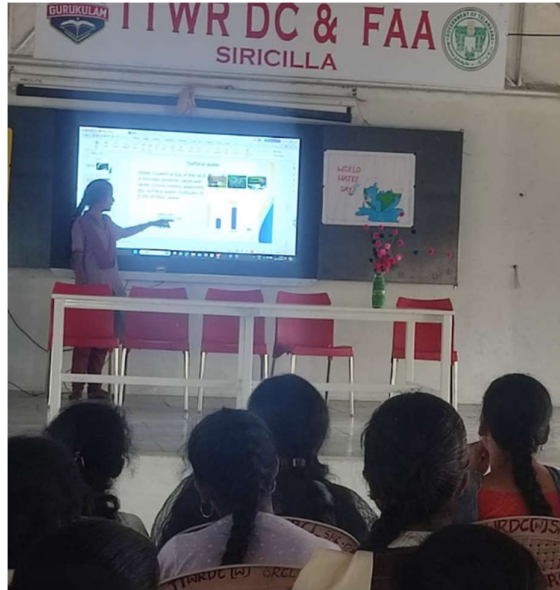
- DR. E. ANITHA delivered the lecture on IR spectroscopy by using ICT tools. Animations are used to understand the IR absorption to create the attention among the students. In this lecture types of vibrations, IR active vibrations and applications of IR spectroscopy were thoroughly discussed.

Program out comes: After the listening the class students are able to understand the vibrational transitions, change in dipole moments during the vibrations, selection principles, factors affecting on vibrational frequencies. Students also can learn the functional group identification using IR spectroscopy.

ACTIVITY: STUDENT SEMINAR

Date: 15-2-23

TOPIC: ENVIRONMENTAL STUDIES



OBJECTIVES:

Seminar on ICT and PPT enabled methodology in modern learning presentation tools, Techniques for creating visually appealing slides, including the use of images, charts, and diagrams.

- To educate participants on the latest developments in ICT.
- To provide a platform for networking and knowledge sharing.
- To impart basic knowledge about the environment and its allied problems.
- To create the awareness about environmental problems among people.
- To develop an attitude of concern for the environment.
- To Motivate public to participate in environment protection and environment improvement.

TEACHING LEARNING METHOD:

- Blended Learning
- Combination of face-to-face and online teaching
- Multimedia Integration
- Use of videos, animations, and simulations to explain complex concepts

ABOUT THE PROGRAM:

Department of chemistry has organized a student seminar on the Environmental science using ICT technology about on the environmental issues and acquiring skills to assist the concerned individuals in identifying and solving environmental problems.

ACTIVITY: ONLINE CLASS BY P. NIRMALA

Date: 17-4-2023

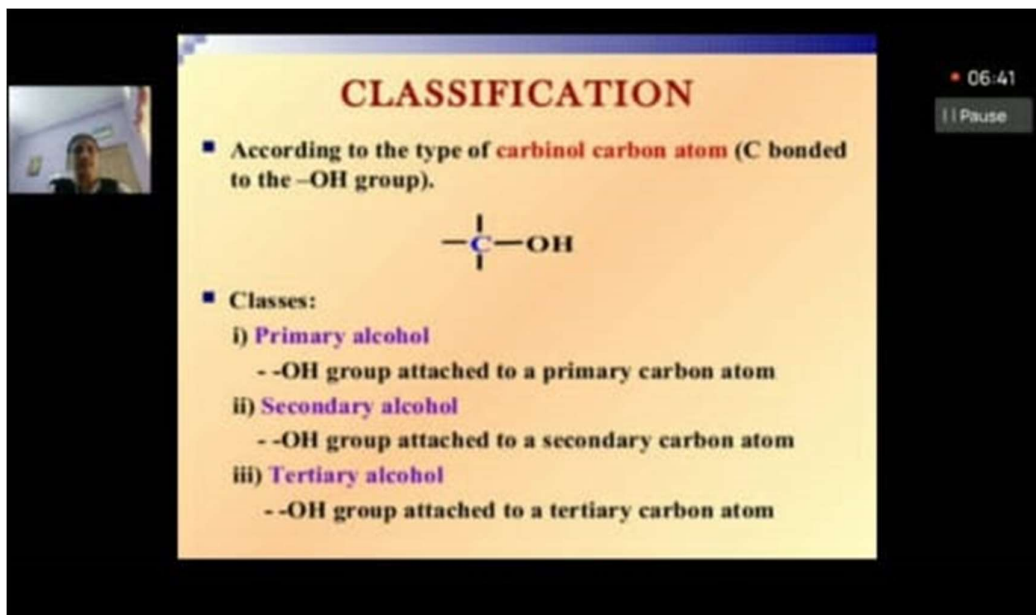
TOPIC: ALOCHOLS

OBJECTIVES:

- **Global Reach:** Provide access to quality education for students regardless of their geographical location.
- **24/7 Access:** Enable students to access course materials and lectures at any time, providing the flexibility to learn around personal and professional commitments.
- To learn the types of isomers possible for isomers
- To study the preparation and properties of alcohols
- To know the fermentation process of ethanol
- To know the uses of alcohols

TEACHING METHOD ADOPTED: Online Learning

- **E-Learning Platforms:** Use of learning management systems (LMS) like Moodle, Canvas, or Google Classroom to distribute materials and assignments.
- **Multimedia Content:** Videos, podcasts, and interactive simulations to illustrate Concepts.



The screenshot shows a video player interface. On the left, there is a small video feed of a person. The main area is a slide with a yellow background and a blue header. The slide title is "CLASSIFICATION" in red. Below the title, there is a bullet point: "According to the type of **carbinol carbon atom** (C bonded to the -OH group)." Below this text is a chemical structure of a carbinol carbon atom: a central carbon atom (C) with four single bonds. One bond is to the left, one to the right (labeled -OH), one pointing upwards, and one pointing downwards. Below the structure is another bullet point: "Classes:" followed by three sub-points: "i) **Primary alcohol** - -OH group attached to a primary carbon atom", "ii) **Secondary alcohol** - -OH group attached to a secondary carbon atom", and "iii) **Tertiary alcohol** - -OH group attached to a tertiary carbon atom". In the top right corner of the slide, there is a red dot and the text "06:41". Below that, there is a grey button with the text "|| Pause".

ABOUT THE PROGRAM:

The online class method, which utilizes internet-based platforms for delivering educational content, has become increasingly prevalent. This method leverages technology to provide flexible, accessible, and diverse learning experiences for students.

LECTURE given by P. Nirmala, faculty of Chemistry, TTWRDC, Siricilla, covers the isomeric alcohols various methods of synthesis of alcohols and their properties in organic chemistry topic includes alcohols.

ACTIVITY: ICT CLASSES BY DR. E. ANITHA

Date: 24-4-2023

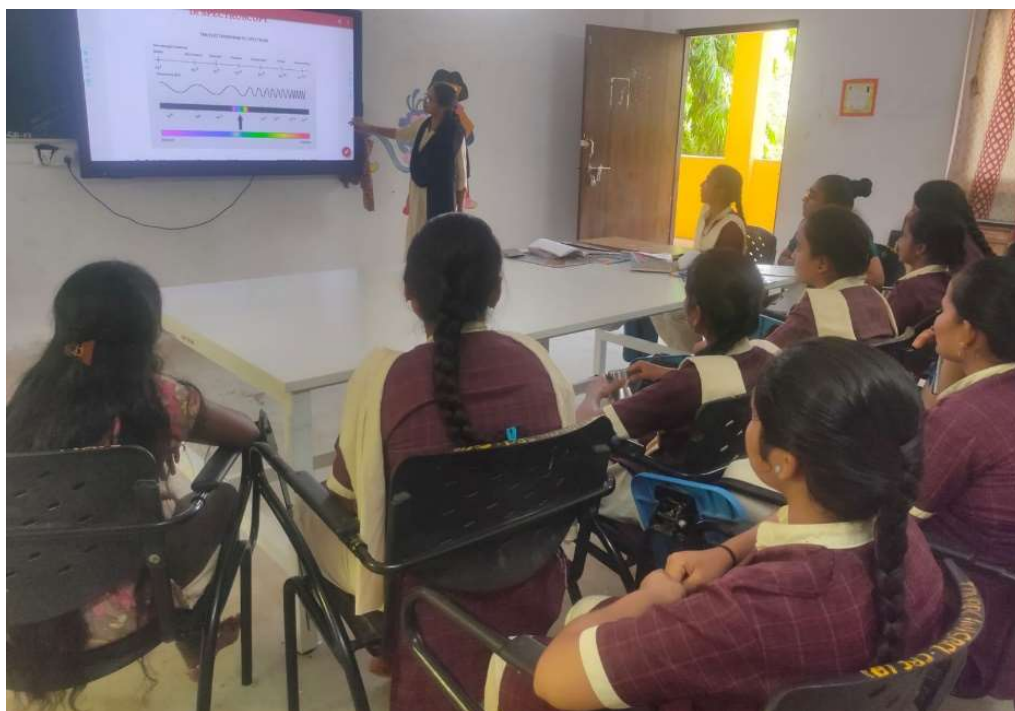
TOPIC: UV-VISIBLE SPECTROSCOPY

OBJECTIVES:

- To learn the principals involved in UV-Vis Spectroscopy
- To learn the types of electronic transitions
- To know the applications of UV-Visible Spectroscopy

TEACHING LEARNING METHOD ADOPTED:

Blended Learning: blended learning method, which integrates traditional face-to-face instruction with online learning activities to create a cohesive educational experience. Blended learning, also known as hybrid learning, integrates traditional face-to-face classroom instruction with online learning activities. This approach combines the best elements of in-person teaching with the flexibility and accessibility of online education.



ABOUT THE PROGRAM:

DR. E. Anitha delivered the lecture on electronic spectroscopy. The lecture covers the principles of UV-Visible Spectroscopy, optical density, factors affecting absorption of UV-Visible light and applications of this spectroscopy.

Program out comes: After the listening the class students are able to understand the electronic transitions, relation between optical density and concentration. Students can understand the coloured substances and their structures, and applications of electronic spectroscopy.

ACTIVITY: FIELD TRIP

PLACE OF VISIT: DAIRY

Date: 30-4-2023

Students participated: Mamatha, Shravani, Sravanti, Deepthi and Akhila

OBJECTIVES:

- Provide an awareness program on Pasteurization, Homogenization, Separation Fermentation, Chemical Analysis, Quality Control pH Measurement Chemical Additives and Preservatives.
- Real-World Application: Illustrate the real-world application of theoretical knowledge learned in the classroom.
- Hands-On Learning: Provide students with practical exposure to dairy farming operations.



TEACHING LEARNING METHOD ADOPTED:

- Experiential Learning
- Direct Observation: Students observed dairy farm operations firsthand, enhancing their understanding through visual and practical exposure.
- Interactive Sessions: Engaged students with farm staff and veterinarians through Q&A sessions to deepen their knowledge.

ABOUT THE PROGRAM:

Department of chemistry in collaboration with the microbiology department carried out a Visit to KARIMNAGAR DAIRY. The purpose of this visit is to provide an overview and analysis of a recent visit to a dairy facility from a chemistry perspective. The visit aimed to explore the various chemical processes involved in dairy production, including milk processing, quality control measures, and the role of chemistry in ensuring the safety and nutritional value of dairy products. To know the critical steps in milk processing is pasteurization, where the milk is heated to a specific temperature to eliminate harmful bacteria while preserving its nutritional properties. Separation techniques are employed to isolate cream from milk, which is used to produce various dairy products such as butter and cream.

ACTIVITY: PROJECT WORK- PREPARATION OF THE HAND SANITIZER

OBJECTIVE: Objective of this project is to give the training to the chemistry students in preparation of the hand sanitizer and to raise the awareness about hand hygiene to prevent the spread of infectious diseases like Covid -19.

Materials: Isopropyl alcohol or ethanol, hydrogen peroxide, glycerol, aloe vera gel, eucalyptus, peppermint oil and boiled cold water.

Hand sanitizer has proven itself useful in killing germs. Hand sanitizer products kill germs on your hands and other surfaces on contact, helping to slow the spread of transmissible diseases like COVID-19.

Formulation: As per **WHO** guidelines, the sanitizer must contain at least 70% of alcohol, one percent of Hydrogen Peroxide and 10% of Glycerine and the rest is the distilled water

Formulation-I:

Ethanol 80% v/v, glycerol 1.45% v/v, hydrogen peroxide (H_2O_2) 0.125% v/v.

Preparation as per WHO: In one litre flask, 833.3 ml ethanol (96% v/v), 41.7 ml H_2O_2 (3%) and 14.5 ml glycerol (98%) are taken and top up the flask to 1000 ml with distilled water or water that has been boiled and cooled; shake the flask gently to mix the content.

Formulation-II: Isopropyl alcohol 80% v/v, glycerol 1.45% v/v, hydrogen peroxide (H_2O_2) 0.125% v/v %,

Formulation-III:

Isopropyl alcohol and aloe vera gel in 2;1 ratio, and a few drops of eucalyptus and peppermint oil.

Evidence of success:

The students used the laboratory made sanitizer with good results.

TEACHING LEARNING PRACTICES – 2021-22

ACTIVITY: STUDENT SEMINAR

Date: 19-11-2021

TOPIC: NMR SPECTROSCOPY

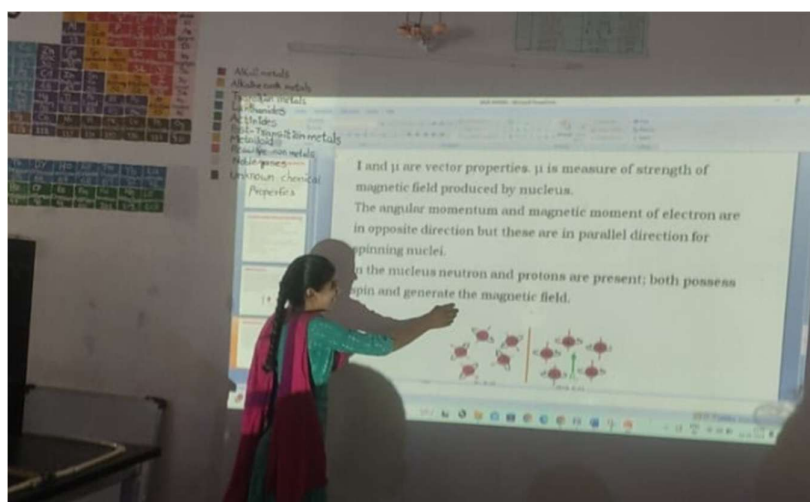
STUDENT PARTICIPATED: AKILA

OBJECTIVES:

- Seminar on NMR SPECTROSCOPY by projector enabled methodology in modern LEARNING presentation tools, Techniques for creating visually appealing slides, including the use of images, charts, and diagrams.
- Enhance Visual Learning: Utilize visual aids to improve comprehension.
- To learn the the magnetic behaviour of nucleus, nuclear energy levels and nuclear energy transitions.
- To learn theories of NMR spectroscopy
- To learn about Chemical shifts and factors affecting the Chemical shifts.

TEACHING LEARNING METHOD:

- Enhanced Understanding.
- Visual aids help students grasp complex concepts more easily.
- Use OF the projector to display slides and multimedia content. Maintain a balance between speaking and showing visuals.



ABOUT THE PROGRAM:

Department of chemistry has organized a seminar for the students Using the projector-based tool method in education the method involves the projector-based seminar involves a projector to display the visual content such as lights videos and media to enhance teaching levels outcomes the method is found to be more engaging and interactive learning atmosphere Akhila delivered lecture on NMR spectroscopy.

ACTIVITY: STUDENT SEMINAR

Date: 15/3/22

TOPIC: HYBRIDISATION

Student participated: PRIYANKA, LFS, II-YEAR

OBJECTIVES:

- Seminar on ICT and PPT enabled methodology in modern LEARNING presentation tools, Techniques for creating visually appealing slides, including the use of images, charts, and diagrams.
- To educate participants on the latest developments in ICT.
- To encourage the students to use ICT tools.
- To build the confidence among the students to deliver the lectures.
- To explain the concept of hybridisation.
- To explain the bonding properties of molecules and atoms.
- To determine the shapes of molecules and their reactivity



TEACHING LEARNING METHOD:

Collaborative Learning: Promoted through group work and discussions, enhancing teamwork and communication.

Reflective Learning: Encouraged students to reflect on their learning experiences and seminar content through journals and feedback forms

ABOUT THE PROGRAM:

The report presents an overview of a seminar focused on utilizing Information and Communication Technology (ICT) in presentations, particularly emphasizing the use of Power Point (PPT) as a tool for effective communication. The seminar aimed to explore various techniques, best practices, and innovative approaches to enhance presentation skills using ICT platforms. Priyanka of MZC. II-YEAR delivered a lecture on concept of hybridization and explained the concepts of the valence bond theory and molecular orbital theory, and discussed types of hybridization, sp , sp^2 , sp^3 , sp^3d , sp^3d^2 and their respective geometries. She also explained the applications of hybridization in understanding the structure and properties of organic compounds.

ACTIVITY: FIELD VISIT

Date: 10- 4 -2022

Place of Visit: DYEING INDUSTRY

OBJECTIVES:

Department of Chemistry has organized a field trip to the nearby dying industry, the objectives of the program are:

- To make the students aware about different kinds of dyes and solvents that are used to die a fabric.
- To gain the knowledge about Dyes and Pigments, suitability of Dyes for various kinds of fabrics, method of dyeing by important classes of dyes, and basic knowledge of dyeing technology.
- To able to learn important structural features of dyes.
- To study the environmental issues caused by chemicals and to create the awareness about alternatives to make the dyeing ecofriendly.

TEACHING LEARNING METHOD:

Active Learning: Emphasized through interactive sessions and student-led activities to keep students engaged.

Collaborative Learning: Promoted through group work and discussions, enhancing teamwork and communication.

Reflective Learning: Encouraged students to reflect on their learning experiences and seminar content through journals and feedback forms



ABOUT THE PROGRAM:

The visit organized by the faculty of department of chemistry, TTWRDC, Sirisilla. Visit highlighted the importance of personal protective equipment and detailed safety measures and safety protocols that has to be taken while dying a fabric and also provides an insight to the companies waste management practices emission control measures and to minimize environmental impact.

ACTIVITY: PROJECT WORK- ECOFRIENDLY SYNTHESIS OF ASPIRIN

Synthesis of Aspirin by Ecofriendly processes in laboratory

Aim of the project: To practice the Green protocols in Organic laboratory.

OBJECTIVES: To create the awareness among the students about:

- The importance of green practices in organic synthesis.
- The use of MicroWaves in organic synthesis
- Minimize the release of harmful chemicals into the environment.

Keywords: Green Chemistry, Aspirin.

Materials and equipment: Salicylic acid, acetic anhydride and Microwave oven

TEACHING LEARNING METHOD ADOPTED: Green Methods

Microwave assisted solvent free Reactions: Conduct chemical reactions without the use or by minimizing the chemical solvents to reduce waste and exposure to harmful chemicals.

TEACHING LEARNING PRACTICES – 2020-2021

ACTIVITY: ONLINE LECTURE BY DR. E. ANITHA

Date: 12-7- 2020

TOPIC: ELECTROMAGNETIC RADIATION AND SPECTROSCOPY

OBJECTIVES:

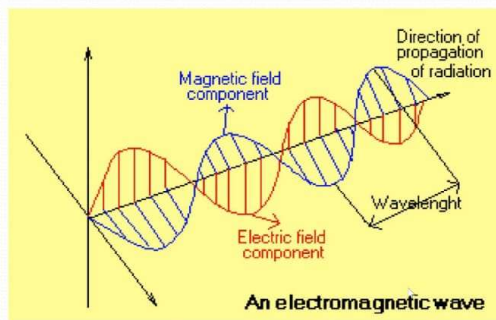
- Objective of online classes is to reach the education to the students when institutes are shutdown in unavoidable conditions like covid-19 pandemic.
- To learn about the nature of electromagnetic radiation and energy of electromagnetic radiation.
- To learn Interaction between the matter and radiation
- Selection principles and intensity of spectral lines

TEACHING LEARNING METHOD:

Embed videos and audio clips to provide diverse perspectives and enrich the learning material. Use animations sparingly to highlight key points without causing distractions. The combination of text and visuals in PPT enhances memory retention and aids in the recall of information. Interactive elements such as hyperlinks a can make learning more engaging and interactive.

Electromagnetic radiation

Electromagnetic radiation is a simple harmonic wave with the property of a sine wave. It travels in a straight line unless it is refracted or reflected. It has both electrical and magnetic components at right angles to each other as shown in the figure given below.



ABOUT THE PROGRAM: Dr. E. Anitha, delivered an online lecture on Electromagnetic Radiation and Spectroscopy and explained about the nature of electromagnetic

radiation, the energy of electromagnetic radiation, interaction between the matter and radiation, laws of absorption electromagnetic radiation and applications of Spectroscopy.

Program outcomes: After the listening the class students are able to understand the energy of the electromagnetic radiation, types of molecular energy levels and interaction between the matter and radiation. Students also able to understand the laws of photochemistry, conditions for absorption of radiation, selection principles and intensity of Spectral lines.

ACTIVITY: ONLINE LECTURE BY Ms. P. Nirmala

Date: 7-10-20

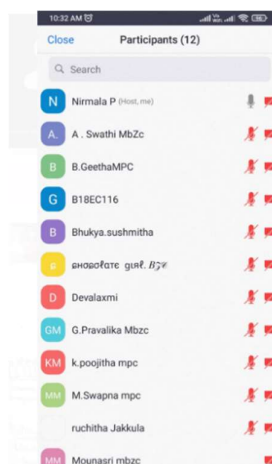
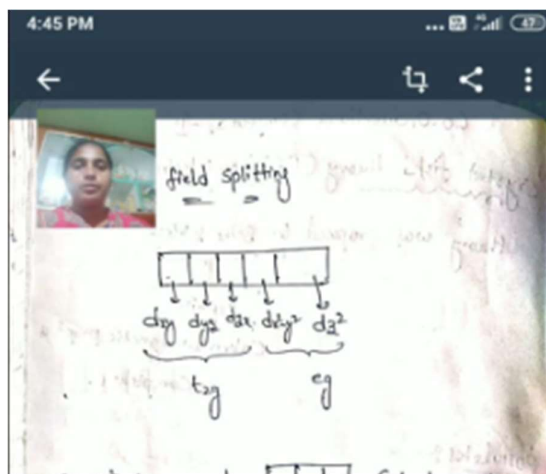
TOPIC: CRYSTAL FIELD SPLITTING

OBJECTIVES:

- Objective of online classes is to fill the lacuna in teaching and learning process when institutes are closed in unavoidable conditions like covid-19 pandemic.
- To learn about the coordination compounds
- To know the nature of bonding in complexes and splitting of d-orbitals.
- To learn the properties of complexes based on crystal field splitting.
- To know the applications of complexes for society.

TEACHING LEARNING METHOD:

- Blended learning
- Real-time classes conducted through video conferencing platforms such as Zoom, Microsoft Teams, or Google Meet.



ABOUT THE PROGRAM: Online teaching plays a key role in the education system in India but it became more popular during Covid-19 pandemic because after March 2020, schools and colleges had been shut down. Online teaching also became an important means of education during the pandemic.

The faculty of Chemistry, used Google meet or Zoom to conduct tests and for lectures to fill the lacunae of class room teaching.

ACTIVITY: LECTURE BY DR. E. ANITHA USING ICT TOOLS -SMART BOARD

DATE: 24 -11- 2020

TOPIC: AROMATIC HYDROCARBONS

OBJECTIVES:

- Power Point can simplify the complex ideas and figures into easily digestible visuals.
- Power Point makes the presentation better.
- Well-crafted PowerPoint presentation design that makes the most of this visual medium enables an audience to remember ideas and messages better.
- The main objective of the topic is to describe the types of hydrocarbons.
- To learn the concept of aromaticity.
- To know about the methods of preparation and properties aromatic compounds.

TEACHING LEARNING METHODS:

Blended Learning: Blended learning method, which integrates traditional face-to-face instruction to create a cohesive educational experience.



ABOUT THE PROGRAM:

Dr. E. Anitha delivered a lecture on aromatic compounds through Power Point presentation on Smartboard. Lecture includes aromatic character of organic compounds, preparation, properties and uses of aromatic compounds in daily life.

Program out comes: After the listening the class students are able to understand the types of hydrocarbons, their methods of preparation, aromatic character and reactivity of aromatic compounds in electrophilic substitution reactions, orientation of electrophilic substitution reactions and applications of aromatic compounds.

ACTIVITY: GUEST LECTURE

Date: 12-12-2020

TOPIC: MOBILISATION OF FUNDS FOR RESEARCH AT ND DEVELOPMENT

SPEAKER: Dr. Nakka Lingaiah, Chief Scientist, CSIR- IICT, Hyderabad.

OBJECTIVES:

- To create the awareness about the Research among the faculty.
- To educate about the resource mobilization for Research.
- To learn about the writing the Projects to funding agencies.

Present challenges

Every researcher in the field of catalysis has a list of the most important chemical transformations that catalysis could tackle in the future.

Challenges and opportunities

The catalytic production of new fuels and chemicals

selective oxidation of alkanes
Eg: methane to methanol

CO₂ fixation.

$\text{HO}-\text{CH}_2-\text{CH}_2-\text{OH} + \text{CO}_2 \xrightarrow{\text{Catalyst}} \text{Cyclic Carbonate}$

Biomass to chemicals

Waste to useful chemicals
Eg: Waste plastics to oil

Outcomes Of the lecture: All the faculty motivated by the lecture and got idea to write the projects to do research.

ACTIVITY: WEBINAR BY Dr. M. Sarasija, Assistant professor, SU

Date: 6-1-2021

TOPIC: CHROMATOGRAPHY

OBJECTIVES:

- Webinar (web-based seminar) platform that supports interactive PPT presentations, real-time engagement tools, and robust data analytics.
- The combination of visual, auditory, and interactive elements in webinars enhance knowledge retention and comprehension.
- Webinars can be recorded and shared, providing learners the flexibility to access content at their convenience.
- To learn the principle involved in chromatography.
- To learn the types of chromatography.
- To know the applications of chromatography.

TTWRDC(W) Rajanna Siricilla
WEBINAR
Chromatography- an Overview

06-01-2021
02:30 pm

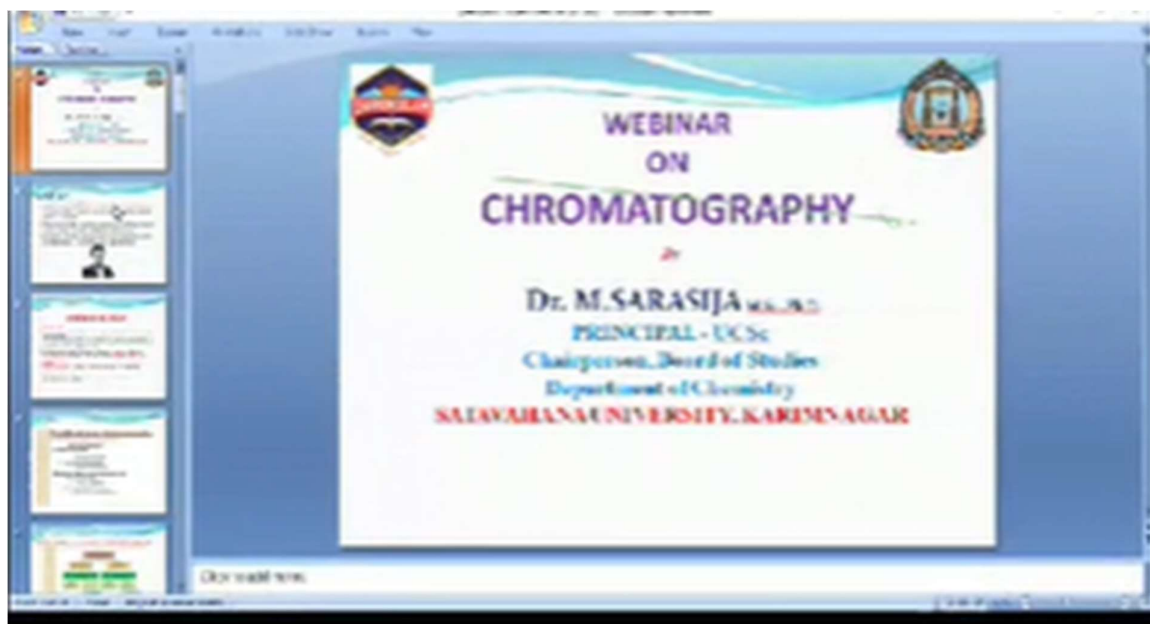
Guest Speaker
Dr.M.SARASIJA M.Sc Ph.D
Assistant Professor
Additional Controller of Examination
Chairperson , Board of Studies

WEBINAR Convenor
Mrs.K.Rajani
Principal
DL in Microbiology

Login:
Meeting ID: 76909141840
Passssword : FqT1Zq

Webinar Organizers
Dr.E.Anitha
Ms. P.Nirmala
Dept of Chemistry

TEACHING LEARNING METHOD: The lecture method involves the instructor delivering information verbally, often supported by visual aids such as Power Point presentations, to convey structured content.



ABOUT THE PROGRAM:

Department of Chemistry has organized a webinar on 6- 1 -2021, Dr M. Sarasija, Assistant Professor in Chemistry at Satavahana University delivered a lecture on chromatography.

The presentation included the structured content delivery visual aid such as Power Point presentations and animations. The applications of chromatography in daily life are much attracted by the students.

ACTIVITY: STUDENT SEMINAR

DATE: 15-2-2021

TOPIC: CHEMICAL BONDING

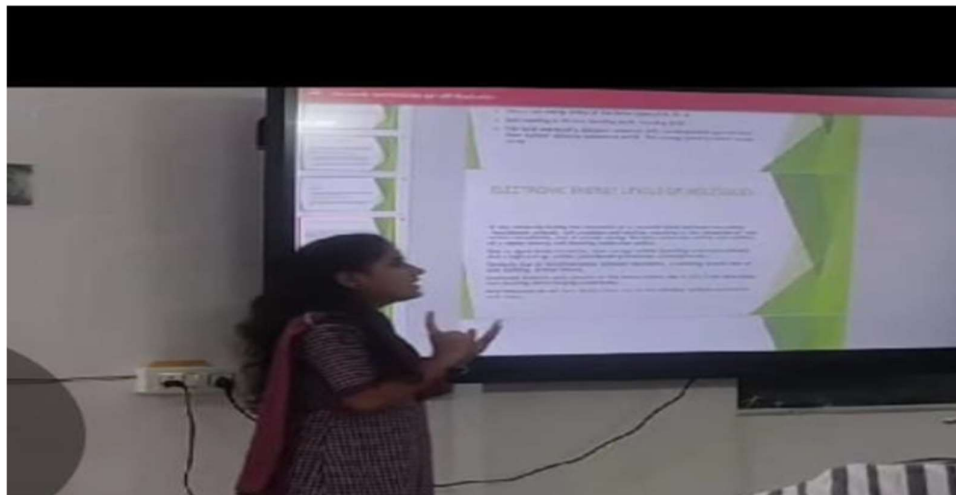
STUDENT PARTICIPATED: M. Kalyani

OBJECTIVES:

- The main objective of the seminar presentations by students, they will be able to show competence in identifying relevant information, defining and explaining topics.
- Seminar by using ICT tools enabled methodology in modern LEARNING presentation tools, Techniques for creating visually appealing slides, including the use of images, charts, and diagrams.
- They will demonstrate depth of understanding, use primary and secondary sources.
- Seminar presentation will develop independent thought and relevance.

TEACHING METHOD ADOPTED:

- Enhanced Understanding
- Visual aids help students grasp complex concepts more easily.
- Use of the projector to display slides and multimedia content. Maintain a balance between speaking and showing visuals.



ABOUT THE PROGRAM:

Department of chemistry has organized a seminar for the students on 15-3-2021, using the ICT PPT based tool method involves a SMART TV to display the visual content such as lights videos and media to enhance teaching levels. Outcomes the method is found to be more engaging and interactive learning atmosphere. M. Kalyani delivered lecture on chemical bonding and types bonding.

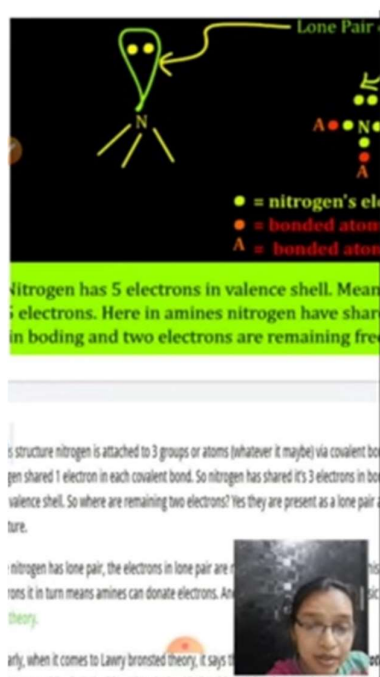
ACTIVITY: CLASSES THROUGH YOUTUBE

Date: 20-5-2021

TOPIC: BASICITY OF AMINES

OBJECTIVES:

- Teachers and educators have been practicing the effective use of YOUTUBE for delivering the lectures.
- In using multimedia, video clips used to develop teachers' abilities for using technology in classrooms.
- The main objectives of the lecture are to learn the basic character of amines.
- To compare the basicity of different amines.
- To study the factors affecting on basicity of amines.



Lecture by Dr. E. Anitha
on 20th May 2021

ABOUT THE PROGRAM: The faculty of Chemistry, during the lockdown in Covid crisis conducted the classes through YouTube live streaming to fill the lacunae of class room teaching. The various videos created by the faculty by recording of the lectures and uploaded to the college You Tube channel Wings to Learn. Dr. E. Anitha recorded and uploaded a lecture on 20th May 2021.

(https://www.youtube.com/watch?v=W_2q3NsH30s&t=465s)

ACTIVITY: PROJECT WORK

Synthesis of Acetanilide by using Plant Extracts – A Green Protocol

Aim of the project: To practice the Green protocols in Organic laboratory.

OBJECTIVES: To create the awareness among the students about:

- The importance of ecofriendly organic synthesis.
- The usage of waste plant extracts in organic synthesis.
- Minimize the release of harmful chemicals into the environment.

Keywords: Green Chemistry, Acetanilide.

Materials: Rice straw, Vigna mungo (Black gram)

TEACHING LEARNING METHOD ADOPTED: Biological Methods

Plant Extracts: Utilize plant extracts as reducing and capping agents in the synthesis of nanoparticles.

Aqueous media Reactions: Conduct chemical reactions without the use of chemical solvents to reduce waste and exposure to harmful chemicals.

TEACHING LEARNING PRACTICES – 2019-20

ACTIVITY: STUDENT SEMINAR

Date: 26-8-19

TOPIC: NATURAL PRODUCTS

Name of the students: V. Gouthami

OBJECTIVES:

- The main objective is to provide and share the knowledge and expose the students to the chemistry of natural products.
- Acquire knowledge about the separation techniques in organic chemistry.
- To know the chemical composition in natural products.
- To learn the importance of natural products in medicinal chemistry.

TEACHING METHOD:

Lecture method, is one of the oldest methods used in classroom by teachers to impart knowledge to students. Teaching, in its simplest sense, is imparting knowledge.

The student is the sender or the source, the educational material is the information or message, and the student is the receiver of the information.



ABOUT THE PROGRAM:

Department of chemistry has organized a student seminar on the chemistry of Natural products. The seminar helps the students for self-preparation by referring the text books. V. Gouthami explained about the isolation, purification and importance of natural products.

ACTIVITY: QUIZ

Date: 12-11-2019

TOPIC: CHEMISTRY IN DAILY LIFE

OBJECTIVES:

- Quiz competitions are used to assess the knowledge of the participants on practicing of chemistry in daily life.
- To create the awareness among the students within academics as well as beyond academics.
- With practicing quizzes, students are habituated to critical thinking, and get into a habit of innovative learning

TEACHING LEARNING METHOD:

The study involved a mixed-method approach, combining quantitative data from quiz performance and qualitative feedback from students and teachers.

ABOUT THE PROGRAM:

Department of Chemistry conducted a quiz to all the chemistry students on November 12th, 2019. Quiz reinforces learning and improves knowledge retention by testing memory skills. Quizzes make learning more fun and interactive. The quiz was conducted as an assessment for their knowledge by testing the understanding the basic concepts of chemistry.



TEACHING LEARNING PRACTICES – 2018-19

ACTIVITY: STUDENT SEMINAR

Date: 12-8-18

TOPIC: CHEMICAL BONDING

Student participated:

OBJECTIVES:

- To encourage the students to give the presentations to improve confidence and communication skills.
- To explain the concept of bonding in molecules.
- To explain the properties of molecules based on nature of bonding.

TEACHING METHOD:

Lecture method, is one of the oldest methods used in classroom by teachers to impart knowledge to students. Teaching, in its simplest sense, is imparting knowledge,

ABOUT THE PROGRAM:

Department of chemistry has organized a student seminar on the chemical bonding. The seminar helps the students for self-preparation by referring the text books. N. Akhila explained the types of bonding and properties of the molecules based on the nature of bonding.

ACTIVITY: QUIZ

Date: 10/03/2019

Topic: ORGANIC CHEMISTRY

Students participated: B.Sc -III yr

OBJECTIVES:

- Utilizing Information and Communication Technology (ICT) platforms for quizzes can make the learning process more interactive and engaging for students, motivating them to participate actively in the assessment.
- By leveraging ICT tools, quizzes can be made accessible to students regardless of their location, enabling remote learning and asynchronous participation.
- Quiz programs can create interest among the students about the subject.
- Emphasized through interactive sessions and student-led activities to keep students engaged.
- Quiz competition is to evaluate the knowledge of the participants within academics as well as beyond academics.
- With practicing quizzes, students can do critical thinking, and get into a habit of innovative learning. These quizzes integrate the game mechanics into the learning.

TEACHING LEARNING METHOD:

The study involved a mixed-method approach, combining quantitative data from quiz performance and qualitative feedback from students and teachers.

ABOUT THE PROGRAM:

Department of Chemistry conducted a quiz to all 1st year, 2nd year, 3rd year Mb.Z.C, B.Z.C, and M.P.C. students on February 19th, 2022. Quiz reinforces learning and improves knowledge retention by testing memory skills. Quizzes make learning more fun and interactive. The quiz was conducted as an assessment for their knowledge by testing the understanding the basic concepts of chemistry.

The Quiz was organized by using ICT platform with the objective to assess the understanding of fundamental concepts in chemistry of participants. The quiz aimed to provide an interactive and engaging way for participants to test their knowledge of common principles of chemistry and terminology.



The ICT tools used included:

- **Online Quiz Platforms (e.g., Quizizz, Socrative):** These platforms provide interactive and engaging quiz formats with real-time feedback.
- **Learning Management Systems (LMS):** Systems like Moodle and Google Classroom were used to distribute quizzes and track performance.